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Abstract of a thesis presented in candidature for the degree of Doctor of Philosophy, by Clifton Stockdale.

Mechanics' Institutes in Northumberland and Durham
1824 - 1902.

Except for Hudson's major work which explored developments in the first half of the nineteenth century, and more recently the research undertaken by Tylecote and Kelly, most surveys of the Mechanics' Institute Movement in England have been confined to local studies of individual institutes, unpublished theses and collected essays on the subject. Kelly acknowledged that the limitations characteristic of his publication George Birkbeck, which attempted a nationwide review of the subject, were due to a lack of detailed regional investigation upon which he could have drawn. A stimulus is therefore provided for further regionally based research.

The purpose of this work is to trace the origins and metamorphosis of the Movement in the North East of England during the last century, until its final state of change in the early 1900s.

Within the region, several factors featured prominently in creating the environment in which the institutes were to function. These included economic and political reform, together with the broad spectrum of educational, social and cultural activities made available to the working-classes. Thus, the interaction between representatives from the various sections of society was inevitably brought into focus in voluntary bodies such as the mechanics' institutes, where it was hoped that mutually beneficial ambitions might be fulfilled.

The Mechanics' Institute Movement in the North East reflected experiences which were typical of many other regions, yet much was exceptional. To illustrate this point, certain issues have been subjected to detailed analysis - in particular the identity of promoters, their motives, and how they brought their schemes to fruition. The effect of the powerful and often conflicting demands for the various services which together constituted both adult education and recreation has been assessed against a background determined by the promoters of institutes and by increasing Government legislation which provided for the introduction of public libraries and technical instruction. Consequently, the survival of the institutes was secured within a climate of progressive external and internal pressures.

In the past, the full significance of the Movement's contribution to working-class educational, social and cultural development has lacked the appreciation it deserves. This regional analysis has shown that after existing for almost one hundred years its legacy remains encapsulated within our national system of public libraries, technical colleges, social centres, and not least in our heritage of mechanics' institute buildings.

The task of providing insights into the complexity of the Movement's role in the North East has not been achieved without confronting difficulties similar to those experienced by Kelly and others. If any questions, therefore, remain unanswered, they do so because of the elusiveness of source material. At best, much was of a scattered, fragmentary and sometimes contradictory nature. Despite diligently pursued enquiry at repositories both locally and in other parts of the country, it has had to be accepted that the location of many relevant items is unknown.

MECHANICS' INSTITUTES IN NORTHUMBERLAND AND DURHAM
1824-1902

Clifton Stockdale

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Thesis presented in candidature for the Degree of Doctor of
Philosophy; Faculty of Social Sciences, School of Education,
University of Durham, 1993.



- 7 JUN 1994

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List of Brief References

1. Texts, Theses and Manuscripts.

A.R.

Annual Report.

Atkinson, F., Life & Trad.

Life and Tradition in
Northumberland Durham.

J.M. Dent & Sons Ltd., 1986.

Atkinson, F., V.B.

Victorian Britain: The
North East. Newton Abbot:
David & Charles, 1989.

Bainbridge, F.F., Shildon R.I.

Centenary of Shildon,
London and North Eastern
Railway Institute.

Gateshead: Kelly Printers,
1933.

Brougham, H.,
Practical Observations.

Practical Obvservations
upon the Education of the
People, addressed to the
Working Classes and Their
Employees. Longman, Hurst,
Rees, Orme, Brown & Green,
1825.

Burns, C.D., B. Coll.

A Short History of Birkbeck
College. University of
London Press, 1924.

- Chadwick, A.F., 'Derby'. 'Derby Mechanics' Institute, 1825-1880'. (M.Ed., Manchester, 1971.)
- Evans, T., 'M.Is. S. Wales'. 'The Mechanics' Institutes of South Wales'. (Ph.D., Sheffield, 1965.)
- Hall, W.G. 'Tech. Ed.Sunderland'. 'The Provision of Technical Education in Sunderland prior to 1908'. (M.Ed., Durham, 1964.)
- Harrison, J.F.C., L. & L. Learning and Living,
Rouledge & Kegan Paul,
1961.
- Harrison, J.F.C., 'Social & Religious'. 'Social and Religious. Influences in Adult Education in Yorkshire between 1830 and 1870'. (Ph.D., Leeds, 1955.)
- Harrison, J.F.C., Vict. The Early Victorians.
Weidenfeld & Nicolson,
1971.
- Heatley, J., Alnwick S.L.M.I. Alnwick Scientific and Mechanical Institution: Historical Sketch.
Printed pamphlet: Newcastle upon Tyne City Library, Local Tracts II. L. 042. n.d.
-

- Hemming, J.P., 'M.Is. L. & Y'. 'The Mechanics' Institute Movement in the Textile Districts of Lancashire and Yorkshire in the Second Half of the Nineteenth Century'.
(Ph.D., Leeds, 1974.)
- Hudson, J.W., H.A.Ed. The History of Adult Education. Woburn Press Ltd., 1969. (First published - Longman, Brown, Green & Longmans, 1851).
- S.I.S. The Steam Intellect Societies, Essays in Culture, Education and Industry Circa 1820-1914. (ed. Inkster, I.) Nottingham: Dept. of Adult Education, University of Nottingham, 1985.
- Kelly, T., G.B. George Birkbeck, Pioneer of Adult Education. Liverpool: Liverpool University Press, 1957.
- Kelly, T., H.A.Ed. A History of Adult Education in Great Britain. Liverpool: Liverpool University Press, 1970.
-

- McCord, N., N.E. North East England. The
Region's Development, 1760-
1960. Batsford, 1979.
- M.B. Minute Book.
- Smailes, A.E., N.E. North England.
Thomas Nelson & Sons Ltd.,
1960.
- Stockdale, C., 'N. & B.
Schools'. 'National and British
Schools in Teesdale and
Teesside from 1833 to
1870'. (M.Ed., Durham,
1972.)
- Turner, C.M., 'M.Is. Midlands'. 'The Development of
Mechanics' Institutes in
Warwickshire,
Worcestershire and
Staffordshire, 1825-1890: a
Regional Study'. (M.Ed.,
Leicester, 1966.)
- Tylecote, M., L. & Y. The Mechanics' Institutes
of Lancashire and Yorkshire
before 1851. Manchester:
Manchester University
Press, 1957.
- Whellan, F. & Co., Durham. History, Topography and
Directory of the County
Palatine of Durham.
Whittaker & Co., 1855.
-

2. Institutions

D.Sc.A.	Department of Science & Art.
I.L.S.	Institute of Literature & Science.
L.I.	Literary Institute.
L.M.I.	Literary and Mechanical Institution.
L.S.I.	Literary and Scientific Institution.
L.S.M.I.	Literary, Scientific and Mechanical Institution.
M.I.	Mechanics' Institute.
N.U.M.I.	Northern Union of Mechanics' Institutions.
R.R.	Reading Room.
S.M.I.	Scientific and Mechanics' Institution.
Y.U.M.I.	Yorkshire Union of Mechanics' Institutions.

Variations of the above abbreviations will be readily understood.

Declaration

Quotations taken from a thesis entitled 'National and British Schools in Teesdale and Teesside from 1833 to 1870', by Clifton Stockdale, and accepted for the degree of M.Ed. at the University of Durham in 1972 have been duly acknowledged.

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Without the assistance of archivists, curators and librarians throughout the North East, the acquisition of primary source material would have been extremely difficult. In particular I wish to express my gratitude to Miss M. Norwell and the staff of the Literary and Philosophical Society, Newcastle upon Tyne for allowing me to access their rare and rewarding archive collections. Several local and distant Universities have also been most helpful in providing essential material.

Thanks are due to Miss Yvonne Heaton who has patiently devoted much time towards the final presentation, and to Mr R. Kitching of the School of Education who has applied his cartographic and photographic skills towards the preparation of illustrative material used throughout.

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Preface.

The national census of 1801 together with those conducted at ten yearly intervals throughout the nineteenth century have shown that the population of Great Britain increased at a rate hitherto unknown. Various reasons have been advanced. Among these, the lowering of the age at which women were able to marry, thus effectively lengthening the period of child bearing, and the introduction of more efficient methods in farming and food production, must have been of considerable significance. Equally significant was the gathering momentum of the Industrial Revolution, generally regarded as spanning the period 1770 to 1840, the aftermath of which resulted in the process of 'cause and effect' being apparent throughout the century. For instance, no sooner had the old order of dependency upon horse and water power been superseded by harnessing alternative sources of energy which essentially demanded some degree of technological expertise, than the spirit of revolution brought fresh and diverse challenges into the realms of politics, economics, religion and education. This was not surprising, given the measure of interdependence required between the new labour intensive industries and the working-classes who were attracted to the focal points of industrial development.

Industrial, economic and social change, therefore, determined the ethos of the emergent era which for the greater part of the century has been described as Victorian England. Several new movements evolved whose role was to both expose and alleviate insensitivity, injustice and the vast gulf of inequality that existed between the ruling and the working-

classes. No part of the nation's life was unaffected by the industrial, political, religious and social upheavals which followed, all seemingly energised by some new kind of fuel. It would be untrue to suggest that all challenge brought to bear against the traditional order was either threatening or destructive; indeed, the Evangelical Movement which spawned Methodism also "helped to renew the life of the Church of England".¹ The same was true of the urge to introduce scientific education to a section of society whose efforts in the longer term were to establish Great Britain as Europe's foremost manufacturing nation. Moreover, the introduction of Christian morality was considered essential and everyone with responsibility was agreed that the education of the poor, including that of working-class adults, must be Christian.²

Scientific instruction for the greater part of the century was most effectively made available through the Mechanics' Institute Movement which had originated more than a decade before Victoria ascended the throne. Originating in London in 1823, it had spread not only into all parts of the country by the end of the century, but also into many remote corners of the Empire. By 1851 its impact was such that it was described as "unexampled in every part of the Kingdom for the intellectual and physical improvement of the lower classes of the country" where an atmosphere of "philanthropy and goodwill to all men"³ prevailed. The aim of the Movement was to some extent fulfilled, despite a strong middle-class presence. And if the Industrial Revolution to which it gave

1. Chadwick, O., The Victorian Church, Part 1, p. 346.

2. Clark, G. Kitson, The Making of Victorian England, p. 21.

3. Hudson, J.W., The History of Adult Education, p. v.

service has been described as a "great social solvent",¹ so too, were many of the individual mechanics' institutes wherein lay both the opportunity for self-improvement and for the social elevation of those able to withstand the harsh rigours of long working days followed by further education.

Having therefore a timely role within the process of democratic evolution, the contribution of the mechanics' institutes in the North East of England is reviewed in the following chapters against a background of similar schemes in other regions. The chronological treatment of the subject herewith, was deemed the most reasonable means of handling the many variables which like the threads of a tapestry had to be interwoven in order to project a meaningful interpretation of its complexity. Thus, the Movement's progress is traced through four fairly well defined periods of the century, each exhibiting, for example, swings towards either optimism or pessimism determined by both national and local events. To have opted for an exclusively thematic approach where the analysis of specific topics inherent within the Movement might have been considered, may have obscured some of the many incidental developments which were of their own time, yet dependent upon and relevant to the entire period.

Originating and existing for the most part during an era permeated by an accent upon self-help and voluntarism, it was not surprising that the tenuous nature of many institutes neither inspired nor demanded the meticulous record keeping normally associated with bodies in receipt of public funds where strict accountability was expected. Records, therefore,

1. Clark, G. Kitson, op. cit., p. 88.

in the most formal sense were not readily discovered, even if existent. Indeed, during the course of the final stages of preparation further documentary evidence came to light. For instance, in a consignment of material from a redundant Methodist Chapel and subsequently deposited with Cleveland County Record Office, the minute books of the South Stockton Mechanics' Institute were found. Thomas Kelly, the author of two major works on adult education was similarly frustrated and concluded that "the history of many institutes is lost forever".¹ Accuracy, too, in certain instances was perhaps not given the priority that might have been expected. The name plaque, for example, set into the front elevation of the Wolsingham Mechanics' Institute boldly declares the year of its foundation as 1820,² thus preceding by three years the establishment of the first English institute, i.e. the London Mechanics' Institution. Its date of foundation was in fact 1826. Other recorded inconsistencies have been encountered in researching the development of the Movement in the North East region, therefore, some statements may not be entirely accurate, whilst on the other hand perhaps much valuable evidence may never be found. From the outset therefore, the task which lay ahead was a daunting one, yet it was never without strikingly rich rewards, found especially among the grime of archive material which had not been disturbed for at least a century and a half.

That the Movement survived until the outbreak of the First World War was in a sense miraculous, and above all, was due

1. Kelly, T., George Birkbeck, p. 302. See also letter from Thomas Kelly to the librarian, Durham Public Library, dated, March, 1955.

2. See Plate 1, p. xxii.

to the ability of individual institutes to respond to the spirit of change endemic within the nation, and to both recognise and respond to external or internal pressures as most expedient.

The North East with its vast variety of industrial development, economic, religious and social potential was fertile ground in which the seeds of the Mechanics' Institute Movement were cultivated by those whose vested interests might be served.

PLATE 1
WOLSINGHAM MECHANICS' INSTITUTE



PART I

Chapter 1.

Industrial and Social Development of the North East during the Nineteenth Century.

1. The Natural Resources of the Region.

The North East region of England comprises the two counties Northumberland and Durham. Geographically, it is isolated from the rest of England and from Scotland. This is due to natural boundaries: to the northwest lie the Cheviot Hills, separating the region from Scotland, the western border is formed by the Pennines, along the southern edge are the Cleveland Hills and the eastern boundary is the North Sea coast.¹ Within these borders were the natural resources responsible for the region's industrial development during the nineteenth century. Chiefly, these were the minerals coal and iron; less economically important minerals included lead, limestone and a little silver produced as a by-product of the lead smelting process.² But without coal, the North East would have possibly remained the "rural backwater which so much of it was up to the early years of the nineteenth century."³ The rural character of the larger part of the region was important, in that it had enabled the prosperous farmers of Northumberland and Durham to contribute to the region's economy. Indeed, until about 1830, one third of the labouring classes of County Durham were employed in

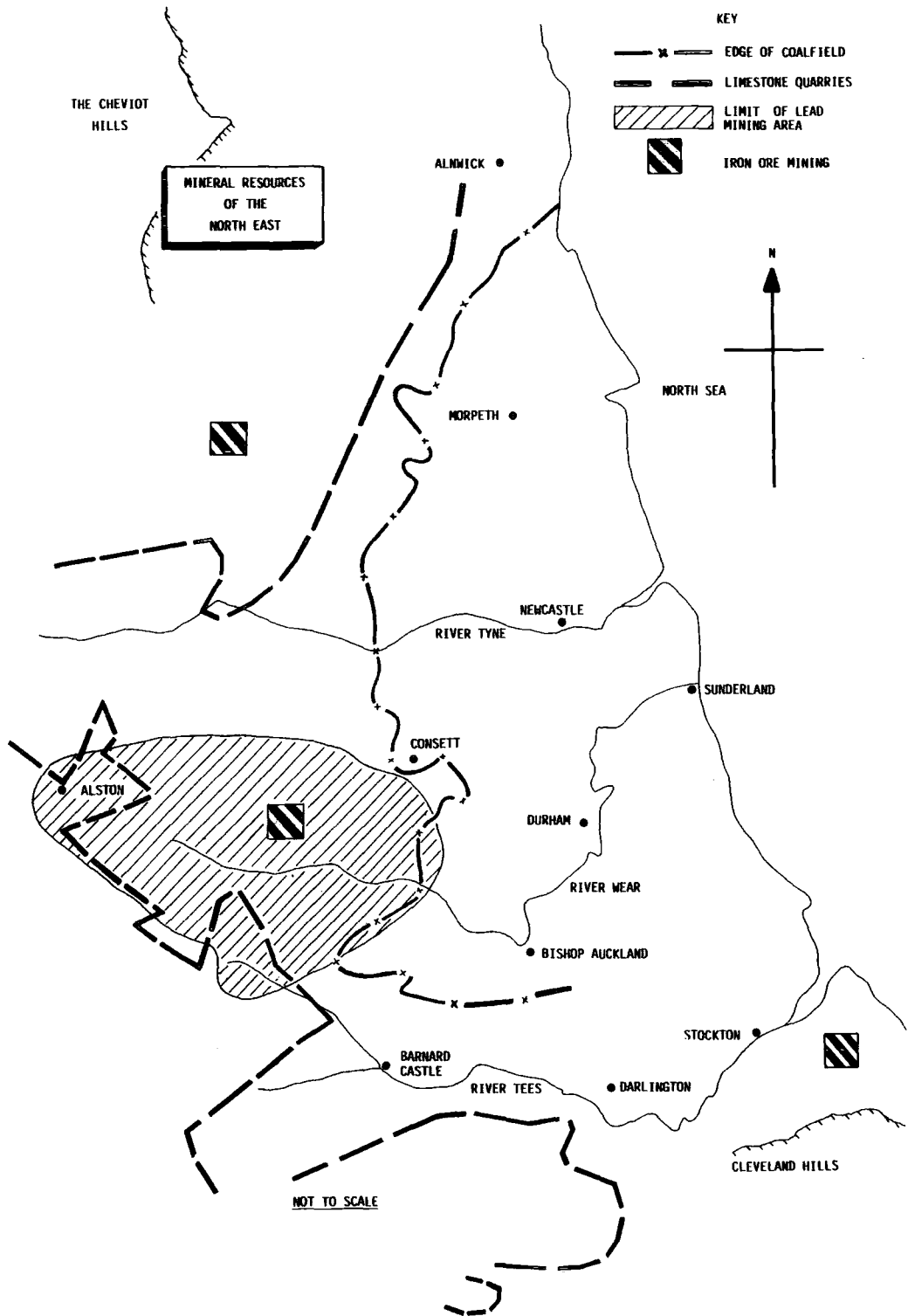
1. Mineral Resources of the North East, map p.2.

2. loc. cit.

3. Atkinson, F., Life and Tradition in Northumberland & Durham, p. 17.



MAP OF THE NORTH EAST
MINERAL RESOURCES OF THE NORTH EAST



agricultural work.¹ Its significance continued throughout the century, whilst the large areas of woodland and open space must have provided a source of enjoyment and pleasure for many of the industrial workers who were to arrive in the North East.

The region's resources were not wholly confined to inland sites where wealth was generated both above and below ground. Other resources existed along the sea-shore. Fishing was an essential part of the economy of communities at places such as Berwick upon Tweed and Hartlepool; also the skills required in shipbuilding were developed at the larger ports of Teesside, Wearside and Tyneside. The importance of North East shipbuilding was shown in 1804, when almost one sixth of Britain's shipwrights were engaged at yards on the Durham coast.² This leading position was maintained for more than half a century in the face of fierce competition, especially from the neighbouring yards on the Tyne.

Throughout the century, the region was fortunate to have benefited from diverse examples of local human talent. Engineering geniuses, such as George Stephenson and his son Robert, invested their expertise within the North East, as did William Armstrong who was to establish the world famous Tyneside armaments factory at Elswick, and which became "probably the largest industrial establishment in the country".³ Complementing local scientific talent, were men of similar calibre active in the realms of banking and finance. Members of the Pease and Backhouse families of Darlington,

1. Atkinson, F., Life & Trad., p. 24.

2. Atkinson, F., Victorian Britain: The North East, p. 149.

3. Cochrane, A., The Early History of Elswick, p. 71.

for instance, financed and made possible much of the region's industrial development. They were the promoters behind such schemes as the construction of the Stockton and Darlington Railway in 1825, and the development of railways and docks at Teesside. It was often the business ventures of local pioneers that brought growth and prosperity to the communities in which they operated. The name of Pease, for example, was linked with many of Middlesbrough's industrial concerns: Joseph Pease and Partners dealt in coal; J.W. Pease & Co. in ironstone and limestone; J. & J.W. Pease in banking, and Henry Pease & Co. in manufacturing.¹ However, the industrialisation of the North East did not gain momentum until communication and transport systems became available through the expansion of the railway network after 1825. In contrast to Britain's other industrial areas, such as Lancashire and Yorkshire, canals had not been created, although one scheme which proposed a water-way between Stockton and West Auckland was prepared in theory but never came to fruition.²

II. The North East before the mid 1820s.

Among the first mechanics' institutes to be established in the region for the provision of scientific education for artisans were those at Newcastle upon Tyne, Darlington and Sunderland in 1824, where they served early industrial communities. Before that date, there was little to commend the setting up of widespread technological education

1. Atkinson, F., V.B., p. 82.

2. Abley, R.S., The Byers Green Branch of the Clarence Railway, pp. 4-6.

facilities, because industries generally were in their infancy and the huge labouring population was yet to arrive.

Industrialisation, however, was inevitable due to the North East's rich reserves of mineral energy, and since James Watt had demonstrated in 1765 that coal had an essential role in fuelling the steam engines which had been invented towards the end of the eighteenth century. Later, the engineering partnership of Boulton and Watt together with others, realised practically the "potent dynamic force of modern industry".¹ The textile industry of Lancashire, for example, ceased to be cottage based; it was transferred to the huge labour intensive mills driven by steam power. It was only a matter of time before the North East would harness the same energy to produce iron and to drive its engineering enterprises centred on the Tyne, the Wear and the Tees.

The mining industry, and the utilisation of coal were not unknown in Northumberland and Durham during the early years of the century. Lead, for example, from the upper valleys of the Tees, the Derwent, the Allen, and the South Tyne had been smelted since Roman times, whilst during the eighteenth century the British lead dales were the world's largest producers of the metal.² Small quantities of coal used for such purposes, and for export to London, were also mined before the greater exploitation of the coal-field. At Cockfield, for instance, a village in County Durham, this was a well established occupation. By 1821 not only was coal mined, but also to be observed were the shadows of some of

1. Mathews, H.F., Methodism and the Education of the People: 1791 - 1851, p.9.

2. Atkinson, F., Life and Trad., p.44.

the social problems which were to become typical of the region's industrialised communities. The village then was described as being the rendezvous of the worst characters for miles around. Neighbouring mining villages such as Evenwood and West Auckland were no better; both suffered from the influence of drinkers and gamblers.¹ In contrast, people in the lead mining communities enjoyed benefits such as carefully planned houses, schools, libraries and medical services, and were not known for encouraging similar vices.² Various other industrial operations also flourished during the early years of the century. Glass making and the manufacture of pottery were carried out at centres located on Tyneside, Wearside and Teesside.³ Salt, too, was produced, since it was an essential chemical for the production of alkali used in glass making and in the manufacture of soap. It was obtained by boiling sea water in enormous iron pans, but by 1823 most was imported from the Cheshire salt mines,⁴ heralding the eventual cessation of the industry. During the first two decades of the century the ports along the coast were engaged in specialist activities. For example, from Berwick upon Tweed, salmon as well as agricultural produce were exported to London. Even very small ports, such as Craster, specialised by exporting the local mineral Whinstone. Larger ports at Newcastle, Stockton and Sunderland had always exported coal and had specialised in shipbuilding. The port at Sunderland was established in the seventeenth

1. Patterson, W.M., Northern Primitive Methodism, p.70.

2. Raistrick, A., & Jennings, B., A History of Lead Mining in the Pennines, pp. 320-321.

See also Atkinson, F., Life and Trad., p.45.

3. Atkinson, F., V.B., pp. 46-52.

4. ibid., p. 38.

century to facilitate the export of the region's agricultural products, including coal, especially to London.¹ Thus, agricultural and industrial activities of the North East, even though small by later standards, contributed towards the national economy, whilst locally the self sufficiency of communities was evident. Commodities such as food, shelter, warmth and clothing were mostly products of the region. For example, glove making was an important occupation at Hexham; carpet weaving was carried out at Barnard Castle until 1870; and at Darlington and Durham textiles had been manufactured from the end of the eighteenth century.² These market towns, typical of many in the region, were small in comparison with what they were to become later in the century. Generally, populations expanded only marginally between 1801 and 1821 as is illustrated in Table 1 below.³

Table 1.

The Population of Market Towns before 1825.

<u>TOWN</u>	<u>DATE</u>	<u>DATE</u>	<u>DATE</u>
	<u>1801</u>	<u>1811</u>	<u>1821</u>
<u>DARLINGTON</u>	4,670	5,059	5,750
<u>BARNARD CASTLE</u>	2,966	2,986	3,581
<u>MORPETH</u>	2,951	3,244	3,415

-
1. Smailes, A.E., North England, p. 126.
 2. McCord, N., North East England. The Region's Development, 1760-1960, p. 57.
 3. The Population of Great Britain in the Years 1801-11, 21 & 31, Northumberland and Durham, pp. 85-91, pp. 191-200.

The larger towns of the region such as Newcastle upon Tyne also showed few immediate signs of expansion until the 1820s; indeed, before 1821 it reflected more than a "passing resemblance to the town it had been in the Middle Ages." The population grew from 34,092 in 1801, and to 43,177 in 1821 after declining to 33,723 in 1811.¹ Meanwhile, the area which was to become the new town of Middlesbrough was not developed until after 1830, when the first permanent house marking the site of the town was built in West Street.² Similarly, the villages of the region during the first two decades of the century showed only slight population increases as illustrated by the examples in Table 2 below.³

Table 2.

The Population of Villages before 1825.

<u>VILLAGE</u>	<u>1801</u>	<u>1811</u>	<u>1821</u>
<u>BELLINGHAM</u>	337	346	404
<u>ROTHBURY</u>	668	750	891
<u>HAMSTERLEY</u>	491	529	552
<u>STAINDROP</u>	1,156	1,087	1,273

1. Bean, D., Tyneside, p. 84.

2. Lillie, W., The History of Middlesbrough, p. 5.

3. The Population of Great Britain in the Years 1801-11, 21 & 31, Northumberland and Durham, pp. 85-91, pp. 191-200.

Before 1825, there had often been the need for the introduction of civilising agencies, especially into the towns. The redress of this situation was a slow process, and even by the middle of the century, North East England "still contained much that was rough and vicious and recreations were frequently marked by a degree of cruelty."¹ Both cock fighting and dog baiting were examples of these savage sporting activities. And although some schools had been established early in the century in the larger towns, these were by no means sufficient for the conquest of ignorance. Darlington, for example, by 1820 had only two elementary schools catering for the children of the working-classes. These were the National School founded within St. Cuthbert's Church in 1812,² and the British School set up in 1819.³ In this respect the villages generally fared worse than the towns; for instance, communities along the Tees valley by 1833 were still largely deficient in educational provision for the children of the poor. At Whorleton, the decision to erect a National School was not taken until 1848:⁴ at Egglecliffe a National School was not established until 1838.⁵ Confirmation of inadequate elementary education was highlighted in the Annual Report of the British and Foreign School Society for 1834, which stated that "in and around Durham only 1 in 30 attended school".⁶

1. McCord, N., N.E., pp. 70-71.

2. Stockdale, C., 'National & British Schools in Teesdale & Teesside from 1833 to 1870,' p.70. (M.Ed., Durham, 1972), p.70.

3. loc. cit.

4. Application Form: Whorleton National School, dated 12th September, 1848.

5. National Society Annual Report 1838, p. 72.

6. Stockdale, C., 'N & B Schools', p. 55.

The obvious lack of basic elementary education among the working-classes was to have considerable influence on the way in which the mechanics' institutes were to develop from the late 1820s.¹

If the educational agencies responsible for promoting schools in the region i.e. the National Society, which operated to advance elementary education under the supervision of the Established Church, and the British and Foreign School Society, which promoted elementary schools for the children of non-conformist families, together with schools established in the dales by the lead companies, had been unable to meet fully the need for introducing elementary education, then at least some rudimentary provision was available under the auspices of various religious bodies. Chief among these were the Primitive Methodists who established Sunday Schools and Class Meetings, where reading and writing were taught and the training of preachers took place. This branch of Methodism inaugurated by Hugh Bourne, William Clowes and their disciples attracted great following among the working-classes. Starting in 1819, they conducted open air campaigns in Northumberland and Durham and visited Darlington, Weardale, Teesdale, Allendale and Tyneside. Despite opposition both from High Churchmen, and local alien characters such as the mad woman at Cockfield who attempted to "blow up the loft where a service was proceeding",² chapels were established. By 1823 the revival was enthusiastically accepted, whilst its effects in Weardale were carefully recorded. In March of that year, the movement had attracted 219 members, in June there were 308, and by

1. See below, p. 95.

2. Patterson, W.M., op. cit., p. 72.

December numbers had increased to 846.¹ One observer of those events was moved to report, "I think all the people in Weardale are going to be Ranters".² Almost unabated, the revival continued throughout the century, indeed, even until some time after the turn of the century, bringing hope, confidence and a civilising influence amongst the lower classes.

Before the introduction of the railways in 1825, and the development of large scale industrial concerns involving coal and iron, the region had witnessed little in the way of dramatic social change. This, however, was not to continue, whilst the industrial and social expansion which occurred after that date, came far too quickly for the Government to devise a suitable social policy. Northumberland, for instance, expanded from 168,000 in 1801 to 304,000 in 1851: Durham expanded similarly, from 149,000 in 1801 to 391,000 in 1851.³ The newly developing centres of industry were most affected by population increases. Middlesbrough typified the changes taking place and expanded from just 25 persons in 1801 to 154 in 1834, and to 3,000, by 1836.⁴ Hence, by the time the coach was superseded by the railway, and the first sailing clippers gave way to the increasing use of steam driven ships, there was no doubt that the North East had become part of the vast European river of civilisation, which

1. Patterson., W.M., op. cit., p. 158.

2. loc. cit.

3. McCord, N., N.E., p. 25.

4. Atkinson, F., V.B., pp. 76-79. See also W. Lillie, The History of Middlesbrough, p. 65 and C. Postgate, History of Middlesbrough, p. 38.

had reached a "stretch of rapids".¹

III. The Post 1825 Industrial Development of the Region.

i. The Northumberland and Durham Coalfield.

The Industrial Revolution in the North East followed the opening of the Stockton and Darlington Railway in 1825, whilst the incidence of coal enabled the seeds of industrial development which had always been present within the region, to begin to germinate.² It was fortuitous that the industrial potential of the North East was recognised early in the century, because many of the old established manufacturing processes began to decline towards extinction as the century advanced. The production of alkali together with the manufacture of glass had virtually disappeared by the 1890s due to competition from Europe. Meanwhile, alternative prospects of employment and regular wages presented by the developing coal-field, iron works and engineering centres, attracted whole families to migrate into the eastern areas of the Tyne and Wear where vast amounts of labour were required.³ Throughout the region where industrialisation was promoted, the migration of people resulted in the creation of clearly defined communities with specific functions. This was most evident in the resultant ethos found in the mining communities, where it became no longer practical to be grafted in to the older farming

1. Inge, W.R., The Victorian Age, p. 8.

2. Smailes, A.E., N.E. p. 109.

3. ibid., p. 162.

villages.¹ Although exceptionally, it remained true that the lead miners of the dales generally continued to practise the dual role of farmer - miner.

The Northumberland and Durham coalfield was a clearly defined area within the region, being dependent upon the geographical location of the coal measures. Roughly a triangular area, the coal-field was delineated by the coast between Amble and the Hartlepoons, and the presence of other types of non-carboniferous rock formations to the south and west, the broader part of the field being south of the Tyne. In addition to working the main seams, profitable fringe operations were also opened up as was the case on the north side of the Wear Valley in the 1840s.² Reference to the map on page 2 shows the vast extent of the coal-field in relation to the rest of the region.³ The increasing importance of coal as a vital commodity was confirmed in statistics which showed that between 1800 and the end of the century, trade had grown from two million to forty five million tons per annum.⁴ To achieve this output, labour poured into the area, not only from the surrounding villages, but also from places further afield such as Wales, Ireland, Scotland, East Anglia and Cornwall.⁵ Typical of the area must have been the development of Witton Park, where it was recorded that a person's place of origin could be identified from the names of the migrant families who were responsible for creating the village. The quotation below described what happened here

1. McCord, N., N.E., p. 35.

2. Smailes, A.E., N.E., p. 19.

3. Mineral Resources of the North East, map p.2.

4. Atkinson, F., V.B., p. 14.

5. Smailes, A.E., N.E., p. 172.

during the 1840s, whilst places of origin were clearly obvious.

"Then the tribes of Jones, Morgan, Williams, Jenkins, O'Brien, O'Connor, Fitzpatrick, Murphy, and others took possession. the nineteenth century village, was an accomplished fact."¹

But those who arrived in the North East full of hope, were quickly subjected to the appalling reality of employment conditions underground.

Employment conditions in the coal mines.

During the early years of the coal industry's rapid expansion, conditions of employment experienced by the miners were miserable in the extreme. Unbearably long hours of work by men, women and children were accompanied by the ever present danger of death, either by accident or explosion. Boys went into the pits at about the age of six years in 1825 and were required to labour for up to eighteen hours a day.² George Parkinson's experiences were probably not unusual. He was born in 1828 at New Lambton, and at the age of nine years started work in the pit as a door keeper. From this he progressed to "coal-hewer at twenty one, this being the highest unofficial position obtainable at the cost of the hardest form of mining labour known".³ Clearly, such work resulted in exhaustion among the workers and must have quenched any ambitions they might have had for engaging in further education. The promoters of the early mechanics' institutes seemed to have been initially oblivious of the

1. Dando, T., (ed.), The Coming of the Princess, p. 8.

2. Fynes, R., Miners of Northumberland and Durham, p.16.

3. Parkinson, G., True Stories of Durham Pit Life, p. 1.

effect this would have towards their perceived vision of artisans applying for access to knowledge. Indeed, such conditions of labour prevailed until late in the century. Additionally, an anti-intellectual attitude inherent among the lower ranks of society regarded learning as something to be "checked rather than encouraged". And a man who sought to elevate himself from his prescribed station was considered to be foolish.¹ Nevertheless, there were men, who through the sacrifice that the process of learning demanded, were not only able to alter the course of their own lives, but also that of others. Such men included the miners' representative Thomas Burt, and his contemporary Peter Mackenzie, sometime of Haswell Colliery, who was often referred to as a 'coal winner and soul winner' and who was called into the Wesleyan ministry in 1858.²

Dangerous working conditions had always prevailed in coal mining, but were exacerbated by the use of the Davy lamp. Its use enabled deeper mines to be sunk into increasingly hazardous seams, where miners apparently placed too much confidence in the guarantee of safety which it was believed to secure. These deeper mines were generally within the eastern part of the coalfield at places such as Wallsend, Earsdon and Shilbottle. The frequency of explosions and their attendant death statistics were only too real as was described by the following incidents. At Jarrow, in 1828, eight were killed, and again in 1830 at the same pit, forty two men lost their lives: at Wallsend, in 1835, one hundred and two were killed, and at Haswell Colliery, in

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1. Meech, T.C., From Mine to Ministry, p. 4.
 2. Dawson, J., Peter Mackenzie, p. 100.

1844, ninety five lives were lost.¹ Following accidents such as these, there was often little hope for injured survivors. A case at Pelton Colliery illustrated the point. One injured miner died before arriving at home on a stretcher; moreover, it was evident that he could not have been transported to a hospital, because the infirmary at Newcastle was ten miles away by horse and cart.² But the lives of coal miners were expendable in other ways; the working day was little short of the cruelest form of physical punishment, determined by long hours and the nature of the job.

The length of the working day being intolerable in the extreme, was from time to time the subject of the miners' struggle for better terms of employment. For instance, a successful strike in 1831 achieved a twelve hour working day for boys instead of one almost without limit. But without recognised leadership the miners could never hope to gain major concessions in this respect. Realising the problems of their situation eventually led to attempts to organise themselves into a union. However, hopes of achieving a solution through such action were quickly dashed by the absolute power invested in the coal owners. Chartist agitation also failed. In 1839, for example, Thornley Colliery was the only pit village in County Durham to take part in the Chartist 'Sacred Month', which was directed towards bringing about the attempted general strike in the same year.³ Further grievances prompted the formation of the Miners' Association of Great Britain and Ireland in 1851 to address the problem of an enforced reduction of wages.

1. Fynes, R., op. cit., pp. 149-150.

2. Atkinson, F., V.B., p. 16.

3. Douglas, D., Pit life in County Durham, p. 67.

Insecurity was widespread and manifested itself in different ways. Employers not only wielded power over conditions and wages, but also determined whether or not a miner and his family had the shelter of a house. Hence, they enjoyed almost limitless power, and therefore, were not sympathetically inclined to consider any sort of grievance. Eventually, breaking point was reached throughout the coalfield, when the miners terminated their employment contract, thus precipitating the Great Strike of 1844. Its effect was immediately and severely felt by all concerned. And to aggravate the situation further, large numbers of replacement workers were brought in from other parts of the country. Striking families were ejected from their homes together with their goods and chattels. One of the region's most tyrannical coal owners was the Marquis of Londonderry, whose cruelty towards his workmen was apparently "unequalled in the annals of English History."¹ Moreover, the workhouses were also closed to all who dared to confront their employers. Magistrates and clergymen alike, gave their sanction and protection to this "so called holy work."² The uneven battle did not last long, since the pitmen had no chance of surviving such persecution. They accepted defeat, and on returning to work, continued to serve at the mercy of their task masters until they obtained Parliamentary representation in 1872, in the person of Thomas Burt.³

Throughout the century, the coal-field continued to be exploited with ever increasing vigour. Coal was increasingly exported to European countries such as France, Germany and

1. Fynes, R., op. cit., p. 84.

2. ibid., p. 85.

3. See above, p. 15.

Italy, whilst most of it came from the expansion of the industry in County Durham. An appreciation of the comparative importance and development of the Durham part of the coal-field was supported by evidence which stated that in 1901 Northumberland employed 37,000 miners, whilst Durham engaged at least 100,000.¹ Over the years, changes in the relative importance of different districts within the coal-field was also observed. For instance, the development of iron works at Tow Law and Witton Park, and subsequently the Teesside iron and steel making complex during the 1840s and '50s, created a huge demand for coking coal. Consequently, this caused the southern part of the 'field to grow. The Wear Valley development was one such area, typified by the expansion of Crook, where from 1831 to the end of the century the population continued to increase as shown in Table 3 below; before 1831 it had remained relatively stable.²

TABLE 3.

Changes in the Population of Crook in the Nineteenth Century.

<u>DATE</u>	<u>POPULATION</u>	<u>DATE</u>	<u>POPULATION</u>
1801	193	1861	5,134
1811	176	1871	9,401
1821	228	1881	11,096
1831	200	1891	11,430
1841	538	1901	11,471
1851	2,764		

1. McCord, N., N.E., p. 112.

2. Victoria County History, Durham, Vol. II, pp. 261-274.

Meanwhile, the development of the mines in the eastern part of the county continued, as was frequently illustrated by the creation of colliery based communities from nothing more than a handful of people. The Dawdon Colliery community was one example. Supporting evidence was provided by population returns collected over the century as shown below in Table 4.

TABLE 4.

Changes in the Population of Dawdon in the Nineteenth Century.

<u>DATE</u>	<u>POPULATION</u>	<u>DATE</u>	<u>POPULATION</u>
1801	22	1861	6,137
1811	27	1871	7,132
1821	35	1881	7,714
1831	1,022	1891	9,044
1841	2,017	1901	10,163
1851	3,538		

Reference to the above statistics shows that an intensification of industrial activities occurred at some time between 1821 and 1831 whilst continuing thereafter.¹

Wherever communities were increasing, there was always the need for improved social conditions. Better housing, educational, recreational and religious amenities, were often only won against complacency or intense opposition. For instance, even as late as 1865, opposition from the

1. Victoria County History, Durham, Vol. II, pp. 261-274.

Established Church could thwart the introduction of non-conformist chapels into communities. This was the case at Whickham, where,

"owing to the predominating and unfriendly influence of the Established Church in the village, it had been impractical for years to obtain a building site," for a "Methodist chapel".¹

Similar reluctance on the part of the Established Church to support the Mechanics' Institute Movement was frequently met in the early years, when it was "unusual to find a Church of England clergyman playing an active part".² However, the coalfield was not the only major industrial scene; industrial centres were developed especially in the neighbourhood of the estuaries of the region's three rivers i.e. the Tyne, the Wear and the Tees.

ii The Industrial Development of the River Estuaries of the Region:

Newcastle and Tyneside.

Mention has been made of early industrial activity in Northumberland, especially on the banks of the Tyne.³ In addition, other minor industries had been carried on in the Tyne Valley countryside. For example, short-lived woollen mills had functioned at Mitford and Newton (Rothbury), cotton mills, too, had existed at Netherwitton. Also small scale

1. Dawson, J., op. cit., p. 160.

2. Kelly, T., G.B., p.216.

3. See above, p. 3.

iron foundries at Bedlington and Acklington Park manufactured commodities such as nails. Later, the foundry at Bedlington became more involved in making iron for the expanding railway network and for building locomotives. Of course this pioneering work could not have proceeded without the availability of iron, the essential raw material. Therefore, to meet this need, iron works old and new, were expanded and developed within the early decades of the century. The works of Losh, Wilson and Bell at Walker on Tyne, for instance, which had been established in 1807, were well sited to serve the growing industrialisation of the Tyne estuary. Additional works were built at Wylam in 1836, at Ridsdale in Redesdale in 1839, and at Bellingham in 1841. Locally produced iron not only advanced the construction of the railway system, but was also required in other industrial concerns such as shipbuilding, and the production of engines and armaments.

The application of steam driven engines in shipping had been demonstrated as early as 1814, when the first Tyne steam boat, 'The Perseverance' plied between Newcastle and North Shields. George Stephenson, aware of the region's engineering and business potential, had set up his works at Newcastle in 1817, and was followed by Robert Hawthorne who also established engine making works in 1822.¹ But for about the first five decades of the century, Northumbrian involvement in heavy industry proceeded at a slower pace than that of County Durham. To some extent the redress of Northumberland's position occurred in 1846, when William Armstrong established his engineering centre at Elswick on Tyne. Armstrong's

1. Hepple, L.W., A History of Northumberland and Newcastle upon Tyne, p. 160.

armament factory came at a time when other industries such as glass and chemical manufacturing along the river were declining, and therefore, created a new centre of growth.¹ This was reflected by the fact that the population of Elswick increased from 3,539 in 1851, to 27,801 within twenty years of its establishment. The migration of workers into the area resulted in one fifth of Northumberland's population having been born outside either Northumberland or Durham.² Many came from Scotland and Ireland, just as they had into the coalfield.

Shipbuilding at Newcastle continued to gain in prominence until about 1850, but the previously adequate shipyard facilities, and the port of Newcastle soon became incapable of handling the larger iron vessels. It was too far inland, and insufficient attention had been given towards the dredging and deepening of the river. From now on, shipbuilding at Newcastle began to wane, whilst locations such as South Shields, Jarrow and Hebburn, being nearer the sea, became the new centres for this industry. Gateshead, too, entered the competition for trade and began to develop its own industries, together with export and import facilities.³

Shipbuilding at Sunderland on Wearside.

Sunderland, being only a few miles south of the mouth of the Tyne, had the advantage of close proximity to the coast. For

1. Hepple, L.W., op. cit., p. 125.

2. ibid., p. 127.

3. Atkinson, F., V.B., p. 142.

the greater part of the century the shipping industry was the largest employer, reaching its peak in 1861. At this time it was estimated that at least one in four of all males over the age of twenty were thus engaged.¹ But unlike the Tyne shipbuilders, the shipbuilders of Sunderland were slow to adopt the use of iron. Wooden ships were still being built in 1865, and once again the yards of the Tyne advanced to the forefront of production. The figures below show how the Wear yards lagged behind the Tyne by 1862.²

Tonnage of Iron Ships Launched. (1862)

TYNE

WEAR

32,175 tons

15,608 tons

Sunderland, however, was not completely displaced from the shipbuilding industry. By 1872, iron ships were being built, and output on the Wear again exceeded that of the Tyne. Progress continued, and between 1891 and 1901 more than 250,000 tons of shipping was launched.³ In common with the labouring populations of Tyneside and the coalfield, the workforce in the industries of Sunderland comprised labourers who had migrated simply to find work. Immigrants again arrived from Scotland and Ireland, and by 1851 there were 4,000 Irish and 2,300 Scots living in the town.⁴ Living

1. Atkinson, F., V.B., p. 145.

2. ibid., p. 150.

3. Clarke, J., 'Labour on the North East Coast', Durham County Local History Society, Bulletin No 12 April 1970, p. 33. See also Atkinson, F., V.B., p. 150.

4. Dougan, D., The History of North East Shipbuilding, p. 36.

conditions for these families were initially similar to those of workers in other rapidly expanding North East industrialised zones. However, by the 1880's, a comparatively high degree of affluence was apparent, since generally, high wages were paid. Indeed, in the terraces of artisan housing, over 80% were owner occupied, whilst in most other parts of the region, the percentage was as low as between 3% and 14%.¹

Along the North East coast, many other smaller ports existed, such as Amble, Alnmouth, and Hartlepool. Later in the century, Hartlepool became a thriving dock area as it competed for shipping trade. Undeterred by its close proximity to Teesside, a bid was made to enlarge its facilities; in 1882 the town absorbed neighbouring Seaton Carew, and Irish labourers arrived to carry out the great earth working operations involved in extending the docks and railway network.² It was destined, however, to be overshadowed by the development of Teesside which became one of the region's most important industrial centres.

Teesside, Stockton and Middlesbrough.

The nineteenth century development of Teesside owed much to the vision of both financial and industrial entrepreneurs, i.e. to members of the Pease and Backhouse banking families and to the iron masters Bolckow and Vaughan.

From 1825, it was practical to transport coal from the inland pits at Old Etherley, West Auckland, Witton Park and other

1. Atkinson, F., V.B., p. 109.

2. Wood, R., West Hartlepool, pp. 112-113.

collieries on the Stockton and Darlington Railway to the port at Stockton. Until 1831, Stockton was the only port on the Tees, but "so rapidly did export, outstrip facilities",¹ that the Railway Company was faced with the increasing problem of providing docks of greater capacity. This became practical by developing a site on the coast. Inevitably the demise of Stockton as the main Teesside port resulted from the construction of deep water facilities at Middlesbrough in 1831.² And as industrial development shifted towards the coast, essential infrastructure projects, such as the further provision of rail communications, caused the area to become the "great theatre of practical operations on railways".³ Reference to the map on page 26 shows that the North East railway network was largely complete by the mid 1850s.⁴ Middlesbrough became the new centre of commerce and industry, workmen arrived, but found no lodging houses except dwellings described as "sod huts of the mud and wattle variety".⁵ Such problems were resolved, and by 1851 the town had grown to 7,500 inhabitants.

Heavy engineering operations at Middlesbrough did not start until 1841, when the partners Bolckow and Vaughan established shops for the manufacture of brass and iron products. In 1846 they turned their attention to iron smelting. Furnaces were built at Witton Park because it was thought that iron ore could be obtained as a by-product of coal mining. Unfortunately, this was proved wrong, and therefore, ore had

1. Lillie, W., op. cit., p. 46.

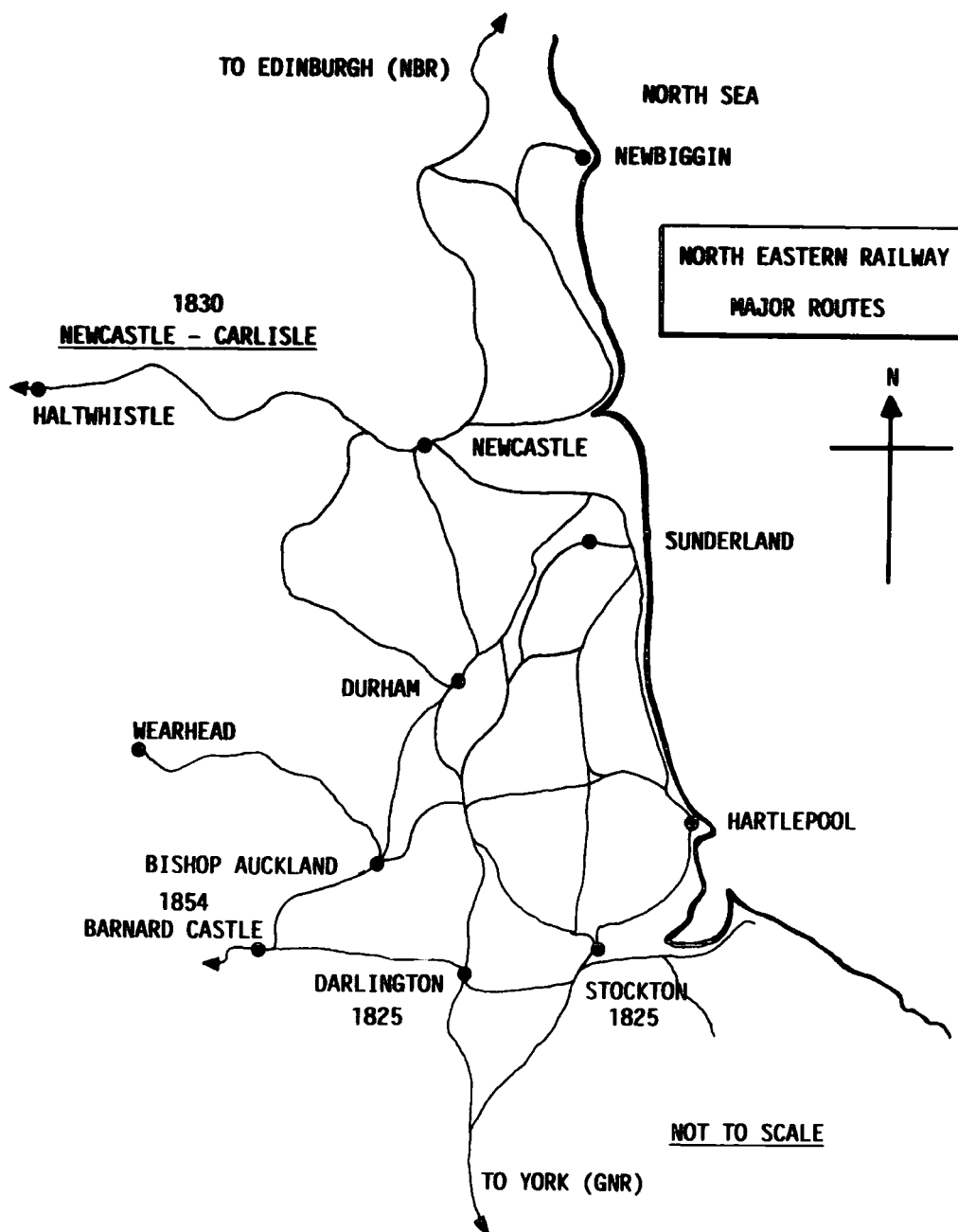
2. Pease, A.E., (ed.), The Diaries of Edward Pease, p. 377.

3. Tomlinson, W.W., The North Eastern Railway, p. 116.

4. North Eastern Railway Major Routes, map p.26.

5. Lillie, W., op. cit., p. 5.

NORTH EASTERN RAILWAY MAJOR ROUTES



to be imported, until local ore was discovered at Eston in Cleveland in 1850.¹ At this time there were no furnaces at Middlesbrough, but the cost of transporting ore and iron to and from Witton Park proved uneconomical. Hence, iron works were established at Middlesbrough in 1852 and operations ceased at Witton Park. Many people moved from Witton Park to Middlesbrough, which signalled that the latter was destined to become Teesside's foremost industrial centre and port. Further confirmation of this was evident by 1861, when the population exceeded that of Stockton by some 5,000 persons. Meanwhile, the demand for iron seemed to be insatiable; it was required in ever increasing quantities for railways, ship-building and other heavy engineering purposes. Such large-scale iron works, together with increasing expertise, effectively caused all North East metal production to be concentrated at Teesside. However, the lead smelting industry was to continue in the more remote parts of the region, because of the incidence of the mineral galena, the ore used in the lead smelting process.

iii. The Lead Smelting Industry.

The production of lead, carried out in isolated dales' communities during the nineteenth century, was of relatively short duration. Operations in Teesdale were typical of the industry and serve to illustrate its contribution to the region's economy.

The population returns for Middleton-in-Teesdale, the headquarters of the London Lead Company, clearly demonstrated the rise and decline of the industry. From Table 5 below it is seen that there was continued expansion of the village

1. Lillie, W., op. cit., p. 97.

between 1821 and 1871, after which came the demise of the industry.¹

TABLE 5.

Changes in the Population of Middleton-in-Teesdale in the Nineteenth Century.

DATE	POPULATION	DATE	POPULATION
1821	2,866	1871	4,579
1831	3,714	1881	4,412
1841	3,878	1891	3,812
1851	3,972	1901	3,588
1861	4,557		

Indeed, wherever lead was mined and smelted within the dale, former hamlets expanded into villages. Once established, however, communities such as Egglestone were never very large and remained fairly stable throughout the active period of the industry. Here, for instance, the population in 1831 was 623, in 1841 it was 617, and in 1851 it numbered 636.²

Excellent road communications existed between the dale's villages, being essential for the transportation of lead to the region's export terminals. Inevitably the railway was to penetrate the area. A line was constructed between Barnard

1. Victoria County History, Durham, Vol. II. pp. 261-274.

2. Stockdale, C., 'N. & B. Schools', p. 17.

Castle and Darlington in 1856¹ which was to enhance the market facilities of the former, thus tending to overshadow Middleton-in-Teesdale. This was fortuitous, because twenty years later the lead industry of the dales, with its headquarters at Middleton, suffered severely from the slump in lead prices. By the end of the century output had fallen from its peak in the late 1870's of some 30,000 tons annually, to almost nothing.² Consequently, the lead industry of the western dales was finished by the end of the century, and was followed by an exodus of families into the region's other thriving industrial centres. Reference to Table 5 on page 28 shows the effect this had on the population of the town of Middleton-in-Teesdale after 1881. With the demise of lead mining, there also disappeared the distinctive role of dual occupation typical of earlier nineteenth century dale's life, where the miner was also a hill farmer.

IV. The Social and Cultural Environment of the Region's Working-Classes.

i. Housing.

High density living conditions seem to have been the norm for the working-classes throughout the nineteenth century, houses were built as cheaply as possible and generally in long terraces. Facilities which today are taken for granted, such

1. Nicholson, C.P., Those Boys O'Bondgate, p. 54.

See also Wilcock, D., 'Butter Wives and the Darlington and Barnard Castle Railway', Durham County Local History Society Bulletin, No. 11. Nov., 1969, p. 41.

2. Atkinson, F., Life & Trad., p. 45.

as sanitation, drains and made up roads were usually non-existent. But there was one example of the 'model town'. The London Lead Company had from the outset housed its employees in comparatively sound dwellings as was the case at Middleton-in-Teesdale. Here, they were arranged in rows of uniform, but neat and convenient cottages, situated in a garden, a portion of which was divided to every dwelling.¹ Also some agricultural workers were well provided for, especially on the very large Northumbrian farmsteads. Here again, there were terraces of well built houses which were the dividend of well funded and prosperous estates.² These areas, however, were not typical of the expanding industrial communities, where normally the first requirement of the migrants was shelter. This resulted in the hasty provision of poor quality dwellings; indeed, as Frank Atkinson has suggested, much of this accommodation could not be called housing.³ The areas in which such buildings proliferated were the coalfield, the river side engineering developments and the iron works' centres. Obviously, there was little that the migrants could do for themselves, hence the tremendous scope available for contemporary property speculators. Furthermore, in the mining communities, as elsewhere, the property developers were also usually the employers. For instance, at Witton Park, in 1846, it was believed that speculative housing development

"explains the lightening growth of the place, and the building of many streets of houses almost in the time it takes to sanction plans for one dwelling in this

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1. Hunt, C.J., The Lead Miners of the North Pennines in the Eighteenth and Nineteenth Centuries, p. 215.
 2. Atkinson, F., V.B., p. 62.
 3. ibid., p. 91.

enlightened age".¹

(this commentary was written in 1921).

From the above comment, it may be assumed that as in other similar villages, these properties were very "shoddily built" with "thin walls of poor quality brick".²

A miner's house in the nineteenth century was small, and early examples were only two rooms deep plus an added kitchen - scullery, as was usually the case at villages such as Easington during the first half of the century.³ It was not until much later, that houses of two stories in height were built. These were generally known as 'Kitchen Houses' and were also two rooms deep.⁴ Typically, such properties were to be found throughout the industrial North East at places like Boldon Colliery, Gateshead, Jarrow and the Hartlepoons.⁵ The difficulties experienced by relatively large families, several members of whom would be engaged in shift work, must have added to the misery of the work-place itself. The problems involved in housing the working-classes were not confined to the communities of the coalfield. The heavy engineering centres of Tyneside, for example, shared similar conditions. Many of the workers coming into this area found themselves living in the Scotswood Road district, where cheap dwellings were erected in "rows upon rows of terraced type flats which trailed straight up the hillside".⁶ The high density of these communities even surpassed that of

1. Dando, T., op. cit., p. 8.

2. Ridley, N., Portrait of Northumberland, p. 40.

3. ibid., p. 103.

4. ibid., p. 106.

5. loc.cit.

6. Bean, D., op. cit., p. 97.

the terraced rows of the mining communities. Here, as elsewhere, different ethnic groups, overcrowded dwellings, and no shortage of alcohol because there was a 'pub' on every corner of both Scotswood and Elswick Roads, led to social tensions, especially between Protestants and Catholics. Perhaps this was inevitable under such conditions, since the Roman Catholic population was a minority group, and therefore, a suitable target for the relief of frustration. In 1851, confirmation of the limited Catholic presence was provided by the Census Returns, when in County Durham, out of a total of 621 places of worship, only 20 were supported by Catholics.¹ Other industrial areas of the region which had attracted Irish immigrants also revealed Roman Catholic permeation. For instance, in 1852, both Stockton and Darlington had Catholic populations of between 800-900 and 900-1,000 respectively.² Undoubtedly, inequalities and poverty contributed towards social unrest, yet living standards improved by the end of the century as a result of greater economic growth. Meanwhile, it was not surprising to find that around the middle of the century, many North East towns were noteworthy for their excess of social evils. Durham County in fact was the most drunken County in England until the mid 1850s.³ But prostitution and drunkenness were to remain a common problem throughout the region.⁴ Furthermore, deficiencies in the provision of utilities from earlier times remained, sanitation and running water had not been given the priority demanded by the increase of both

1. Atkinson, F., V.B., p. 126.

2. Heyes, J.F., 'Roman Catholic Education in County Durham 1580-1870', (M. Ed. Durham, 1969), p. 234.

3. Stockdale, C., 'N. & B. Schools', p. 13.

4. McCord, N., N.E., p. 160.

population and disease.

ii. Health and Sanitation.

People living in the expanding towns were most vulnerable to the effects of unhealthy living conditions. Improvements eventually appeared as a result of the Public Health Act 1848, when builders had to include in their plans, schemes for the supply of water and waste disposal. Prior to the enforcement of the Act, piped water generally did not exist. Its supply, therefore, took one of several modes: for instance, the poor either begged or stole, or people carried buckets from wells and pumps; others relied upon collecting rain water in cisterns from the roofs of houses.¹ This method prevailed until at least 1860 in the mining community of Bedlington. City dwellings fared little better. At Newcastle, in 1848, only 1,350 houses out of a total of 15,000 were supplied directly with water, whilst the situation at Sunderland was very similar.² After the middle of the century, the responsibility for the supply of water was beginning to be taken seriously, and water companies were set up for that purpose, e.g. the Newcastle and Gateshead Water Company and the Sunderland and South Shields Water Company, established in 1851.³ But the related problem of inadequate sanitation received less attention than did the supply of water. Such problems remained until well into the present century, especially in the poorer terraces of the industrial communities.

1. Muthesius, S., The English Terraced House, p. 55.

2. Atkinson, F., V.B., pp. 117-119.

3. ibid., pp. 119-120.

In the country areas the norm was the privy at the bottom of the garden, and even in larger communities, such as the village of Coxhoe, in 1842, the miners' houses were not provided with a "convenience of any kind, or any small building such as is usually considered indispensable and necessary".¹ Some families were more fortunate in that they were able to share both communal earth lavatories and communal washing and drying facilities behind their houses, as was the case at Leadgate.² Arrangements such as this were evident for much of the century and beyond.

Living in such conditions encouraged the spread of disease, therefore, it was not surprising that cholera was so devastating and frequently present. It spread from Europe to Britain in 1831, when the first case was identified at Sunderland.³ Further epidemics occurred in 1848, 1853 and 1866: during the 1848 outbreak, four thousand people died in the counties of Northumberland and Durham. Treatment for such illnesses was rudimentary, and the possibility of hospitalisation was only won later as a result of the pioneering efforts of Florence Nightingale. But her published recommendations of 1859, for the management of hospitals, were not adopted with any degree of immediacy.

iii. Methodism.

It was against a background of working-class deprivation that schemes for the education of adult artisans were introduced. Perhaps it was surprising that the seeds of self-improvement

1. Atkinson, F., V.B., p. 21.

2. Muthesius, S., op. cit., pp. 61-62.

3. Atkinson, F., V.B., p. 94.

germinated. Yet they did, and within the region's mechanics' institutes, facilities were established wherein some found the 'ladder' towards social and educational improvement.¹ Perhaps the incidence of the institutes was due, in part, to the early example shown by the evangelical Primitive Methodists in their successful Sunday School work. They continued their pioneering mission throughout the nineteenth century and into the twentieth. A contemporary observer pointed out that if non-conformists such as these were labelled 'Dissenters', then it was hardly applicable, since frequently, "they had nothing to dissent from"; the Established Church was not to be found within many communities; indeed, Methodism was the

"only agency that taught them, enlightened them,
and fed their hungry souls".²

In fact, there was seemingly a reticence on the part of the Established Church to introduce schools for the education of the children of the poor until at least 1860.³ The transforming effect of Methodism, however, was not accepted without reluctance in some places. At Sunderland, for example, in the 1860s after revival had been experienced at Newcastle, it was reported that even though the "people were of similar type ... there came not the same success".⁴ Moreover, also at Sunderland, the Mechanics' Institute was similarly rejected and eventually became one of the first to close.⁵ But like many mechanics' institutes, the Primitive Methodists fought against lack of response over long periods

1. See below, p. 100. pp. 189-190. p. 224. pp. 239-240.

2. Parkinson, G., op. cit., p. 9.

3. Stockdale, C., 'N. & B. Schools', p. 29.

4. Dawson, J., op. cit., p. 168.

5. See above, p. 85.

of time. At Middlesbrough, for example, where the Methodists were up against a "spirit of opposition by High Churchmen",¹ they persevered, and in 1897 witnessed a remarkable revival which continued for four years.² Drunkards and gamblers became willing disciples.³

The evangelical revival also touched some members of the middle-classes who were both able and willing to assist the working-classes in the cause of self-improvement. For instance, Robert Ingram Shafto of Bavington Hall, near Hexham, a member of the family of coal owners of Whitworth Hall, Spennymoor, County Durham, was one such person. He took part in the evangelisation of his neighbourhood and built a Sunday School at Hexham. The work thrived, and a large new chapel was built in 1863.⁴ Whilst the success of Methodism was not dependent upon aid from the upper middle-classes, the mechanics' institutes generally were, and most would never have been established without such philanthropy.

iv. Leisure.

Towards the end of the century, many improvements in the social and cultural life of the region's working-classes had been achieved. They were able to participate in popular leisure activities such as cycling, made possible by better roads and the invention of the pneumatic tyre in 1888.⁵ People, too, began to take holidays at sea-side resorts:

1. Patterson, W.M., op. cit., pp.41-42.

2. ibid., p. 60.

3. ibid., p. 61.

4. Patterson, W.M., op. cit., pp. 185-187.

5. Atkinson, F., V.B., p.159.

support for football teams also caught the imagination, and to meet this activity, Newcastle United, for example, acquired the ground known as St James' Park in 1895. Attendance at theatres, and the establishment of department stores such as Bainbridges and Fenwicks at Newcastle also reflected the increasing well being of society.

It may be said that one token which reflects improved status in the 1990s, is the acquisition of a motor car. If the world, therefore, is now full of cars, it was said in 1900 that the world was full of pianos;¹ the piano was the new status symbol of the working-classes. Small traders and artisans diverted precious time and money towards the purchase of an instrument and sheet music. To meet the demand, London boasted at least one hundred and seventy five piano factories by 1900.² Improved amenities and working conditions, however, did not totally alleviate the legacy of ills generated during the nineteenth century. For instance, many families were still subjected to depressed housing conditions for several years after the turn of the century. Life in the slums of the previous age also continued to create problems concerning health and sanitation; in fact the declaration of the designated 'Category D' villages in Durham County in 1950, was an attempt to prevent further degeneration. Villages such as Witton Park and other old mining communities were actively encouraged to decline in the hope of eliminating their inherent problems.³ Since then,

1. Hildebrandt, D., Piano forte - A Social History of the Piano, p. 179.

2. ibid., pp. 123-124, 180.

3. Dewdney, J.C., Durham County and City with Teesside, p. 439.

PLATE 2
WITTON PARK: NINETEENTH CENTURY TERRACED HOUSES

Source The Durham Book, J. Wilson, p. 81.



most of the old rows of terraced housing in communities such as that shown in Plate 2 on page 38 have disappeared, and the people have been relocated on new council housing estates.¹

The description of life in the North East during the nineteenth century presented in the foregoing account, gives at best only a glimpse of working-class experience. Yet it serves the purpose of providing an insight into the industrial, economic and social background into which the mechanics' institutes were introduced.

1. Wilson, J., The Durham Book, p. 81. The terraced housing shown in Plate 2 on page 38 was of a typical street at Witton Park.

Chapter 2.

The Origins of Mechanics' Institutes and their Introduction into North East England: 1824-1833.

1. The Origins of Mechanics' Institutes.

The Mechanics' Institute Movement of the nineteenth century in Great Britain was clearly associated with George Birkbeck from the outset. Although there had been societies and institutes established during the eighteenth century such as the Spitalfield Mathematical Society (1717) and the Lunar Society of Birmingham (1775), both of which provided scientific lectures, adult scientific instruction for artisans began at Glasgow in 1800. Birkbeck, then teaching at the Andersonian Institution, had difficulty in obtaining scientific apparatus from only one manufacturer for use in his classes. This problem was resolved when he made contact with a variety of tradesmen and instrument makers who worked under his supervision to produce what he required.¹ So eager were these workers to understand what they were doing that he established a class for their instruction. It proved popular, and by the end of the first term there were over five hundred members.² The success of this class continued, and by 1823 its members had formed the Glasgow Mechanics' Institution. In England, many of the scientific societies founded during the eighteenth century continued to function. The Birmingham Brotherly Society was one example, which gave

1. Kelly, T., G.B., p. 28. See also Burns, C.D., A Short History of Birkbeck College, p.

18.

2. Burns, C.D., B. Coll., p. 18.

elementary instruction in subjects useful to manufacturers.¹ Although this society existed at the time of the foundation of the Birmingham Mechanics' Institution in 1825, they were in no way connected with each other.

In the meantime, Birkbeck left Glasgow, and in 1804 on coming to England, was engaged in teaching science courses held in Birmingham, Liverpool, and Hull, before taking the decision to practise medicine in London. But the attraction of teaching science was strong and his involvement continued. He became a founder member of the Aldersgate School of Medicine, where he probably lectured, and also of the London Institution, whose object was the "general diffusion of science, literature and the arts."² Whilst these establishments were not especially created for the benefit of the working-classes, there was in London an interest in science among working-class adults. To meet this need, Mr T. Claxton set up a Mechanics' Institution in 1817. Its members were all working men who met at each other's homes but by 1820 the venture had ceased to exist.³ Despite its short life, this first attempt in London had confirmed the demand for knowledge among skilled workers. Moreover, the application of science to the place and function of work was by now seem to be transforming society within the context of the Industrial Revolution. The incidence of the Mechanics' Institute Movement in England sprang from such prevailing conditions which became evident during the early years of the century. Mention has been made already of the interest shown

1. Tylecote, M., The Mechanics' Institutes of Lancashire and Yorkshire before 1851, p. 4.

2. Kelly, T., G.B., pp. 45-47.

3. Burns, C.D., B.Coll., p. 19.

by skilled workers to gain some knowledge of technology, but in addition, a general movement for the provision of elementary education was observed, whilst the working-class voice called for political and social reform. Significantly, Dr Birkbeck had become involved with prominent leaders of Utilitarianism such as George Grote; liberalism and reform were high on their agenda for discussion, and it was from this circle of like-minded people that he drew support for the establishment of the London Mechanics' Institution.¹ Within this parent Institution were encapsulated the principles upon which the Movement was to develop throughout England and Wales. An appreciation, therefore, of its early history will be useful as a point of reference.

The London Mechanics' Institution: 1823-1833.

Being voluntary bodies, Mechanics' Institutes were dependent upon the presence and interest of a prime mover, or group of initiators, who would attract sufficient financial patronage to guarantee the foundation of a society. Once such guarantees had been undertaken, there was the task of ensuring continued financial viability. This was normally the prerogative of an elected committee whose responsibilities also included the oversight of an institute's general facilities and activities. These requirements were met within the London Mechanics' Institution from the time of its foundation in 1823. Supporting the scheme was not only George Birkbeck, but also Henry Brougham. Brougham, the Whig politician, lawyer and journalist, became closely associated with Birkbeck, and had considerable influence over policy adopted by the Movement throughout its early years.

1. Burns, C.D., B. Coll., p. 21.

Responding to the advertisement for the establishment of the Institution, two thousand interested persons attended an inaugural meeting. They included "not only mechanics, but many most respectable workers, engineers, manufacturers, and tradesmen."¹ However, it was reported in a contemporary issue of The Examiner, that "not a single Tory attended the meeting."² Nevertheless, such interest on the part of potential clients must have fired the imagination of other promoters, since in many parts of the country similar institutions were set up. Moreover, the London Mechanics' Institution seemed to embody the essence of democracy, when it was recorded that the committee comprised not only Birkbeck and men of similar status, but also members from the working-classes. The latter included a shoemaker, a painter, a glazier, a printer and a tailor.³

Following the decision to go ahead with the scheme, a subscription list was opened, and donations were received from Birkbeck, Brougham, Hansard, the editor of the Morning Chronicle, and others.⁴ Now that the prospect of the Institution becoming a reality was evident, and with Birkbeck elected as President, both opposition and support were overtly manifested, especially in the contemporary news media. For example, Bell's Weekly Messenger, expressed the view that it was desirable to confine knowledge to a few, whilst The Examiner was supportive of the Society.⁵ The ensuing controversy was followed up in the Movement's own

1. Kelly, T., G.B., p. 83.

2. Burns, C.D., B. Coll., p. 25.

3. loc. cit.

4. ibid., p. 26.

5. Burns, C.D., B. Coll., pp. 27-28.

publication, The Mechanics' Magazine. Its readers were reminded that Lord Bacon had said that "Knowledge is Power";¹ conversely, it was implied that 'ignorance is weakness'. Political hostility towards education, especially among the Tories,² overshadowed at least the first three decades of the century, when it was feared that an "educated poor would undermine the social order". Indeed, it was not until 1833 that a measure of relief was introduced, when the Government first made public money available for the provision of elementary schools. Nevertheless, the London Mechanics' Institution was opened to students early in 1824, when instruction was provided for some 1,300 mechanics, of whom "nearly one thousand have paid their subscriptions".³

At this stage the Institution had no permanent building. Hired rooms variously included those at an inn, a chapel, and the homes of members. Its increasing popularity eventually demanded more extensive and suitable premises. Accommodation was found, but the rental was beyond the resources of the membership alone, and this deemed that aid from wealthy patrons would be needed. Such dependency was condemned by members who knew that the Glasgow Institute was self-supporting. The situation at Glasgow, however, was not to be repeated in London and the Institution necessarily accepted voluntary support from outside, and became firmly established in new rooms in Southampton Buildings where it remained until 1885.⁴ But the scope of the work carried on in lectures and classes required additional financial investment, which in

2. Kelly, T., G.B., p. 79.

3. Silver, H., English Education and the Radicals 1780-1850, p. 34.

4. Burns, C.D., B. Coll., p. 29.

turn caused further demands to be made upon those who could afford to provide such support. Subscribers to the new rooms and facilities included James Mill, Grote, Cobbett, Bentham and others. It will be seen later how the early experiences of the London Mechanics' Institution were frequently repeated in the provinces, and especially in the North East.

The chief aims of the London Mechanics' Institution were the provision of:

1. "the rapid promotion of general science by the greater number of persons, engaged in the observation of phenomena.
2. the extensive diffusion of rational information among the general masses of society.
3. the creation of intellectual pleasures and refined amusement tending to the general elevation of character."¹

The fulfilment of the first two aims was to be achieved through the medium of the lecture, with a selection of subjects considered to be appropriate. Hence, subjects chosen included the principles of natural science and the elements of economics.² Controversy attended the choice of subject matter, since it was thought by some that science might obscure the distinction between the social classes, and mathematics might lead to the unsettling of the working-classes, causing them to demand better conditions. Economics, it was felt, might induce the subversion of the moral base upon which the nation's excellence depended.³ Despite such criticism, lectures were delivered on a range of scientific

1. Hudson, J.W., H.A. Ed., pp. 54-55.

2. Kelly, T., G.B., p. 81.

3. Burns, C.D., B. Coll., pp. 39-40.

subjects, including electricity, optics and political economy. The arts were not ignored, and by 1825 classes for instruction in French, drawing, and landscape painting were available.¹ Furthermore, it had been found that there was a great need among the students for instruction in elementary subjects, therefore, deficiencies in early schooling led many into the systematic classes arranged for teaching Arithmetic, Reading, Writing, and Spelling.² However, the essential character of the Institution was determined by the emphasis placed upon instruction in the sciences.

Almost immediately, it was found that some modification to the lecture programmes was necessary; long courses were academically beyond most of the members. As a result, various 'one off' discourses were introduced. This expedient measure identified the need for widening the scope of the curriculum. Consequently, diverse subjects such as shorthand, music and Latin were among the classes formed.³

The 'creation of intellectual pleasures and refined amusements,' i.e. the third aim of the Institution, was essentially derived from the library and reading room, both of which became popular features. These facilities expanded rapidly. The library, for instance, containing 1,960 volumes in 1826, grew to over 4,000 by 1829.⁴ A museum exhibiting various scientific specimens was also created. But perhaps the most significant feature from which 'refined amusement' was obtained, was the introduction of a range of social

1. Burns, C.D., B. Coll., pp. 39-40.

2. ibid., p. 54.

3. Kelly, T., G.B., pp. 119-120.

4. Kelly, T., G.B., p. 120.

activities. These included entertainment, excursions, tea-parties, balls and games events. From what seemed to be a balanced record of progress, the Institution, had, by the early 1830s, settled down "as a going concern"¹ and was an example worthy of emulation. Features such as lectures, classes, libraries, newsrooms and social facilities, were to become central to mechanics' institutes established throughout the country.

Throughout the early years of the Movement, Brougham's publication in 1825 of a work entitled Practical Observations upon the Education of the People, addressed to the Working Classes and their Employers had undoubted influence. In this, he addressed a range of issues including membership, the curriculum, reading material, methods of instruction and estimation of costs. Unfortunately, his 'observations' on the condition of the proposed membership of the institutes were generally mis-informed. He argued that even the poorest have a little time and a few pence which they can spend on books, whilst believing that "impediments which might ... retard ... their progress, may be removed." "Their difficulties", he insisted, "may all be classed under one or other of two heads, - want of money, and want of time."² He failed to realise that such obstacles could not be removed easily. Yet, the institutes were supposedly for the benefit of the working-classes. Certainly, the membership of the London Mechanics' Institution included those who were properly described by the word 'Mechanic', i.e. "every man who earned

1. Kelly, T., G.B., p. 120.

2. Brougham, H., Practical Observations upon the Education of the People addressed to the Working Classes and Their Employers, p. 42.

his living by the work of his hands;" whilst it was also suggested that, "if at any time more persons should desire to become members than could be accommodated, preference should be given to such persons as worked at trades, or in some way assisted in them for daily, weekly or quarterly wages".¹

Unfortunately, the artisan membership was affected economically by the fortunes or otherwise of the trades at which they worked, a point which together with long working hours, had been overlooked. Hence, within two years of the foundation of the Institution, the depression of 1826 caused a decline in membership. At the time, the membership fee was 24/-; this was the highest in the country, and represented a relatively large sum of money for a working man. The membership rose did not increase again until the 1840s, before which date it had more or less stabilised at around a thousand. In 1830, the total number of members was 1,144, of whom 800 were classed as mechanics,³ but by 1839, the number was 1,081, of whom two thirds were not mechanics, but, "of a different class of men, viz. merchants and attorney's clerks".² Clearly, the above statistical analysis of the membership indicated the presence of a divergence, not only of social class but also of interests. This pattern was repeated throughout the country.

The London Mechanics' Institution, in addition to being an educational agency, provided the environment in which the seeds of the democratic-rights initiative might have germinated. Indeed, the rise of Chartism was due, in part, to

1. Kelly, T., G.B., p. 86.

2. loc. cit.

3. Burns, C.D., B. Coll., pp. 56-57.

the support of London artisans together with other distressed groups, who were threatened or doomed by the advance of industrialisation.¹ But despite the presence of sympathisers who were leaders in the working-class Radical Movement,² there seems to be no record of involvement on the part of the Institution. Within the confines of the Institution, therefore, the membership obviously conformed to the imposition of a ban on both political and religious allegiances. Birkbeck in fact, had insisted that "the Institution will not concern itself with either".³ Despite this generally applied principle throughout the Movement, there were exceptions where a more liberal attitude was displayed.⁴ Even so, Radicalism, in its various guises, from "philosophical to proletarian, was too diffuse and divided"⁵ ever to seriously affect the status of the institutes. Nonetheless, the early Mechanics' Institute Movement was regarded with suspicion, indeed, the London Mechanics' Institution was seen as a party affair, since it was actively supported by Whigs, Radicals and Benthamites. It did, however, gain the support of Quakers such as William Allen, and evangelicals such as William Wilberforce. Between 1823 and 1833, the press commented on such topical issues as national education and on the work of the Movement and of those involved. The Quarterly Journal of Education, for example, reflected upon the value of education and reported; "That nationwhich neglects the education of

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1. Frazer, W.H., 'Trade Unionism', Popular Movements 1830 - 1850, J.T. Wood (ed.), p. 110.
 2. Kelly, T., G.B., p. 16.
 3. ibid., p. 92.
 4. See below, p. 83.
 5. Frazer, W.H., op. cit., p. 16.

its members will necessarily fall behind those who cultivate and extend it, and will suffer the consequence of not following the order of things which the cause of human affairs requires."¹

Brougham, especially attracted criticism, not entirely because of his involvement with the London Mechanics' Institution, but due to his role within the 'Society for the Diffusion of Useful Knowledge'. Encouraging the use of its publications in the mechanics' institutions brought reaction from the Poor Man's Guardian in 1832. It described the Society as "disgusting", and "has spread abroad more canting, lying, mischievous trash, than perhaps any other Society that ever existed."² Both individual protagonists and antagonists also published their opinions during the first decade of the Movement's history. Lord Byron clearly sympathising with the Movement, saw dangers of which he gave warning. He stated in an article published by the Mechanics' Magazine, that,

"unless all the offices in such an institution are filled with real practical mechanics, the working-classes will soon find themselves deceived. If they permit any but mechanics to have the direction of their affairs, they will only become the tools of others."³

Conversely, Lord Lowther declared in 1831, that,

"even now, Mechanics' Institutions and newsrooms are as baneful and ruinous to the country as other Tories considered public houses to be their members are

1. The Quarterly Journal of Education, Vol. V Jan-April, 1833, p. 234.

2. Silver, H., op. cit., p. 42.

3. Mechanics' Magazine, Volume Third. Sat., 6th May, 1825. p. 68.

all politicians who fancied themselves oppressed and thought that all should come down to their level."¹

Yet, whilst such opinions were being voiced, the growth of a conscious and political free thought among working men became a phenomenon of the period, just as were the more familiar triumphs of evangelical Methodism. If the radical enlightenment had made its first effective mark among intelligent artisans in the days of the French Revolution, it was seemingly now firmly lodged abroad in England.² This was neither confined to London, nor to the Mechanics' Institute Movement. In fact within the institutes established throughout the country, especially in industrial regions such as the North East, artisans were being provided with the means of acquiring the tools of enlightenment, i.e. the skills of reasoning, organisation, learning and the acquisition of knowledge.

II. The Introduction of Mechanics' Institutes to the North East.

At the end of 1823 the London Mechanics' Institution was the only one to have been established in England; others existed, but they were in Scotland where the Movement first began. By the close of 1824, several more had been founded, of which ten were in England, eight were in the north, at Manchester, Sunderland, Lancaster, Kendal, Eyam, Leeds, Newcastle and Alnwick.³ Of these eight, three, i.e. the Newcastle Literary,

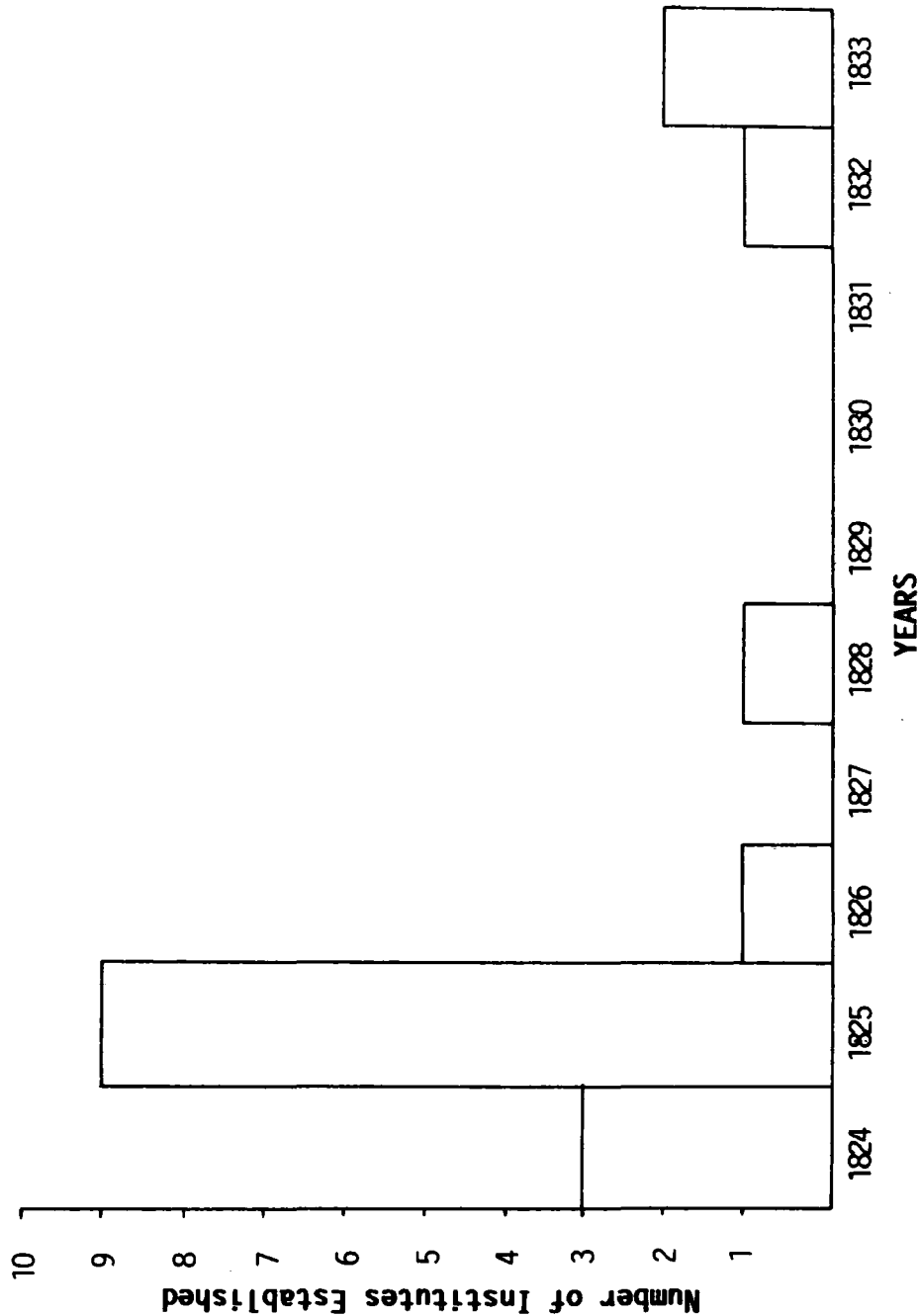
1. Aspinall, A., Politics and the Press (1780-1850), p. 12.

2. Williams, G.A., Rowland Detrosier. A Working Class Infidel. 1800-34, p. 3.

3. Kelly, T., G.B., p. 209.

GRAPH 1

Graph 1 Mechanics' Institutes and Kindred Societies
1824 - 1833



Scientific and Mechanical Institution, the Sunderland Mechanics' Institute and the Alnwick Scientific and Mechanical Institution were in the North East region. The first decade of the Movement's progress was not only encouraging, but also fraught with uncertainty. This was illustrated in 1825, when the Movement made a positive advance, and when, throughout the country, seventy new institutes were founded. Growth at this rate, however, was halted in the next year, a trend which was also reflected in the North East. The depression of 1826, one of the main contributory factors, retarded progress until about 1830. But soon afterwards, both the passing of the Reform Bill in 1832, and the collapse of the early trade union movement in 1834, initiated a revival when again, mechanics' institutes were established with a spirit of urgency.¹ By the end of 1825, twelve institutes had been established within the North East region, thus reflecting the national peak.² Moreover, it compared favourably in this respect with other industrial regions. Lancashire, for instance, boasted five new institutes and Yorkshire thirteen:³ a total of eighteen for a large industrial area.

The initial enthusiasm for establishing institutes, raises certain questions which must be addressed:

- i. how was information concerning the work of the Movement transmitted to the North East?
- ii. who was responsible for translating theory into practice?
- iii. by what means were the institutes introduced?

It must be remembered, too, that whatever was achieved

1. See below, p, 73.

2. Kelly, T., G.B., p. 208. See Graph 1 p. 52.

3. Kelly, T., G.B., pp. 209-210.

between 1823 and 1833, happened in the days before rapid communication by telephone, radio and other forms of mass media was available. Indeed, the main form of communication was that of the written word and its subsequent circulation. The first question is dealt with under the following heading.

Communicating information about the Mechanics' Institute Movement.

From the beginning, the Movement had its own publication i.e. the Mechanics' Magazine, which first appeared in August, 1823. It contained articles mostly of a scientific nature, and more importantly, accounts of the work and experiences of institutes throughout the country. Other sympathetically disposed magazines too, such as the Mechanics' Oracle, in 1825, praised Birkbeck for having used his talents to make knowledge available to "those most in need of it, in spite of much scepticism and hostility."¹ And Brougham's pamphlet, Practical Observations upon the Education of the People, addressed to the Working Classes, and their Employers, had, within one year of its publication, i.e. 1825, reached its twentieth edition.² It must be assumed, therefore, that the distribution of such pertinent advertising material was widespread. Mechanics' institutes, as has been shown above, were certainly newsworthy, since articles concerning their work were contained in many contemporary newspapers and in publications such as the Quarterly Review and John Bull. Both addressed the subject in 1825. The former suggested that mechanics' institutes could never become popular when "Education and Savings banks have found but few advocates

1. Kelly, T., G.B., p. 146.

2. Tylecote, M., L. & Y., p. 22.

among master-manufacturers,"¹ whilst the latter, expressed fears especially about those philanthropists who were involved, and "the blackness of their designs."² Despite the generally negative nature of the above reports, together with Tory allegiance to both publications, they would have been read by the articulate rising middle-classes, who were in a position to further the cause of the Movement if so inclined. Therefore, it may be reasonably assumed that through the medium of newspapers, periodicals and magazines, an awareness of the Movement was brought to the minds of those whose philanthropism might be applied in initiating and supporting individual mechanics' institutes. Throughout the North East, as elsewhere, there were many who responded to the cause of providing adult education. The Birmingham Mechanics' Institute, for example, founded in 1825 had as its chairman Francis Lloyd who was a member of a Quaker banking family;³ likewise Lord Belper, a wealthy industrialist played a prominent part in the funding of the Derby Mechanics' Institute.⁴ Generally, promoters were men from the leading business and land-owning families including industrialists, and members of the aristocracy. Furthermore, in the first chapter it was shown that such families were often

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1. Quarterly Review, Vol. XXXII. June-October, 1825. Article VI. 'Mechanics' Institutes and Infant Schools', p. 425.
 2. John Bull, Vol. V. No. 51. 18th Dec., 1825, p. 404.
 3. Turner, G.M., 'The Development of Mechanics' Institutes in Warwickshire, Worcestershire, and Staffordshire, 1825-1890: a Regional Study', (M.Ed., Leicester, 1966), pp. 20-21.
 4. Chadwick, A.F., 'Derby Mechanics' Institute, 1825-1880', (M.Ed., Manchester, 1971), pp. 39-44.

strategically situated, especially in the developing centres of industry. Among the industrialists and businessmen of the region who became involved, were men such as Ralph Ward Jackson of West Hartlepool, George Stephenson of Newcastle upon Tyne, several members of the Pease and Backhouse families of Darlington, Bowes of Streatlam Castle, Barnard Castle, the Duke of Northumberland and Joseph Cowan of Blaydon. The extent and importance of the patronage of some of these men was evidence of their commitment to the founding of mechanics' institutes throughout the region. Thus, it was men of this calibre who accepted voluntarily the responsibility of translating theory into fact.

Answers to the second and third questions will be given by first describing the status and over-all involvement of some of these leading figures of the region under the following heading.

The Promotion and Patronage of Mechanics' Institutes in the North East.

Three of the region's philanthropists, i.e. Henry W.F. Bolckow, Ralph Ward Jackson, and Joseph Cowan were typical of many nineteenth century industrialists who became associated with mechanics' institutes. They were born early enough in the century to have been able to render informed and mature support to the new Movement, moreover, they possessed wealth and were employers of men.¹

1. Information re: Bolckow, Vaughan, and Jackson is taken from a pamphlet by Tomlin, D.M., and Williams, M., Who was Who in Nineteenth Century Cleveland, pp. 10-40.

Henry W.F. Bolckow.

Bolckow was a native of Germany, born in Mecklenburg in 1806. He was employed in the port town of Rostock where he met an English corn merchant; in 1825 he emigrated to England, and came to Newcastle where he was joined in partnership with the same corn merchant. His role was that of accountant and foreign correspondent. By 1840, he had acquired a fortune worth over £40,000 and around the same time met John Vaughan. They formed a partnership with a view to becoming involved in the foundry industries. From Joseph Pease, they purchased a site in Middlesbrough and started operating in 1841, specialising in brass and iron work; they also manufactured chain, cable, rails and steam engines. Their business venture expanded when they established iron works at Witton Park and later at Middlesbrough in 1852. Bolckow assumed a degree of importance in public life and became the first mayor of Middlesbrough in 1853. Another office which he occupied was that of representative of Middlesbrough on the Tees Conservancy Commission. His philanthropism extended towards the aid of various local enterprises, and included the sum of £500 donated towards building a hospital in 1859, and a gift of £6,583 was given to St. Hilda's Church for the establishment of a day school. He was so wealthy by 1864, that he presented the town of Middlesbrough with 71 acres of land for a public park. Both Bolckow and Vaughan played an important part in the affairs of the Middlesbrough Mechanics' Institute from its foundation.

Ralph Ward Jackson.

Ward Jackson was also born in the year 1806, at Normanby

Hall, Normanby. He received his education at Rugby before training as a solicitor. On becoming involved in the affairs of West Hartlepool, he suggested building a dock and harbour to coincide with the construction of the Clarence Railway which ran from Stockton to Hartlepool. So successful was the railway venture that he proposed its extension to West Hartlepool. The docks were opened in 1847 for the transportation of coal. By 1853, a second dock was opened, whilst Jackson pioneered further communication projects such as the North Yorkshire and Cleveland Railway. Like Bolckow, he had vast resources of disposable wealth and initiative, both of which he used to benefit his own locality. For instance, he gave a site and the stone, with which was built Christ Church at West Hartlepool in 1854. In 1853 he applied for a 'Town Improvement Act' for West Hartlepool. Royal Assent was confirmed in 1854. Jackson was also involved in adult education in West Hartlepool, he gave a donation for building the Athenaeum in which the Mechanics' Institute became established.

Sir Joseph Cowan.

Joseph Cowan, being in many respects similar to the two previously discussed personalities, was also born early enough in the century to have been able to assist in the directing of contemporary local affairs. His interests were both wide and equally beneficial to communities in and around Blaydon. The family seat was Stella Hall, whilst their source of wealth was from various businesses established during the early years of the century. In 1828, for instance, Cowan was involved in the manufacture of bricks, and later in the manufacture and distribution of coal gas. Indeed, Blaydon was

first lighted by using gas in 1853. The supply was also offered to the public for lighting the streets; for this no charge was levied. Joseph Cowan rose to the Chairmanship of the River Tyne Improvement Commission, and by 1865 had been elected Member of Parliament for Newcastle upon Tyne. He took an active interest in the affairs of local workmen which he promoted in discussion with other like-minded individuals. He was involved in the Mechanics' Institute Movement, especially at Blaydon and Winlaton. At the founding of the Blaydon Institute his interest was such that he rifled Stella Hall for pictures and a piano to be used there. However, his enthusiasm for helping the working-classes began in 1826 when he became a founder member of the Blacksmith's Friendly Society, the precursor of the Institute.¹

Wherever it was deemed that a mechanics' institute should be established, recourse was frequently made to the example provided by the London Mechanics' Institution, since it was regarded as the natural blue print. It was questioned about general points of organisation, such as "rules and regulations, the structure of its facilities, and its operating systems".² However, no evidence has been discovered so far of this having been called upon in the North East. But it can not be entirely dismissed, because there was correspondence from the region about certain other matters.

1. Winlaton District Local History Society, A History of Blaydon, p. 24.

2. Katoln, Shogi, 'M.Is. in Great Britain to the 1850s', Journal of Educational Administration and History, Vol XX. No. 2. July, 1989, pp. 3-4.

For example, at the Darlington Mechanics' Institution, it was recorded that

"a machine which had been invented" by a member of the Institution "had been forwarded to Dr Birkbeck of London, who intends to exhibit it, and explain its use in his next mechanical lecture at the London Mechanics' Institution."¹

If this correspondence fails to support any claim of guidance sought from the London Mechanics' Institution, it does at least confirm the existence of some liaison initiated by the leaders of the Darlington Mechanics' Institution.

The same Institution also confirmed dependence upon local philanthropists. At the first meeting convened for the establishment of a mechanics' institution in the town, held on 29th November, 1825, the chair was taken by Joseph Pease jnr.² The Pease family, who were Quakers, were the largest employers of textile workers in the town, and were involved not only in business ventures but also in the enlightenment of the working-classes. It was perhaps natural that together with other leading businessmen, such as members of the Backhouse family, they would be concerned about adult education. From the beginning of the Darlington Mechanics' Institute, both families assumed the roles of manager and patron. The Minute Books illustrate the extent of their involvement. For instance, financial contributions were made as follows:

Edward Pease £30, Joseph Pease £30, Joseph Pease jnr. £20, John Pease £20, William Backhouse £20,

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1. Darlington M.I., M.B. No. 1. Min. dated 25th May, 1826.
 2. Darlington M.I., Shareholders' M.B. 1825-1850. Min. dated 29th November, 1825.

John Backhouse £30, John B. Pease £20, James Backhouse £30.¹

Without the financial support of entrepreneurs such as the Peases and Backhouses, Bolckow, Vaughan, Cowan and of many others who will be met later, it is difficult to believe that the Mechanics' Institute Movement would have made progress in the North East. In addition to the efforts of middle-class businessmen, the support of some members of the upper-classes was evident too. The wealthy patronage of the Duke of Northumberland, for example, was essentially behind the establishment of the Alnwick Scientific and Mechanical Institution. Records state that it was founded by "the hand of His Grace, the Duke of Northumberland on December 1st, 1824." He was assisted in his efforts by men of considerable educational ability, and presumably of sound financial backing, since those who acted as Secretaries were W.F. Bow, M.D. and John Pears, A.M..² One further instance demonstrated the involvement of the aristocracy and of dependency upon voluntary support. This was shown at the Barnard Castle Mechanics' Institute. Its origins were secured amid the affluent surroundings of Streatlam Castle in 1832, the seat of John Bowes Esq. A meeting of gentlemen assembled to consider the promotion of the society.³ Hence, towards the erection of a suitable building John Bowes offered a piece of ground and Henry Witham offered the timber to fit it up.⁴ But despite such immediate benevolence, the building of the Witham Hall in which the Institute was eventually contained, did not take place until 1848. This was probably because the

1. Darlington M.I., M.B. No.1 Min. dated 8th November, 1826.

2. Alnwick S.M.I. Item No. 69, (The Burman Collection).

3. Barnard Castle M.I., M.B. No. 1, no date, front page.

4. loc. cit.

PLATE 3
SOUTH SHIELDS MECHANICS' INSTITUTION
NOTICE CALLING PUBLIC MEETING

Source South Shields Public Library.

MECHANIC'S INSTITUTION.

IN consequence of a Requisition to me to call a PUBLIC MEETING
for the purpose of establishing

A Literary, Scientific, and

Mechanical Institution

in this Town, I hereby request a MEETING of those interested in the
Measure, to be held in Mr. Oyston's Long-Room, on THURSDAY, the
3rd instant, at 7 o'Clock in the Evening, for the purpose above stated.

South Shields, Nov. 1st, 1825.

G. T. FOX.

J. Clark, Printer, Market-Place.

patrons of mechanics' institutes chose not be solely responsible for the whole financial burden incurred. The public generally were required to offer support; the necessity of such broadly based commitment would have tested the interest of a community quite rigorously, as to whether they should proceed towards the establishment of an institute of their own. The public were usually informed of the proposal to establish an institution through the medium of advertising. Bills, such as that illustrated on page 62¹ were posted inviting people to attend an inaugural meeting, as indeed, had been the method adopted in London. Later in the century, posters similar to this were often extremely large, and were executed in lavish displays of art-work and coloured inks.²

The initial thrust, however, for the establishment of mechanics' institutes by wealthy patrons was not exclusively the case. Inspiration for setting up such amenities occasionally came from 'below,' where the working-classes initiated their own schemes. Such independence, although rare, was demonstrated at Morpeth in 1825.

The Morpeth Mechanical and Scientific Institution originated from a meeting of mechanics held in the Bay Nag's Head public house.³ Whilst the exclusion of upper-class patronage enabled this Institution to exercise a high degree of autonomy over its affairs, it also explained why the members were never able to acquire their own permanent building. The required

1. See Plate 3, p. 62.

2. West Hartlepool Art Gallery & Museum, Wood Collection.

3. Newcastle Courant, 30th Nov., 1877, reprint. Morpeth Collectanea: (Woodman Collection Vol. IV).

finance could not be accumulated from the subscriptions of working men. Even by 1870, it was still housed in temporary accommodation "wherever best it could be found."¹ Later, it moved into rooms located in the Town Hall at a rental of £5 per annum,² but for this privilege, the committee finally had to depend upon the goodwill of the aristocracy when the Earl of Carlisle's Trustees allowed them to "use a portion of the New Town Hall."³ Despite the Institute's lack of real estate, the mechanics who formed it demonstrated an almost arrogant spirit of tenacity which was reflected in a piece of prose, entitled A New Ballad. The verse below described their achievement.

"Near Wansbeck's silver stream there stands,
All in a pleasant glen,
A town that far and near is famed,
For scientific men,
An institution we have formed,
And it shall last for ever,
The reason it is very plain,
We're all so wonderous clever."⁴

Many of the region's mechanics' institutes had, by the end of the century, not only aspired to the acquisition of a building but also towards continued improvement and development.⁵ Again, wealthy patronage was of paramount importance. Evidence submitted by J.F.C. Harrison confirmed

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1. Newcastle Courant, 30th Nov., 1877, (Woodman Collection).
 2. Morpeth S.M.I. 46th A.R., 1871.
 3. Morpeth S.M.I. M.B. 1868-1883. Min. dated 20th May, 1869.
 4. Morpeth Colletanea: op. cit., Vol. II, no date, Verses 1 and 6, to be sung to the tune of John Gilpin.
 5. See below, pp. 274-276.

that if an institute was to succeed, the support of the upper and middle-classes was essential.¹ But their motive was perhaps not always concerned with the educational progress of the working-classes. Ian Inkster was both analytical and sceptical of the motives of promoters of provincial institutions when he described them as

"a readily identifiable 'Scientific community', generally reformist in politics and dissenting in religion men on the margins of respectable society at the beginning of the period who sought 'social legitimisation' through the Mechanics' Institution Movement."²

Although evidence supporting this view in the North East is scant, one outstanding example was that pertaining to the Newcastle Literary, Scientific and Mechanical Institution, where three of the leading figures were clearly of the category described by Inkster. One was Mackenzie, a printer and publisher, and who was also a Radical involved in the promotion of the Institution.³ To the Institution, he read papers and presented books, and his 'social legitimisation' was eventually acknowledged when the Institution displayed a commemorative marble bust in the foyer of the building.⁴

1. Harrison, J.F.C. 'Social and Religious Influences in Adult Education in Yorkshire between 1830 and 1870', (Ph.D., Leeds, 1955), p. 197.

2. Garner, A.D., & Jenkins, F.W., 'The English Mechanics' Institutes, The Case of Leeds, 1824-42', History of Education, vol. 13, No. 2. 1984.

3. Cadogan, P., Early Radical Newcastle, p. 18.

4. ibid., pp. 45-46.

Another promoter, and contemporary of Mackenzie, was Robert Wallace, a Unitarian. He acted as the Institution's treasurer from 1824, having risen from the humble role of joiner to that of Town Surveyor.¹ The third was the Rev. W. Turner, minister of the Newcastle Unitarian Church and one of the secretaries. In Newcastle the Unitarians were to the forefront in civic and social duties, having founded the first Sunday School in the city.² Generally, however, the promoters of the region's institutions were of the rank and calibre of the Peases, and Backhouses, Witham and Bowes, and of Bolckow, Vaughan, and Cowan, men who could hardly be described as living on the 'fringe of respectable society'. They were men of substance, the employers of significant labouring forces and who, moreover, were frequently on the ascendancy in both business and political life. It must now be discovered where within the region the promoters of the first phase of mechanics' institutes operated.

III. The Distribution of Mechanics' Institutes: 1824-1833.

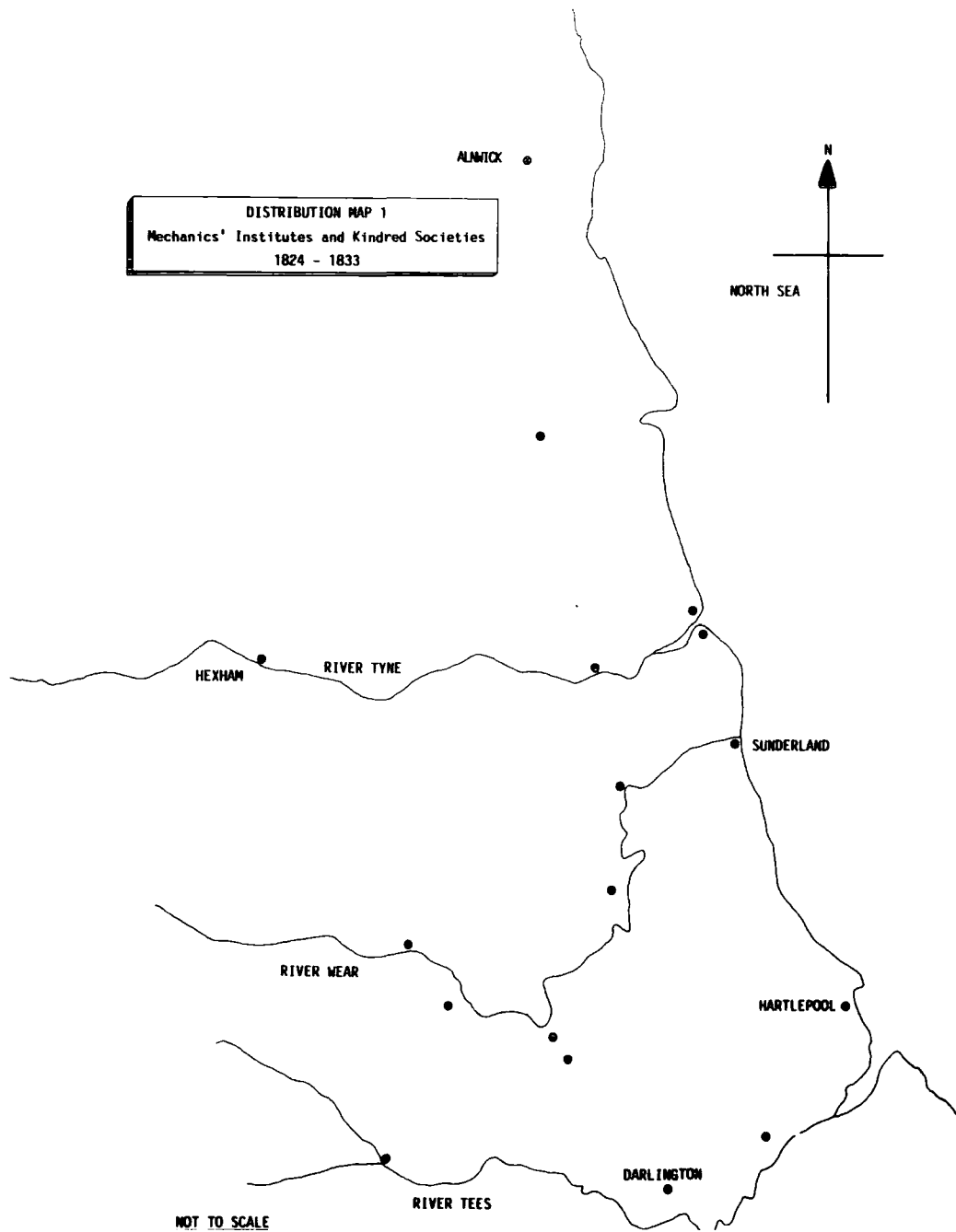
By 1833, seventeen mechanics' institutes had been established within the North East region. Five in the County of Northumberland, whilst the remainder were in County Durham. Reference to Distribution Map 1 on page 67 shows that the chief industrial and trading towns and ports e.g. Newcastle upon Tyne, Sunderland, Hartlepool, Darlington and Stockton were among the beneficiaries of the Movement.³ Kelly

1. Wallace Collection. Church of the Divine Unity, Newcastle.Vol.1 of collected MSS.

2. Watson, R. Spence, The History of the Literary and Philosophical Society, Newcastle upon Tyne, 1793-1896, p. 33.

3. See Distribution Map 1, p. 67.

DISTRIBUTION MAP 1



suggested that in Durham and Northern England during the early years of the Movement's progress, the "institutions clustered for the most part around the Tees and Tyne."¹ Yet the Distribution Map indicates that there were as many, if not more, established further inland, at places such as Chester-le-Street, Durham, Wolsingham and Bishop Auckland. Exceptionally, three of the region's institutions were established in relatively small village locations at Wolsingham, Shildon and Hamsterley. The last named being one community never to be touched by industry - it remained agriculturally based, but overall, the distribution pattern was much as expected, confirming the premise that the institutions were founded in communities whose economy was based upon industrial development or market trading. Table 6 on page 69 which illustrates the economic base of communities where institutes were founded, provides such evidence.²

1. Kelly, T., G.B., p. 210. See Distribution Map 1, p. 67.

2. Appendix 1, pp. 370-380 gives confirmation of source(s) re: establishment of the Institutes and Kindred Societies shown in Table 6.

Table 6.

Mechanics' Institutes and Kindred Societies Established
between 1824 and 1833.

Durham County.

<u>Town.</u>	<u>Date.</u>	<u>Economic Base.</u>
Sunderland M.I.	1824	Port, shipbuilding.
Chester-le-Street M.I.	1825	Market.
Darlington M.I.	1825	Market, textiles.
Durham M.I.	1825	Market, textiles.
Hamsterley M.I.	1825	Agriculture.
South Shields L.M.S.I.	1825	Port, industry.
Stockton M.I.	1825	Port, shipbuilding.
Wolsingham M.I.	1826	Market.
Bishop Auckland M.I.	1828	Market.
Barnard Castle M.I.	1832	Market, textiles.
Old Hartlepool M.I.	1833	Port.
Shildon M.I.	1833	Railways.

Northumberland
County.

Alnwick S.M.I.	1824	Market, agriculture.
Newcastle S.M.I.	1824	Port, industry.
Hexham L.S.I.	1825	Market, textiles.
Morpeth M.S.I.	1825	Market, textiles.
Tynemouth M.S.I.	1825	Port.

Charting the distribution of all possible institutions is not without certain difficulties, arising from matters such as finding records of existence, especially minute books. Kelly, who has made the most serious attempt to plot the national distribution of mechanics' and kindred institutes, acknowledged his frustration in this respect.¹ The publication of his research in 1952, relied heavily upon statistical information collected in the nineteenth century by Hudson and Coates, both of whom were involved in the work of the Movement.² Kelly explored the Movement's history in phases, the first being from 1823 to 1831; this roughly corresponds with that offered presently. The period under consideration here, however, is extended to 1833, since from that date, the voluntary system of education for the working-classes passed into State control on the allocation of the first Government funds for the establishment of elementary schools, thus being a watershed in educational progress. Because the mechanics' institutes were voluntary bodies, the keeping of records in any logically determined form was not required. Equally, there would have been no legal requirement to preserve any records which might have been maintained. Indeed, the present research discovered that several of the Minute Books of the Barnard Castle Mechanics' Institute were sold at a local auction.³ Regardless, Kelly's distribution map of mechanics' institutes for 1826 showed eleven in existence within Northumberland and Durham;⁴ comparatively,

1. Kelly, T., G.B., p. 207.

2. ibid., pp. 302-324. List of institutes for England and sources confirming existence.

3. Meddleham, S., Librarian, Bowes Museum, Barnard Castle. Conversation 1991.

4. Kelly, T., G.B., p. 211.

this investigation has identified thirteen; Kelly has not included the Wolsingham and Hamsterley Institutes, due probably, to an oversight. Further confusion is created since not all were established on a permanent footing; two collapsed before 1833, i.e. the Darlington and Sunderland Institutions. Both were re-instated later in the century.¹ From records that are available, it seems that the Sunderland Institution failed around 1833-1834, for which year "no information is available", whilst there is no further mention of a Mechanics' Institute in Sunderland until 1844.² Therefore, with the failure of only two institutes, the number existing in 1833, was fifteen. Occasionally, in the wake of the dissolution of an institute, there could be some interesting revelations as was shown at Darlington.

The demise and consequent disposal of the assets of the Darlington Mechanics' Institution was probably unique, in that therein was demonstrated the profit making motive of at least some North East promoters. Presumably being a victim of the depression, along with many other institutes in the country,³ on 9th December, 1831, a Committee Meeting was convened where consideration was given to agreeing upon the best mode of disposing of the institute's stock.⁴ A general meeting of the subscribers met shortly after that date in the Town Hall, on February 9th, 1832, when it was resolved that "the reading tables, apparatus, maps and books be

1. See below, p. 113.

2. Hall, W.G., 'The Provision of Technical Education in Sunderland prior to 1908', (M.Ed. thesis Durham, 1964), p. 39.

3. Kelly, T., G.B., pp. 223-224.

4. Darlington M.I., M.B. No. 1. Min. dated 9th Dec., 1831.

sold by auction."¹ But before the equipment and the building were sold, the minutes of the Shareholders' Minute Book showed that a dividend of £5 was agreed to be paid out "among the shareholders."² At the meeting, at which the above decision was reached, the secretary Mr J.B. Pease resigned. No reason was given, but he may have been embarrassed by the agreed decision. It was probably not generally known that some promoters expected to run institutes as profitable business ventures with the allocation of shareholders' dividends. This Institution was revived in 1840, and from that date to the present, has had continuous existence, at least in name.

During the depression, which affected trade and industry between 1826 and the early 1830s, the Movement's experiences generally reflected a high level of insecurity. For example, the working-class institutes surrounding London were so badly affected that many including those at Hackney, Hammersmith, Rotherhithe and Stepney, to name but a few, became extinct.³ But in the North East, the demise of institutes was limited to those previously mentioned. This was due to the wealth generated by the development of industry which was taking place in the coalfield and around the river estuaries. The institutes in the market towns, too, survived, as did the few village societies. Again, this was not typical of the trend for rural areas. In the small towns and villages of Scotland, for example, mechanics' institutes proved to be especially vulnerable, when those at North Berwick, Musselburgh and Johnstone failed.⁴ Nevertheless, the economic climate did

1. Darlington M.I., M.B., No. 1. Min. dated 9th Feb., 1832.

2. Darlington M.I., Shareholders' M.B. 1825-1830. Min. dated 27th May, 1830.

3-4. Kelly, T., G.B., p. 223.

affect the institutes of the region; membership numbers, for example, were difficult to retain and generally declined, as was reported by the Sunderland Institution in its Second Annual Report in 1826. It was stated that

"we have not to boast of numerical increase, we even find that we are below the number for last year this has been the case with most of the neighbouring institutes."¹

The experience at Sunderland, therefore, was not an isolated example of such difficulties.

The prevailing economic climate also affected the progress of the Movement in terms of creating new establishments. Throughout the depression years, reference to Graph 1, on page 52 shows that the establishment of mechanics' institutes in the region remained in the doldrums.² But, by 1832, there was some indication that the slump was over, the graph begins to rise, in fact from this time, the forward movement nationally, albeit slowly, was resumed.³ Yet, it must be born in mind, that not only had the working-classes been affected by the depression, but also those who in normal circumstances would have been at the forefront of the Movement promoting new establishments. Evans assessed the situation in South Wales, and concluded that, as was found in many other regions, "the early institutes represented the fortunes and misfortunes of the benevolent despot class."⁴

Clearly, by 1833, it has been shown that dependence upon

1. Sunderland M.I. Second A.R., 1827.

2. See Distribution Graph 1, p. 52.

3. Kelly, T., G.B., p. 230. See also Graph 1, p. 52.

4. Evans, T., 'The M.Is. of South Wales', (Ph.D., Sheffield, 1965), p. 158.

those classes able to provide the means of promoting the institutes was firmly established. Significantly, however, it is obvious from the foregoing account that sweeping generalisations can not accurately reflect the variety of support found within the Movement's member institutes. For instance, not all were exclusively middle-class driven, indeed, the Sunderland Institution's chief patrons were the Marquis of Londonderry and John Lambton, M.P.,¹ both aristocrats. Neither was the Established Church totally opposed to local involvement. At the South Shields Institution among the chief promoters were "especially church dignitaries",² the Rev. T. Thorburn M.D. being one of the elected Vice-presidents in 1825.³ Leading Roman Catholics, too, were exceptionally involved in the work of the Movement as was the case at the Leeds Mechanics' Institute.⁴

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1. Herdson, A.C.M., 'The Development of Education in Sunderland during the Nineteenth Century', (M.Ed., Durham, 1931), p. 52.
 2. Thompson, H.V., 'South Shields Literary, Scientific and Mechanical Institution', (Dissertation, Ripon College, N. Yorks, 1969), p. 6.
 3. Circular issued by South Shields L.S.M.I., 19th Nov., 1825.
 4. Garner, A.D. & Jenkins, E.W., 'The English Mechanics' Institutes. The Case of Leeds 1824-1842', History of Education, Vol. 13, No. 2. 1984, pp. 141-142.

Chapter 3.

The Role of the Region's Mechanics' Institutes: 1824-1833.

The appeal of science at the beginning of the century, especially among the middle-classes found expression through institutions such as the Literary and Philosophical Societies which disseminated scientific knowledge in many of the larger cities. Although the Newcastle Literary and Philosophical Society had attracted the association of certain individuals from humble background, including George Stephenson and Humphrey Davy, as a general rule, these societies were not open to mechanics and other artisans.¹ However, Stephenson, described as the "epitome of the mechanic made good,"² and directly involved with mechanics, the new type of workman, was sympathetic towards the educational needs of the working-classes. He took the chair at a meeting which resulted in the founding of the Newcastle Scientific and Mechanical Institution in 1824.³ Mechanics' Institutes were established in the general belief that they would meet the needs of industrialised societies, where it was becoming increasingly important that mechanics should gain "the correct knowledge and principles of their own trades."⁴ Concealed within such simplistic aims, certain subtly veiled objectives have already been identified. Further investigation reveals others. Harrison, for instance, has claimed that,

"to the middle-classes, adult education appeared

1. Tylecote, M., L. & Y., p. 33.

2. Davies, H., George Stephenson, p. 181.

3. ibid., p. 35.

4. Solly, H., Working Men's Social Clubs and Educational Institutes, p. 21.

as one method of coping with the ... moral and social condition of the working-classes." Whilst "to many local working-class leaders, adult education appeared as a useful instrument in the struggle for social and political emancipation."¹

Similar conclusions were drawn by Tylecote when investigating the role of the institutes of Lancashire and Yorkshire. The members of institutes in those counties were "driven by a desire for knowledge", where it was considered to be the

"key to all good things ... to skill in their work ... personal advancement, ... intellectual enjoyment, ... to an understanding of the world in which they lived, ... it was the key to political power."²

Clearly, both promoters and members saw the institutes as serving some mutually useful purpose, i.e. either social control, or the establishment of democracy through education.

The description given in Chapter 1 of working-class communities of the region, clearly demonstrated the need for agencies which might deal with the moral and social condition of the poor. Therefore, the mechanics' institutes were established at a time, when, if strategically located in working-class communities, they could become vehicles for promoting both educational benefits and social control. Such possible objectives will be considered in the following analysis of the membership and of the role of the region's institutes. In common with the London Mechanics' Institution, aims and objectives were laid down in the publication of 'aims and rules' governing the region's institutes.

1. Harrison, J.F.C., Learning and Living 1790-1960, pp. 4-5.

2. Tylecote, M., L. & Y., p. 216.

Aims and Rules typical of the Region's Institutes.

Broadly the aims of the London Mechanics' Institution were to provide scientific instruction, stimulation of the intellect, the elevation of character, and refined amusements.¹ Since the aims were not qualified, they could be subjected to wide interpretation. The aims of the North East region's institutions were generally no more explicit. For instance, at the South Shields Literary, Scientific and Mechanical Institution, established in 1825, a 'Circular' issued to the members included statements of its 'object and constitution', wherein it was stated that,

"its object is to promote the intellectual
improvement of its members",

whilst the interpretation of this, hopefully, would produce various desirable benefits. These included moral and social improvements such as,

- i. "the wealth and prosperity of the nation,"
- ii. "the working-classes .. will cease to relish those vices to which .. they are too much addicted,"
- iii. "the cause of peace, tranquillity and every social enjoyment."²

From the point of view of those who published the 'Circular', there was no doubt that 'intellectual improvement' was synonymous with morality. A similar opinion was held at Shildon, when in 1833, the promoters of the Railway Institute met in a cellar at the Globe Inn to formulate their aims. Their main objective was to

1. See above p. 45.

2. South Shields L.S.M.I. Circular dated 19th November, 1825.

"consider what could be done to improve the moral and intellectual condition of the inhabitants."¹

In the above examples, it was evident, as indeed, Roderick and Stephens have claimed, that education may be considered a useful "means of moral regeneration, or as was sometimes more bluntly stated", as a "'moral police'"² force.

If the morally, orientated aims referred to above, at the South Shields and Shildon Institutes, were not explicitly qualified, then the audience at the first meeting in 1824 of the Newcastle Literary, Scientific and Mechanical Institution, was left in no doubt about the purpose of the proposed aims. They were delivered by the Rev. William Turner, one of the secretaries. Generally, he said the aim was to

"cultivate those qualities of mind and heart which become every station ... let them show, by their wise and virtuous conduct, how much better it is to cultivate a taste for useful knowledge, than to choose the paths of dissipation, extravagance, and vice: and spend the time which they can spare from business in improving their rational faculties, rather than at the tavern, the gaming table or the brothel."³

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1. Bainbridge, F.F., Centenary of Shildon, London and North Eastern Railway Institute, p. 4.
 2. Roderick, G.W., and Stephens, M.D., 'Steam Intellect Created: The Educational Roles of the Mechanics' Institutes', The Steam Intellect Societies, (ed. Inkster, I.), p. 21.
 3. Turner, W., Newcastle L.S.M.I., Introductory Address at the First Meeting, 11th May, 1824, p. 13.

The above statement of objectives could not have been more specific as to its overriding moral aim. Shapin and Barnes would probably accept that the rhetoric delivered at Newcastle in 1824, typified the ethos of the Movement, since they declared in a study in which they set out to interpret the ethos of early mechanics' institutes that such sentiments were normally

"spewed forth with the birth of an institute" believing "that a scientific education for the artisan and operative would result in their moral improvement."

However, they concluded that, "on the whole, what we know of the institutes counts against this belief," i.e. that "knowledge can control people."¹ Indeed, in the longer term it was the people who determined the purpose of the institutes. Meanwhile, such ideals prevailed within many institutes of the region. Even in several established later in the century, similar views were propagated as part of the continuing mission against crime, drunkenness and general social evils.² But since the institutes were purely voluntary societies, care had to be taken by promoters not to alienate the membership in their attempts to moralise. This was recognised throughout the Movement, and by certain institutes which adhered to a strictly educational role.

At the Bishop Auckland Mechanics' Institute, for instance, it

1. Shapin, S., and Barnes, B., 'Science, Nature and Control: Interpreting Mechanics' Institutes', Social Studies of Science, Vol. 7 No.1 pp. 35 and 59.

2. See below, p. 338.

seems from the source material available that the main aim of the Institute was the

"promotion of science, literature and the Arts exclusively."¹

Since this statement was taken from records dated 1903, it is possible that any earlier reference to moral objectives could have been subsequently dropped. However, at the Alnwick Scientific and Mechanical Institution, an exclusively 'purist' approach was evident from the outset. In 1824, the committee had resolved that the aim

"shall be to procure information for the operative classes by establishing a library consisting of works entirely confined to science, and in forming classes for the mutual instruction of the members, and in obtaining lectures on the different branches of science."²

Perhaps one reason for such diversity of aims among the region's institutes, lay in the scope exemplified within the aims of the London Mechanics' Institution, where even amusement was permitted. Indeed, one critic of mechanics' institutes generally, condemned the Movement for having actively encouraged the development of entertainment. Retrospectively, he laid all blame at the door of Dr Birkbeck, and regarded him as having

"laid stress on the pleasures, rather than on the uses of scientific knowledge".³

Nonetheless, the development of activities concentrating upon

1. Bishop Auckland L. & M.I., Rules. 1903.

2. Heatley, J., Alnwick S.M.I., Historical Sketch, p. 1.

3. Dobbs, A.E., 'Historical Survey', Cambridge Essays on Adult Education, (R. St John Parry, ed.), p. 36.

pleasure and leisure was to become an important part of the work of the Movement. Meanwhile, not only were the mechanics' institutes often unclear about the nature of their purpose, but so too, were the Literary and Philosophical Societies. They were equally plagued by vague aims concerning the diffusion of

"arts, literature and sciences, whilst their catholic approach was reflected in their programmes."¹

But irrespective of confusion over aims and purpose, the appeal of mechanics' institutions was widespread, and promoters seemed to have successfully captured an audience. Yet, the audience, i.e. the membership, eventually reflected the muddled theory inherent within the Movement. Tylecote pertinently declared that it was unfortunate that a man such as Brougham was largely ignorant of the "character and permanence of the audience."² An audience, moreover, which as time went on, was keen to subscribe only to its own interests and inclinations. Institutes, therefore, generally never conformed to any particular 'ideal', but rather developed according to local design, often in order to survive. Nevertheless, having devised statements of aims, each institute was responsible for achieving what it had set out to do. Essentially, this depended upon a commitment on the part of the membership to accept certain conditions associated with their obligations and benefits. Rules, therefore, were formulated to ensure the fulfilment of specific aims.

1. Roderick, G.W., and Stephens, M.D., Scientific and Technical Education in Nineteenth Century England, p. 20.

2. Tylecote, M., L. & Y., p. 87.

Rules governing the Mechanics' Institutes.

Mechanics' institutes were subject to 'Rules' in which were stated certain obligations to be met on the part of the institute and the membership. To illustrate the point, a list of 'Rules' governing the Hartlepool Literary, Scientific and Mechanics' Institution, possibly published at the time of its re-organisation in 1847, is reproduced below. They had probably remained unchanged since 1833, as no reference was made to any revisions having been agreed.

- Rule 1. "this society shall be called The Literary Scientific and Mechanical Institution of Hartlepool.
- Rule 2. subscriptions of £5 or upwards at one time .. individuals rendering important services .. shall be eligible as honorary members.
- Rule 3. each ordinary member shall pay a subscription of eight shillings per annum: apprentices and minors, half that sum, paid either at one time, or by quarterly payments in advance.
- Rule 7. subjects for discussion shall comprehend the mathematics, natural philosophy, chemistry, numerology, the arts, antiquities, history, biography, moral philosophy and general literature, but party politics and controversial divinity shall be prohibited."¹

Whilst few examples of 'Rules' pertaining to the region's early institutes have been found, it seems that within the curricula of various institutes, there was considerable agreement in offering within certain limits a broad

1. Hartlepool L.M.I., Rules - a printed pamphlet - no date.

educational experience.¹ Again, this was a reflection of the work of the London Mechanics' Institution. It was, however, evident that initially in most institutes the teaching of moral philosophy, but excluding the controversial subjects of politics and religion, was emphasised. But at least one institute, the Alnwick Scientific and Mechanical Institution found that within its first year, its educational base was too narrow and immediately reacted to redress the balance. Its character, therefore, was broadened when restrictive rules underwent "considerable modification", especially those governing the exclusion of

"books on general literature, as well as those treating on Moral Philosophy, Politics and Polemical Theology."²

Despite the removal of similar restrictions in at least some of the region's institutes, it would seem that most continued to repress such liberty. But at Alnwick, there was more than a hint that the membership had been unrelenting in their criticism of all forms of restriction, since it was recorded, that by 1830, "increased energy permeated the membership."³ 'Increased energy', may be read to suggest greater freedom of choice being available, not only in literature, but also in topics of discussion.

Membership of the Region's Mechanics' Institutes.

The institutes of the North East compared favourably with the London Mechanics' Institution in so far as high initial enthusiasm was concerned. Those established between 1824

1. See below, pp. 93-97.

2. Heatley, J., Alnwick S.L.M.I., p. 2.

3. ibid., p. 3.

and 1825, clearly started with a positive response from the target group, i.e. the working-classes. At the Darlington Mechanics' Institution, for example, the clientele in 1825 comprised representatives from the following trades:

Robert Silverside	-	joiner
Joseph Bargate	-	whitesmith
Robert Cain	-	gardener
John Bainbridge	-	tallow chandler. ¹

These were all working-class occupations.

Emphasis on working-class membership was maintained here until at least the following year, when members included:

a tanner, painter, iron founder, shoemaker, gardener, cabinet maker, weaver, farmer, tailor, flax dresser, blacksmith, bricklayer, welder and haircutter.²

A contrasting situation, however, developed at South Shields from the start of the Institution in 1825. Whilst the membership list, again, suggested a highly successful beginning, its base was not exclusively working-class.³ Social backgrounds were diverse, and many from the professional and business classes were included. Reference to the list of 'Ordinary Members' confirms such diversity, where it is seen that members included,

teachers, gentlemen, shipowner, solicitor, clerk, farmer, shipworker, surgeon, butcher, baker, painter, auctioneer, cabinet maker, grocer, joiner.⁴

1. Darlington M.I., M.B. No. 1. Min. dated 20th October, 1825.

2. ibid., Min. dated 19th October, 1826.

3. South Shields L.S.M.I. Membership List 1825.

4. loc. cit.

Indeed, Kelly claimed that the attendance of manual workers at the institutes generally dropped throughout their early years, as in fact had happened at London.¹ But there is little evidence to support early widespread defection by the working-classes from the institutes of the North East. Yet antagonism which existed between various social groups within communities could be brought into focus at the local mechanics' institute. This must have been the case at the Newcastle Literary, Scientific and Mechanical Institution in 1826, when the Annual Report pertinently stated that there had been a

"rapid declension of the unfriendly and hostile feelings which were at first entertained".²

Clearly, the Institution had been affected, but most social incompatibility it would seem, was resolved. Membership statistics available from existing records of the region's institutes, indicated that between 1824 and 1833, support never utterly collapsed except in Sunderland and Darlington. Frequently, however, the presentation of such information was vague, probably deliberately so, in the hope of obscuring the real state of affairs. For instance, it was reported from the Sunderland Institution, in 1830

"it is with regret we have to observe that it is such as gives small hope of the Society's remaining in existence for another year."³

Nevertheless, most institutes survived both the effects of the depression years and instances of class conflict. Chester-le-Street, for example, in 1826, had a healthy

1. Kelly, T., G.B., p. 223.

2. Newcastle L.S.M.I., Second A.R., 1826.

3. Newcastle Magazine, March 1830, p. 120.

membership roll of 200,¹ Alnwick in 1832, had 132,² and Barnard Castle in the same year, had 149.³

Despite the optimism reflected by several institutes those which suffered temporary closure i.e. Sunderland and Darlington, probably did so due to the withdrawal of their working-class membership, although this was not explicitly stated. Reasons supporting this possibility, might have included inability to pay the membership fee and the instruction charges levied. These could be high, as was shown at the Darlington Institution, when in 1829, a certain teacher named Mr Thelwall charged 2/6d each for his 'Elocution lectures'.⁴ The decline of institutes in other regions was certainly caused by similar impositions. In Wales, for instance, at the Pembroke Dock Mechanics' Institute, the manual workers defected for various reasons which included the annual and quarterly terms for the payment of fees, and also a lack of desire to take the time and trouble of suitably attiring themselves to appear in the company of the middle-classes.⁵ Indeed, Evans, who investigated the Welsh institutions, found that

"a gulf wider than that which divided the beggar from Dives in the Bible, separated the working-classes from these men."⁶

Furthermore, he qualified this statement in terms of the

1. Chester-le-Street M.I. First A.R., 1826.

2. Alnwick L.S.M.I. A.R., 1832, pp. 1-2.

3. Barnard Castle M.I., M.B. No. 1. Min. dated 11th August, 1832.

4. Darlington M.I., M.B. No I. Min. dated 15 October, 1829.

5. Evans, T., 'M.Is. S. Wales', p. 158.

6. ibid., pp. 158-159.

different aims to be achieved, i.e the contrasting "motives of employer and employee."¹ Certainly, the presence of both employer and worker was evident at the South Shields Institution in 1825, yet, from available records, comment on such matters was not published. Individual institutes no doubt handled such situations as best they could, if possible without incurring unnecessary offence. However, this was not to say that contention did not exist between individual members from different social backgrounds. As will be discussed in a later chapter, such matters did become the subject of open debate in letters to the press.² Even so, it is difficult to judge how commonplace these problems were within the region's institutes.

During these early years when the institutes were both coping with the effects of economic depression, and conducting what was essentially an experiment in adult education, encouragement was offered to both the managers and membership, especially by the Movement's leading figures. Frequently, this was in the form of printed material. Brougham's publication, Practical Observations upon the Education of the People addressed to the Working Classes and their Employers, was widely circulated, as were prepared lecture papers by the same author. His papers on the "Nature and Uses of Mathematics", for instance, were read in 1827, to the members of the Newcastle Institution.³ The use of such material provided a cheap substitute for the hiring of lecturers. However, despite its title, the objective of the proposed read lectures was two-fold, i.e.

1. Evans, T., 'M.Is.S. Wales', pp. 158-159.

2. See below, p. 165.

3. Newcastle L.S.M.I., Third A.R., 1827.

"to raise our character and better our condition."¹

At this time lectures sent to the institutes generally seemed to be tempered with a bid towards moral improvement. One further example, published in 1826, and again addressed to the institutes, confirmed the prevailing ethos of the times. It was believed that the study of nature and science would

"reveal the wisdom of God in creating
things as they were,"²

and that a

"scientific education for the artisan
and operative would result in their moral
improvement."³

And again, comments taken from a similar publication by R. Barnet, further compared society to a series of concentric circles drawn in 'spiral fashion' and in which the various levels may be observed. He suggested that at the centre existed the "universal good",⁴ whilst at the extreme point, (the edge), the work-house was fixed, and the intermediate levels being filled up with the different classes. The King was on the inner circle and God was at the starting point. On the ninth circle were the mechanics and others earning more than 40s a week, on the tenth were the mechanics and others earning between 20s and 40s a week, and on the fifteenth were the paupers in the workhouse.⁵

Barnet then discussed the benefits of learning, in words of

1. Brougham, H., Practical Observations, p. A.2.

2. Shapin, S., and Barnes, B., op. cit., p. 52.

3. ibid., p. 35.

4. Barnet, R., A Word to Members of the Mechanics'
Institutes, pp. 16-17.

5. loc. cit.

dire warning, about the condition of those who were unfortunate enough to occupy the extreme position. "There will" he stated,

"always be thousands of beings at this station, working the marrow out of their bones for next to nothing, because they are non thinking and ignorant."¹

And presumably, by implication, there would be room for many more, who were not inclined to respond to the opportunities presented by the institutes. What effect such literature had is not known, but the diagram accompanying the rubric showed the closeness between the tenth and fifteenth stations - a reminder, indeed, of the fact that it was all too easy to fall into the abyss of the pauper-class, for whom there was no hope.

The deliberate amalgamation of the educational and moral roles of the institutions was probably one reason why, from the early years, the Movement never achieved a clearly defined educational policy. This was recognised in 1831 at a meeting of the National Union of Working Classes held at Birmingham. A resolution was therefore passed, calling for the "free circulation of Knowledge" among the working-classes. It was pointed out that this was not being achieved, since the poorer classes were still being taught both in the elementary schools and the Mechanics' Institutes, "just as much as would suit"² the purposes of the rich. What they were taught in the mechanics' institutes, however, was achieved mainly through the establishment of libraries, lectures and

1. Barnet, R., op. cit., p. 21.

2. Silver, H., op. cit., p. 64.

classes. There was little place for amusement and recreation in the region's earliest institutions. But inherent within these 'facilities' were the constraints of the times, especially political, religious and moral; these all played their part in limiting the work of the early institutes, only to be challenged as the century progressed. Also, it must be remembered that the early institutes of the North East region were established when men such as Stephenson epitomised the undoubted value of the 'practical man' rather than that of the academic. As a result, many employers continued for much of the century to under-value educational opportunity.¹ Therefore, the institutes often reflected the "old colonial ethic which sees character as a more desirable commodity than brains."² Evidence of such prevailing attitudes has been identified, but will be further explored in the following review of the facilities afforded by the early institutes.

The Institutes' Libraries.

Perhaps the library facility with its literary collection was, above all else, of greatest importance to the members of the mechanics' institutes. It was the one feature which could also be observed as the measure of an institute's success, since there was always the opportunity for expansion, especially at the hand of those who were sympathetically inclined towards a particular institute. For example, the Bishop of Durham presented books to the Library of the

1. See below, pp. 278-284.

2. Wellens, J., 'The Anti-intellecutual Tradition in the West', British Journal of Educational Studies, Vol. VIII No. 1, p. 25.

Darlington Mechanics' Institution in August, 1825.¹ At the Alnwick Institution, too, in the same year, it was recorded that the

"liberality of the noblemen and gentlemen of the neighbourhood, afforded the means of at once, founding a library and some 2,000 volumes were listed as present."²

A further gift in 1827, comprised books of general interest,³ although their subjects were not indicated. And judging from the developing liberal out-look of the patrons of this particular institute, it seemed unlikely that the books were censored in any way. Censorship, nevertheless, was practised. For example, at the Barnard Castle Mechanics' Institute, in 1832, the Committee discussed the suitability of purchasing Shakespeare's Plays for the library. But, "As a matter of precedent", they decided that

"it would be beneficial to the interests of the society to prevent the practice of admitting dramatic works."⁴

These examples illustrated the diversity of opinion which determined the character of individual institutes. By this time, however, the members of institutes throughout the country who had similarly been controlled concerning their literary selection, were beginning to challenge such restrictive practice. At the Birmingham Mechanics' Institute, for instance, which had bought books from the Society for the Diffusion of Useful Knowledge, it was found that

1. Darlington M.I. M.B. No. 1, Min. dated 18th August, 1825.

2. Alnwick L.S.M.I., First A.R., 1826. p. 2.

3. ibid., p. 3.

4. Barnard Castle M.I., M.B. No. 1, Min. dated 1st October, 1832.

"some of the books were not expressing the kind of sentiments of which working men were likely to approve."¹

Here, a change of supplier was relatively simple, because the Institution had no rule prohibiting fiction, nor was there a ban on religious and political works, though in fact "controversial books were not normally bought."²

Towards the extension of the literary facility of the institutes, magazines, newspapers and periodicals also might be made available. At the Alnwick Institution this step was taken in 1827, and therefore, within three years of its establishment magazines were introduced.³ Despite the lack of evidence, it was probable that few other institutes of the region had developed newsrooms by such an early date. Indeed, as yet, the newsroom was not a typical feature of most institutes throughout the country. This was due to a powerful opposition group, who argued that not only would it be expensive, but would also introduce an undesirable class of member. But the proponents countered the opposition by suggesting that if the institutes did not make such provision, then the working man would resort to the public house, where he could have access to papers and magazines. Contention over this matter caused the emergence of newsrooms to be delayed until the 1840s.⁴

1. Turner, C.M., 'M.Is. Midlands', p. 35.

2. ibid., p. 46.

3. Heatley, J., Alnwick S.L.M.I., p. 3.

4. Kelly, T., G.B., p. 239.

The Dissemination of Knowledge - the Lecture.

During the early years of the Mechanics' Institute Movement, the lecture was regarded as the medium of paramount importance for imparting knowledge. Lecture programmes were frequently arranged and supported by advertising material which seemed to disregard the expense incurred, not least of which were the fees paid to lecturers. For instance, in 1823 at the Darlington Institution, a Mr Jackson was paid the sum of £30 for delivering a course of lectures for which tickets of admission were also printed.¹ The subject of the lectures was not recorded, neither was the total number to be given, but the overall cost was probably high. Considerable costs also must have been incurred at the Newcastle Institution for the printing of 200 copies of a syllabus in Chemistry, to accompany a course given by Rev. W. Turner in 1826.² The Rev. Turner, based in Newcastle, had by the 1820s created for himself the lucrative role of professional lecturer, since from 1804 he had been similarly engaged at the Newcastle Literary and Philosophical Society. He, presumably like many others, did not undervalue his services. He charged the Newcastle Institution "two hundred guineas for each of the first two courses" of a series of lectures entitled, the New Institution; and "£157.10/-s. for the third course."³ Such examples of high expenditure confirmed the importance and assumed relevance of the 'lecture' as an efficient means of instruction.

1. Darlington M.I., M.B. No. 1., Min. dated June 24th, 1825.

2. Newcastle L.S.M.I., Second A.R., 1826, p. 5.

3. Watson, R. Spence., The History of the Literary and Philosophical Society, Newcastle upon Tyne. 1793-1896, p. 218.

Through this medium, at least initially, it appeared that the institutes made every effort to provide science based programmes, and thereby, to conform with the common objective of giving instruction in science. Examples throughout the region demonstrated the pre-eminence of the sciences during the early years of the Movement's work. At the Alnwick Institution, the First Annual Report of 1826 illustrated the point when it was stated that

"lectures were chiefly confined to Chemistry, Astronomy, Electricity, Galvanism, and other Scientific subjects."¹

Similarly, at the South Shields Literary Scientific and Mechanical Institution, the lecture programme for the year 1827-1828, included the following subjects.

- i. History of Chemistry.
- ii. Attraction of Gravitation.
- iii. Chemical Affinity.
- iv. Heat.
- v. Light.
- vi. Electricity.
- vii. Electricity continued.
- viii. Electro-negative bodies.

And in testimony to the popularity of the lectures and to the justification for having staged this programme, it was recorded in the Third Annual Report in 1828, that

"all have been attended by almost from eighty to one hundred very attentive hearers."²

Such popularity, however, throughout the region generally, was short lived. Indeed, within one year of the optimism

1. Heatley, J., Alnwick S.L.M.I., p. 3.

2. South Shields L.S.M.I., Third A.R. 1828, p. 3.

displayed at the Newcastle Institution, it was noted that for the winter session (1826-7) of lectures, i.e. from September, to the following February, they had to resort to "read lectures", no doubt due to, as the Committee reported, "the monstrous accumulation of arrears, which at the present time exceeds £120".¹ Presumably, their lecture programmes had not reached expectations in attracting a viable attendance. This became a common problem; Kelly, too, referred to the expenses thus incurred as being beyond the means of many institutes, and which led to an increasing dependency upon the reading of printed lectures.²

By 1833, lectures were simply not fulfilling earlier expectations. Expense was not the only problem to be discerned; the irrelevance of the programmes became evident. At the Alnwick Institution, for instance, in 1832, the Committee reported that it was

"with regret they had programmed fewer
lectures than in previous years."³

Evidently, the science based courses were far too difficult for their members to understand, since it must be remembered that elementary education would not have prepared the ground for study at a more advanced level. Indeed, many of the students would not have had either an introduction to scientific studies, or to basic literacy and numeracy skills. Other factors too, affected some of the institutes in other parts of the country as was found at the Derby Mechanics' Institute at about the same time. Here, scientific subjects no longer predominated when it was recorded that

1. Newcastle L.S.M.I., Third A.R., 1827.

2. Kelly, T., G.B., p. 226.

3. Alnwick L.S.M.I., A.R., 1832, pp. 1-2.

"lecture programmes were drowned in a sea of recreative subjects."¹

But as yet, such distractions had not affected the region's institutes to any great extent. Nevertheless, it seemed that workmen were increasingly no longer interested or amused by demonstrations and experiments. They had, however, become aware of their basic educational deficiencies. This awareness was probably the main reason for the setting up of classes in the institutes, where various elementary subjects were offered.

Classes at the Institutes.

The demand for the acquisition of basic educational skills, evident from the early days of the London Mechanics' Institution, was repeated elsewhere. In the North East region, at the Darlington Institution, classes were established in 1825, where it was reported that

"the different classes continue to attend to their respective studies with attention."²

This suggested a keenness in this area of work. Similarly, at the Barnard Castle Institute, in 1832, it was reported that

"twenty five had joined a class for instruction in Mathematics and Arithmetic twice a week."³

An indication of how widespread and popular such educational services were, was shown by the fact that a variety of classes were widely established throughout the region. For example, at the Newcastle Institution, in 1826, the

1. Chadwick, A.F., 'Derby', p. 89.

2. Darlington M.I., M.B. No 1. Min. dated 20th October, 1825.

3. Barnard Castle M.I., M.B. No. 1. Min. dated 5th November, 1832.

curriculum included the

"French, German, Italian and Latin Languages:"¹

at the Chester-le-Street Institute there were classes in

"Grammar and elementary branches of the Mathematics:"²

and at the Alnwick Institute during the same period, there were classes in

"Mathematics, History, Algebra, English Grammar and Arithmetic."³

The success of non-scientific classes confirmed the desire on the part of working men to avail themselves of the instruction provided. And in any case, during the period 1823 to 1833, the industrialisation of the region was comparatively in its infancy, the large-scale development of iron based heavy engineering was yet to come. Hence, as was reasonably pointed out by J.F.C. Harrison,

"it is probable that the proportion of artisans to whom scientific instruction would be of any direct use was small."⁴

Moreover, the apprenticeship system was the accepted means of acquiring the skills required for industry, generally by 'rule of thumb' methods.

With the impending failure of the 'policy of science for artisans', via the lecture, the institutes were faced with problems concerning survival, and how to secure a meaningful future. In response to such urgent questions, the institutes capitalised on whatever strengths were developing. The establishment of classes continued to be deployed, whilst

1. Newcastle L.S.M.I., Second A.R., 1826, p. 7.

2. Chester-le-Street, M.I., First A.R., 1826.

3. Heatley, J., Alnwick S.L.M.I., p. 3.

4. Harrison, J.F.C., L. & L., p. 205.

further scope was provided for the pursuit of literary and cultural subjects.¹ Evidence of this was seen above in the case of the Newcastle Institution, where an extensive language curriculum was set up. Expediency, too, eventually affected the content of lecture programmes when resuscitation was hoped for by including subjects such as phrenology, and ornithology.² Thus, even during this early period, the Movement began to broaden its base as a matter of necessity; many institutes were now treading a path, albeit cautiously, which ultimately was to lead away from their original aims. In another chapter, it will be seen how this path led to the introduction of the leisure revolution within the institutes later in the century.³ Meanwhile, survival was of paramount importance. Therefore, to this end, the role of the institutes had to be continuously re-assessed - no longer could they afford to hold fast to an exclusive pre-occupation with scientific education.⁴

Innovations accepted by the Institutes.

The London Mechanics' Institution, by 1830, was established upon a broad base including the development of leisure and recreational activities.⁵ However, if the London Institution was the 'blue-print' to which others looked for guidance, there were in the North East, exceptions. The failure of the Darlington Institution in 1831 may be reasonably attributed to an over strict adherence to its original puristic aims.

1. Harrison, J.F.C., L. & L., p. 209.

2. Kelly, T., G.B., p. 226.

3. See below, pp. 327-346.

4. Kelly, T., H.A. Ed., p. 124.

5. See above, pp. 45-47.

These were interpreted as largely the provision of education and the exclusion of even 'refined amusement.' The atmosphere of an authoritarian school seems to have prevailed, since even a scheme of punishments was in operation. For instance, member No. 66, on one occasion was fined 2^d for "injuring a pamphlet."¹ It was only some years after the subsequent revival of the Institution in 1844, that a more relaxed approach was considered. Even then, the Committee was unsure of treading new ground. They first consulted other local institutes. Consequently, the Institutes at Stockton-on-Tees and York were asked for advice concerning the
"setting up of Tea Parties to promote the
interests of the Institution."²

Clearly, there was a distrust in departing from well established and exacting principles. Yet, earlier experience at the Alnwick Institution had recognised in the First Annual Report of 1826 that the way forward demanded revision, since
"the basis on which the society had been formed was
exceedingly narrow."³

Meanwhile, the newly introduced pleasures of the railway excursion had also been shunned at Darlington. This pioneering innovation was, however, seized later in the century by the Newcastle Institution. Indeed, Tomlinson suggested that the beginning of rail excursions was in the North East region, and stated that,

"the first ever was when the Newcastle Institution

1. Darlington M.I., M.B. No 1. Min. dated 20th October, 1825.

2. Darlington M.I., M.B., No. 1 Min. dated 25th September, 1844.

3. Heatley, J., Alnwick S.L.M.I., p. 2.

organised an outing to Carlisle to visit the Polytechnic exhibition in 1840."¹

But if this had been the first rail excursion in the North East, it was certainly not the first in the country. The Manchester Mechanics' Institution had organised a "trip of an educational character" to Liverpool by rail in 1833;² the Zoological Gardens were visited after which members were entertained to dinner.³ The rail excursion was to become increasingly popular amongst mechanics' institutes as the century progressed, due to the expansion of the railway network.

Not all innovation, however, was concerned with alternatives to the educational role. Within the first decade of the Movement's development, institutes with specifically designated roles were established. At Shildon, for instance, in 1833, the railway workers were able to join what was probably one of the first 'works-based' institutes of the region. The New Shildon Railway Institute encouraged its membership to aspire to positions of responsibility, and was proud that

"many had progressed to prominent status in life," one outstanding example being that of

"John Hackworth, who introduced the locomotive into Russia in 1836", and who "had acknowledged his indebtedness to the society."⁴

Institutes where an industrial role was to some extent

1. Tomlinson, W.W., op. cit., p. 372.

2. Tylecote, M., L. & Y. p. 173.

3. ibid., p. 173.

4. Bainbridge, F.F., Centenary of Shildon, London and North Eastern Railway Institute, p. 9.

fulfilled, were not typical within the early Movement. Attempts, nonetheless, had been made to introduce industrial education at some institutes, but the workshops at

"the London, Manchester and Newcastle

Mechanics' Institutions had a short career"

"industrial education" so it seemed for the time being "has proved a signal failure."¹

This was the conclusion drawn by Hudson when presenting the results of his study of the nation's mechanics' institutes in 1851. The Shildon Institute was, therefore, exceptional in this respect.

The introduction of perhaps unusual innovative schemes by some of the institutions reflected the autonomy and enthusiasm of Management Committees. One instance of almost unbounded enthusiasm was observed at Alnwick in 1832. Because the Institution had been so successful since its foundation in 1824 it was seen fitting to encourage the establishment of two satellite branches. These were at Warkworth and Glanton, and were the first satellite societies ever recorded "as far as they (the committee) know,"² whilst this achievement was received with delight, causing "some degree of exultation."³ Later in the century, there were examples of other institutes which also assumed responsibility for establishing similar branch societies.⁴

1. Hudson, J.W., H.A.Ed., p. 57.

2. Alnwick L.S.M.I., A.R., 1832., pp. 1-2.

3. loc. cit.

4. See below p. 208.



By the end of this period of the Movement's history in the region, the depression which had affected its further expansion was largely over. Reference to Graph 1 on page 52 shows that new institutes were beginning to appear after several years of inactivity.¹ This wave of increased vigour continued in the years ahead, but again, not without periods of stagnation. Yet, if this energy had found expression outside the controlled environment of the Movement, then perhaps the urge among the working-classes for democracy, freedom of expression, and for the opportunity to govern some aspects of their social destiny, might well have passed into the hands of more militant radical groups which were beginning their ascendancy. Non-conformist pressure groups, too, might have gained further strength, especially Methodism with its particular brand of evangelicalism "which was at war with habit and indifference."² Indeed, the educational work in particular of such groups was beginning to lead the working-classes to look more closely into their misfortunes and grievances.³ By 1831, for instance, Class Meetings were being held in most towns and villages, where both spiritual and social blessings attended the meetings.⁴ Hence, the developing counter-attractions of the mechanics' institutes provided an alternative, to both political and religious allegiance.

In looking back over the decade 1823-1833, the institutes may be seen as societies which were involved in developing their

1. See Graph 1, p. 52.

2. Young, G.M., Portrait of an Age, p. 405.

3. Hammond, J.L., & B., The Town Labourer, p. 209.

4. Wearmouth, R.F., Some Working Class Movements of the Nineteenth Century, p. 31.

own individual ethos, whilst memberships increasingly determined their own requirements. Strides, too, were being taken towards the application of Rousseau's idea of libertarian thought, and its application towards education for the development of natural virtue.¹ And opportunities which had not been easily acquired by men such as George Stephenson, who claimed that

"the happiest times he ever spent were when he was down the pit and sitting upon a heap of coals reading by the light of his small candle, the scientific works which he had borrowed,"²

were now becoming available for all persons thus inclined. Yet, at the end of this period, most of the institutes were not of a permanent nature; many were accommodated in rented rooms wherever they could be found. For example, the Alnwick Institution, until 1831, had "occupied rooms in different parts of the town."³ Other examples included the Shildon Institute, which occupied the Wesleyan Methodist Schoolroom for about ten years from 1833;⁴ the Morpeth Institute, throughout its existence was dependent upon hired rooms;⁵ and even the large Newcastle Institution had not been established in a suitably permanent building by 1854. In fact at this date, a proposal was in hand towards the acquisition of

1. Silver, H., op. cit., p.18.

2. Account of the Proceedings of a Public Meeting held at Burnhopefield. Tuesday 12th January, 1836 for the purpose of establishing a Literary and Mechanical Institution, p. 9.

3. Heatley, J., Alnwick S.L.M.I., p. 3.

4. Bainbridge, F.F., Shildon R.I., pp 4-5.

5. See above, pp. 63-64.

accommodation above the new market buildings.¹ Therefore, in the North East, as in other parts of the country, the Mechanics' Institute as represented so often by "those solid, stone faced Victorian Gothic Institutes raised by subscription,"² came later in the century. Nevertheless, it was remarkable that after ten years' existence, overshadowed by economic difficulties, and dependent upon voluntary support, most of the institutes survived and were poised to enter the next period of progress and development. But the next period was not entirely free from the legacy of the first decade. Indeed, W.A. Inge, in a lecture entitled 'The Victorian Age', given in 1922, stated that

"every institution carries within it the seeds of its own dissolution and prepares the way for its most hated rival."³

Unwittingly, by 1833, the mechanics' institutions carried such 'seeds' which not only germinated, but continued to grow; those 'seeds' in the longer term were to produce libraries, facilities for adult instruction and successful leisure centres outside the Movement. The institutes, nevertheless, were beginning to both identify and to meet the needs of the people.

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1. Newcastle L.S.M.I., M.B. Vol. 2., 1847-1856., Min. dated 11th September, 1854.
 2. Harrison, J.F.C., L. & L., p. 58.
 3. Inge, W.R., op. cit., p. 5.

PART II

Chapter 4.

The Crisis Years of the Mechanics' Institute Movement: 1834-1846.

The infusion of renewed vigour into the Mechanics' Institute Movement in the North East region which seemed evident by 1833, was short lived. Reference to Graph 2 on page 114¹, shows that no institutes were established in 1834, whilst between 1835 and 1846, the most founded in any single year was two, in 1835. Moreover, throughout the period, many years were totally unfruitful. Although by 1832 the worst of the economic slump was over, the reforms contained in the 1832 'Bill' were not for the benefit of the working-classes, but rather for "the proud and arrogant 'shopcracy'"² of the middle-classes. Under the terms of the extended franchise there was scope enough to divert the energy of the middle-classes, for the time being, in pursuit of personal elevation, rather than in stimulating the growth of the Mechanics' Institute Movement. In the North East, Joseph Pease, a middle-class entrepreneur and acknowledged promoter of education, demonstrated such inclination. He entered the political arena, and became South Durham's first elected Member of Parliament in 1833.³ Meanwhile, in other parts of

1. See Graph 2, p. 114.

2. Silver, H., op. cit., p.25.

3. Hansard Parliamentary Debates on Education, 1833-1841.

Although Joseph Pease was involved in local educational work under the auspices of the British and Foreign School Society during his term of office, he did not contribute politically to educational debate.

the country, so far as the establishment of institutes was concerned, a contrasting situation developed. Kelly confirmed this "very striking feature", when he stated that "progress was relatively slow" in the "north eastern industrial area." Nationally the peak of the Movement's advance occurred around 1839. Eventually, the "big development"¹ in the North East did arrive, but not until 1847, when the forward movement was again resumed.

The period of stagnation between 1834 and 1846 was not only due to a suspension of interest on the part of many of the region's potential promoters, but also to the prevailing climate in both industry and working-class politics, where unrest among the workers was encouraged by the rise of militant socialism. Additionally, the institutes became the subject of criticism, even from those sympathetic to their work. Coates, for instance, the Honorary Secretary of the Society for the Diffusion of Useful Knowledge, being sensitive to the problems affecting the Movement, produced a report in 1839 in which he declared his support for a revolutionary change in policy, especially in the area of political freedom. He stated,

"I believe that the exclusion of all discussion or even instruction concerning Politics and Political Economy is another cause of the indifference of artisans toward Mechanics' Institutes".²

As his critique developed, he also drew attention to the adherence to rigidly controlled activities by many institutes, and claimed;

1. Kelly, T., G.B., pp. 230-232.

2. Coates, T., Report of the State of Literacy, Scientific and Mechanics' Institutes in England, p. 14.

"again, the absence hitherto of amusements has deterred men who have been labouring ten to twelve hours at some sedentary occupation from resorting to Mechanics' Institutes."¹

To avoid what was becoming a deepening crisis, he was in favour of revising the aims of the institutes, because he was all too aware of the competition mounted by political activists such as the Chartists. He recognised that, not only did they in many ways emulate the institutes "by having lectures on the Sciences",² but that also

"they have music and in some cases classes and the occasional tea-parties, accompanied by dancing."³

His perceived vision for future progress was generally implemented as the century advanced, but not until further criticism was levelled by external observers such as Engels. He saw the mechanics' institutes of the period, as

"organs for the dissemination of the sciences useful to the bourgeoisie all education is tame, flabby, subservient to the ruling politics and religion, for the working man it is merely a constant sermon upon quiet obedience."⁴

And as a result, he seemed to have evidence which supported the fact that the majority of

"working men naturally have nothing to do with these institutes, and betake themselves to the proletarian reading rooms."⁵

1. Coates, T., op. cit., p. 14.

2. ibid., p. 29.

3. loc.cit.

4. Engels, F., The Condition of the Working Classes in England in 1844, pp. 238-239.

5. ibid., p. 239.

Indeed, the institutes were vulnerable to the attractions offered by their competitors as will be shown later in this chapter, and consequently, experienced a reduction of membership, but not to an extent which precipitated their immediate demise. However, in reflecting the situation described by critics, the Movement in the industrial North East became identified with the crisis which threatened its survival nationally. This crisis will be considered both in terms of the promotion of new institutes, and of the metamorphosis of educational and social policy.

However, before engaging in an appraisal of the Movement's progress during these turbulent years in the North East, it will be useful to consider contemporary developments in the pace-setting London Mechanics' Institution, in order to assess how far it was representative of institutes further afield.

The London Mechanics' Institution - a brief survey: 1834-1846.

The prosperity of the London Mechanics' Institution, apparent from 1831, continued until 1837, and was marked by increased membership. It grew from 872 members in 1830, to 1,200 by 1837,¹ moreover, the financial difficulties handed down from previous years were gradually resolved, including debts incurred by the acquisition of the new building, which by 1836 had been reduced to £2,550.² Such observations reflected both the viability and enthusiasm inherent within the Society. The new spirit of increasing confidence was

1. Kelly, T., G.B., p. 127.

2. loc. cit.

undoubtedly encouraged by the search on the part of the working-classes, for political and social change.¹ Hence, it became impossible to outlaw discussion on topical political issues.² Restrictions on other taboo subjects, especially religion, were also challenged; indeed, in this matter the pendulum seemed to swing to the opposite extreme, when permission was granted to the anti-religionists Carlisle and Taylor, to hold their meetings in the hall of the Institution.³ But these incursions were of minor significance, and the pursuit of scientific knowledge remained pre-eminent, but not without modification. By 1835, the demand was for shorter courses, and for the inclusion of topics of wide interest, for example, courses embracing the subjects

"'education', 'a voyage to the Mediterranean',
and 'phrenology', all of which made an
occasional appearance."⁴

The strength of the scientific curriculum, however, was maintained, probably because there was relatively easy access to capable lecturers. The value of this work was noted by Tyndall, when on one occasion he referred to the Institution as London's Evening University.⁵ Simultaneously, the provision of classes flourished, and by the mid '30s, instruction was given in

"English Grammar, Writing, Arithmetic, Mathematics,
Drawing, Modelling, French, Latin and Shorthand."⁶

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1. Kelly, T., G.B., p. 235.
 2. Burns, C.D., B. Coll., p. 61.
 3. loc. cit.
 4. Kelly, T., G.B., pp. 128-129.
 5. Burns, C.D., B. Coll., p. 62.
 6. Kelly, T., G.B., p. 132.

The 3 R's became increasingly popular, confirming the need for remedial work in the basic areas of learning. Indeed, the future of the Institution was dependent upon attracting students who possessed basic skills in literacy and numeracy.

The prosperity of the Institution in the mid '30s was also derived in part from the social prosperity of the time, when a high level of employment, together with rising wages, was enjoyed by the working-classes. However, this period of relative affluence was short-lived, and proved to have been merely a brief interlude before difficulties once more affected progress. This happened in 1836, by the end of which, a "warning shiver"¹ was felt throughout the world of commerce. Over production of goods and consumer products caused a flooding of the markets, which in turn brought depression once again. Country-wide, incomes fell in industrial centres such as Manchester, the Potteries and the Black Country, whilst the average wage was less than 1/6d.² Such conditions lasted until 1842, bringing industry to a stand still, high food prices and unemployment.³ Towards the end of the depression, the London Mechanics' Institution suffered also from the death of Birkbeck in 1841. The years between 1837 and the early 1840s, witnessed a downturn in its fortunes. Membership fell from 1,200 in 1836 to about 1,000 in 1841, and for some reason, there was an attendant reduction in the number of volumes in the library. Between 1835 and 1844, nearly half of its stock was lost, and money was not forthcoming even to make good the ravages of normal

1. Young, G.M., op. cit., pp. 33-34.

2. loc. cit.

3. Harrison, J.F.C., The Early Victorians, pp. 33-34.

wear and tear.¹ The decline of the library facility was one reason suggested by the Committee for the decrease in membership.² Other reasons, however, were to be found within the environment in which the Institution was set.

At the time of Birkbeck's death in 1841, the Institution had been in existence for nearly twenty years, but was no longer surrounded by dwellings in which mechanics' lived.³ Most of the working people were now employed as clerks in the developing city commercial and legal companies, and had very different needs from those who had supported the Society in its early years. Birkbeck's death, moreover, removed effectively his influence, since he had always been actively involved in the development of policy, and in attracting support and in delivering lectures.⁴ From 1841 to 1866, the affairs of the Institution passed into the hands of the Chairman of the Committee who was elected by the membership.⁵ The new leadership continued to permit discussion on politics and economics, but failed to grasp the educational needs of the new class of member, which had displaced the former 'mechanic' class. They encouraged programmes of popular instruction, but overlooked the need for systematic learning. Even the classes, which necessitated progression from one level to the next, became piece-meal events due to the depressed financial state of the Institution. A master, for instance, would only be hired until the "funds of the

1. Kelly, T., G.B., p. 142.

2. ibid., p. 143.

3. Burns, C.D., B. Coll., p. 62.

4. ibid., p. 63.

5. Burns, C.D., B. Coll., p. 143.

Institution could no longer bear the charge."¹ Added to these problems were further struggles for change. In 1842, the first change sought by certain Committee members was that the name of the Society should be altered to the 'Birkbeck Institution'. This suggestion was defeated by a large majority, probably because it would be seen to be synonymous with continued dependence upon patronage, i.e. the kind of financial support which had been encouraged by Birkbeck. The refusal to tread the path of patronage, however, led to increasing financial difficulties. By 1845, the situation was critical, and steps were taken to reverse this decision. The Institution was subsequently rescued from the resulting crisis, when a public meeting was convened for the purpose of collecting subscriptions; it was chaired by Henry Brougham and about £500 was raised. But this was hardly enough to resolve current problems, and the next few years saw the introduction of all possible means of raising money, simply to ensure survival. Social events necessarily became increasingly popular, whilst, perhaps unwittingly, the die was cast for the Movement's future *raison d'être*.

One further blow, not only to the London Mechanics' Institution, but to the Movement generally, was the decision by the Government, in 1837, to establish a School of Design at Somerset House. This resulted from an enquiry carried out by a Government Committee in 1836, to examine the relationship between art and manufacturers. In 1840, further grants became available for the establishment of similar 'Schools' at Manchester, Birmingham, Glasgow, Paisley and Leeds.² Museums were also encouraged to develop collections

1. Burns, C.D., p. 69.

2. Riley, N., Victorian Design Source Book, p. 10.

which would be attractive to the working-classes. Clearly, the Mechanics' Institute Movement was being by-passed, when achievements of the past two decades could have been nurtured to service a geographical base far greater than that covered by the Schools of Design.

Meanwhile, the Movement's presence was maintained within the North East, but not without addressing an increasing number of problems.

The Progress of the Movement in the North East Region; 1834-1846.

The period from 1834 to 1846, was unremarkable in terms of the number of mechanics' institutes established throughout the region. Reference to Graph 2 on page 114,¹ shows that a total of thirteen were founded, plus the re-establishment of the Darlington² and Sunderland Mechanics' Institutions.³ During this period, too, the Old Hartlepool Mechanics' Institute was suspended for a period of four years, between 1836 and 1840.⁴ Table 7 below shows the locations of the institutes established with their dates of foundation.

1. See Distribution Graph 2, p. 114.

2. Darlington M.I., M.B. 1825-1847. Min. dated 28 February, 1840.

3. Hall, W.G., 'The Provision of Technical Education in Sunderland prior to 1902', (M.Ed. Durham, 1964), p. 39.

4. Kelly, T., G.B., p. 307.

GRAPH 2

Graph 2 Mechanics' Institutes and Kindred Societies

1834 - 1846

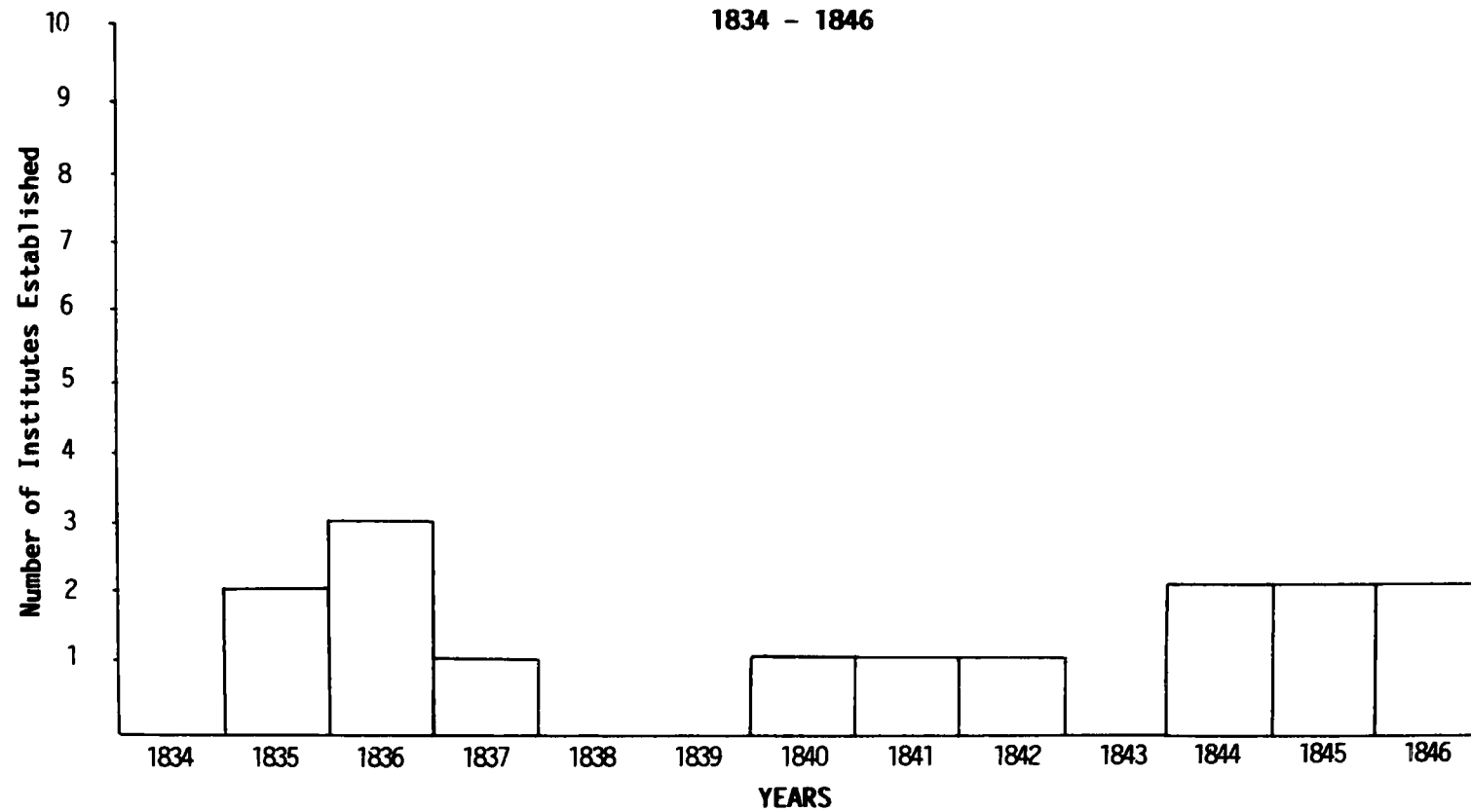


Table 7.

Mechanics' Institutes and Kindred Societies established
between 1834 and 1846.¹

<u>Towns</u>	<u>Date</u>
Corbridge L. & R.R.	1835
Gateshead M.I.	1836
Darlington M.I.	1840 re-established
Low Fell M.I.	1841

Ports

Sunderland M.I.	1837 re-established
Middlesbrough M.I.	1844
Seaham Harbour M.I.	1846

Rural

Haydon Bridge News Room & Library	1835
Burnhopefield M.I.	1836
<u>Walker Iron Works</u> M.I.	1836
Pittington L.S.I.	1842
Wylam Colliery I.	1844
Etherley L.I.	1845
West Auckland M.I.	1845
Shotley Bridge M.I.	1846

1. See Appendix 1, pp. 370-380 for sources.

Even though the rate of establishing institutes was below earlier predictions it is interesting to note that whilst some slight advance of the Movement was taking place in the industrial centres, market towns and ports, there was increasing activity in the village communities.¹ But generally, the task of maintaining the momentum of the Movement in the region became the prerogative of the old established institutes, which had survived the economic depression of the late '20s, and which were prepared to meet the present crisis.

The Progress and Development of the Original Institutes: 1834 to 1846.

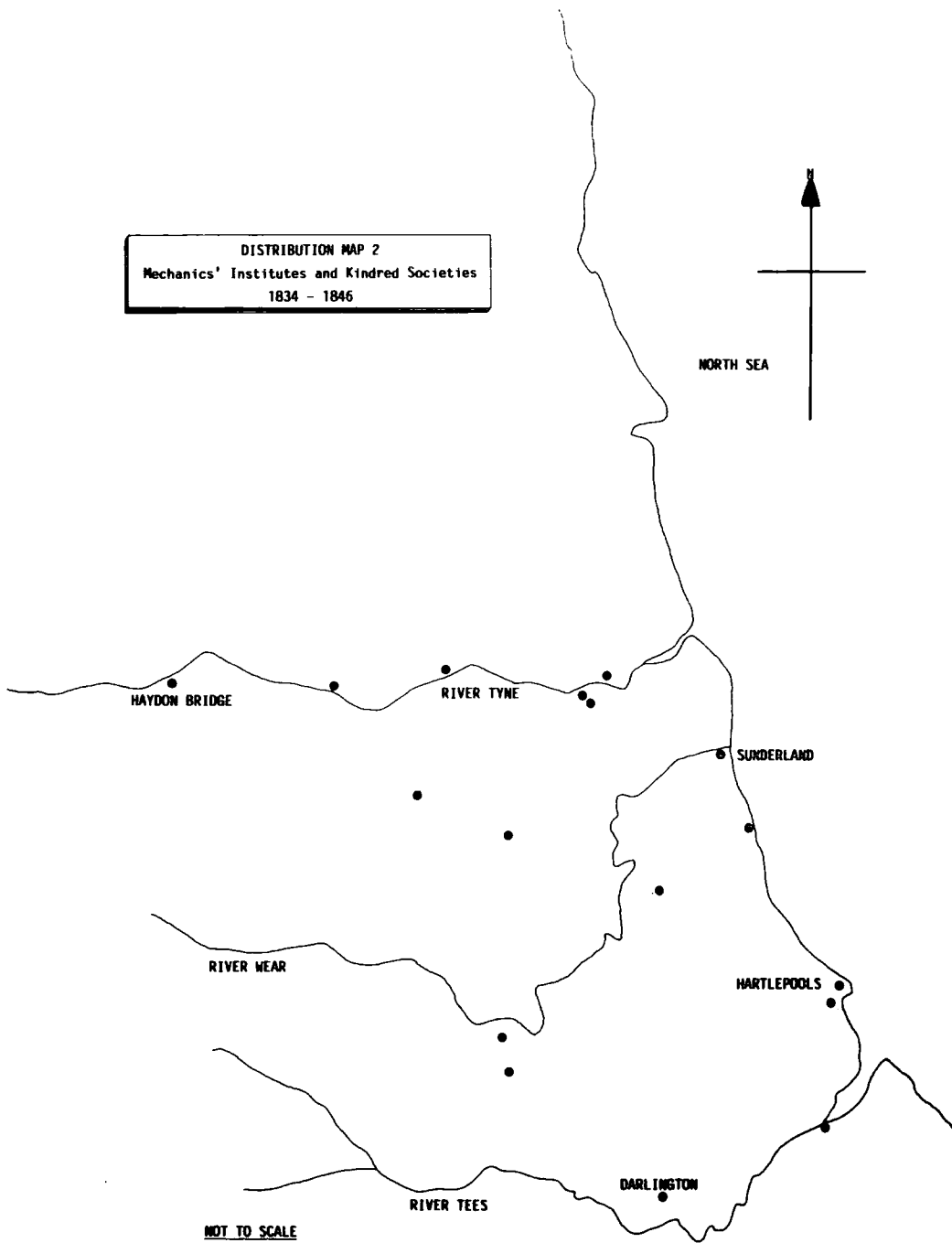
The voluntary nature of the mechanics' institutes ensured that they were always at the mercy of the prevailing economic or political climate. From 1836, the economic depression clearly played its part in retarding the Movement's progress. It was further exacerbated throughout the late '30s and early '40s, when crime, poverty and drunkenness were increasing, generally reaching a peak in about 1842.² These years were particularly difficult for the region's industrial centres, especially the mining communities, where it was hoped that Chartist agitation might turn the tide of oppression which the miners had suffered at the hands of their employers. The resultant competition for the allegiance of the working-classes detracted from the work of the mechanics' institutes. Coates, had been quite rightly concerned about such competition since Chartist classes were set up throughout the region in places where mechanics' institutes existed, for example, at South Shields, Newcastle-upon-Tyne, Barnard

1. See Distribution Map 2, p. 117.

2. Young, G.M., op. cit., pp. 77-78.

DISTRIBUTION MAP 2

DISTRIBUTION MAP 2
Mechanics' Institutes and Kindred Societies
1834 - 1846



Castle, and South Church near Bishop Auckland.¹ Chartist influence was especially strong at Sunderland, and even within the Mechanics' Institute, where it was reported in 1841, that

"in the town the impression exists that this is a
Chartist institution."²

Other societies also entered the competition for members; the Durham Political Union, in 1840, formed classes which they urged should be made real instruments of instruction, and that members should study works of history, and especially the history of our own country.³ Throughout the country, cheaper alternatives to the mechanics' institutes were increasingly introduced; these included societies such as the Lyceums and the Y.M.C.A s founded in 1844.⁴ Competition from these organisations, and others, posed a threat to the Movement wherever they became established. Many other regions in addition to the North East were similarly affected. For instance, the West Midlands was also by-passed by the general advance of the Movement at this time. The further development of institutes was delayed until the late '40s, when the "social and economic structure of the area"⁵ was able to support advancement. However, to counter such potentially destructive effects and to try to secure cohesion of purpose, Unions of Mechanics' Institutes were formed. Although more

1. Wearmouth, R.F., op. cit., pp. 127-142.

2. Sunderland Herald. 4th Sept., 1841. Report of the 4th Annual Meeting of the Sunderland Mechanics' Institute.

3. Webb, R.K., The Working Class Reader, p. 83.

4. Kelly, T., G.B., pp. 125-126. See also J.R.H Moorman, A History of the Church in England, p. 382.

5. Turner, C.M., 'M.Is. Midlands', p. 66.

will be said about this in a later chapter,¹ institutes in the North East were able to benefit from affiliation to either the Yorkshire Union of Mechanics' Institutions, formerly the West Riding Union established in 1841,² or to the Northern Union of Mechanics' Institutions established in 1848.³ From the time of their respective foundation, both Unions served the Movement until well into the twentieth century. The Yorkshire Union, however, tended to confine its activities to Yorkshire and the southern part of County Durham: the Northern Union was active in the northern counties, including Durham, Northumberland and the North Western Counties. Since both Unions "helped and stimulated the Movement,"⁴ it is reasonable to suggest that their contribution was valuable in enabling the foundation of institutes in the North East to reach a peak in the late 1840s. But this was not before the educational and social crisis had been resolved.

The Educational Crisis.

Before the advent of Union driven encouragement, the region's institutes experienced a prolonged period of little progress, especially in maintaining programmes of scientific instruction. Those which had been established in expanding industrial areas such as South Shields, Shildon and Newcastle upon Tyne, published little in their Annual Reports which reflected work done in sympathy with their original aims. Early ideals had clearly either been abandoned or diluted,

1. See below, p. 196.

2. Kelly, T., G.B., p. 251.

3. ibid., p. 260.

4. loc. cit.

whilst a similar "falling away from their early ideals"¹ was also reported as having happened in the institutes of South Wales. Evidence from the North East, however, supported the fact that diverse subjects continued to be introduced into both classes and lecture programmes. But undoubtedly, such intrusion resulted from necessity; at the London Institution and throughout the region, it was the means of attracting and maintaining attendance. At the Stockton Institute, in 1842, classes comprised various subjects including "Drawing, Writing, Mathematics, Music and Elocution."² Lectures, too, inclined more towards placating audiences by offering subjects of topical interest. Those given in a programme in 1839 at the South Shields Institute, included,

"Political Economy.

Navigation of the Ancients in ports of the
Mediterranean.

Nervous, Sanguineous and Digestive
Systems.

Rise, Progress and Decline of Grecian
Literature."³

Despite attempts to gain popular support, such innovation met with limited appeal. At the South Shields Institution, for instance, by 1844, it was reported that,

"lectures have been entirely wanting during the year,"⁴
but exceptionally, one lecture had been given on the subject,
"On the Social Condition of the Spartan and Athenian

1. Evans, T., 'M.Is. S. Wales', p. 172.

2. Y.U.M.I., A.R., 1842, pp. 24-26.

3. South Shields L.S.M.I., 14th A.R., 1839, pp. 4-5.

4. ibid., 19th A.R., 1844, p. 4.

States."¹

Similar disinterest in lectures was shown at the Darlington Mechanics' Institution in 1841, when it was reported that it was unfortunate, that a lecture given by Mr Edwards on the

"Advantages of Scientific Knowledge"² ..

.."did not meet with greater encouragement."³

A second lecture, therefore, in the two-lecture programme had to be cancelled. The same fate, a few weeks later, attended a three-course programme given by a Mr Fothergill on

"The Wisdom and Contrivances displayed in the structure of the human frame."⁴

His third lecture also had to be cancelled.⁵ Following the trend at the London Mechanics' Institution, it seemed that the lecture, as a means of either imparting knowledge, or of providing a pleasant evening's entertainment, was fast becoming out-moded. The reason why they lost their attraction generally, was indirectly alluded to at the Alnwick Institution in 1843. It was stated in the Annual Report, that

"the defective state of Elementary Education still operates, as another retarding cause to the complete success of the Mechanics' Institution."⁶

And, since no lectures were given there during the previous year, it may be assumed that increasingly, audiences were finding it difficult to understand the subject matter for the reasons published in the Annual Report. Undoubtedly, many of the region's institutes could have reiterated a similar

1. South Shields L.S.M.I., 14th A.R., 1839, pp. 4-5.

2. Darlington M.I., M.B. Min. 7th dated Jan., 1841.

3. ibid., Min. dated 18th Feb., 1841.

4. loc. cit.

5. ibid., Min. dated 16th April, 1841.

6. Alnwick L.S.M.I., A.R., 1843, p. 3.

experience.

The widespread rejection of the lecture as a means of disseminating knowledge, might well have pitched the Mechanics' Institute Movement into a deeper crisis than that which actually occurred. It was to some extent avoided, because the situation highlighted the need for classes in which basic educational skills might be taught. The institutes already had some experience in offering this service, and were now confronted with the opportunity to develop it further.

Classes were successfully established throughout the region, and in addition to offering instruction in elementary subjects, more advanced subjects were occasionally catered for. For example, at Barnard Castle, in 1836, classes were conducted during the evenings in

"Writing, Grammar, Arithmetic, Geometry and Algebra"¹

So seriously was the establishment of classes taken there, that

"Rules for Conducting of Classes"²

were drawn up. It was resolved that,

1. "Any number of members exceeding five may form themselves into a class for the study of any branch of the arts or sciences."
2. "Three members of the Institute together with the president and vice president shall form a committee to visit every class once a month to hear them questioned on the subject they have been studying and to write a report on their progress."³

1. Barnard Castle M.I., M.B. No. 1. Min. dated 2nd May, 1836.

2. ibid., Min. dated Jan. 12th, 1837.

3. loc. cit.

Recognition of the students' progress, was acknowledged by issuing certificates¹ to those who had satisfactorily completed a course; rewards, however, were not unusual, and clearly introduced an element of competition, whilst also ensuring regular attendance. At the Newcastle Institution, for instance, encouragement to students was provided through a prize scheme which was in operation from 1837. Successful students in essay writing received medals. In 1837, for example, the prize was given for the best essay on the subject,

"Use of History"²

and in 1839, the essay topic was,

"The Influence of the Philosophy of Bacon."³

The fact that such presentations were made, suggested that probably many students who attended the classes, were keen to obtain recognition for their efforts.

The growing popularity of classes resulted in pressure being placed upon institute committees to find suitable teachers. The Stockton-on-Tees Institute, for instance, which had established a successful class programme in 1842, found by the following year that the

"classes are in a more advanced state than has

been the case at any former period."⁴

But so widespread were successful classes within the region, that in the following year, 1844, it was reported that

1. Barnard Castle M.I., M.B. No. 1. Min. dated 2nd May, 1836.

2. Newcastle L.M.I., M.B. Vol I. 1834-1846. Min dated 6th Mar., 1837.

3. ibid., Min. dated 4th Mar., 1839.

4. Stockton M.I. Sixth A.R.

"a considerable want of teachers has been experienced."¹
However, perhaps it was not surprising that the crisis extended into the heart of the teaching profession. Good reasons for this were published in The Spectator November, 1846. A report stated:

"In this country if there has hitherto been a low estimate of education, how much lower the estimate of the educator, and lower still than this is the educator's own estimate of himself.

.... As a rule, the schoolmaster has sunk to his situation, he has not risen to it. He comes to his work a broken man; if not broken in spirit at least broken in fortune. He who is to reclaim society's outcasts is himself an outcast"²

Within the North East's Mechanics' Institutions, no direct evidence has been found to support the above observations, but there was some agreement where certain schoolmasters were employed within the Voluntary Schools of the region.³

None of the activities offered by Voluntary Societies such as the mechanics' institutes, were able to depend upon a guaranteed membership. Throughout this period, membership numbers in the region's institutes fluctuated, as was the case at the London Mechanics' Institution. At South Shields, for instance, in 1839, a

"slight decrease"⁴ was reported, whilst in 1843 it was found that "the number of members has

1. Stockton M.I., Seventh A.R.

2. Spectator, 7th Nov., 1846, p. 1068.

3. Stockdale, C., 'N. & B., Schools', pp. 187-189.

4. South Shields L.S.M.I., A.R., 1839, p. 3.

been increased by upwards of thirty."¹

The Alnwick Institution also experienced similar gains and losses. Membership dropped from 127 in 1838,² to 114 in 1843,³ but by 1844 had suddenly risen to 150.⁴ In contrast, however, membership at the Stockton Institute remained fairly static between 1841 and 1846, when returns made to the Yorkshire Union's Annual Meetings indicated 189 and 186 members respectively.⁵ Such variations no doubt reflected the state of the prevailing economic climate of the 1840s.

But it was in this climate of economic uncertainty and social upheaval that the re-establishment of previously failed institutes was achieved. Little is known about the re-birth of the Sunderland Institute, and confusion exists as to how it actually occurred.⁶ Details concerning the revival of the Darlington Mechanics' Institution, however, show that once again, the work was undertaken by leading Quakers. Members of the Backhouse banking family⁷ initiated the rescue by attracting "a sufficient number of subscribers"⁸ in March 1840. But in some respects, the membership did not simply wish to resurrect an 'old style' institution. Newly acquired social freedom had to be catered for, as indeed, was commonly the case in many other places. Such measures needed careful consideration, since misguided social pressure might

1 South Shields L.S.M.I., A.R., 1843, p. 1.

2. Alnwick L.S.M.I., A.R., 1838, p. 2.

3. ibid., A.R., 1843, pp. 2-3.

4. ibid., A.R., 1844.

5. Y.U.M.Is. A.Rs., 1842, p. 26. and 1846, p. 63.

6. Hall, W.G. 'Tech. Ed. Sunderland', p. 39.

7. Darlington M.I., M.B. Min. dated 28th Feb., 1840.

8. ibid., Min. dated 14th March, 1840.

completely change the status of an institute.

The Social Crisis.

During the difficult years of the 1840s, the London Mechanics' Institution considered a change of title in the hope of reversing its misfortune. A similar measure was suggested at the re-birth of the Darlington Institution. Whilst this was equally unsuccessful, it nevertheless encapsulated the quest for the initiation of social change. It was to have been re-named, and "called the Darlington Mechanics' Library and Reading Room".¹ The proposed title was to reflect a widening of the scope of the Institution's activities. Indeed, the inclusion of a Reading Room surely indicated a revised approach, when compared with the strictly educational role of the original Society. The revival simultaneously, albeit slowly, embraced changes in social policy, when it was confidently reported that this society "is a Phoenix risen out of its own ashes."² This declaration of confidence was possibly due to the Committee having already taken its first, but rather hesitant, steps to introduce social activities.³ Decisions about such matters had to be taken during a period when controversial opinion was overtly reported, and reticence was therefore, understandable. The Mechanics' Magazine, for example, in 1836, published an article entitled, the 'Rise and Progress of Mechanics' Institutes', and therein, gave the following observations which clashed with Coates' views and his obvious influence. Hence, it was suggested that,

1. Darlington M.I., M.B., Min. dated 19th Sept., 1844.

2. See above, p. 113.

"Another cause of the decline has been the character of the instruction science, and especially elementary science has been in a great measure laid aside The models of machinery have disappeared to make way for the piano-forte and double drum, and some fifth rate actor has been retained to murder Shakespeare on the spot where the workmen should have been made familiar with the inventions of Watt or Arkwright."¹

In view of the above, the promoters of the Darlington Institution not wishing to deal with failure for a second time, were obviously facing a dilemma about the direction in which to proceed. The local trend, exemplified by the Stockton and York Institutes, was finally accepted, and secured the future of the Institution. By 1846, it was sufficiently viable to warrant application for membership of the Yorkshire Union.² The year 1846 seemed to mark for the time being, the end of the crisis for the Darlington Institution, and especially for its promoters who, since 1825, had managed to keep the vision alive. Few of the region's institutes seem to have faced this measure of crisis before mid-century.

By the end of 1846, it was evident that the region's institutes were actively pursuing changes which enabled them to respond to the needs of the people. The Institution at Alnwick, for example, in 1844, was already extending its influence, not only by engaging in social functions such as the soirée,³ but also in its venture into the realm of wider

1. Mechanics' Magazine, 18th Nov., 1837, p. 106.

2. Darlington M.I., M.B., Min. dated 9th Apr., 1846.

3. Alnwick L.S.M.I., A.R., 1844, p.3.

social issues. Indeed, as early as 1842, it became involved in the demand for better housing conditions for local agricultural workers. The pressure which emanated from the membership brought beneficial results, when it was reported that,

"this Society cannot but wish complete success to the benevolent efforts which are now in progress, to improve the cottages of the agricultural labourer; and it may be a subject of reasonable self-gratification that, the late respected and talented secretary of this Institution, was among the first to call Public attention to the wretched condition of the cottages and to the physical and moral evils arising from it."¹

But what was now happening throughout the region, was simply the implementation of suggestions made by Coates and other commentators several years earlier. For instance, in 1836, Charles Baker of Doncaster had recommended in a paper to the Central Society of Education that,

"we think some popular amusements might be connected with Mechanics' Institutions. We would venture to recommend chess as a game of science and skill which might be allowed in all Mechanics' Institutions. We would exclude all games of chance, and everything that could lead to gambling and worse excesses. Amusements and exercise to develop the muscular systems of those whose occupations are sedentary, concerts, or amusements of science, for social parties: and pedestrian excursions on summer evenings for students in natural history

1. Alnwick L.S.M.I., A.R., 1842, pp. 2-3.

might be employed for the recreation of the people."¹ Confirmation of the adoption of such activities deployed to enliven the institutes came from examples throughout the country. At the Huddersfield Mechanics' Institution, for example, a strong musical tradition was developed, whilst the music department performed popular oratorios such as Handel's Messiah and Haydn's Creation.² Again, within the orbit of the Yorkshire and Lancashire region, this 'new spirit'³ was pioneered in other ways particularly by the Manchester Mechanics' Institute. Gymnastics classes, for instance, had been formed there in 1832; the year 1834 saw the first season of a cricket club, and excursions and concerts were also part of the 'institute experience.'⁴ Slowly such innovations were "becoming part of the programme of every progressive institute"⁵ throughout the land.

Chadwick, in assessing the value of such activities at the Derby Mechanics' Institute, stated that,

"the worth of these various activities (excursions by rail, vocal and instrumental music, discussions, soirées and dances), in educational values, should not be underestimated."⁶

Whilst there is sufficient evidence to confirm that the soirée, excursions and tea-parties were becoming popular social activities within the institutes generally, there were also examples of some rather novel innovations, particularly in the North East. At the Shildon Railway

1. Baker, C., Mechanics' Institutes' Libraries, p. 249.

2. Tylecote, M., L. & Y., p. 205.

3. Kelly, T., G.B., p. 237.

4. loc. cit.

5. loc. cit.

6. Chadwick, A.F., 'Derby', p. 144.

Institute, for instance, in 1846, the Committee reported that attention had been given to

"the subject of public gardens,"¹
since

"they trust and believe that a healthy, pleasant,
social and remunerative recreation for the
Mechanics' and their families during their leisure hours"²
would be desirable.

Such facilities were unusual, since Tylecote seems to be the only author who has drawn attention to the existence of garden allotments at the Shildon, Malton and Middlesbrough Institutes.³

Further diversification of social activities was achieved by the setting up of museums and the presentation of locally produced exhibits.

Charles Baker, in the paper referred to earlier, had recommended the creation of museums. He suggested that the

"best museum for a Mechanics' Institution is one of murals, and works of art, apparatus for lectures, and for illustrating those principles which are taught in classes, should also contain specimens of the mineral, animal and vegetable substances used in the arts Every artisan might add his contribution to the collection The importance of a museum in large towns is acknowledged by all who have duly considered our dependence on our manufacturers

1. Y.U.M.I. Tenth A.R., 1847, pp. 68-69.

2. loc. cit.

3. Tylecote, M., L. & Y., p. 275.

in the arts of design."¹

The museum was destined to become a more permanent form of the transient and occasional exhibition. But it is interesting to acknowledge that at Barnard Castle, in 1991, the members of the Mechanics' Institute have re-furbished part of their accommodation as a gallery, in which, from time to time, local artists exhibit their work.

The mounting of exhibitions in mechanics' institutes, however, seems to date from 1825, when the Manchester Mechanics' Institution staged the first to be recorded.² Generally, such events were only feasible within the larger societies; the second Manchester Exhibition of 1838, became part of a movement led by the mechanics' institutes, and which sponsored similar events in other centres, including the Potteries, Newcastle upon Tyne and Sunderland where these were first occasions.³ Typically, exhibits would have been similar to those shown at Manchester in 1838, which included models, drawings and specimens illustrating science, the fine arts (architecture, sculpture and painting) and useful arts (building, engineering) and natural history.⁴ Thereafter, in the North of England, the exhibition movement became strong, whilst a second was held in 1840 at Newcastle.⁵ The

1. Baker, C., op. cit., p. 252.

2. Kelly, T., G.B., p. 237.

3. Kusamitsu, T., 'M.I's. and Working Class Culture: Exhibition Movements 1830-1840s', S.I.S., p. 34.

4. Kelly, T., G.B., p. 237.

5. loc. cit. See also Hudson, J.W., H.A.Ed., p. 143.

popularity of such events was overwhelming¹ during the late '30s and very early 40s'. However, at Newcastle, the next to be staged was not until 1848.² This was probably due to the costs involved, especially during this period of economic depression. Although exhibitions were never a main feature of the institutes, neither were they irrelevant side issues, as will be discussed in the next chapter. Significantly, the educational and social measures adopted, prevented the crisis from developing into an irreversible state of affairs.

The New Mechanics' Institutes: 1834 - 1846.

In tracing the development and progress of the institutes established earlier in the century, information was obtained mostly from records of the larger foundations. This is also true of the new institutes established between 1834 and 1846; records which may have been kept by the small societies have not been discovered. Records of the work of some of these smaller rural institutes, however, become available later in the century, when they presented their annual reports to the regional unions. Less detailed reports, and information concerning their work has occasionally been found in contemporary newspapers, local histories and directories. Of the region's thirteen new institutes established between 1834 and 1846, the records of only two seem to have survived. And, as expected, both were large societies, i.e. the Middlesbrough Mechanics' Institute and the Gateshead Mechanics' Institute.

Another foundation of this period, the institute at Seaham

1. Kelly, T., G.B., p. 237.

2. Monthly Chronicle, Jun., 1888, p. 282.

Harbour, known as the Londonderry Literary and Scientific Institute, was briefly mentioned in Whellan's 'Durham'. However, despite having to over-look the work of the rural institutes of this period, due to a lack of evidence, there is sufficient material upon which to base a reasonable assessment of the role of the larger societies.

As in the earlier years of the Movement's history, the relatively few new institutes established between 1834 and 1846 were dependent upon leadership provided either by employers, influential citizens or members of the aristocracy. The Mechanics' Institute at Gateshead, founded in 1836, for instance, received a donation from the Earl of Durham,¹ whilst those initially responsible for its promotion included James Pollock, J. Bookett, W. Rowntree and Thomas Swinburne.² At Middlesbrough, the initiative to establish the Mechanics' Institute was taken by the recently arrived iron masters, Bolckow and Vaughan, in 1844.³ A public meeting, which was by now the traditional approach, was held in the Exchange Rooms, when

"a few individuals of the town met"

for the purpose of proposing the establishment of a Mechanics' Institute.⁴

Unusually, for the period before mid-century, the institute at Seaham Harbour founded in 1846, included the name of its chief promoter in its title i.e. Londonderry; indeed, its existence was dependant upon

1. Gateshead M.I., M.B. 1836-1845. 1st A.R.

2. ibid., Min. dated 22nd Dec., 1836.

3. Middlesbrough M.I., M.B. Min. dated 17th Sept., 1844.

4. loc. cit.

"the late Marquis of Londonderry being the principal promoter and contributor."¹

Later in the century, the naming of institutes became a matter of considerable importance, a point observed by Kelly, when he stated that

"the institutes however became varied in name, form and function."²

Many throughout England were closely associated with particular industries as will be shown later.

Like their predecessors, the new institutes of this period suffered from the economic constraints of the 1840s, as was illustrated by the economy of the Middlesbrough Institute. Even in its hired rooms, within only one year after opening, it was found expedient to

"make some change to the form of gas burner in order to reduce the cost of lighting the room."³

Such measures surely revealed the financial crisis faced by many mechanics' institutes at this time. Likewise, the Gateshead Institute had to curtail financial expenditure within one year of opening. Here, a librarian had been employed from May, 1837,⁴ but by September, the same John Hutchinson's services could not be retained.⁵ In addition to the prevailing economic climate, other factors such as retaining members, again added to the struggle experienced by the new institutes in consolidating their presence within their respective communities.

1. Whellan, F. & Co., Durham, p. 840.

2. Kelly, T., G.B., p. 258.

3. Middlesbrough M.I., M.B. Min. dated 5th Oct., 1845.

4. Gateshead M.I., M.B. Min. dated 3rd May, 1837.

5. ibid., Min. dated 27th Sept., 1837.

Initially, membership figures seem to have been generally encouraging. At the Middlesbrough Institute, for example, 110 members had been enrolled within one month of opening,¹ and at the Gateshead Institute, the membership remained stable during the early years of its existence. Membership returns, for instance were 256 in 1838,² and 265 in 1839.³ But at both the Middlesbrough and Gateshead Institutes, the 1840s brought economic and educational problems clearly into focus, with a resultant decline in their viability. Hence, in 1840, the number of members at the Gateshead Institute had fallen to 225,⁴ and by 1847, the membership crisis at the Middlesbrough Institute was such that a scheme was proposed whereby a merger should take place with the Temperance Society.⁵ But reductions in membership reflected not only the effects of unemployment, but also, the unsuitability of the educational experience offered.

Both the Middlesbrough and Gateshead Institutions began life by offering what the original institutes were now, after years of experience, beginning to abandon i.e. lecture programmes. At Middlesbrough, for instance, from October 1844, programmes of "various lectures" were "arranged fortnightly," these included,

"Physiology of Digestion,

Nature and Influence of Poetry";⁶

but by December, it was evident that this frequency was too

1. Middlesbrough M.I., M.B. Min. dated 11th Oct., 1844.

2. Gateshead M.I., M.B. 2nd A.R.

3. ibid., 3rd A.R.

4. ibid., 4th A.R.

5. Middlesbrough M.I., M.B. Min. dated 13th Dec., 1847.

6. ibid., Min. dated 11th Oct., 1844.

optimistic, and it was therefore,

"resolved that in future the lectures will be given monthly."¹

The same fate had also been experienced at the Gateshead Institute in 1842. The Fifth Annual Report acknowledged that,

"the little exertion to vary the monotony of such intelligence and to render your institution more extensively valuable has failed."²

Despite the demise of 'the lecture' generally, the new institutes disregarded the crisis perpetuated by its continued adoption. The lecture remained, above all else, the means of fulfilling the educational role of the Gateshead Institute, and programmes included lectures on the following topics:-

1836 "Human Physiology and Hydrostatics."³

1837 "Three lectures on Electricity."⁴

1838 "Two lectures on Organic Chemistry."⁵

However, such dogged persistence in pursuing such programmes, together with economic difficulties, almost caused its collapse. By 1843, it was reported that the

"depression under which trade and manufacturers have so laboured and the consequent want of employment putting it out of the power of the majority of working

1. Middlesbrough M.I., M.B., Min. dated 24th Dec., 1844.

2. Gateshead M.I. M.B. 5th A.R.

3. ibid., 1st A.R.

4. ibid., 2nd A.R.

5. ibid., 3rd A.R.

men to appropriate any part of their small earnings to the cultivation of their minds."¹

It is interesting to note that an objective other than the subject matter was evident. An adherence to the traditional approach which emphasised the 'cultivation of their minds', suggested that the promoters of the new institutes were reluctant to follow the current trend of introducing entertainment as now practised in the older societies.

Moreover, the establishment of classes, whilst considered desirable, does not seem to have attracted the enthusiastic support of the committees. For instance, classes were recommended to be introduced at the Gateshead Institute from the start. In 1836, however, the Committee launched a scheme whereby the members were invited to acknowledge

"the necessity of exertion amongst themselves in the formation of classes."²

Clearly, the Committee did not actively take steps to make such provision. Indeed, the Annual Reports between 1837 and 1845, stated that classes were not established.³ Reluctance in this matter on the part of the Committee was, however, probably due to the confined nature of the accommodation - only one room was available for all activities and facilities.⁴ At the Middlesbrough Institute, whilst again, it was recorded that from the outset, in 1844, classes in "Drawing and also other classes"⁵ had been formed, there had been difficulty in maintaining this provision, since by 1847,

1. Gateshead M.I. M.B., 7th A.R.

2. ibid., 1st A.R.

3. ibid., A.R. 1837 to 1845.

4. ibid., 9th A.R.

5. Middlesbrough M.I., M.B. Min. dated 11th Oct., 1844.

it was advised that all

"classes with the exception of the discussion class
be discontinued."¹

Whilst no reason was given, it would seem that the Institute was in the process of discovering that role which would best advance its purpose.

Further emphasising the point that the new institutes were stagnating and were not only experiencing difficulties in the acquisition of suitable accommodation and in the retention of members, there were also difficulties in maintaining libraries, which had also been experienced at the London Mechanics' Institution. At Middlesbrough, it seemed that up to 1846, and for some years beyond, the formation of a library had not been possible. At the Gateshead Institute, too, it was seen earlier that a librarian was not required to oversee the 1,000 volume collection of books.² Further expansion must not have been envisaged in the immediate future.

By 1844, the educational crisis which was generally endemic within the nation, was recognised by certain sections of the press. Punch, for example, commented on the state of adult education and in particular, on those involved in its promotion. The satirical accounts reproduced below, concerning the mechanics' institutes, suggested that they were neither efficient nor effective in their purpose.

1. Middlesbrough M.I., M.B., Min. dated 20th Apr., 1847.

2. Gateshead M.I., M.B. 1st A.R., 1837.

MECHANICS' INSTITUTION.

At a meeting held last week by a few of the lecturers of the Mechanics' Institution, for the purpose of examining such of the members as were most zealous and frequent in their attendance -

Jonas Clump was called in, and passed the following creditable examination:-

"Is a wedgeable dealer in Clare Market, and has been a member of the Mechanics' Institution for three years. Has attended reg'lar. Knows what the mechanical power is; knows the Chartists and turn-outs of Manchester and the man'fact'ring towns is mechanical powers.

"Know'd what the wheel and axle was. Had had many opportunities of seeing of it; had often examined it under his own go-cart. Hadn't cal'clated its power; in fact, had rayther looked to his hoss for the power.

"Didn't know exactly what the 'wedge' was, Cal'clated its powers was henormous. Was wedged in a crowd last Thursday arternoon at Punch's office, and got well nigh split.

"Know'd a screw. His old uncle was a screw, know'd nothin' better; he was a man with lots of means but no liberality, who always wanted more, but didn't care what dirty way he got it in.

"The 'lever' he had never seen. Know'd what a 'balance' was; always liked to have it in his favour, particklar at the year's end. Had never heerd of any 'harm' in the lever.

"Was quite ignorant of the pulley. Believed the inclined plane was a carpenter's tool, but didn't exactly know".

Jonas Clump then retired.¹

And in 1847 the editor of Punch observed some of the

1. Punch, 20th Jan., 1844, Vol. VI., Jan. to June, 1844, p. 44.

deficiencies which affected individuals involved in educational promotion. Perhaps it was highly pertinent that Punch singled out for criticism one of the North East region's foremost benefactors, i.e. the Marquis of Londonderry, as was illustrated in the account reproduced below.¹

EDUCATE THE SUPERIOR CLASSES.

Any one who has doubts concerning the sad want of education amongst the superior classes is requested to read the letter of the MARQUIS OF LONDONDERRY, to LORD JOHN RUSSELL, published in the Morning Post. It is so crowded with errors that it is evident the noble MARQUIS has such a contempt for the very first principles of education, that he does not even mind his letters. We think that a commission ought to be issued to inquire into the state of education of those who have to legislate upon the education of the people. The mass of evidence collected, would, we are positive, be something appalling; and if HER MAJESTY does not issue the commission, Punch certainly will.

Thus, condemning the lack of expertise demonstrated by educational philanthropists and their agencies including the mechanics' institutes, both articles served the purpose of holding up to ridicule, the state of England's system of education. Attention was drawn to the fact that only governmental intervention would achieve worthwhile benefits in any plan for the future of adult education. The Government, however, had been petitioned in 1841 to grant financial assistance for the support of the mechanics'

1. Punch, 8th May, 1847, Vol. XII., Jan. to June. 1847, p. 195.

institutes. Nothing was achieved until 1843, when an exemption from tax was won under the Scientific or Literary Societies Act.¹ In this small concession it had been recognised that State involvement was necessary if progress was to be made in raising educational standards. Within ten years of this small measure the State finally grasped the potential usefulness of the institutes, when they were mobilised for a new venture in adult education under the scheme launched by the Department of Science and Art.

1. Tylecote, M., L. & Y., p. 283.

Chapter 5.

The Re-emergence of the Movement's Advance: 1847-1851.

There is agreement among historians of the Mechanics' Institute Movement, that from the mid 1840s, revival displaced the previous period of stagnation. Hudson, however, was cautious in his assessment of the situation, and drew attention to the fact that "every year has its list of new, as well as of suspended Institutions."¹ But in contrast, Kelly boldly referred to the period as "the golden age of voluntary associations in adult education." He included in his analysis, institutes such as mutual instruction classes, reading rooms, farmers' clubs, Y.M.C.A.s, and "the miscellaneous variety of institutes, parish institutes and working men's institutes", not to mention rival organisations such as the Owenite Halls of Science.² Kelly further supported his view when he calculated that from 1845 to 1850, new mechanics' and literary and scientific institutes were "springing up at the rate of twenty or thirty a year".³ This advance was reflected in the North East region from 1847, whilst the boom years extending beyond 1851 probably owed much to the passing of the Ten Hours Act in 1847.⁴ Graph 3 on page 143 indicates the healthy state of the Movement for

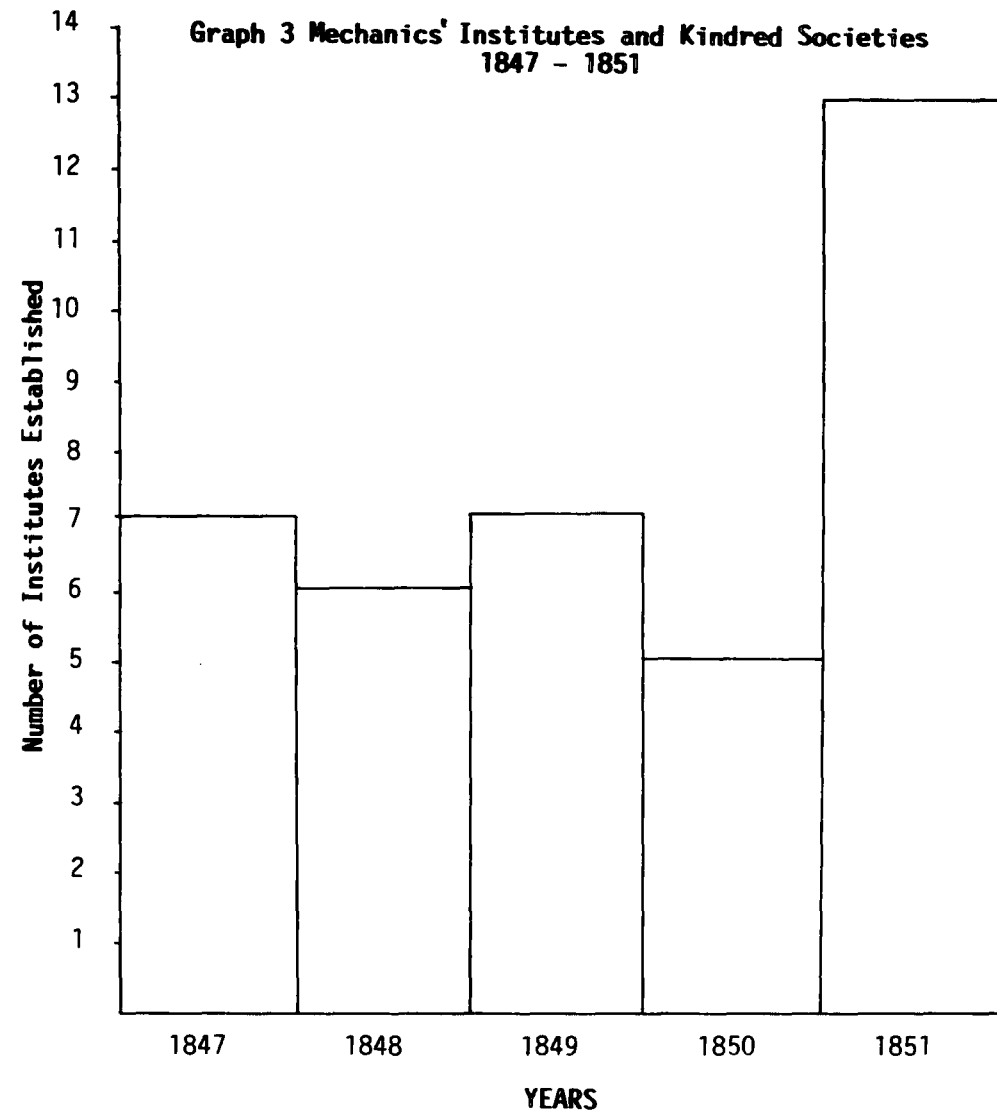
1. Hudson, J.W., H.A.Ed., p. xi.

2. Kelly, T., G.B., p. 258.

3. ibid., p. 259.

4. Kelly stated that industrial areas including the West Riding, South East Lancashire, North East Cheshire, Staffordshire and South Wales were the areas of most rapid growth between 1841 and 1851. See Kelly, T., G.B., p. 259.

GRAPH 3



the years leading up to the mid-century.¹ Once more, however, Kelly considered the problem of finding reliable evidence to support the Movement's renewed progress. Accepting the lack of "materials for a full account,"² he again relied upon the publications of J.W. Hudson (1851), the Report of the Select Committee on Public Libraries (1849), the Census of 1851, and the Annual Reports of Mechanics' Institute Unions. In addition to the above publications, local histories, unpublished theses, newspaper reports, and the immensely valuable Minute Books of the newly established institutes have been used in compiling this chapter.

The last few years of the 1840s not only saw the re-emergence of the Mechanics' Institute Movement, but also led towards the staging of the Great Exhibition in 1851, which demonstrated Britain's industrial supremacy³ among the manufacturing countries of Europe. But the widely held view was that little contribution had been made by the mechanics' institutes. Indeed, Hudson in the same year, declared that the "injudicious courses .. followed by the Mechanics' Institutions of the United Kingdom",⁴ had been a failure. They had failed to hold the allegiance of the working-classes, and they had failed to accomplish any serious educational work.⁵ Nonetheless, the Great Exhibition demonstrated the presence of sophisticated skills among the artisans of the nation, whilst Inkster suggested that,

1. See Graph 3. p. 143.

2. Kelly, T., G.B., p. 257.

3. Tames, R., Economy and Society in Nineteenth Century Britain, p.22.

4. Hudson, J.W., H.A.Ed., p. xii.

5. Kelly, T., H.A.Ed., p. 127.

"Britain's scientific and technical infrastructure was sufficient for the support and further growth of manufacturing and service industries, ... and that the provisions of the steam intellect movement ... were sufficient to sustain any demands made by British industry for scientific and technical expertise."¹

Rolt, too, in his work entitled 'Victorian Engineering', was in agreement when he described Britain's mid-century achievement in technological development, as 'High Noon in Hyde Park.'² Any suggestion of failure, therefore, on the part of the North East region's institutes, will be assessed against their possible contribution towards technological education. First, however, it will be informative to again briefly consult the contemporary role of the London Mechanics' Institution.

The London Mechanics' Institution: 1847 to 1851.

The crisis of the early 1840s continued to affect the London Mechanics' Institution and was not dispelled by 1847. Conditions remained critical, whilst the Committee struggled to keep the Society alive during the years leading up to mid-century. Further appeals, entertainments, and popular

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1. Inkster, I., 'Introduction to the Content of Steam Intellect in Britain to 1852', S.I.S., p. 71.
 2. Sims, G., 'Foreword', in Roderick G.W., and Stephens, M.D., 'Education and Industry in the Nineteenth Century', p. VI. 'High Noon in Hyde Park' is a chapter heading in Rolt's, 'Victorian Engineering'.

lectures¹ were some of the ploys used, but such activities were of little avail. By 1850, the Institution had a floating debt of £4,000, and the situation "appeared to be changing for the worse."² If drastic measures for revival were needed, there was no shortage of suggestions. For example, in 1850, a pamphlet was published in which it was proposed that the Institution might fulfil its proper role by excluding all entertainments and organising systematic educational courses;³ Once more, too, it was suggested that the name of the Society should be changed to Birkbeck College.⁴ Such proposed changes, however, proved impossible to implement. Indeed, the educational services envisaged would obviously have had to be paid for, including teachers' salaries. For this to have been a realistic proposition, the College would have needed a student body of 1,600, generating an income of £2,175 per annum. But in fact, there were only 651 members, and this number continued to decline.⁵

Such was the state of the London Mechanics' Institution by mid-century. The crisis continued to deepen and became even more accute due to,

"extensive and continued alterations in the city and its neighbourhood, increased occupation of its houses for business only and competition arising from evening classes at colleges and governmental institutions."⁶

1. Burns, C.D., B. Coll., p. 71.

2. loc. cit.

3. loc. cit.

4. ibid., p. 72.

5. loc. cit.

6. ibid., p. 76.

Herein were omens for the institutes generally, including those of the North East.

Despite the comparatively fruitful experience in the provinces between 1849 and 1850, where there had been a "larger increase in the number of new societies than in any period since 1844,"¹ the Movement was to face a further set back. In 1851, it was reported that nationwide, due to lack of support, "seventy three Institutes had been compelled to suspend all but their Discussion and Language Classes."² The institutions of the North East did not have to resort to such severe cuts, neither were any failures reported. Nonetheless, after 'high noon' there often follows an "evening which can sometimes be unconsciously chilly".³ The chill, however, was not felt among the region's institutes until well after 1851, when moves to implement legislation contained in the Public Libraries Act of 1850 were effected.

The Progress of the Movement in the North East: 1847 to 1851.

The trend whereby institutes were increasingly located in rural areas during the crisis years of the '40s, was continued with vigour in the period 1847 to 1851. Table 8 below illustrates the locations and economic base of the new institutes; Distribution Map 3 shows that roughly equal numbers were established in Northumberland and Durham.⁴

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1. Kelly, T., G.B., pp. 258-259.
 2. Hudson, J.W. H.A.Ed., p. xi.
 3. Simms, G., op. cit., p. vi.
 4. See Distribution Map 3, p. 148.

DISTRIBUTION MAP 3

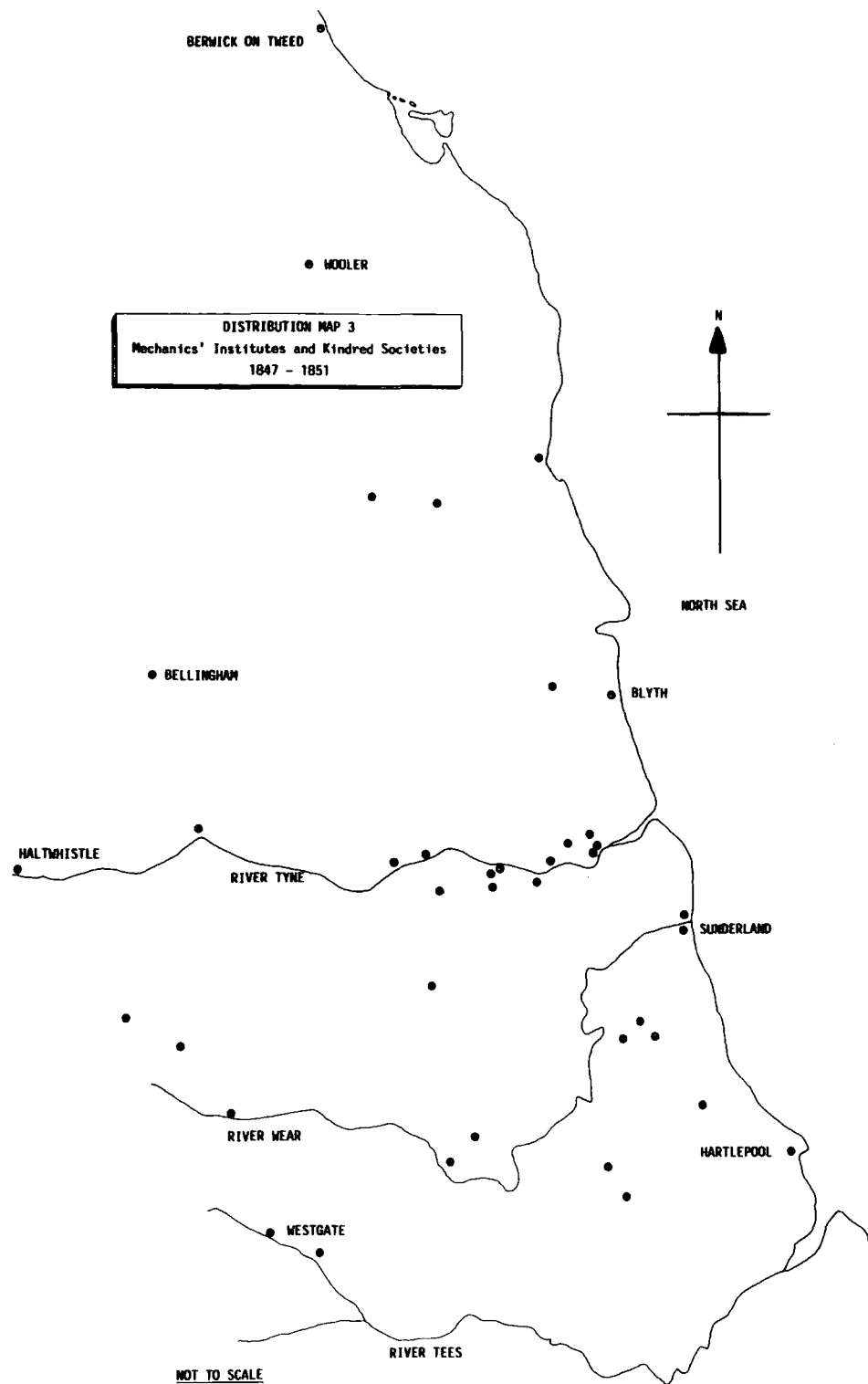


Table 8.¹

The Location and Economic base of Mechanics' Institutes and Kindred Societies established between 1847 and 1851.

<u>Industrial Locations</u>	<u>Date</u>	<u>Economic base</u>
Blaydon & Stella M.I.	1847	Brickworks, mining
Blyth M.I.	1847	Port
Middleton in Teesdale M.I.	1847	Lead Mining
Sunderland Mechanics' and Apprentices' Institute	1847	Port, shipbuilding
Bedlington M.I.	1848	Iron works
Crook M.I.	1848	Railway
Elswick Works M.I.	1848	Engineering
Bishop Wearmouth M. & App. Lib	1849	Engineering
West Hartlepool L.M.I.	1849	Port
Easington Lane M.I.	1850	Mining
Egglestone M.I.	1850	Lead mining
South Shields Workmen's I.	1850	Shipbuilding
Wallsend M.I.	1850	Shipbuilding
Wylam R.I.	1850	Mining
<u>Bellingham M.I.</u>	<u>1851</u>	<u>Iron works</u>
Berwick upon Tweed M.I.	1851	Port
Ferryhill & Chilton Colliery Lib. & L.I.	1851	Mining
Newcastle & Carlisle Railway Institute	1851	Engineering
Willington Quay M.I.	1851	Port

<u>Rural Locations</u>	<u>Date</u>	<u>Economic Base</u> (Generally agriculture and coal mining).
Howden M.I.	1847	
Ovingham R.R.	1847	
Winlaton	1847	
Dunston M.I.	1848	
Framlington M.I.	1848	
Greenside	1848	
Hetton-le-Hole R. Soc.	1849	
Humsheugh R. Soc.	1849	
Sedgefield I.L.S.	1849	
Westgate L.I.	1849	
Wooler M.I.	1849	
Castle Eden	1851	
Haltwhistle M.I.	1851	
East Howden M.I.	1851	
Leadgate Polytechnic I.	1851	
Rainton M.I.	1851	
Rothbury M.I.	1851	
Swalwell M.I.	1851	
Warkworth M.I.	1851	

1. See Appendix 1, pp. 370-380.

Thirty eight new institutes were established, the majority being in villages and in rural areas where industrial processes were carried out; for example, in the dales town of Middleton in Teesdale, the centre of lead mining operations, and at Elswick on Tyne, which became the heavy engineering centre which was on the rural outskirts of Newcastle upon Tyne before its expansion joined it with the city. By 1851, it was clearly evident that half a century of voluntary work and missionary zeal on the part of the Mechanics' Institute Movement, had brought its reward: Harrison pertinently stated that, "Britain had more of everything,"¹ and this included more opportunities for adult education than ever before. Moreover, the "growing interest in the education of the people,"² and the success enjoyed by the Movement, was due in no small measure, to a sufficiency of momentum to "break down opposition to it."³ Since enthusiasm was widespread within the region, perhaps there was little wonder that many people thought they had "caught a glimpse of the Promised Land."⁴

As for periods previously reviewed, it was again the larger societies that tended to maintain records of their work. Most of the smaller rural societies such as those at Greenside and Ovingham which were designated 'Reading Rooms' rather than mechanics' institutes have recorded little about their activities. Nonetheless, all which became affiliated to either the Northern Union of Mechanics' Institutions or the Yorkshire Union were undeniably kindred societies, fulfilling

1. Harrison, J.F.C., Vict., p. 7.

2. Peers, R., Adult Education, p. 19.

3. loc. cit.

4. Briggs, A., Victorian People, p. 31.

until mid-century at least a similar role.¹ The establishment of 'reading rooms' prior to this time was generally in its infancy, whilst their eventual rapid promotion resulted in the creation of a 'Movement' in its own right.²

The Promotion of Mechanics' Institutes: 1847 to 1851.

The promotion of adult education in the region's industrial centres such as Hartlepool, Blyth, Elswick on Tyne and Berwick upon Tweed, depended as in previous years, upon the goodwill of employers and influential citizens. For instance, at Berwick upon Tweed, the Doctors Johnstone and Clarke were invited to attend a public meeting

"for the purpose of consulting them as to the best means to be adopted for organising a General Literary and Scientific Institution in this town."³

The success of such ventures was essentially dependent upon securing financial assistance. At Berwick, overtures were necessarily made to the landed gentry for their support, therefore, letters were written to His Grace the Duke of Northumberland, Sir George Grey Bart, and to C.S. Renton Esq., for their support of the Institute.⁴ Also during these years, there were further instances of initiative coming from

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1. The Report of the Select Committee on Public Libraries 1849, lists societies including those at Alnwick, Auckland, Barnard Castle, Bellingham, Berwick upon Tweed, Durham, Howdon, Kelloe, Shields, and Wooler as 'similar institutes' of which less authentic information has been obtained.
 2. See below, p. 201.
 3. Berwick upon Tweed M.I., M.B. Min. dated 13th March, 1851.
 4. ibid., Min. dated 24th April, 1851.

'below', but again as was seen at Morpeth earlier in the century, assistance eventually had to be sought from those who were most able to provide it. Such dependency was shown at Crook, where an Institute was established in 1848 as a result of the expansion of the railway community. The committee found within one month of opening that external financial backing was needed. Consequently, they called for the attention of all who might subscribe, whilst a letter was sent to the largest local employer, i.e. the Bishop Auckland, Weardale Railway Co., informing them of current difficulties. It was stated that, the

"committee is of the opinion that in order to carry out its plans the assistance of the landed and other proprietors and gentlemen in this neighbourhood may be solicited and hopes you will aid them either by a donation of Money and Books, or by an Annual subscription to the funds in the formation of a library."¹

Although the institute had a membership of about 70 at this time, they found it impossible to make progress from their own resources, especially in the creation of

"a library of standard works on science and literature."² As in London, the institutes generally found it impossible to function without the support of outside help. But there were occasional exceptions, for instance, the small rural Institution at Winlaton which depended entirely upon initiative from 'below', and which, moreover, guarded its independent position. Here, in 1848 it was recorded that, a

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1. Letter from Crook M.I. to Bishop Auckland, Weardale Railway Company: dated 19th Sept., 1848. See Appendix 2, p. 381.
 2. loc. cit.

"few young men command a small institution for the moral and intellectual elevation of the inhabitants", but experienced from the outset "no great encouragement".... apparently the "loves of the good old times arranged themselves in direct hostility to it ... but the young men persevered ... and have succeeded in establishing an excellent reading room ... in founding a mutual improvement society."¹

Clearly, their ambitions at this stage of development were not directed towards extending more formal education.

The acquisition of a mechanics' institution or a smaller reading room was now an objective inherent within both large and small communities and in town and countryside locations. Resources, however, were of paramount importance in achieving the objective in view. Institutes, for instance, in the developing industrial centres attracted the philanthropy of wealthy employers, and were therefore well placed to succeed in providing educational opportunity. One outstanding example was the Elswick Works Mechanics' Institution, founded in 1848.² Lord Armstrong the chief benefactor, wrote later in "The Nineteenth Century" magazine, the following testimony to its excellence,

"the Elswick Company many years ago provided extensive schools in connection with their works, and also a Mechanics' Institute which now possesses a copious library, and in which rooms are provided for evening science and art classes, conducted by able teachers ... The subjects taught in the evening classes are

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1. Newcastle Guardian, 27th May, 1848. 'Winlaton L. & M.I.'
 2. Kelly, T., G.B., p. 315.

chiefly those which bear upon mechanical engineering, rural architecture and building construction, but they include chemistry, for the teaching of which an excellent laboratory is attached ... The whole of this educational establishment is open to the use of the Elswick workmen and their families ... Strangers are admitted to the classes at, roughly speaking, double fees."¹

From the above it was evident that the measure of available resources determined the development of the larger institutes, whilst mutual instruction at a fairly basic level was probably the goal of the smaller rural institutes. This would have been much cheaper than the more ambitious programmes of the former which required specialist facilities and services. Meanwhile, it was found that as the century advanced, more "institutes became linked with particular industries".

Kelly mentioned for example,

"The Potteries Mechanics' Institute at Horsley."²

Others in the North East included those sponsored by local industries such as the London Lead Company which supported societies "in all its main centres and even at some of the lodging shops,"³ and also one established by the Newcastle and Carlisle Railway Company at Newcastle.

Whilst the name given to particular societies was beginning to reflect the vocation of particular groups of workers,

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1. Lord Armstrong, 'The Cry for Useless Knowledge,' The Nineteenth Century, Vol. XXIV., Nov. 1888.
 2. Kelly, T., G.B., pp. 258-262.
 3. Raistrick, A., & Jennings, B., A History of Lead Mining in the Pennines, p. 321.

there was also an increasing aspiration towards social elevation. Conveniently, sometimes the word 'mechanic', was no longer included in the title of a society. For example, at Stockton-on-Tees, the Institute had changed its name by 1847 to the Stockton Institute of Literature and Science.¹ Even among societies founded by the owners of community based industries, there was an increasing reluctance to include the word 'mechanic'. Hence, at Hetton-le-Hole, a society established

"at the expense of the owners of Hetton Colliery ... where very interesting and instructive lectures have been given was designated the 'Hetton-le-Hole Reading Society'."²

Perhaps contemporary press reporting caused the promoters of new institutes to consider carefully the implications underlying the conferring of title. It certainly was a topical issue, as was illustrated at Newcastle upon Tyne in 1847. The Newcastle Journal carried a pertinent article which drew attention to the importance attached to the wording of titles. Concerning the Newcastle Literary, Scientific and Mechanics' Institute it was reported that,

"although the name of the Institute glories in the term 'Mechanics', we are informed that not above fifty or sixty mechanics ... are members of it."³

This comment perhaps implied that its status was due for revision so as to reflect more accurately the social class of its membership. This was now happening in South Wales, where for example, "some Mechanics' Institutes were reformed and

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1. Darlington & Stockton Times, 7th Oct., 1847.
 2. Newcastle Journal, 29th Jun., 1850.
 3. Newcastle Journal, 12th Jun., 1847.

re-named"¹ for that same reason. Such examples of overt social pressure seem to have had nation-wide effect upon the Movement, since, according to Hudson, by 1851,

"The Universal complaint is that Mechanics' Institutes are attended by persons of higher rank than those for whom they were designed."²

But this "shift of emphasis"³ had been evident from earlier years, as was the case at Derby, and again, which was in

"common with the mechanics' institute movement generally."⁴

To meet the socially upward trend observed in many mechanics' institutes, the names of societies were now frequently altered,⁵ whilst such changes became particularly evident in the North East after the middle of the century. These measures were possibly a contributory factor to the surge in the promotion of institutes especially into rural areas. A high level of confidence had returned to the Movement after 1847, thus confirming the national experience. However, the acquisition of permanent accommodation remained an obstacle for many newly established institutes in so far as asserting their presence was concerned. And to the Victorians a building and its architectural design meant much, it symbolised the aspirations of its occupants.

In Pursuit of Buildings.

The 'hand to mouth' economy of institutes established earlier

1. Evans, T., 'M.Is. S. Wales', p. 172.

2. Hudson, J.W., H.A.Ed., p. vii.

3. Chadwick, A.F., 'Derby', p. 124.

4. loc. cit.

5. Kelly, T., G.B., p. 233.

in the century, was repeated during this period of the Movement's development. At Blyth, for instance, the Institution founded in 1847 suffered for ten years from problems caused by "a lack of suitable accommodation,"¹ and it was not until 1858 that a permanent building was acquired.² Towards this end the patronage of Sir Matthew White Ridley, Conservative M.P. for North Northumberland, a prominent agriculturalist and Master of the Northumberland Hunt was required.³ In one example after another, dependency upon injected finance was confirmed. And in many instances, rather than launching immediately into purpose built accommodation, other needs such as maintaining libraries, classes, and heating and lighting had to be granted preferential consideration. Yet there was a sufficiently strong desire for institutes to acquire buildings of their own as was shown at Middlesbrough. But desire alone was not enough; even by 1857, the Committee reported that there was "little inducement to undertake" such a scheme⁴ for erecting a new building. Fortunes, however, improved and a permanent building was erected in 1860⁵ by which time it was reported that the

"Institute ran from victory to victory with feelings of unbounded exultation."⁶

At Gateshead, too, eleven years were to elapse from the date of the Institute's foundation before suitable accommodation

1. Batley, S.A., 'The Blyth Mechanics' Institute', (B.A. dissertation, Newcastle upon Tyne Polytechnic, 1985), p. 25.

2. loc. cit., 3. loc. cit.

4. Middlesbrough M.I., M.B. Min. dated 5th Oct., 1845.

5. ibid., p. 26.

6. loc. cit.

was acquired in 1847. The importance of accommodation was discussed by Tylecote when she confirmed that the

"premises occupied by Mechanics' Institutes were often held responsible for difficulties in organising the work".¹ This certainly had been true at Gateshead earlier in the century but eventually the consolidation of the Institute was marked when it was reported that

"the new handsome building is now nearly complete in West Street."²

To have waited for more than a decade for permanent accommodation demonstrated a high degree of tenacity on the part of all concerned. Of course, the early 1840s was not an economically thriving period, and other organisations also experienced similar difficulties. Amalgamations rescued some of these weaker societies from possible extinction, as was the case at Newcastle upon Tyne in 1847, when the Polytechnic Institution merged with the Newcastle Literary, Scientific and Mechanics' Institution.³

Instances such as these, question the extent and the seriousness of how much support might reasonably have been expected from patrons. Evidence suggests that once a society was established, then it was expected to be self-supporting. This attitude prevailed at the Middlesbrough Mechanics' Institute until at least 1870, when the Committee had

"taken great pains to arrange classes for apprentices ... but were not able to carry out their scheme for want

1. Tylecote, M., L. & Y., p. 113.

2. Gateshead M.I. A.R., 1847.

3. Hudson J.W. H.A.Ed., pp. 141-142.

of support from the iron masters."¹

The need for continued support seemed to have been overlooked in such instances, despite the fact that initially "mechanics' institutes received widespread support from many sectors of the middle-classes"²

Long term consistent commitment from promoters was also neglected at the London Mechanics' Institution.³ But the withdrawal of aid might have been deliberate policy, as was pointed out by Engels when he argued it was one way of bringing a man to

"obedience and resignation to his fate."⁴

This could surely be achieved by any means which controlled and limited the progress and facilities of an institution. However, regardless of such possibilities, mechanics' institutes slowly aspired towards erecting their own buildings. Such occasions were noteworthy. Harrison caught the spirit of the commissioning of buildings when he stated that they were initiated with

"due civic ceremony ... but at the price of uninspiring orthodoxy ... whereupon they became identified as a means of getting on in life ..."⁵

or indeed, as centres for the recognition and acceptance of middle-class values.

By 1850 there was much evidence of improvement in many other organisations whose role was dependent upon the support of

1. Middlesbrough M.I., M.B. A.R., 21st Jan. 1870.

2. Roderick, G.W., & Stephens, M.D., 'Mechanics' Institutes and the State', S.I.S., p. 62.

3. See above, pp. 145-146.

5. Engels, F., op. cit., pp. 238-239.

people. A renewed confidence, for instance, affected the Church, where it was also manifested in a "spate of repairing ... and building new ones;" especially in the

"new towns of the industrial North ... in which the old techniques of social living had broken down."¹

Tylecote, too, recognised that the social significance of mechanics' institute buildings was increasingly emphasised by 1850.² Indeed, an article contained in the Builder, confirmed the optimism of the times. Hence, it was reported:

"It is a very evident fact that a beautiful building goes a long way in the adornment of a society with the character of responsibility and importance, and although it may not be entirely just to judge of a body of men by the appearance of the edifice in which they assemble, yet such judgement is, without doubt, frequently made."³

To the Victorians architectural expression could say so much. James Augustus St John commented upon this matter in his reflections on Mechanics' Institutes. He said,

"In calculating the effect of Mechanics' Institutions on the students who frequent them, we must take into account the architectural character of the buildings themselves, which often possess an air of imposing grandeur. Lord Palmerston alluded in a speech delivered in the Free Trade Hall to the Mechanics' of Manchester. They possessed, he said, an edifice such as might be created by an emperor ... our minds

1. Harrison, J.F.C., L. & L., p. 134. See also J.R.H. Moorman, op. cit., p. 357.

2. Tylecote, M., L. & Y., p. 269.

3. Builder, 16th Nov., 1850. Article signed J.N. entitled 'Clubhouse for Literary and Scientific Bodies'.

are influenced in various ways. ... religion itself comes to us with greater power in antique and vast cathedrals than in ordinary rooms ... and therefore it cannot be doubted that secular knowledge will act more strongly upon the mind when it is connected with magnificent associations."¹

Ideals such as those expressed above, clearly gave rise to the erection of what might be described as the 'typical Mechanics' Institute building', often Victorian Gothic in style. Not all, however, were of this design, but many of the larger ones were certainly of an ecclesiastical type of structure. But in the North East, there was no fast route towards acquiring accommodation. Generally, the institutes which established their permanency in the form of a purpose built structure, did so after mid-century.

The Competition for members.

Meanwhile, the institutes of the region continued to suffer from problems typical of voluntary societies, where members were free to come and go as they please. In addition, the effects of the '40s depression were still felt among the working-classes. Moreover, there was no relief from the intensive development of the domestic economy; social tension and unemployment were prevalent and a series of bad harvests resulted in high food prices.² These conditions affected indirectly the membership of the institutes. As late as 1849 economic deprivation was so acute at Newcastle upon Tyne, that even the Institute came to the aid of some of its

1. Augustus, St John James, The Education of the People, p. 221.

2. Briggs, A., op. cit., p.13.

members who decided to emigrate. It was recorded,
".... the nineteen mechanics, for the purpose
of defraying the expenses of whose journey to
America, funds were provided by subscription ...
left this town on Tuesday."¹

Competition from other societies became increasingly strong, especially from the continually expanding body of voluntary organisations. People's Halls and Working Men's Institutes both of which were introduced before 1850, made their bid for the allegiance of the working-classes. A Working Men's Institute, for instance, was founded at South Shields in 1849 by working men.² Whilst there seemed to be no record of whether its establishment affected the local Mechanics' Institution, the clearly stated objective of these competitive societies was to provide the means of

"uniting in one body all who were desirous to promote
the political and social improvement of the people."³

They openly claimed to provide a home for the

"trades' societies, an alternative to the Mechanics'
Institute, a good library and reading room and
school for working-class boys and girls."⁴

However, if such competition was to check the expansion of the Mechanics' Institute Movement, it was barely noticeable because by 1850, the Movement was "booming everywhere"⁵ especially in the North East. This did not, of course, eliminate the risk of challenge, indeed, Coates had been aware of the attraction of those agencies offering

1. Newcastle Journal, 10th Feb. 1849.

2. Solley, H., op. cit., p. 22.

3. Silver, H., op. cit., p. 109.

4. loc. cit.

5. Kelly, T., H.A.Ed., p. 125.

"especially the right to free enquiry."¹

The prevailing political and economic climate of the period stretching from 1834-1851, projected the Movement into an experimental and transitional phase. The overall membership was increasingly able to voice its opinion and to determine the future pattern of activity. This, for instance, became apparent in the move to attract female participation in the affairs of the institutes. At the London Mechanics' Institution, as early as 1830, women were allowed to the lectures, but not admitted as full members.² Women clearly acknowledged their need for further education, whilst later in the century, many provincial institutions encouraged their presence. At Middlesbrough, in 1849, for example, it was decided to commence female classes;³ the subjects were not specified, yet the experiment must have proved successful, because again in 1850 a similar class was proposed.⁴ The Annual Report, for 1859 stated that the "winter campaign" opened vigorously with a large number of members.⁵ Throughout the country, the female presence was becoming fairly commonplace. However, their numbers were generally relatively small in comparison with males. For example, at Morpeth, in 1848, from a total membership of 145 only 3 were female;⁶ at

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1. Coates, T., Report of the State of Literary, Scientific and Mechanics' Institutions in England, p. 30.
 2. Burns, C.D., B. Coll., p. 43.
 3. Middlesbrough M.I., M.B. No. 2. 1848-1859. Min. dated 5th Jan., 1849.
 4. ibid., Min. dated 23rd Oct., 1850.
 5. Middlesbrough M.I. A.R., 1851.
 6. Northern Union of Mechanics' Institutions, A.R., 1848-1849, Report for Morpeth M.I., 1848, p. 5.

Hexham in the same year, out of 199 members, 6 were female;¹ and at Howden there were 3 females.² Significantly, the mechanics' institutes were beginning to show that women might benefit from further education.³ Yet, in the midst of educational progress and in the more open cultural atmosphere, social tension was present.

There was evidence of a growing increase of social divisiveness among members creating an intolerable situation for some. Conflict between the social classes attending the institutes was now sometimes paraded openly in letters to the press. Hence, within the context of a developing class-conscious society, the various levels of society attending the mechanics' institutions became intolerable for some. For instance, a letter written by 'J.H.C.' to the editor of the Darlington and Stockton Times, highlighted the sensitivity of the matter.

".... now Sir, as I am a working man I think I can furnish reasons for apathy that exists in the minds of working men. Some Mechanics' Institutes are not properly speaking Mechanics' Institutes but the very reverse of this ... they have lost the purity of their design, and also the price of some of them are too high ... for one mechanic there will be 20 trades people in membership and I know for a fact that some of these look upon the mechanics as some thing beneath them."⁴

Clearly, the above criticism was not without foundation,

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1. N.U.M.I., Report for Hexham L. & M.I., 1848. p. 6.
 2. ibid., Report for Howdon M.I., 1848. p. 6.
 3. Tylecote, M., L. & Y., p. 263.
 4. Darlington & Stockton Times. Letter written to the editor and signed J.H.C. 15th Jan. 1848.

since the membership at old Hartlepool Mechanics' Institute, in 1847, seemed to favour the professional and small traders of the town. Its list included

"the mayor, solicitor, baker, draper, chemist, clothier, shoe-dealer, tailor, painter, grocer, ironmonger, plumber, builder, teacher, hatter, Chandler, fruiterer."¹

Gradually, however, such problems were resolved after the middle of the century, when the role of the mechanics' institutes became more specifically defined with respect to the provision of adult education and leisure activities. The latter was urgently pursued because it was realised that if the working man was to be attracted from the public house and other competitive bodies, then education was not enough.² Therefore, previously introduced social activities were expanded to include those which helped to promote a sense of belonging.

Developing Social Awareness.

Healthly outdoor activities such as the provision of allotments, were followed by the further awakening of the social conscience. For instance, a developing awareness of public health was confirmed at Shildon in 1847, when the Committee of the Mechanics' Institute became engaged in a scheme

"to make arrangements for bringing a supply of purer spring water to the village."³

Games, too, were considered to be beneficial. Therefore, at

1. Old Hartlepool M.I. Members List 1847 (Wood Collection).

2. Kelly, T., G.B., p. 236.

3. Y.U.M.I., Eleventh A.R., pp. 77-78.

the Institutes of Stockton, Darlington and Middlesbrough, teams for playing cricket were formed; quoits was also available at Middlesbrough.¹ These activities proved popular, and were said to have provided a "fresh stimulus to the junior members"² of the institutes concerned.

Further diversification of activities was built upon the 'exhibition movement' which had caught the imagination of the larger institutes since the late '30s. By the late '40s such occasions often assumed the grand title 'Polytechnic Exhibition'. This term was probably used by promoters to convey an impression of the comprehensive collection of items to be displayed. Generally, though, exhibitions were still not commonplace throughout the North East before 1851. Indeed, at the Darlington Mechanics' Institution, the first major event does not seem to have been held until 1870.³ Nevertheless, they were probably of greater social significance than initially realised. In fact, during the period 1841-1851, Evans cited them as having being contributory to the changing role of the societies.⁴ Any analysis of the contribution of exhibitions to the region's institutes, however, has so far proved elusive, in fact

"the origins of the industrial exhibition has been sought by many historians."

This matter apart, it was perhaps more than likely that

"the exhibitions organised by mechanics' institutes

1. Y.U.M.I., Twelfth A.R., p. 9.

2. loc. cit.

3. Darlington & Stockton Times, 24th Apr., 1948. J. Watson, 'Story of Darlington Workmen's Thirst for Knowledge'.

4. Evans, T., 'M.Is. S. Wales', p. 172.

made a profound contribution to the national event"¹ in 1851.

Above all, exhibitions were incidentally educational, and most certainly would have brought into focus topics for informal and critical discussion.

Educational Demands.

During the closing years of the '40s the inexhaustible march in favour of change continued. This was especially observed in the educational facilities provided by the institutes, i.e. in the libraries, news rooms, lecture programmes and classes.

The importance of the library to the mechanics' institutions was beyond doubt. It is confirmed from specific references made about libraries in Minute Books and Annual Reports. For example, at the Newcastle Institution, a minute dated 11th September, 1854, makes the proud boast that

"During the thirty years that have since elapsed
(from its foundation in 1824) upwards of 10,000
volumes of books ... have been accumulated."²

In the new town of Middlesbrough, the Institute had a library

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1. Kusamitsu, Toshio, 'Mechanics' Institutes and Working Class Culture: Exhibition Movements, 1830-1840s', S.I.S., p. 41.
 2. Newcastle L.S.M.I., M.B. Vol. 2 1847-1856. Min. dated 11th Sept., 1854.

containing 6,000 volumes too, by 1851.¹ This compared more than favourably with the achievement at the Newcastle Institution, since the Middlesbrough collection was achieved within seven years of opening. Tylecote, whilst acknowledging the restricted horizons of libraries in the early years, found that books on a wide range of subjects were becoming available by 1851.² This pattern was evident within the North East. In 1851, at the Hartlepool Literary and Mechanical Institution, the collection included the following works:

"Alfred the Great; America, Life in; Bacon, Life of; Chinese (4 vols); Chemistry, rudiments of; Deafness; Drunkenness; McFishes Anatomy; Globes, use of; Greece, History of; Liebig's Chemistry; Salvation, plan of; Self-improvement."³

This sample illustrated the scope of literature provided. It is clear that change had affected the process of selection; scientific works no longer predominated and censorship had not been applied to the inclusion of religious works. The 'Plan of Salvation' was probably a non-conformist religious publication. But it was possible that censorship remained the prerogative of individual Committees. Libraries, of course, were found not only in mechanics' institutes, but also in other societies including Literary and Philosophical Societies, the Society of Oddfellows and farmers' clubs. That such societies maintained collections of books, of course, was not surprising in the absence of a public library

1. Middlesbrough M.I., M.B. 1848-1859. Report of Committee 1851.

2. Tylecote, M., L. & Y., p. 271.

3. West Hartlepool L.M.I. Catalogue of Books 1851.

service.¹

Newsrooms, an adjunct of the library facility, now began to expand and offered an increasingly varied selection of papers and magazines. Subscriptions to publications were carefully monitored, often on a basis of popularity. For instance, at Barnard Castle Mechanics' Institute in 1847, the committee decided to "terminate the Magazine for Science and that the Athenaeum be ordered instead of the Literary Gazette."² And as in the selection of library books, the departure from scientific publications was again shown. They had disappeared completely from the West Hartlepool Literary and Mechanical Institution by 1851. Monthly periodicals then taken included:-

"Chambers Edinburgh Journal
Chambers Papers for the People
Sharpe's London Journal
People and Howitt's Journal
Tait's Magazine
Eliza Cook's Journal
Hogg's Instructor."³

Tylecote has suggested that a detailed study of books and magazines taken by the mechanics' institutes, would probably indicate the way in which they were developing in terms of "character and function, since the purchase of literature was in response to demand."⁴ It is interesting, moreover, to note that in the examples cited above, the Movement's official

1. Kelly, T., H.A.Ed., p.175.

2. Barnard Castle M.I., M.B. 1845-1855. Min. dated 15th Jan., 1842.

3. West Hartlepool L.M.I. Catalogue of Books and Periodicals, 1851.

4. Tylecote, M., L. & Y., p. 272.

organ, i.e. The Mechanics' Magazine was not included. This was despite the claim made by the publishers that

"the Mechanics' Magazine has ... conferred lasting advantages on the manufacturers of the country" whilst "other cheap works issued in France and Germany are mainly indebted for their success to this great instrument of knowledge."¹

Perhaps it was not surprising that the magazine was unpopular² since some articles were highly critical of the Movement. An article published in 1841, for example, stated, that,

".. most Mechanics' Institutes are so in name only and it would be wrong to consider them as at all representing either the desire for Scientific Knowledge which exists among the working-classes of Great Britain, or the extent to which it is actually cultivated by them."³

Other articles, however, were probably beyond the understanding and comprehension of the average mechanic anyway. One such piece published in 1838 described 'Armstrong's Improved Water Wheel' in the following academic language;

"The overshot water wheel is the only machine in general use upon which streams of water operate by their gravity in the course of their descent

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1. Mechanics' Magazine, Vol. 26. 19th Nov., 1836. p. 123.
 2. By 1858 The Mechanics' Magazine had ceased production and was re-issued under a new title, i.e. 'The Mechanics' Magazine and Journal of Engineering, Agricultural Machinery, Manufacturers and Shipbuilding'. See Mechanics' Magazine., 6th Nov., 1858 pp. 435-436.
 3. Mechanics' Magazine, Vol. 35. 11th Dec., 1841, p. 464.

and it is only the power exerted by a stream during its descent from a very limited elevation that can possibly be made available through the medium of this machine, because in the first place an overshot water wheel requires a perpendicular fall, which can seldom be obtained from a very considerable altitude, by artificial means, and in the second place, because in a few instances in which a very elevated fall is attainable, it is found practically impossible to construct a wheel of a corresponding diameter ... but from this, or any analogous defect, the machine I have described would be entirely free."¹

If certain other magazines were more attractive and effective in communicating useful knowledge, then their usefulness did not necessarily serve only that purpose. At the end of their useful circulation they were sold off and thus became a source of income.² Many disposed of in this way must have provided further reading or perhaps formed the basis of a home library; indeed, valuable reference items could have been obtained from the papers taken from 1846 at the Darlington Mechanics' Institution, which included, "The Times, Leeds Mercury, Newcastle Journal, The League, and the North British Advertiser."³

The educational role of the institutions increasingly became a matter for consideration. Classes and lectures generally continued to undergo modification, whilst further emphasis

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1. Mechanics' Magazine, Vol. XXX. 29th Dec., 1838, pp. 210-213.
 2. West Hartlepool Art Gallery and Museum, (Wood Collection).
 3. Darlington M.I., M.B. Min. dated 27th Jan., 1846.

was directed towards the provision of basic education. This was understandable, since the voluntary nature of elementary education within the schools of the National and the British and Foreign School Societies had resulted in many pupils suffering from gaps of knowledge. Lecture courses continued to diversify, but were of little use as a serious form of instruction, because of a "lack of basic education."¹ Hence, the survival of programmes depended upon lectures with little of educational value, but which would, hopefully, appeal to an audience. For example, at the West Hartlepool Literary and Mechanical Institution, a programme for 1850 included the topics,

"Gossip and Scandal
The Poets of Progress
Perseverance."²

And at the Shildon Railway Institute, the Committee seemingly went to great lengths to provide something of interest. For example, in 1847, a profit of 6s.5d was realised from a lecture entitled, "Horrors of American Slavery" by a Mr F. Tucker.³ Apparently, a collection was made on this occasion with the express purpose of assisting "him in releasing his wife from slavery."⁴ No further qualification was offered, leaving the precise circumstances to the imagination, but from the lack of comment, and from the miserly collection, it may be assumed that Mr Tucker had been less than convincing. Kelly quite correctly summed up the prevailing attitude towards lectures when he concluded that

1. Kelly, T., G.B., p. 240.

2. West Hartlepool L.M.I., 1849-1859. Min. dated 13th Nov., 1850.

3. Shildon M.I., M.B Min. dated 17th Nov., 1847.

4. loc. cit.

"the lecture programme .. had given way to a mixture of general talks and entertainment, while the real job of supplying the missing educational background was being undertaken in the classes."¹

The establishment of classes developed from the more immediate needs of artisans, who, due to earlier deprivation, were attracted to the benefits of further education. Throughout the North East, elementary education was so inadequate in 1847, that it was reported in the Newcastle Journal that

"Men everywhere, and with good reason too, complain of the inefficiency of the schools that have been opened for the instruction of the children of the poor."²

Against this background the mechanics' institutions promoted classes, whilst offering an increasingly wider selection of subjects, some being specifically designed to meet local needs. For instance, at the Sunderland Institution, in 1848, a teacher was engaged to

"superintend the evening school and teach mental arithmetic, mathematics and navigation ... the school will be of great benefit to sailors."³

But it seemed that as in the voluntary schools, attendance suffered from seasonal pressures such as the needs of employers or conversely, from the effect of longer leisure hours. For example, at the Middlesbrough Institute, it was found in April, 1847 that "the classes ... be discontinued

1. Kelly, T., G.B., p. 240.

2. Newcastle Journal, 17th April, 1847.

3. Sunderland Herald, 6th Oct., 1848.

after the end of this month:"¹ the summer months were obviously not going to attract many students. It is interesting to note that teachers were now engaged for the purpose of providing instruction for the specialist classes offered. The Newcastle Literary Scientific and Mechanical Institution, for instance, in 1848, offered a comprehensive curriculum including classes in

"Geometry, Arithmetic, Bookkeeping, English, History, and Literature."

And it was required that

"the teachers were professionally qualified and paid by the Institute".²

From the above examples it was evident that attention was being directed towards providing educational instruction appropriate to the needs of industry. Debating classes, too, became popular at this time; a class was established at the Winlaton Society³. Kelly mentioned the popularity of such features. For example, as in Manchester, he suggested that members would have found an outlet for their

"interest in controversial topics which the institutes for the most part endeavoured to suppress."⁴

But the development of educational provision and practice within most institutes, was broadly in line with the experience of the London Mechanics' Institution where the value of systematic courses had been realised. In contrast, by 1851, the class system had not been implemented by the Scottish Institutes.⁵ The lecture remained the major source

1. Middlesbrough M.I., M.B. Min. dated 20th Apr., 1847

2. N.U.M.I., A.R., 1849.

3. Newcastle L.S.M.I., p. 6.

4. ibid., A.R., 1849. Report re: Winlaton M.I., p. 7.

5. Kelly, T., G.B., p. 242.

of educational instruction.¹

If in the years immediately prior to 1851, the mechanics' institutes were providing a much needed service, especially in the provision of elementary and at least in some industrially orientated education, there were also counter agents at work. A warning was reported in the Newcastle Journal in 1847, where it was advised that

"the anti-educational agitation waxes fiercer and fiercer. The dissenting world has been thrown into a state of the utmost alarm and horror, and has resorted to means and weapons of attack with energy and promptitude suitable to the greatness of the occasion. The battle is no longer in the hands of Mr Edward Baines of Leeds".² (Yorkshire Union of M.Is. Secretary).

The above statement seemed to confirm that there was a general awareness that the quest for the enlightenment of the working-classes was now essentially shared among a diversity of societies such as the Working Men's Institutes, the Methodist Societies, the Y.M.C.As., the Mechanics' Institutes and politically active bodies such as the Owenite Halls. The mechanics' institutes, however, continued to provide a valuable educational service for the working-classes. The institutes also provided many of the social experiences usually taken for granted by the upper and middle-classes e.g. pleasant social intercourse, congenial entertainment, excursions to places of interest, access to libraries and to a selection of newspapers and journals. The mutual improvement experience found within the institutes was a

1. Kelly, T., G.B., p. 242.

2. Newcastle Journal, 17th Apr., 1847.

vital force of enlightenment, long before Samuel Smiles was to further advance the idea in 1854. However, commitment to 'self help', was to endorse the belief among those responsible for government in

"nineteenth century Britain that the work of mechanics' institutes should remain within the field of voluntary effort."¹

Perhaps the continued strength of anti-intellectualism was not without reason, since the Industrial Revolution had been thus far carried out not through scientific instruction, but mainly by pragmatists and artisans at craft level. Even the exhibits at the Great Exhibition

"owed little or nothing to the universities or to the men with university training."²

On the other hand, there was little evidence from the region to support the "Engels perspective", i.e. that the

"mechanics' institutions were established to halt the independent workers' educational movement".³

Indeed, long before Engels' publication of The Condition of the Working Class in England in 1844, many North East institutes did not entirely represent only "the interests of the bourgeoisie".⁴

By 1851, the Mechanics' Institute Movement in the North East,

1. Tylecote, M., L. & Y., pp. 284-285.

2. Wellens, S., B.J.E.S., Vol. VIII. No. 1. Nov. 1959. 'The Anti-intellectual Tradition in the West', p. 22.

3. Inkster, I., 'The Context of Steam Intellect in Great Britain to 1851', S.I.S., p. 7.

4. Engels, F., op. cit. p. 186.

far from being a failure, or even exhausted, was enjoying greater popularity than ever. Far from being in decline, the great majority of institutions had become increasingly aware of the needs of the working-classes. Within their development and progress had been identified their strengths and weaknesses especially in educational provision, whilst some of their achievements such as the provision of library facilities, and elementary instruction served to endorse their relevance. But the provisions made for the establishment of public libraries under the terms of the Public Libraries Act of 1850, were about to be introduced. This affected some of the region's larger institutes, when the application of the Act brought to the forefront of attention this particular 'seed of dissolution'. And the Movement, lacking in central policy, and having achieved little credibility in the eyes of the Government lacked the cohesion necessary to combat the new legislation.

PART III

Chapter 6.

The Movement's Progress during the Great Victorian Boom:
1852-1873.

Many educational historians in the past have been eager to declare that by the middle of the nineteenth century, the Mechanics' Institute Movement was either in a state of decline or dead. Jarman, for instance, stated that "by the middle of the nineteenth century the Movement was in decline";¹ Argles stated categorically that "the mechanics' institutes had failed,"² and Dobbs believed that other "working-class institutes ... have not failed to the same extent as the mechanics' institutes."³ And probably because the life of the Movement was considered to have been of little significance after 1850, few historians have attempted more than a superficial account of its role from that date. To some extent this is understandable, because scholars such as Kelly, who have researched the post-1851 period, have found that any assessment of the Movement's progress is necessarily "general," as "materials for a full account are still not available."⁴ Indeed, he said "we are in an even worse plight" than for earlier years, when the research of Coates, Hudson and others provided essential information. He accepted, therefore, that

"we must rely on such odd scraps of information as can

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1. Jarman, T.L., Landmarks on the History of Education, p. 250.
 2. Argles, M., South Kensington to Robbins, p. 13.
 3. Dobbs, A.E., Education and Social Movements: 1700-1850, p. 252.
 4. Kelly, T., G.B., p. 257.

be picked up from local histories and guide-books; reports of Unions .., reports of the Society of Arts and occasional references in memoirs and biographies of the period."¹

In addition, the usefulness of newspapers and minute books of institutes where existent, must not be overlooked. Despite the difficulties encountered both in locating and interpreting such material, it has proved possible to compile more than a 'general' account of the Movement's post 1851 role in the North East region. Yet statistical inaccuracies are unavoidable, due especially to ambiguities of 'title' when the designations of institutes were recorded. Indeed, Kelly found that by 1851, the institutes were "so numerous and so varied" in all respects as "almost to defy classification."² In the North East, this problem did not arise to any great extent until after 1864. Two broad classifications have been introduced for the sake of clarity i.e. 'Mechanics' Institutes and Kindred Societies' and 'Miscellaneous Institutes'. The former includes institutes most closely related to the original concept of a mechanics' institute, the second includes the Reading Rooms, Church Institutes, Working Men's Clubs and other very small societies. Reference to Appendix 1 illustrates the necessity for this division, where the great diversity of titles is clearly evident among institutes established between 1852 and 1873.³

After 1864, however, confusion over classification must be resolved as best it can, but with increasing difficulty as

1. Kelly, T., G.B., p. 258.

2. ibid., p. 258.

3. See Appendix 1, pp. 370-380.

the century advances. Whilst necessarily accepting such anomalies, the role of the region's institutes in the second half of the century will be more readily appreciated, if prefaced by an account of the work of promoters and management committees who were committed to further project the presence of the Movement. To those with such responsibility, the ever present possibility of decline, and ultimate demise had to be addressed. Once more, their response was not without respect to ever changing terms of reference, since so many different educational and social objectives vied for incorporation into the life of most institutes; emphasis on science instruction, under the conditions introduced by the Department of Science and Art, and the continued pursuit of recreational activities to name but two.

For many years to come, such matters were generally handled to advantage. In this chapter, however, the creative achievements of promoters will be analysed in terms of the expanding physical presence of the Movement.

The Promotion and Support of Mechanics' Institutes between 1852 and 1873.

From the early 'fifties the North East shared with other parts of the country "the great peace, ... when life was rather easier and friendlier,"¹ and when the education of the masses was becoming the target for Government action. The provision of elementary education, for example, benefited from the investigation of the Newcastle Commission in 1858, when a school leaving age of eleven years was suggested as

1. Young, G.M., op. cit., p. 87.

desirable.¹ Lowe, too, through the Revised Code of 1862 possibly did more to improve attendance than any other measure introduced before 1870. But by 1870, Forster warned that

"on the speedy provision of elementary education depends our national prosperity, the safe working of our new constitutional system, and our national power."²

Clearly, the voluntary schools of the National Society and of the British and Foreign School Society, together with the elementary classes provided by the mechanics' institutes were not wholly meeting the needs of working-class students. It was, therefore, perhaps not surprising that during the same period the mechanics' institutes also became targets for Government intervention; but this subject will be dealt with more fully in a later chapter.³

The Victorian economic boom beginning in 1850, lasted until 1873,⁴ fuelled to a great extent by attitudes commended by men such as Samuel Smiles, who in his timely 1859 publication, 'Self-Help' (the best seller of the nineteenth century), reminded the masses of the possibility of following in the footsteps of men like Arkwright, Brindley, Wedgwood and Stephenson. This so called "gospel" influenced many, and subsequently

"found expression in such characteristic institutions

1. Maclure, J.S., Educational Documents, p. 75.

2. ibid., p. 115.

3. See below, pp. 210-211.

4. Tames, R., op. cit., p. 21.

as the .. Mechanics' Institution."¹

Coupled with such aspirations, was the presentation of certain doctrines advocated by individuals including Huxley, Tyndal, Playfair, Lubbock, Frankland and Lockyer who had risen to prominence in science.² By the 1860s they had become influential by virtue of their position: nine of them formed the famous "'X-Club' which began to reach into both the daily affairs of the newly created Science and Art Department" and into "scientific publishing." Pertinent pronouncements followed, whilst it was concluded that either

"State or private action was necessary to meet .. objects of utmost importance", i.e. "importance of research; and to redress the "belief that Britain .. lacked a sound foundation of scientific education and research."³

Generally, however, the cry from these progressive individuals was lost in the largely unsympathetic attitude of the Government. This, of course, had been satirised as early as 1854, by Charles Dickens in his novel Hard Times. Herein, he epitomised the attitude and doctrine of both contemporary political economists and of prominent northern employers.⁴ Mr Gradgrind, for instance, typified Dickens' notion of nineteenth century industrialists: Dicey also draws attention to this and reiterated the opening of sentences of the novel.

"Now what I want says Mr Gradgrind is Facts. Teach these boys nothing but Facts. Facts alone are wanted in life.

1. Tames, R., op. cit., pp. 106-107.

2. Macloyd, R.M., 'Resources of Science in Victorian England', Science and Society 1600-1900, p. 121.

3. loc. cit.

4. See below, pp. 280-284.

Plant nothing else and root out everything else."¹ Dickens, although thoroughly Victorian in that he envisaged society as being composed of various classes,² was a supporter of the Mechanics' Institute Movement. He advocated that "self-education gave a man self-respect."³ And the Movement essentially encapsulated this belief despite the fact that the educational diet was becoming liberalised.

It was in this climate of increasing interest in education for the working-classes, that the post 1851 generation of promoters of mechanics' institutes was to operate, albeit a climate still permeated by anti-intellectualism on the part of the Government. The establishment and progressive funding of individual institutes still rested upon the charitable goodwill of those in a position to contribute in some positive way. For instance, the Houghton-le-Spring Mechanics' Institute, founded in 1852, required the gift of a piece of "ground ... for the purpose by the T.W. and A. Robinson Esqs."⁴ before its establishment could be considered. As in many previous cases, public subscription was also invited, but the amount collected there fell short of the target by £180; the debt was later cleared from the proceeds of a bazaar.⁵ Both new institutes and those re-organised in the interest of survival, testified to the on-going dependency upon local finance. At West Hartlepool, for instance, the re-established Literary and Mechanical Institution relied

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1. Dicey, A.V., Law and Public Opinion in England during the Nineteenth Century, pp. 419-420.
 2. Manning, J., Dickens on Education, p. 161.
 3. ibid., p. 159.
 4. Fordyce, W., Durham., p. 560.
 5. loc. cit.

heavily upon the philanthropy of wealthy individuals, and upon donations received from industrial concerns such as the West Hartlepool Harbour and Dock Company.¹ Indeed, the role of sympathetic employers in both the initiation and support of the institutes seemed to have assumed the status of an accepted responsibility. At every stage, therefore, in the development of an institute, often stretching over many years, their presence was noted. For example, when the foundation stone of the new building for the Darlington Mechanics' Institution was laid in 1853, the important positions at the ceremony were occupied by prominent patrons. Some were members of families who had given their support from the outset in 1824 and throughout its turbulent period of decline and re-birth; one such person was Miss Elizabeth Pease who laid the foundation stone, she was attended by the Dean of Ripon, Professor Nicholl of Glasgow, the Duke of Cleveland, the Earl of Carlisle, the Earl of Durham and the Mayor of Durham.² The benevolence and loyal commitment of the Pease family towards the Institution, was still evident at the end of this period. Hence, in 1873 it was Charles Pease who "suggested that science classes should be established and at his own cost engaged a teacher for twelve months."³ The involvement of this Quaker family was, moreover, widespread throughout the region. For instance, Mr Henry Pease was present at the opening of the new building of the Shildon Railway Institute in 1860.⁴ The Bolckow and Vaughan partnership of Middlesbrough also extended their interests

1. West Hartlepool L.M.I. Notice dated 1852.

2. Darlington M.I. Committee Record Book., Min. dated 12th May, 1853.

3. ibid., Min. dated 11th July, 1873.

4. Bainbridge, F.F., Shildon R.I., p. 25.

within the Movement, and was instrumental in establishing institutes at Tow Law and Witton Park where they had iron works operations.

The persistent hand to mouth economy of most mechanics' institutes dictated that they were glad to receive income from all possible sources. At Middlesbrough, for instance in 1860, it was recorded that the "committee have received £10 from Thomas Richardson's trustees and £5 annually from the Stockton and Darlington Railway Company."¹ This, however, was the only known instance within the region where an arrangement for the payment of a regular fixed sum was made, presumably in the form of some kind of covenant. But it was not unique. For example, the London Mechanics' Institution was a beneficiary at the hand of Francis Ravenscroft a former student, and member of the firm of robe-makers, 'Ede and Ravenscroft.' His devotion was life long. He set up monetary prizes, guaranteed the cost of the new building project, and paid for the development of a new reading room and metallurgical laboratory.² But as the century advanced, it was clear that most of the institutes were to become increasingly responsible for balancing their own budgets. And without assured income the future was never secure. Therefore, towards securing continuing viability, some resorted to making full use of their resources. At the Shildon Railway Institute, for instance in 1861, income was derived from rooms which were hired out to local organisations such as the Shildon Choral Society and the Society of Friends; in 1864 further lettings were made in

1. Middlesbrough M.I., M.B., 1859-1966, Min. dated 13th May, 1860.

2. Burns, C.D., B. Coll., pp. 84-85.

favour of All Saints' Church and the Congregational Church.¹ Similarly, the West Hartlepool Literary and Mechanical Institution in 1873, accepted Mr J.W. Cameron's request to hire rooms. Correspondence showed that he had asked to

"become a yearly tenant of the cellars of the building at the rental of £11 p.a."²

Obviously this sum had been negotiated in previous correspondence and was finally agreed. (Presumably Mr J.W. Cameron was a member of the North East brewing family.)

During this period it was evident that industrial links between the institutes and employers were more marked than at any previous stage of the Movement's history. Undoubtedly, many institutes owed their existence to such philanthropy. Frequently, industrial ties were evident from the title of an institution. For example, the 'Table of Statistics of Mechanics' Institutes in the North of England' compiled in 1864, included the following titles:

Elswick Engine Works Institute,
Felling Chemical Works Institute,
Washington Chemical Institute.³

Kelly, too, further asserted that there

"must have been many ... such connections which were not revealed in their titles."⁴

This assertion was in fact true, since the institutes founded

1. Bainbridge, F.F., Shildon R.I., p. 29.

2. West Hartlepool L.M.I. M.B., 1859-1887, Min. dated 4th Feb., 1873.

3. Table of Statistics of the Mechanics' Institutes in the North of England: compiled by the Hon. Secretary of the Northern Union of Mechanics' Institutes, 15th Nov., 1864.

4. Kelly, T., G.B., p. 262.

at Tow Law and Witton Park, whilst not overtly bearing any 'works' affiliation, were financed by the Teesside iron-masters Bolckow and Vaughan. Indeed, as early as 1846, it was reported in the inquiry into the 'State of the Population in Mining Districts for Northumberland and Durham', that at Tow Law the population of two thousand was connected with the iron works, and that it had been proposed by the superintendent

"to build a room which can be used as a library and Mechanics' Institute and which the Wesleyans would pay rent for, as a Schoolroom and chapel."¹

The employers honoured their promise, and the Tow Law Mechanics' Institute became a reality in 1857.² An institute was founded at Witton Park in 1856. Besides industrial links with the Movement, Kelly drew attention to the fact that there were other links too. One example was the relationship formed with the Church of England.³ Such deepening sympathy between the two bodies increasingly found expression in the North East. For instance, the Gateshead Parochial Institute was included in the list of member institutes of the Northern Union of Mechanics' Institutions in 1875.⁴ The bond between the Church of England and the institutes had, of course, been encouraged by men such as the Dean of Hereford, Richard Dawes, earlier in the period. He had given an address at the Huddersfield Institution in 1856, where he advocated following the example he had witnessed in the South of England, where systems of mutual co-operation existed "among

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1. Report of the Commission to Enquire into the State of the Population in Mining Districts, 1846, p. 29.
 2. Whellan, F.W., Durham, p. 421.
 3. Kelly, T., G.B., p. 262.
 4. N.U.M.I. List of Member Institutes, 1873, p. iii.

the clergy and others, for giving lectures."¹ Clearly, any animosity between the Church and the Movement generally, had dissipated, whilst the Northern Union was keen to accept the membership of all types of institution; indeed, the Union's survival depended upon the income from affiliated societies. Further evidence of the Established Church's involvement was found especially in small village societies. At the annual soir  e of the Egglestone Mechanics' Institute in 1862, for instance, the large gathering of 500 received the blessing of the Rev. T. E. Jones, who on this occasion acted as chairman. In his speech he referred to the Mechanics' Institution as having

"practical bearing on the well being of society:"
they had, he suggested,

"enlightened the minds and improved the morals of the population."²

If by this date, the civilising influence of the institutes had proved to be so beneficial, then from the Church's position perhaps it was simply a matter of accepting a fait accompli. Throughout Teesdale such involvement was repeated. The Rev. J.C. Gregory, for instance, was similarly enthusiastic when at Mickleton-in-Teesdale in 1860, he had been present at a lecture at the Institute and was called upon to give the vote of thanks.³ And the same incumbent acting as president of the Institute in 1861, stated that

"he was not without hope that some at least among them
had derived considerable advantages from their

1. Dawes, R., Mechanics' Institutes and Popular Education,
p. 27.

2. Teesdale Mercury, 25th June, 1862.

3. ibid., 25th Jan., 1860.

connection with the institute".¹

North East clergy eventually followed the Dean of Hereford's advice and became inclined to share with their parishioners the benefit of their own education. This was achieved through the lecture, as was demonstrated by the Rev. W. Derwent, when he lectured on 'Japan and the Japanese' in 1861 to the Institute at Cotherstone in Teesdale.² But despite evidence of improved relationships between the Established Church and the mechanics' institutes, there were isolated examples of antagonism from some Methodist societies. Perhaps these were rare, but one instance on Tyneside made a newsworthy contribution to the Newcastle Daily Chronicle in 1858. Hence, on the occasion of the Annual Festival of the Blaydon and Stella Mechanics' Institute, it was recorded that a certain Mr Fenwick who was a leading figure had promised to attend.

"But the Circuit committee of the Primitive Methodist Society declined to allow him to come ... the secretary of the Methodists requested Mr Fenwick to attend to his preaching appointment, and not the Blaydon Mechanics' Soirée."³

This episode, however, might not have been considered unusual within the Yorkshire region, for Harrison declared that Primitive Methodism especially, "sometimes encouraged anti-intellectual attitudes." He further described them as "people of 'One Book'",⁴ but did not seem to have recognised that in certain circumstances they simply might have given priority to their engagements according to religious conviction.

1. Teesdale Mercury, 18th Sept., 1861.

2. Teesdale Mercury, 9th Jan., 1861.

3. Newcastle Daily Chronicle, 4th Aug., 1858.

4. Harrison, J.F.C., 'Social & Religious', p. 167.

Whilst the institutes established in this period varied greatly in character and social appeal, it must be acknowledged that there was a constant need to address the problem of financial viability. Even those in the thriving and expanding industrial centres, could never afford to divert their attention from such matters. And like all voluntary bodies, they were also affected by economic change within the communities they served. Yet, the desire to provide educational experience for the working-classes was very much alive. But whilst the church's supportive role in this respect was confirmed by the Dean of Hereford when he declared that

"we ought to bring a good education within the reach of all classes";

he also reminded potential recipients that such benefits were conditional, and that

"they should pay for it."

Moreover, he alluded to the importance of the work done already by the

"employers of labour, owners and directors of large commercial and manufacturing establishments directing their attention to the moral and intellectual improvement of those whom they employ" He obviously recognised the scope for others to become active in "establishing schools, reading rooms and libraries, thus affording opportunities for self-improvement".¹

The institutes of the North East region were certainly to remain dependent upon such philanthropy and encouragement throughout this period.

1. Dawes, R., op. cit., pp. 12-14.

The Distribution and location of the Mechanics' Institutes:
1852-1873.

Whilst there was generally a powerful drive by promoters to establish permanent testimony to the presence of the local 'mechanics' institute', the years between 1851 and 1854 might well be designated the "chill evening after high noon"¹ during which the Movement's advance was once more retarded, probably due to a lack of economic confidence. In fact the prosperity of the 'boom' period was not uniformly distributed, and even some middle-class families continued to suffer deprivation; some were forced to emigrate. Ford Madox Brown's painting 'The Last of England', dated 1860, of his friend the sculptor, Thomas Woolner with his wife on board a vessel bound for Australia, was described in a letter in which it was stated,

"I have singled out a couple from the middle-classes, high enough, through education and refinement, to appreciate all they are now giving up, and yet depressed enough in means to have to put up with the ... humiliations incident to a vessel 'all one class'".²

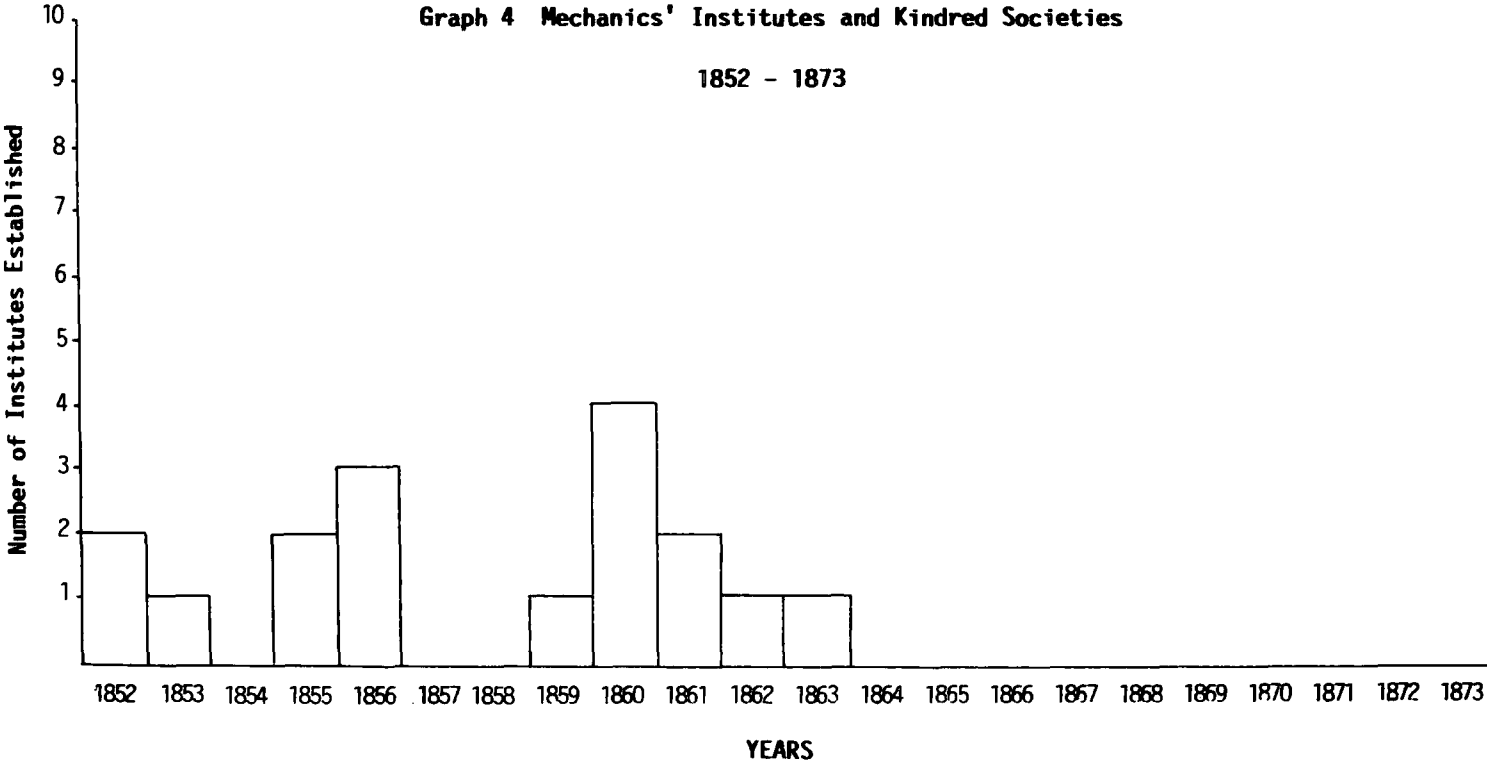
Throughout the period such leading citizens would perhaps have been supporters of new institutes, whilst probably many who were similarly distressed were unable to extend aid. Hence, for the years 1852, 1853 and 1854, the number of institutes including miscellaneous institutes established were five, two and none respectively. However, expansion was resumed in 1855 when seven were founded. Graphs 4 and 5 on

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1. Roderick, G.W., & Stephens, M.D., Education and Industry in the Nineteenth Century, p. vi.
 2. Riley, N., op.cit., p. 11.

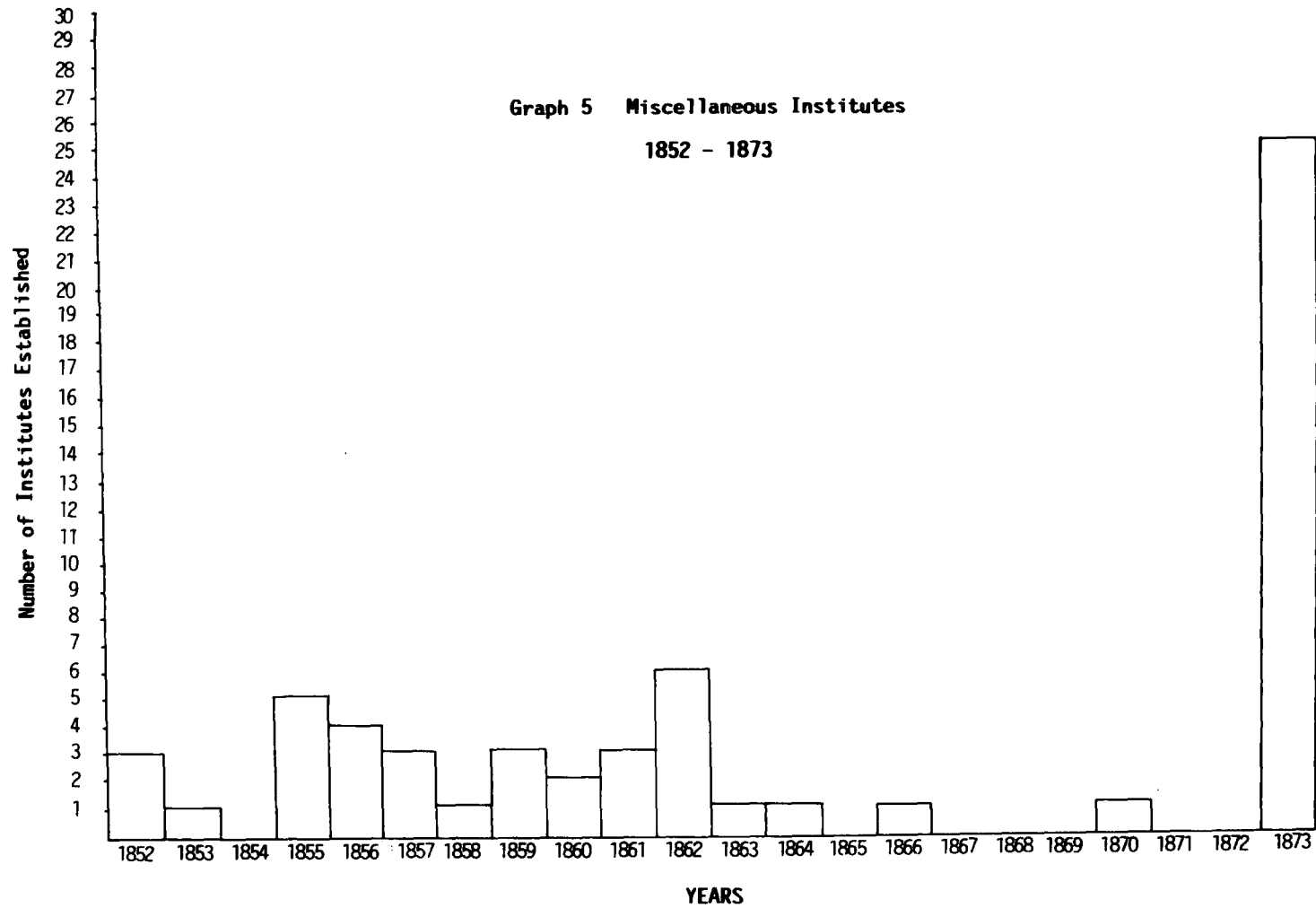
GRAPH 4

Graph 4 Mechanics' Institutes and Kindred Societies

1852 - 1873



GRAPH 5



pages 193 and 194, illustrate roughly corresponding troughs and peaks of activity.¹ The peaks for the years 1855, 1856, 1860 and 1862 show that the number of institutes established was seven, seven, six and seven respectively. These figures reflect Kelly's prediction concerning the national distribution of mechanics' institutes and kindred societies. He claimed,

"bearing in mind all the uncertainties", .. and that whilst the true date of the "peak of the Movement is not clear .. it must have been reached about the year 1860."²

Within the region the Movement reached a prolonged peak of activity between 1855 and 1862. This statement, is of course, based upon available evidence, whilst the foundation dates of institutes given in Appendix 1, pages 370 to 380 have been extrapolated according to the first date of existence discovered in published material. Generally, though, the overall assumption is probably not too inaccurate, since evidence from the Reports of the Yorkshire Union of Mechanics' Institutes, also supports the claim that the peak of activity was reached at some time between 1860 and 1862.³ Whilst the peaks and troughs of the Movement's progress in the North East between 1852 and 1864 conformed to the national picture, it was not so clear thereafter. Reasons for this were several, but above all was the inclusion of a wide variety of institutes such as reading rooms and Works based institutes into the membership of the Unions. Also it is impossible to identify the precise number of institutes established from contemporary union records, since the Annual Reports of both the Northern and the Yorkshire Unions, were

1. See Graphs 4 and 5, pp. 193 and 194.

2. Kelly, T., G.B., pp. 258-259.

3. ibid., pp.258-259.

frequently superficial or non-existent over certain periods. The Northern Union, for example, produced few published records between 1856 and 1872, since its activities were largely in temporary suspension.¹ Moreover, not all institutes or kindred bodies submitted annual reports of their work, and even when they did, they were often sketchy and incomplete. The influence of the Northern Union, too, was limited, being centred in the Tyne Valley,² whilst between 1865 and 1869 it was almost "as good as dead"³ due to financial difficulties. Cowan, the Tyneside industrialist, had rescued it from debt in 1858, but resigned in 1865 leaving it to deteriorate further.⁴ It was not until 1873 that it became financially secure, and therefore, able to engage a paid agent to oversee its role among local institutes. The agent was successful in increasing the number of affiliated institutes.⁵ In fact, so successful was his mission, that as is shown in Graph 5 representing miscellaneous institutes on page 194, by 1873 there was a significant increase in the number of member institutes, albeit many being almost certainly village reading rooms.⁶ This, however, remains an assumption, since full titles were often omitted, whilst the titles adopted by many societies were sometimes either loosely used or deliberately changed according to perceived status. And to further frustrate research, it has been found that press reporting of

1. Grimshaw, R.E., *The Northern Union of L.S.M.Is.*,
(typescript essay), p. 18.

2. Grimshaw, R.E., op. cit., p.4.

3. ibid., p. 9.

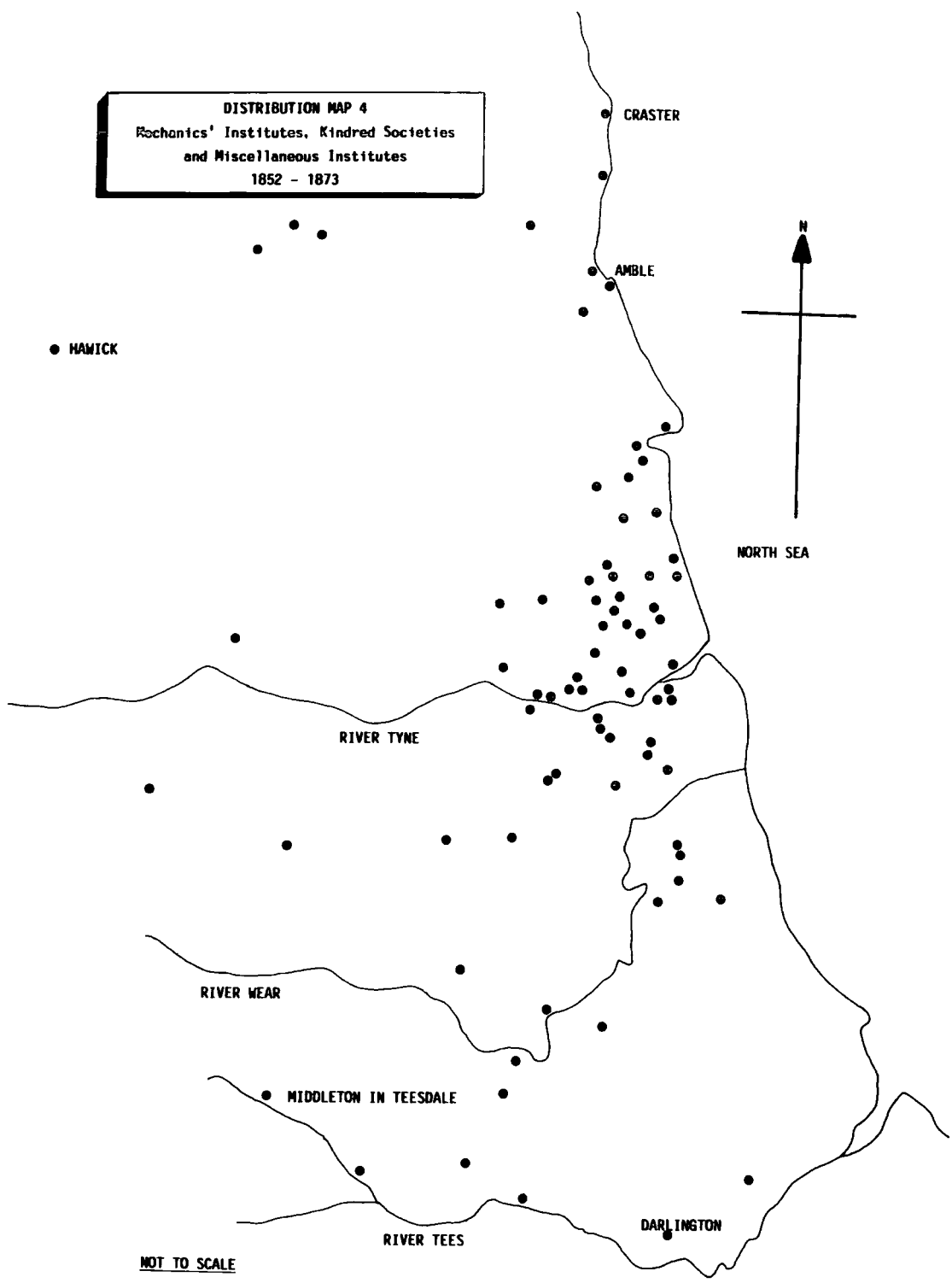
4. ibid., p. 8.

5. ibid., pp. 9-10.

6. See Appendix 1, pp. 370-380. See also Graph 5, p. 194.

DISTRIBUTION MAP 4

DISTRIBUTION MAP 4
Mechanics' Institutes, Kindred Societies
and Miscellaneous Institutes
1852 - 1873



mechanics' institutes was to become increasingly marginal.

In consideration of the overall distribution of institutes for the period 1852-1873, it is interesting to note the interaction between international events and the progress of the Movement. For instance, the diversion caused by the Crimean War in 1854, coincided with the establishment of not even one new institute in the region; conversely, the Paris Universal Exhibition of 1855 perhaps acted as a stimulus when seven were founded. Since there was no corresponding increase at the time of the Paris Exhibition of 1867, it confirmed that the period between the late '60s and the early '70s reflected the end of the age of pioneers,¹ and was the prelude to the eventual demise of the Movement.

Distribution Map 4 on p. 197, shows the geographical distribution of the institutes between 1852 and 1873.² A casual glance may be misleading in that it might suggest that the main thrust of the Movement was concentrated within the countryside. Overall this was true, but analysis reveals that many of the institutes founded in villages were associated with growing industrial activity as was the case at Jarrow and Felling. But as far as can be determined from the proliferation of rural institutes, it remains unlikely that most established after 1870 were anything more than reading rooms. Presumably in such communities, village people with time to spare passed their leisure hours browsing through a selection of newspapers and magazines, which undoubtedly was of some educational value. Certainly lectures were given, and other social functions were staged in order to promote their

1. Young, G.M., op. cit., p. 164.

2. See Distribution Map 4, p. 197.

usefulness. In 1860, for example, at the 23rd Annual Meeting of the Yorkshire Union it was advised,

"in order to promote the formation of village institutes and furnish an attraction in which shall at the same time be instructive the central committee have provided a costly apparatus for the Exhibition of Dissolving Views by means of a powerful Lucernal Microscope, illuminated by the Oxy-calcium Light"

The subjects which it was hoped might have general appeal were:

"Popular Astronomy.

The Exhibition of the Phenomena of Nature.

The Intersecting and Colossal Monuments of Egypt.

Public Buildings, Statuary etc."¹

Despite the fact that the role of the small institutes was now significantly different from the larger town-based societies, they were encouraged to provide an incidental educational experience. And Kelly rightly pointed out, that in an age when there were no cinemas or wireless sets and poor facilities for travel, "the contribution of activities of this kind to general culture was by no means negligible".² Moreover, their non-scientific role ensured complete autonomy and freedom from governmental involvement.

The sudden expansion of the Reading Room Movement from 1873, however, clearly reflected both the need for mutual improvement and the increased leisure time now enjoyed by the working-classes. The 'Reading Room Movement', being a peripheral component of the adult education movement, surely warrants further investigation in its own right, if the full

1. Y.U.M.I., A.R., p. 39.

2. Kelly, T., G.B., p. 239.

spectrum of the social and cultural development of the working-classes is to be appreciated. Nevertheless, these small societies were, wherever they could be persuaded, brought under the influence of the Unions of Mechanics' Institutions. In essence, of course, they were not out of place, since they had had a long history within the context of adult education, indeed, their comparatively cheap membership fees enabled the working-classes to gain access to reading material. At South Shields, for example, a Subscription Reading Room had been founded as early as 1818,¹ where it had no doubt enabled its membership to "overcome the obstacle of high prices"² of published material.

In addition to progress in the countryside, institutes founded in towns and ports during this period, also reflected the social and adult educational needs of expanding communities. For instance, the Institution founded at Scotswood on Tyne in 1862, catered for the expanding population of the Tyne's industrial zone; and the Institute established in the same year at South Stockton-on-Tees catered for similar expansion on the Tees. New institutes were also founded in expanding townships such as, Consett and Spennymoor³ where a Mechanics' Institute and a Reading Room and Library were established in 1855 and 1860 respectively. Reference must also be made to the statistical issue of longevity. Whilst Kelly pointed out that in the West Riding of Yorkshire, mutual improvement societies "came and went

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1. South Shields Exchange Subscription Reading Room, M.B. 1800-1855, p. 1.
 2. Aspinall, A., Politics and the Press, pp. 24-25.
 3. See Appendix 1, pp. 370-380.

with such bewildering rapidity",¹ so, too, did some of the smaller institutes listed in the Reports of the Northern Union of Mechanics' Institutions.² Yet of the North East region's main stream mechanics' institutes, only four were to cease in the period i.e. those established at Sunderland, Berwick upon Tweed, Old Hartlepool and South Shields.³ Hence, the real work of the Mechanics' Institute Movement, as a Movement apart from the 'Reading Room Movement', was mainly confined to the old established institutes together with new foundations which could be reasonably classified as fulfilling similar criteria. Functionally, however, many institutes were destined to be downgraded. Indeed, by 1874, the Annual Report of the Northern Union of Mechanics' Institutions, stated that "the majority of Institutes are not esteemed as scientific .. but they seem to have drifted into becoming mere reading rooms".⁴ Clearly, the spirit of the 'Reading Room Movement' was gaining ground at the expense of the more formally established mechanics' institutes.

The Acquisition of Permanent Buildings.

In the wake of widespread social, ecclesiastical and industrial sympathy for the Movement, together with the increasing aspirations of the institutes, it was not surprising that the resultant confidence was manifested in the erection of buildings. The period 1852-1873, more than any other, witnessed the translation of building schemes into reality. The accent on the acquisition of property reflected

1. Kelly, T., G.B., p. 258.

2. See below, p. 271-272.

3. See below, p. 212.

4. N.U.M.I., A.R., 1874, p. 16.

the growing status of the Movement and belief in its future progress. Various means of achieving recognisable landmarks were adopted. For instance, the closer association between the institutes and certain other bodies, in particular circumstances, afforded security upon which to build. One example of such expediency involved the West Hartlepool Literary and Mechanics' Institute and the local Athenaeum. Hence, due to the

"rapid expansion of the Port and Town, and the increasing number of members of the Institution, these render it necessary that a building should be erected it is intended to give the Building the name of 'The West Hartlepool Athenaeum'".¹

The building was rapidly completed and was opened in September, 1852.² A newspaper report concerning the event described it as

"a handsome Athenaeum, built in a modern style of architecture it is about 69 feet in length and 32 feet wide and about the same in height. From the ceiling neat gasoliers and a large white banner behind the platform..", which bore the title - "'The West Hartlepool Literary and Mechanics' Institution'".³

Whilst not immediately evident, this mutually convenient establishment was to serve two very similar societies i.e. the Athenaeum and the Mechanics' Institution. The building was substantial, though of comparatively modest construction. For ten years the union was satisfactory,

1. West Hartlepool L.M.I. Notice re: proposed building, 1852.

2. The Sunderland News and North of England Advertiser, 11th Sept., 1852.

3. loc.cit.

although far from perfect. This was undoubtedly due to a lack of clear policy having been formulated before the opening of the new joint venture.¹ For instance, it appeared that "no resolutions were passed"² as to how both memberships might enjoy reciprocal privileges. Therefore, in 1863 the Mechanics' Institution Committee insisted that the membership of the 'Athenaeum Club' should become members of the Institute, but with the provision that the 'Club' should be

"entirely separate from the Institute and under its own management and control."³

Today, the 'Athenaeum' still exists, where its members meet for social activities including billiards, snooker and a bar. During this period, style and title were of considerable importance, being especially directed towards the pursuit of educational credibility. The parent Institution at London was aware of the significance of such matters. The title of the London Mechanics' Institution, therefore, was eventually changed in 1866 to "The Birkbeck Literary and Scientific Institution" in an attempt to enhance its status, since by this time its students were generally dedicated to courses validated by the Society of Arts and the University of London.⁴ If the creation of handsome buildings and the attention given to titles was indicative of the confidence which enthused the Movement, so too, was the emphasis placed upon the modification and improvement of existing buildings.

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1. West Hartlepool L.M.I., M.B., 1849-1859. Min. dated 7th Apr., 1852.
 2. loc. cit.
 3. West Hartlepool L.M.I., A.R., 1863.
 4. Burns, C.D., B. Coll., pp. 78-79.

For example, although at Alnwick the Institution had acquired its own building in 1832¹ progress had been so remarkable by 1863, that the Committee was "urged to establish a Museum" and to consider "schemes for an enlargement of the building." A plan was adopted in 1867 for the "addition of a wing at the South West side of the building".... the new room was to be "40 feet by 16 feet."² By 1869 the enlargement had been "accomplished at a cost of about £200."³ Generally, however, most building projects were accomplished slowly, reflecting the financial difficulties associated with voluntary bodies. Typical examples were the Middlesbrough Mechanics' Institute where work on a new building started in 1853, but was not completed until 1859,⁴ and the Shildon Railway Institute which did not open its new building until 1860,⁵ almost thirty years after its foundation. At Newcastle, too, the Literary, Scientific and Mechanics' Institution Committee were engaged upon a new building scheme in 1863.⁶ But again, it was not until 1867 that the new accommodation was ready for use, after having been opened in phases between January and March.⁷ The new building was designed to be one of the city's landmarks. An account of its facilities was published in the Builder in 1865. It read:

"The new building, which has been designed by
Mr Thomas Oliver, architect, stands on a piece

1. See above, p. 61.

2. Heatley, J., Alnwick S.L.M.I., pp. 6-7.

3. Alnwick S.L.M.I., Forty fourth A.R., p. 3.

4. Middlesbrough M.I., A.R., 1860.

5. Bainbridge, F.F., Shildon R.I., p. 25.

6. Newcastle L.S.M.I., M.B., 1856-1868. Min. dated 10th
Apr., 1863.

7. ibid., Mins., dated 9th Dec., 1867 and 21st Jan., 1868.

of ground in New Bridge Street .. the style is Italian. The interior will consist of six large sized classrooms, a library, a lecture room, a news room, a "smoke room" and an extensive corridor leading from the entrance to the grand staircase."¹

The foundation stone was laid in 1865, whilst the occasion being similar to that which launched the new Mechanics' Institution building at Darlington, was marked with all due ceremony; an undated lithograph once more confirmed the presence of leading members of the local population when Sir George Grey laid the foundation stone.² Other North East Institutes which acquired their own buildings or built replacements during this period, were those at Blyth (1858),³ Darlington (1854),⁴ Bishop Auckland (1864),⁵ Blaydon and Stella (1853),⁶ whilst at the Barnard Castle Mechanics' Institute, a new hall was added in 1860 "capable of accommodating several hundred persons."⁷ But in most of these buildings the ambitions of their founders were never fully realised, since the provision of libraries and technical instruction was to become the responsibility of Local

1. Builder, 29th Apr., 1865, p. 304.

2. Lithograph in possession of C. Stockdale.

3. Swales, W.J., Blyth Mechanics' Institute, The Formative Years, (typescript sheets), p. 26.

4. Darlington & Stockton Times, 24th Apr., 1948. Article by Dr J. Watson.

5. Nelson, R., News Cuttings of Bishop Auckland and District, n.d.

6. Winlaton District Local History Society, A History of Blaydon, pp. 105-106.

7. Teesdale Mercury, 7th Nov., 1860.

PLATE 4
WYLAM READING INSTITUTION



Authorities. Also from examples of buildings which presently exist at Darlington, Barnard Castle and Wylam, it is evident that they reflected high architectural standards, and therefore, the prestige of the Movement. This is clearly appreciated from Plate 4 on page 206 of the Wylam Institute.¹ Yet from the working-class point of view, one question raised was, 'were such fine buildings the need of the day'? An answer was given in an 1861 issue of The Museum magazine; one observer was reported to have experienced the following; and claimed that

"many a poor person turns away from lectures and schools, baths and wash houses, saying, It's such a fine place, I didn't like to go in."²

The reasons, however, for such criticism might have had little to do with the architecture of the building, but rather more to do with what went on inside. Indeed, the educational and social facilities were increasingly directed towards the needs of skilled artisans and the lower middle-classes. If, in spite of vigorous building projects, the possibility of failure was ever present, then the resourcefulness of management committees was seemingly never short of imagination in the quest to remain viable. At Blaydon and Stella, for instance, in the years "previous to 1874", it was reported that "our Mechanics' Institute was doing very little good", hence, the committee..

"thought that they should hand over the management to the Co-operative Store," with the proviso that the "premises should not be used by the Store for other purposes than those of a Mechanics' Institute."

Eventually, the Institute was "sold to the Store", a measure

1. See Plate 4, p. 206.

2. The Museum, July 1861, p. 193.

which was to implement the simultaneous development of "reading rooms at the Spen, Prudhoe and Leamington Branches." The delegate who furnished this information to the Northern Union's Annual Meeting in 1876, said that presently

"they will have .. a Union of Mechanics' Institutes amongst themselves"... and that he was "not aware of anything of the kind having been attempted in the North of England."¹

This was indeed unusual, and would seem to confirm Kelly's view that only a "minority of Co-operative Societies made any significant contribution to adult education."²

Although one example was outstanding. This was the Rochdale Co-operative Society which by the mid-'70s not only had the best library in the town but also a laboratory. And like the Blaydon Society, it too, had "branch libraries and reference libraries scattered all over the area".³

The Movement's progress in the North East during this period was very similar to that of other regions. But from the evidence discussed it is clear that locally, one major difference was distinguishable between Durham and Northumberland. This was in the Reading Room Movement's progress. In Durham the new institutes tended to be of the traditional type or works based, whilst in Northumberland the emphasis was upon the establishment of reading rooms in the rural village communities. Here, as in neighbouring Carlisle and district any educational accent must have been at the

1. N.U.M.I., Vol 1., Report 1876, pp. 18-19.

2. Kelly, T., H.A.Ed., p. 209.

3. ibid., p. 208.

level of mutual-improvement,¹ whilst the establishment of traditional mechanics' institutes would have been inappropriate in non-industrialised surroundings.

1. Graham, B., Nineteenth Century Self-Help in Education - Mutual Improvement Societies, Vol. II, p. 51.

Chapter 7.

State Intervention: 1852-1873.

Following the establishment of the Government Schools of Design in the 1840s, the climate in which the Mechanics' Institute Movement operated became even less secure due to the provisions extended to Local Authorities under the Public Libraries Act of 1850. Its adoption was subject to the approval of two thirds of the ratepayers, whilst a subsequent Act in 1855 allowed a 1d rate to be levied, and permitted expenditure on premises, books, newspapers, maps and specimens of art and science.¹ In addition to this were the powers extended to the newly created Science and Art Department. From 1853 it controlled State-initiated adult educational projects, such as the Government School of Mines and of Science applicable to the Arts, and the Royal College of Chemistry. Government funding of adult education, undoubtedly was to affect voluntary educational organisations including the mechanics' institutes, which had for thirty years provided both libraries and adult instruction. Reaction from individual institutes over the next two decades rested with local committees. Some, relatively quickly handed over their affairs to Local Authority control, whilst others continued for as long as possible by becoming involved in the Government scheme for providing technical instruction. In certain institutes, a gradual lack of enthusiasm for such matters resulted in decline and inevitably in capitulation. Therefore, an investigation into what amounted to indirect Government intervention in the affairs of the mechanics' institutes, will illustrate their changing role in the

1. Kelly, T., G.B., p. 177.

region's seaports, industrial areas and rural communities.

The Demise of Mechanics' Institutes in the Region.

Although the Government had granted funds to schools of science or trade, and especially to 'Navigation Schools' and to 'Trade Schools',¹ there was no conclusive evidence that this directly caused the failure of institutes situated in the region's seaports. Significantly, however, it was only in such locations that failure was recorded.

Navigation Schools had existed in the North East since the 1830s. For instance, at North Shields, there were "three Navigation Schools in existence between 1834 and 1850, whilst the next decade saw two new ones open."² Despite the closure of these by 1856, another had been opened by 1860.³ Similar schools also existed at Newcastle and Sunderland during this period.⁴ The competition within the region from scientifically orientated schools, and pressure for the implementation of the Public Libraries Act presented a combination of conditions which together, contributed towards

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1. Roderick, G.W., & Stephens, M.D., 'The Educational Role of Mechanics' Institutions', S.I.S., p. 28.
 2. Bovill, D.G., 'Education of Mercantile Mariners in the North East Ports 1840-1902', (Ph. D. thesis, Durham University, 1987), pp. 47-51.
 3. ibid., p. 212.
 4. ibid., pp. 47-50. See also Hall, W.G., 'Tech. Ed. Sunderland', p. 42.

the demise of four institutes between 1852 and 1873. These were the Institutes at South Shields, Old Hartlepool, Berwick upon Tweed and Sunderland.

The dissolution of the South Shields Literary, Scientific and Mechanical Institution was a protracted exercise and it was not clear that it was due to direct competition from Government funded educational bodies. But even if it was, it was not recorded; furthermore, there must have been strong competition from the South Shields Exchange Reading Room, because by 1865 it attracted a membership of 376.¹ No mention of this has been found in the Institute's records. Undeniably, the period prior to its collapse provided some clues. From the time of its establishment in 1825, this Institute had enjoyed almost continuous prosperity, and it was only in 1855 that there was any sign of decline. In that year a diminution of the membership was reported as being due to many members having "left town".² Of course, this could have been a polite reference to a defection of members to other societies. Meanwhile, a timely but temporary redress of the situation transpired when a

"deputation from the Working Men's Institute made application to the institute as to whether it would let them a room in the new building, they undertaking to pay rent for it"; the Committee reported that "they might well let the South West room." A "large increase in numbers"³ was immediately reported. The success of this measure paved the way for one further venture in 1863 when

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1. South Shields Exchange Reading Room, M.B., Min. dated 26th June, 1865.
 2. South Shields L.S.M.I., 30th A.R., 1855-1866, pp. 3-4.
 3. South Shields L.S.M.I., 34th A.R., 1855-1866, pp. 5.

the 'Amalgamated Engineers' were invited to become members of the Institution.¹ By 1869 a complete organic union was secured between the Institution and the Working Men's Institute.² The Annual Report for 1869 not unexpectedly stated that the

"number of members of the Institute has nearly doubled itself since the last Annual Meeting,"³ the "figures were then 295, they are now 549 .. this happy result is no doubt due in a great measure to the amalgamation with the Working Men's Institute. It was also doubtless attributable in part to the formation of Science Classes."

After such measures, the success of the Institute seemed assured when it was further reported that, "Classes started resulting from the Grant given by the Government for promoting (Classes for Scientific Instruction)." But such aid came rather late to consolidate the Institute's role as a centre for technical instruction. Finally, its fate was determined when the demand for a public library displaced further educational ambitions. In 1870 the Local Authority lodged plans with the Institution's Committee, offering to take over the establishment for the purpose of a Free Library in "conjunction with conditions laid down in the Free Libraries Act". Apparently the proposition was initially rejected,⁴ but by 1872, the Committee had received the

1. Thompson, H.V., South Shields Literary, Scientific and Mechanical Institution, (dissertation, Ripon College, N. Yorks, 1969), p. 11.

2. loc. cit.

3. South Shields L.S.M.I., A.R., 1869, pp. 1-2.

4. Thompson, H.V., South Shields L.S.M.I., (dissertation), p. 13.

"written consent of 4/5ths of the members."¹ Consequently, the librarian and housekeeper were given notice that "their services will not be required... owing to the Institution having to be handed over to the Corporation".² Presumably the classes were continued within alternative accommodation. But from the lack of evidence which might have suggested a struggle to retain even these services, it seemed that the Committee were relieved to hand over the Institute's affairs to the Local Authority.

Voluntarism in the second half of the century could not alone sustain the maintenance of buildings or the provision of expected facilities. This was confirmed at the Old Hartlepool Mechanics' Institute. As in the previous case, confidence seemed to be apparent until 1860, when building fund notices were distributed throughout the town to attract subscriptions for the new premises.³ A new building was duly erected and opened, but by 1867 the debt incurred gave cause for concern. A meeting, therefore, was called in March inviting the members of the institute to "consider the best means of extricating the Building from debt."⁴ By July, however, the creditors were pressing for the settlement of outstanding accounts, and the Committee had to circulate the membership advising them of the implications of the situation. Hence, they were required

"to make provision for the payment of £105... being

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1. South Shields L.S.M.I., Annual Meeting 1869. Min. dated 7th Dec., 1869.
 2. South Shields L.S.M.I., M.B., Min. dated 9th Jul., 1872.
 3. Old Hartlepool M.I. Building Fund Notice, 1860, (Wood Collection).
 4. Old Hartlepool M.I. Letter to members, 27th Mar., 1867.

required to pay forthwith.. only half of this as has yet been collected and unless the remainder be procured or security given ... the Furniture and other Effects will be removed from the Building. The continuance or dissolution of the Institution now rests entirely with the Members."¹

Herein, it was implied that the bailiffs would be sent in if debts could not be cleared. From the last verse of the ballad Poor Andrew's Lamentation² shown in Plate 5 describing the Institute's last days, it seemed that the law was invoked to resolve the matter: notwithstanding, the Institution was closed in 1868. Whilst publication of such material seemed to have breathed an atmosphere of celebration into the event, even the sale of the leaflets at 1d each might have produced funds for reducing outstanding debts.

From the records of the Berwick upon Tweed Mechanics' Institute, it was evident that within ten years of its foundation, i.e. by 1860, a crisis of considerable scale had occurred. Precise detail is lacking, but the retiring Committee of 1862 noted the situation, and finished their business by making the following remarks to the membership:

"Gentlemen .. in conclusion it is the earnest desire of the Committee in retiring from office that you should give healthy support to the members with whom you entrust the affairs of the Institute ... so that no such crisis as that which happened two years ago may ever be known again."³

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1. Old Hartlepool M.I. Letter to members dated 20th Jul., 1867.
 2. Poor Andrew's Lamentation, May, 1868, See Plate 5 p. 216.
 3. Berwick upon Tweed M.I., M.B., Min. dated 7th Nov., 1862.

PLATE 5
POOR ANDREW'S LAMENTATION

Source West Hartlepool Museum and Art Gallery,
(Wood Collection).

POOR ANDREW'S LAMENTATION.

—♦♦♦—
"The day of sale" has come and gone,
And we are almost broken-hearted;
"Richard!" what have you been and gone and done?
From the "kernel" you the "shell" have parted.

But its no use getting in a rage,
For all our pride now fairly sunk, is—
They've turned us out of our handsome cage,
Us birds of "feather," goats, and monkeys.

Like patriots in a public cause
We never once have swerved yet;
And if we have not gained applause
We know we've well deserved it.

The Reading Room is quite deserted;
We miss the old man's choking cough,
And "old wads" face; which, when contorted,
Made e'en the "doctor" stare and laugh.

Poor "Mat," I'm sorry for thee, now
No shipping news for thee to read;
Man, when I think of "times" gone by
I'm mad at those who did the "deed."

And "Big Ben," too, who used to come
At early morn the news to scan,
Will have to join some other club,
Or buy his "Standard" like a man.

"M.D." whatever will you do?
Papers with you will be so rare,
You can't afford one for your hand,
And *two* to place upon your chair.

The "Club" Room now looks quite forlorn,
"Spades," "Diamonds," "Hearts" have other homes;
O, dear! I wish I'd ne'er been born,
Or was with "Nan" among the tombs.

It grieves me sore to think that I
No more can "mark" and "call the game;"
"For Joseph," "Kit," and tall "Glass Eyes"
"Fat Doctor," "Tailor,"—Oh, 'tis a shame!

For many a pleasant hour was spent
'Mong smoke and chat, and fun and play;
"Sim," "Jim," and "Luke" and "Schul" all went
A half-an-hour to while away.

Ah, "Bobby," your "occupation's gone,"
"Nut Bill" would claim you as his man;
But, "oh, dear, no!" not to be done,
Be off to school fast as you can.

For I quite expect to see the place
O'er run with swells (tho' out of luck);
Such "cweatures" I would soon displace,
And in the dock give them a duck.

But never mind! its often said,
'That "time tries all," and so it will;
And those who by the nose are led
Will find the motto correct still.

Lawyers are men I ne'er could trust,
tho' they should say the thing that's true;
I'll consult them only when I must,
A course I'd recommend to you.

The defunct Institute—May, 1868.

PRICE, ONE PENNY.

The above statement was the last available record of the affairs of the Institute, although the society continued until 1870 when there were only nineteen members.¹ Obviously a crisis similar to the one previously referred to had recurred, resulting in the closure of one more mechanics' institute. The problem yet again, appeared to have been lack of financial support including petty theft, because it was recorded in 1861 that the secretary had resigned when a "deficiency in the funds of £13-2-4 was discovered."² It was then further assumed that any "hope of resolving this problem could not be foreseen", and within a fortnight the committee had resolved to "seek for more suitable and cheaper premises."³ Debt probably affected this Institute for its remaining few years of life. And as at the Old Hartlepool Institute, there was neither any indication as to how the Institute's various properties were disposed of nor of any determination to pursue its revival.

The history of Sunderland Mechanics' Institute is not well documented, but it was one further instance in which the Corporation was invited to accept responsibility for its future role. By 1852 it appeared that the Institute's early difficulties were past when a new wave of enthusiasm was evident. The erection of a new building was proposed and was to be designated the "Stephenson Literary and Scientific Institute"; but such steps were never taken. Perhaps this measure, especially the re-naming, was designed to confer a degree of credibility and to dispense with its past and dubious reputation. But by 1860, the Institute "was nearly

1. Berwick upon Tweed M.I., Treasurer's Book, 1869-1870.

2. Berwick upon Tweed M.I., M.B., Min. dated 7th May, 1861.

3. ibid., Min. dated 23rd May, 1861.

in a state of collapse", whilst between the years 1851 and 1860, there had been "chronic disorder of the library", and "no returns of the number of books". This period heralded the end of the society, and in 1860 it was recommended that the "trustees should be authorised to make a formal offer of the books to the Corporation for the purpose of a public library."¹ But from the available records, it was obvious that those controlling the affairs of the Institute had few professional management skills, and therefore, were responsible for its demise. For instance, they proved totally indifferent to both the reception and the needs of visiting lecturers. One lecturer, a Mr J.G. Grant who had travelled from London, criticised the Institute in subsequent correspondence. He wrote,

"the Committee having demonstrated "courtesy" and
"consideration ... far less than I have ever
experienced before in any instance."²

There was no doubt that carelessness permeated the entire management of the Institute, which was ultimately manifested in its failure. In addition to such incidents of mismanagement, it would seem reasonable to suggest that the navigational instruction once carried out at the institute had by this time passed into the hands of the Navigation School, thus contributing towards the institute's ultimate demise. However, it was probably difficult to attract competent managers to oversee declining institutes in a climate of increasing Government involvement in public library and educational services. The impending introduction of both public libraries and technical education were

1. Northern Daily Express, 20th Apr., 1861.

2. Sunderland M.I. Letter from Mr J.G. Grant, dated 14th Nov., 1853. See Appendix III for full text.

clearly causing some apathy within the Mechanics' Institute Movement. Indeed, Kelly suggested that the most "catastrophic rivalry emanated from the Free Library Movement".¹ Progress on this front was initially slow in the North East and in most other regions. Roderick and Stephens agreed that it was only "towards the latter part of the nineteenth century" that mechanics' institute libraries were either taken over, or displaced by the library movement. Indeed, by 1877 under the provisions of the Public Libraries Act, only eighty adoptions nationwide had been effected.² Turner's research in the West Midlands also confirmed a protracted rate of closure and that it was "between 1870 and 1900 when most Institutes closed down."³ Evans, too, found in South Wales that the capitulation of the institutes was a gradual process, where, for instance, the Bridgend Mechanics' Institute was not "handed over to the Library Committee" before 1901.⁴ There was no doubt, of course, that the popularity of the library facility had demonstrated the "strength of the demand for provision of this kind".⁵ The mechanics' institutes of the North East, moreover, were to provide this service for some years to come.

The Mechanics' Institutes and Library Services.

Despite the legislation contained in the Public Libraries Act, the provision of library and newsroom facilities continued to flourish ranking highly among the activities of

1. Harrison, J.F.C., 'Social & Religious', p. 179.

2. Kelly, T., G.B., p. 275.

3. Turner, C.M., 'M.Is. Midlands', p. 146.

4. Evans, T., 'M.Is. S. Wales', p. 468.

5. Tylecote, M., L. & Y., p. 289.

the institutes. The strength of this service lay in making available books and literature to which the majority of people could not otherwise have had access. This function was realised through the continued expansion of library stock and itinerating libraries.¹

The popularity and expansion of library facilities necessitated in many instances, the employment of a librarian, especially in the larger institutes. Such positions were of course, novel at this time, whilst it was unlikely that appointees would have been qualified in librarianship. Nevertheless, institutes advertised locally for librarians, and such appointments carried certain rewards.² Possibly, too, the status of the appointee would be elevated within the community. For example, at Berwick upon Tweed, long before its failure, the Mechanics' Institute resolved in 1853 "that a librarian should be appointed", and that he should

"reside upon the premises

attend in the library for the purpose of giving out
and receiving books",

and that:

"for his services shall have one room,
coals and gas free of charge

His salary was to be:

"Five pounds per annum .. to be paid quarterly

And he

"shall also receive one shilling in the pound

1. See Appendix VI. Catalogue of books sent out in boxes. p. 386.

2. West Hartlepool L.M.I., Handbill advertising for librarian. (Wood Collection).

for all money collected out of the Institute".¹

The role of the librarian, was, of course, not always so clearly defined, for example, at Middlesbrough in 1849, and presumably for several years after that date, the position seemed to have included general duties. Hence, the appointee was designated "porter". It was also his job to

"collect the unpaid subscriptions for next quarter",
and to oversee the opening times of the library but which
"should be closed during the afternoons whilst he is
so employed".²

This porter was the person whose initiative to canvass the locality for members probably saved the institution from extinction in 1859. The accent upon libraries and their importance continued until the end of this period, when, for example, at Gateshead in 1870, the Institute's committee made a dual appointment. They required a husband and wife team, and therefore, employed a

"Mr William Stockdale to act as librarian, and
Mrs Stockdale to act as keeper of the rooms
to the Institute at a joint salary of eighteen
pounds sterling per annum."³

The duties of librarians varied, and carried certain responsibilities, especially that of handling money. A high degree of moral integrity was therefore called for, but as in any comparable situation, this was not always achieved. For instance, at West Hartlepool, in 1856 a query arose concerning Mr Richard Dove, the Institution's librarian; it was found that the sum of "£23-7-0 was unaccounted for" in

1. Berwick upon Tweed M.I., M.B., Min. dated 16th May, 1853.

2. Middlesbrough M.I., M.B., No 1, Min. dated 27th May, 1849.

3. Gateshead M.I., M.B., 1856-73., Min. dated 13th Sept.,
1870.

his book-keeping records. The ensuing inquiry caused the Committee of the Institute to record their belief that his defence statement had been directed to "misrepresent the facts of the case;" they further pronounced judgement to the effect that his motive had been fuelled by

"pure malice and a wilful endeavour to mislead the members and change the character of the Institute and its Officers."¹

In the Minutes there was no further reference to the case, but perhaps the conflict arose from the unusual arrangement between the Mechanics' Institution and the Athenaeum, both of which it may be recalled, operated within the same building.

Throughout the North East generally, it appeared that most of the mechanics' institute libraries fulfilled a valuable educational role unimpeded by overtures from Local Authorities. Not even in towns as large as Newcastle upon Tyne, was there as yet, any move from the Local Authority to enforce the provisions of the Public Libraries Act. Of course, this was not to infer that such action was unlikely even within the immediate future. Indeed, at Newcastle, the Free Library issue was raised in 1878² and at Gateshead in 1877.³ The later application of this measure in the North East again complements the findings of Turner and Evans.

During this period the mechanics' institute unions extended

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1. Middlesbrough M.I., M.B., No. 1, Min. dated 23rd Feb., 1856.
 2. Newcastle L.S.M.I., M.B., 1867-79, Min. dated 21st Jan., 1878.
 3. Gateshead M.I., M.B. 1873-1885, Min. dated 21st Nov., 1877.

aid towards fostering the literary development of smaller institutes which could not acquire their own books. To this end, therefore, the Northern Union set up an Itinerating Library Service which issued boxes of books to affiliated institutes. The acquisition of suitable works, and the management of the scheme depended upon voluntary funding. The extent to which the scheme was used, or how far it was developed during the years 1857-1872 remains unknown, since there are no records of the Northern Union for this period. Yet in 1856 the scheme was active, since at least one reference to fund raising has been discovered. A book entitled The Northern Poetical Keepsake, was published especially "in aid of the Funds of the Itinerating Library of the Northern Union of Literary and Mechanics' Institutes."¹ This was a collection of poems printed and illustrated in two tone lithography. No doubt it was hoped that the sentiments expressed in verses such as those reproduced in Appendix V, reflected the ethos of the Mechanics' Institute Movement. The contribution of the libraries to the institutes should, however, never be underestimated particularly their contribution towards incidental education. Moreover, they were an essential element of mid-Victorian culture, and helped to reinforce the ideology of 'self-help.'² Indeed, in testimony to this, Thomas Burt's widow wrote an inscription within a copy of his autobiography, Thomas Burt, which was presented to the library at Blyth. The following commendation must have been an appropriate accolade for many institutes within the North East:

"to the Blyth Mechanics' Institute from Mrs Burt and family in recognition of the great benefits received by the late Thomas Burt from that Institute in his

1. The Northern Poetical Keepsake, See Appendix V. p. 385.

2. Tames, R., op. cit., p.136.

early manhood."

Thomas Burt himself had alluded to the value of service derived from the Institute's library when he said:

"The library of the Mechanics' Institute gave me the opportunity to read some books which were then new to me."¹

Perhaps appropriately, when the Blyth Mechanics' Institute was destroyed by fire in 1876, the library was saved, and today the Mechanics' Institute building, is in fact, Blyth Public Library.² Similar gratitude for access to books was expressed by Joseph Swan. It was recalled in a memoir that he owed his success to the fact that he became a member of the Sunderland Athenaeum, and thus had the use of a good library which contained "some scientific books and the scientific journals of the day."³ Experiences such as these were not peculiar to the North East. In the Lancashire and Yorkshire region, Tylecote also confirmed that the mechanics' institutes did "much to train up local leaders for the new industrial society."⁴ In these, too, the library facility would no doubt have been of considerable importance.

The demise of the lecture.

In the meantime, Government funding of instruction in science subjects developed at a pace which required the use of suitable facilities wherever they existed. Many of the larger mechanics' institutes were able to fulfil such a role, and

1. Burt Thomas, An Auto-biography, pp. 188-190.

2. ibid., pp. 29-30.

3. M.E.S & K.R.S., Sir Joseph Swan F.R.S., p.21.

4. Tylecote, M., L. & Y., p. 262.

consequently experienced a new lease of life. Fortuitously, this requirement occurred when the lecture as an educational medium was almost played out. Even at the beginning of this period there were few signs that enthusiasm for scientific programmes could be regenerated. Clearly, alternative methods for providing scientific instruction would have to be deployed. Despite the unpopularity and low profile of the lecture it was neither immediately nor easily displaced.

The committee of the South Shields Institution, for instance, in their Annual Report for 1855-1856, recorded that there was "only one lecture to report".¹ And the West Hartlepool Institution reported in the same year at their Annual General Meeting, that "Lectures during the past year were not so numerous nor so well attended."² However, despite declining interest, between 1852 and 1856 programmes were devised to try to revive the situation. These were advertised in the town. For example, it was recorded on a handbill that,

"Edwin Ward Jackson Esq., consented to give a course of Three lectures on the Social, Moral and Physical Progress in England during the last half of the century.

1. Industry & Commerce. - Taxes and Postage.
2. Scientific Discoveries - Railways and their effects.
Bridges. Electric light.
Chloroform. Telegraph.
3. Arts and Science - Great Exhibition. Criminal
Returns. Wages. Mechanics'
Institutes."

1. South Shields L.S.M.I., A.R., 1855-6, p. 4.
2. West Hartlepool L.M.I., Report of Annual General Meeting, 1856.

It was evident from the above that the scope of the programme was both wide and specialised, and perhaps in the hands of only one lecturer, the treatment of the topics must have been superficial. Further programmes followed and in 1855, for instance, lectures included the following topics,

"Coal, Carburetted Hydrogen Gas, Explosives in coal mines."¹

How successful such programmes were, is unknown, but at the Darlington Mechanics' Institution in 1858, it was reported that the "present position has not been so fruitful in lectures."² This response seemed to have been typical throughout the region, despite efforts to reverse the trend. The struggle to retain the lecture 'programme' continued until the end of the period. For example, it was reported by a despondent committee at the West Hartlepool Institution in 1867, that as far as lectures were concerned, they "again deplore that want of success attends their efforts to this direction".³ And by 1872 the Annual Report recorded that no lectures had "either been attempted or given."⁴ Similarly, at the Berwick upon Tweed Institute, by 1862, it was stated that "lectures have been abandoned."⁵

And at Darlington by 1871, it was found that there was only "a small amount of interest taken in Public lectures," therefore the Committee had "engaged no more than one lecturer during the past season," a Mr G. Dawson who delivered a lecture on a "Visit to

1. West Hartlepool L.M.I., Notices dated 1853 and 1855.

2. Darlington M.I., A.R., 1858.

3. West Hartlepool L.M.I., A.R., 1867.

4. ibid., A.R., 1872.

5. Berwick upon Tweed M.I., M.B., Min. dated 7th May, 1862.

the Suez Canal."¹

One further example should suffice to confirm that the 'lecture programme' as a means of disseminating knowledge, was now being rapidly abandoned. Also the profession of itinerant lecturer probably disappeared too. At Middlesbrough, for instance, in 1859 it was recorded that "only one lecture had been given", and that as a result the Committee was "less anxious to engage paid lecturers."² If the above comments heralded the terminal state of the 'lecture programme' in the mechanics' institutions of the North East region, it was not unique. Kelly also recorded that as early as 1851 at the Huddersfield Mechanics' Institution lectures had become "relatively unimportant, being limited to Saturday evening monthly meetings and varied by music and recitations."³ Chadwick, too, in his research of the Derby Mechanics' Institute, found that "the lecturing programmes had suffered a decline by the 1860s".⁴ Therefore, except for classes, Harrison rightly asserted that

"from educational bankruptcy, the mechanics' institutes were rescued by two timely developments, the examination system of the Society of Arts and the demand for technical and scientific education."⁵

The progress and development of classes initiated by Government aid will be considered first whilst the introduction of formal technical education will be discussed

1. Darlington M.I., M.B. 1871-1911, A.R., 1871.

2. Middlesbrough M.I., M.B. No. 3, 1859-66, A.R., 1859.

3. Kelly, T., G.B. p. 265.

4. Chadwick, A.F., 'Derby', p. 278.

5. Harrison, J.F.C., L. & L., p. 213.

in the final period of the Movement's work under the terms of the Technical Instruction Act of 1889.

The Department of Science and Art.

The Illustrated London News effectively assessed the national state of scientific education in an issue dated 14th May, 1853. The article referred to the Government's decision to "foster science" as recognition of the need for a "system of scientific instruction of a thoroughly practical character." The reason for not having done so earlier was due to "the failure of other plans", and because the "institutions of the people would only be supplied from the uncertain class of teachers left unemployed."¹ Such criticism was valid, since trained science teachers were not available, whilst frequently, those who taught were people who had 'sunk into their vocation'.² However, this was the first time that Government funds had been made available for technical education, and its effect was more immediate in some areas than in others. Roderick and Stephens' findings were confirmed in the North East in so far that amongst the first to benefit were the Navigation Schools.³ During this period too, qualifications assumed considerable importance, and examinations bodies began to emerge to meet the needs of validation. First to become involved were examinations bodies such as the College of Preceptors in 1853, and the Society of Arts in 1856-7. Later, in 1859 a Government sponsored body

1. The Illustrated London News, 14th May, 1853.

2. See above, p. 124.

3. Roderick, G.W., & Stephens, M.D., 'The Educational Role of Mechanics' Institutes', S.I.S., p. 28.

emerged under the auspices of the Department of Science and Art.¹

The mechanics' institutes should have been in a strong position to have effectively seized the Government's initiative for providing technical instruction, having been for almost half a century at the forefront of providing adult education. But the success of classes generally, depended so much upon local circumstances e.g. the state of the local economy, the interests of the members of the institutions, the provision of accommodation, and the availability of suitable teachers. By the early '50s, classes remained unstructured and were therefore, an unreliable means of providing systematic teaching. Indeed, at the London Mechanics' Institution the means of instruction was far from satisfactory. Dr Lyon Playfair had carried out an inspection in response to an application to the Government for financial aid. He reported his findings to the House of Commons in 1857, and presented an account of his observations. He found that,

"the classes are cumbrous and inefficient ... the teachers are unpaid ... the members appear to relish amusement more than instruction ... the lectures are disjointed ... the course for the present quarter is 'The Atlantic and Ocean Telegraph; A Gossiping Concert; Christmas Books of Charles Dickens; A Second Peep at Scotland; ... on Explosive Compounds"

Moreover, the only classes held at this time were in the subjects of

"arithmetic, book-keeping, chemistry, drawing,

1. Ensor, R., England 1870-1914, p. 318.

French, writing, elocution, and music, instrumental and vocal."¹

By 1866, however, entertainments were displaced and a demand for classes leading to the University of London examinations paved the way for the establishment of Birkbeck College as part of London University. And by 1870 the London Institution had determined its future. It became a well organised body devoted exclusively to the diffusion of knowledge, and "represented the most highly institutionalised form of adult education in the period before 1870".² Once again, the country's first mechanics' institution provided an example worthy of emulation.

Compliance with regulations, which in turn determined the attraction of the Government Grant, necessarily included the employment of qualified science teachers. Therefore, this was one of the first problems to be addressed by the Department of Science and Art. But it was determined that such provision would not be funded by the State. Hence, in 1858, concerning the supply of science teachers, the following plan was adopted. The Department deemed that

"it would seem to be stepping beyond the functions of the State to establish a Training School for Science Masters. It has been considered better to pay any moderate cost for the training of the necessary masters through agencies independent of the State. Accordingly, an arrangement has been commenced at the Chester Training College in order to qualify them to take the Department

1. Burns, C.D., B. Coll., pp. 74-78.

2. Harrison, J.F.C., 'Social & Religious', p. 271.

Certificates of competency."¹

The scheme embodied in the above statement of intent was successful from the outset. By 1862, the Department at South Kensington published statistics which indicated the number of candidates who had successfully benefited from its provisions over a period of three years. Table 9 below illustrates the popularity of this measure.

Table 9.

Science Teachers in Training between 1859 and 1861.

<u>Year</u>	<u>1859</u>	<u>1860</u>	<u>1861</u>
No of candidates.	57	89	103
No who passed.	43	75	97

Further analysis of the Department's returns revealed that, "of this number only 5 or 6 have any special scientific training at the cost of the state.

The system of State Training for masters of Science Schools, which a few years since was thought to be indispensable, is thus proved to be unnecessary."²

Of interest was the implicit emphasis upon cheapness, a condition which was to permeate the State funding of

1. Department of Science and Art, 5th A.R., p. 21.

2. D.Sc.A., 9th A.R., pp. vii-viii.

education for years to come. But the statistics illustrated a positive reaction, i.e. that candidates came forward for the course, and that within three years of its inception, the number who had successfully completed the requirements had more than doubled. Indeed, the scheme was accepted beyond all expectations. The years 1862 and 1863 provided further proof of the scheme's attraction, when the following statistics in Table 10 showed the number of classes and pupils being taught by qualified masters.¹

Table 10.

Classes under Instruction by Qualified Teachers: 1862 - 1863.

	<u>No. of classes</u>	<u>No. under instruction</u>
1862	70	2,543
1863	93	3,111

The above figures reflected a rapidly growing demand for instruction in science subjects. The Department acknowledged this, whilst as a result, employers were now able to recruit personnel with scientific and technological expertise. Further expansion was evident when, for example, over a period of six years, i.e. from 1859 to 1864, the number of candidates trained were as shown below in Table 11.

1. D.Sc.A., 11th A.R., pp. v-vi.

Table 11.

Science Teachers in Training: 1859 - 1864.

	<u>1859</u>	<u>1860</u>	<u>1861</u>	<u>1862</u>	<u>1863</u>	<u>1864</u>
No. of candidates	57	89	103	125	109	115
No. who obtained certificates.	43	75	97	112	95	96

Meanwhile, it was reported,

"the number of candidates who come up therefore from year to year to obtain certificates as teachers is influenced almost solely by the requirements of the country and the probability of obtaining employment."¹

This was indicative of the value now placed upon suitably qualified employees. However, the success of the scheme was limited because the existence of the South Kensington grants was not widely known by the working-classes.² Possibly this was a deliberate ploy in order to prevent an over supply of teachers. Indeed, examination of the above statistics showed that the number of trained science masters remained fairly static between 1861-1864 at around an average of 100 per year.

1. D.Sc.A., 12th A.R., pp. v-vi.

2. Argles, M., op. cit., p. 24.

Yet in contrast with the above conclusions of Argles and of Roderick and Stephens who also suggested that the work of the Department of Science and Art was not well publicised,¹ was the fact that in the North East at least one attempt was made to do so. Mr Buckmaster was sent by the Department to spread the 'gospel' of the availability of Government Grants. He arrived at Middlesbrough in 1869, to address a meeting at the town hall specifically aimed at the formation of Science and Art classes.² Nonetheless, several of the region's larger mechanics' institutes now employed qualified teachers. Statistical evidence for the years 1869 and 1870 indicated both the location of such institutes and the number of students under instruction. This is illustrated in Table 12.³

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1. Roderick, G.W., & Stephens, M.D., 'Steam Intellect Created - The Educational Roles of The Mechanics' Institutes', S.I.S., p. 29.
 2. Middlesbrough M.I., M.B. 1867-1878, Min. dated 4th Jan., 1869.
 3. D.Sc.A., 18th A.R., pp. 86-149.

Table 12.¹

North East Mechanics' Institutes Employing Qualified Teachers: 1869-1870.

<u>Town</u>	<u>Where held</u>	<u>No. under instruction</u>	
		<u>1869</u>	<u>1870</u>
Alnwick	Mechanics' Institute	38	19
Barnard Castle	do.	10	24
Darlington	do.	19	n.a.
Middlesbrough	do.	n.a.	n.a.
Elswick	do.	117	139
South Shields	M.I.		
	Nautical College		
	Jarrow Chem. Works.	112	61
South Shields	Tyne Docks M.I.	n.a.	64

The fact that over such a large geographical area only large mechanics' institutes were represented, was perhaps due to a lack of qualified teachers. Indeed, at Alnwick in 1872, where the Institution had been thriving as a result of its science classes suddenly found itself without teachers. It was

1. D.Sc.A., 18th A.R., pp. 8-149.

recorded that the classes were to be discontinued

"owing mainly to the teachers Dr McVail and Mr T. Muxlow B.A., leaving the town and the Committee being unable to secure successors holding the necessary Government Qualification."¹

The competition for science teachers enabled centres other than mechanics' institutes to qualify for the Government Grant. This was confirmed from a more detailed examination of the same Table from which the above statistics were taken. Hence, other societies in the region also competing for students and teachers were often co-existent with a local mechanics' institute as is shown below in Table 13.² In fact, as far as it has been able to judge, mechanics' institutes existed at Bishop Auckland, Blyth, Durham, Gateshead and in the North Shields area. Of course, the reason why existing institutes were not used can only be assumed to have been due to superior teaching facilities being available in other establishments.³

1. Alnwick S.M.I., A.R., 1872.

2. D.Sc.A., 18th A.R., pp. 86-149.

3. See below, p. 277.

Table 13.

Centres other than Mechanics' Institutes Teaching Science
1869-1870.

<u>Town</u>	<u>Place where held</u>	<u>No. under instruction</u>		<u>Existing. M.I.</u>
		<u>1869</u>	<u>1870</u>	
Bishop Auckland	Wesleyan School	n.a.	41	Yes
Blyth	National School	46	20	Yes
Durham	Training College	18	31	Yes
Gateshead	National School	101	49	Yes
North Shields	Free Library	n.a.	71	No
Sunderland	Bp. Wearmouth Colliery School	n.a.	21	No
	Monkwearmouth Colliery School	41	43	No
	School of Art	n.a.	n.a.	No
	Working Men's College	n.a.	21	No

If the Government Grant was to be wholly expended in the provision of scientific and technical instruction, it raised the question, 'how far was this requirement exacted in practise?' Evidence seems to confirm that funds were indeed used exclusively for the purpose for which they were designated. For instance, Table 14 indicates the locations and the title of subjects taught at North East institutes in 1870.¹ The number of students is also given.

Table 14.

Science Instruction in the Region's Mechanics' Institutes: 1870.

<u>Institute</u>	<u>Subjects</u>	<u>No. of Students</u>
Barnard Castle M.I.	Inorganic Chemistry	13
	Physical Geography	7
Darlington M.I.	Inorganic Chemistry	10
	Botany	20
	Animal Physiology	6
Jarrow M.I.	Geometry	20
	<u>Inorganic Chemistry</u>	30
	Machine drawing	18
	Metallurgy	20
	Building construction	2
	Applied Mechanics and Naval architecture	20
	Inorganic Chemistry	13

1.D.Sc.A., 18th A.R., pp. 150-199

Middlesbrough M.I.	Machine drawing	95
	Geology	7
Elswick Works M.I.	Practical & Plane Geometry	24
	Machine drawing and	
	construction	52
	Building construction	16
	Pure maths	27
	Theoretical mechanics	21
	Applied mechanics	21
	Acoustics, light, heat	13
	Magnetism & Electricity	13
	Inorganic chemistry	13
South Shields M.I.	Nautical astronomy	21
	Machine construction	40
	Building construction	
	and drawing	4

Roderick and Stephens' analysis of subjects offered also confirmed an adherence to the purpose for which the grant was intended, they also confirmed that "the emphasis was very much on the pure sciences."¹ However, an examination of the subjects in the above Table showed that applied sciences were included. Moreover, it was evident that some of the Department's investment was directed towards correcting the lack of basic scientific education which was not strictly technical instruction but nonetheless essential.² Consequently, within the Government's scheme, there was for

1. Roderick, G.W. & Stephens, M.D., 'Steam Intellect Created The Educational Roles of The Mechanics' Institutes', S.I.S., p. 29.

2. ibid., pp. 29-30.

the first time, an attempt to ensure that systematic science teaching was provided, since a

"teacher must give forty hours instruction in some subject, aided by the Department, to a class of pupils not under twelve years of age."¹

The demand for scientific instruction at all levels clearly rescued many mechanics' institutes from early extinction. But in spite of Government funds their existence was always tenuous. They continued to depend upon the fulfilment of other criteria, especially in attracting voluntary financial aid to sustain science instruction.

At Darlington, for example, in 1869 the matter of arranging classes in conjunction with the Science and Art Department was raised,² but it will be recalled that the employment of a full time science teacher was dependent upon the philanthropy of Charles Pease, a member of the local Quaker family who had suggested that science classes should be established, and who at his own cost had engaged a teacher for twelve months.³ But the expense incurred was probably not onerous; indeed, at the Barnard Castle Institute, for instance, in 1852, teachers at the evening school were paid "£3-3-0 each for their services during the season and the writing master with £2-2-0".⁴ Despite the Government aid scheme, many teachers involved in the work of the institutes received no income; the fact that their services might be gratuitous was identified at the

1. Builder, 17th Nov., 1860.

2. Darlington M.I., A.R., 1870.

3. Darlington M.I., M.B., 1871-1911, Min. dated 11th July, 1873.

4. Barnard Castle M.I., M.B., 1845-1855, Min. dated 29th Jun., 1852.

London Mechanics' Institution in 1858, where Playfair found that "the teachers of most classes are unpaid, but in a few cases they do receive an inadequate remuneration".¹ Probably, therefore, teachers received the highest negotiable fee, since there were no fixed scales of payment. Hence, if a teacher's fee was found to be too high, then he was simply not hired as was shown at the West Hartlepool Institution in 1855. It was reported that the committee could not engage a "Mr Anderson at the salary he requires:" but that the situation was resolved when a Mr David Hume agreed to come at a "cheaper rate of pay".² Perhaps some of the larger institutes were better placed to handle such financial constraints, indeed, at the Newcastle Institution the demand for places in the classes was so great that the Committee was able to impose in 1869, a charge of "2/6 per course" for the general public to be granted admission to the science classes.³ Yet despite the constraints outlined above, recognition of the usefulness of the institutes within the North East region was recognised by a certain James Hawkins, who delivered a lecture to a group of young men in Newcastle upon Tyne in 1873. He suggested that,

"on leaving school, if a youth should find himself deficient in instruction and education, and more or less every one will, let him continue to educate himself by the great facilities afforded through Literary Institutions, Public Librariesetc."⁴

1. Burns, C.D., B. Coll., p. 74.

2. West Hartlepool L.M.I., M.B., No. 1 1849-59., Min. dated 5th Dec., 1855.

3. Newcastle M.I., M.B., 1869-79, Min. dated 18th Oct., 1869.

4. Hawkins, J., The Influence of Practical Intelligence, p. 10.

This commended the importance of a continuing role for the mechanics' institutes. And post 1851 experience clearly suggested that they had an educational role especially in the sciences. This could not have been more effectively demonstrated than at Newcastle in 1867, when a package of nitro-glycerine was carried to the Town Moor to be buried. It exploded, killing seven men. A knowledge of the chemistry of the substance, and of the precautions to be taken in handling it, however, were found to have been of the "slightest".¹ Perhaps such instances were repeated elsewhere, thus highlighting the need for science instruction and thereby contributing towards the survival of the institutes. In fact as far as the decline of the Movement was concerned after 1851, Evans conceded it "could not be traced with any exactitude, as so many institutes were vigorous right up to the nineties, almost entirely due to their system of classes".² But there was no doubt that by 1873, certain classes were disappearing from the curriculum. The provision of basic education was beginning to decline as a result of the work of the School Boards. At Darlington in that year, it was decided that "the Mechanics' Institute ought to a large extent to leave elementary education and give more attention to scientific pursuits".³ Significantly, the warning of the demise of elementary classes came during the previous year when an "Elementary Class came to a close in about six weeks for the want of pupils".⁴ Meanwhile, the clamour for science instruction caused this particular 'seed of dissolution' to develop into Local Authority technical

1. Burn, W.L., The Age of Equipoise, p. 298.

2. Evans, T., 'M.Is.S. Wales', p. 400.

3. Darlington M.I., A.R., 1873.

4. ibid., A.R., 1871-1872.

colleges, thus precipitating the demise of more institutes later in the century, a process initiated earlier by the Public Libraries Act.

Throughout this period it has become clear that the Mechanics' Institute Movement became a vehicle through which the Government could conveniently and relatively cheaply provide scientific instruction. Again, the need was confirmed from the response generated, whilst at the same time the national deficiency in the number of science teachers became one of the topics to be addressed in 1875 in the Report of the Royal Commission on Scientific Instruction and the Advancement of Science.¹

1. Maclure, J.S., op. cit., pp. 107-108.

Chapter 8.

In Pursuit of Pleasure and of People: 1852-1873.

Alongside the demand for the provision of technical instruction the development of the social and cultural side of the Movement continued unabated. The choice of activities becoming available within the institutes presented memberships with decisions they had to make concerning the deployment of their leisure time, and, equally, committees were called upon to act as moderators in such matters. The interaction of these issues was to determine the future of many institutes. In retrospect, however, after the removal of library and educational services, it was the remaining social and cultural element which enabled many institutes to survive into the twentieth century.

Entertainment of various kinds became prominent in later years. The staging of concerts assumed business-like proportions: at the West Hartlepool Institution, for instance, from 1853, such occasions were lavishly advertised at great cost. Poster-work contained in the Wood Collection at West Hartlepool Art Gallery, indicated the emphasis placed upon such attractions.¹ Certainly the advertising medium and printed programmes were designed to attract people into the institution. And if such advertising was appropriate at West Hartlepool, then there is every reason to believe that other regional institutes were similarly involved. The diversity of activities becoming available within the region's institutes probably resulted from a general consensus of opinion among

1. West Hartlepool Art Gallery and Museum, (Wood Collection).

individual memberships. For example, some concentrated upon the introduction of games. At the Bishop Auckland Mechanics' Institute in 1868, it was interesting to note that here

"we find the germ of the first introduction

into the town of the new popular game of billiards."¹

From available records it was also pertinent to note that at this date there were no doubts expressed concerning the possibility of such games becoming a focus for gambling activity as had been expressed earlier in the century. Other games, too, such as bagatelle had their appeal. It was played at Bishop Auckland in 1864² and also at the Newcastle Institution in 1869.³ Apparently the introduction of bagatelle at the Bishop Auckland Institute was identified as the pivotal point of its future development. It was recorded that the occasion ushered in irreversible change: thus, from its inception

"we see the first indication of the change which had gradually come over the spirit and intentions of those who first conceived the idea of establishing Mechanics' Institutions for the working man".⁴

How prophetic this was to prove, because in 1866 a

"gymnasium was also added behind the building, properly fitted up with swings, cross bars, and other requirements and a quoit ground prepared for the members."⁵

1. Bishop Auckland M.I. Min. dated 4th Jan., 1868.

2. ibid. Min. dated 3rd Nov., 1864.

3. Newcastle L.S.M.I., M.B. 1869-79. Min. dated 8th Nov., 1869.

4. Bishop Auckland M.I. Collection of selected newspaper cuttings; n.d.

5. loc. cit.

Other popular games at the institutes included draughts and dominoes: both were played at the Newcastle Institution¹ and also at Blyth;² they were granted the official approval of the Yorkshire Union in 1862. Indeed, it was now considered appropriate that the institutes should compete with the "warmth and light of the public house," where people were "offered attractions more appreciable than the enforced quietude of the Reading Room, or the mental application of the classroom," whilst "being free to choose chess and draughts"³ as suitable activities.

Compared with the previous period, the entertainment bias of the institutions was now clearly established. However, caution was still observed by some; for instance, at Darlington in 1856 it seemed that entertainment was reserved for Saturday evenings, when the stage was offered for the presentation of "music" provided by "local talent."⁴ Sometimes itinerant talent toured the institutes. Artists, it seemed, charged as much as they thought the local purse could tolerate. This was demonstrated at the Shildon Institute in 1852, when Mr Topcliffe was engaged to

"give two of his musical entertainments", but it was noted that "he charges £4-0-0 for one night and £5-0-0 for two."

In view of such high fees, it was resolved to barter with him

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1. Newcastle L.S.M.I., M.B., 1856-1868. Min. dated 3rd Feb., 1858.
 2. Blyth M.I., M.B., Mins. dated 4th Nov., 1856 and 14th Dec., 1864.
 3. Y.U.M.I., 25th A.R., 1862, pp. 16-20
 4. Darlington M.I. Committee Record Book, Report 1856.

and to offer £3-0-0 for one night and £4-0-0 for two.¹ Essential budgeting further determined much of what the institutes were able to provide in terms of social and cultural development. At Shildon it was found that even pleasurable social occasions could be cancelled if costs were considered to be too high. For instance, in 1855 it was recorded,

"it is the opinion of this meeting that the tea-party should be postponed until another year on account of the high price of bread."²

And at the West Hartlepool Institution in 1852, the "offer of Mr H. Walker's entertainment on the Rock Harmonium was rejected".³ Presumably the cost of this performance also was too expensive.

Meanwhile, the expansion of the region's railway network continued to widen the social vision of the institutes. For example, as soon as the new railway line between Darlington and Barnard Castle was opened, a "planned trip to Barnard Castle"⁴ was arranged for the members of the Darlington Institute. The 'excursion' was clearly of great attraction to the institutes, opening up the experience of travel on a scale never previously known. Exceptionally large numbers, moreover, were ably catered for on certain outings. The Middlesbrough Institute organised a visit to Whitby in 1861 on the

1. New Shildon Railway Institute, M.B., dated 11th Nov., 1852.

2. ibid., Min. dated 21st Nov., 1855.

3. West Hartlepool L.M.I., M.B., 1849-59, Min. dated 27th Feb., 1852.

4. Darlington M.I. Committee Record Book, Report 1856.

"splendid steamer Onward when nearly 1,000 persons enjoyed a delightful trip."¹

Also during this period the extension of telegraph links between all major towns and cities was forging ahead. Such a link had been established in 1852 between Leeds and Stockton. When referring to this at the opening of the West Hartlepool Institution, it was said,

"we are glad to hear that it is proposed to extend the electric wires to Hartlepool."²

This was clearly confirmation of the perceived usefulness of the telegraph, not so much as a social amenity, but rather to advance the activities of business members. The proposed telegraph service to Blyth became a controversial issue at the Blyth Mechanics' Institute in 1865. A minute dated July 3rd, 1865, referred to the fact that the members of the Institute were

"largely middle-class and particularly involved in commerce."³

Such people would have benefited from having access to shipping information available at the Institute and at minimum cost to themselves. However, in order to control such usage, a decision was taken which limited the despatches to

"announcements of arrivals at Gravesend and Falmouth of such vessels only as belonged to the Port; the Stock Lists and lastly the Corn Prices". But later it transpired that, "the annual cost of £30 was subsequently enough to cause the matter to be dropped" thus frustrating it's

1. Y.U.M.I. A.R., 1862, p. 199.

2. Sunderland News and North of England Advertiser, 11th Sept., 1852.

3. Blyth M.I., M.B., Min. dated 3rd July, 1865.

development for business.¹

The installation of the telegraphic service was attractive to institutes not only in the North East, but also in other industrialised regions. Hemming referred to this facility having been a matter for discussion in the textile districts of Lancashire and Yorkshire. He, too, discovered that the institutes found the "heavy cost of introducing a telegraphic service proved prohibitive, or met with little response from local dealers".² Of course, had the institutes proceeded with the installation of such facilities, then some might well have developed into business centres or telecommunications centres for the exclusive use of the middle-classes.

In addition to the consideration of social and cultural amenities, an expression of concern continued to be demonstrated especially in the welfare matters of working-class members. The establishment of Savings Banks enjoyed limited appeal within the Movement. Harrison stated that this innovation was most typical in the Yorkshire institutes.³ This view must be accepted, since the only examples of Savings Banks found within the North East were those on Teesside within institutes allied to the Yorkshire Union of Mechanics' Institutions. Two such examples were identified at the Institutes of Middlesbrough and Stockton, where a Penny

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1. Swales, W.H., 'Blyth Mechanics' Institute, The Formative Years,' typescript pamphlet, n.d., p. 7.
 2. Hemming, J.C., 'The Mechanics' Institute Movement in the Textile Districts of Lancashire and Yorkshire in the Second Half of the Nineteenth Century', (Ph. D. thesis, Leeds University, 1974), p. 162.
 3. Harrison, J.F.C., 'Social and Religious', pp. 162-3.

Bank and a Savings Bank respectively were set up in 1861.¹ No doubt such schemes helped to promote not only the efficacy of the institutes concerned, but also that of thrifty members of the working-classes. Savings' schemes were, of course, advocated by Smiles. He believed that the savings of a person reflected the "fruit of individual responsibility."² Clearly, the institutes were happy to promote this desirable moral quality wherever possible.

Other innovations identified prior to 1852 were adopted when considered expedient. For instance, at Alnwick a Museum was established as part of the Institute in 1863;³ similar schemes were effected at West Hartlepool in 1855⁴ and at South Shields in 1870.⁵ The museum service, however, seemed to be confined to the institutes in the larger and older centres of habitation and industry. Closely associated with the museum facility was the continued practise of mounting 'Exhibitions'. Two, for example, were held at Bishop Auckland in 1860 and 1864 respectively.⁶

The development of social responsibility, and of facilities for promoting freedom and leisure were in an advanced state of development at many institutes by 1860; indeed, in some of the larger institutes, the club-room ethos was given further approval, when for example, at the Middlesbrough

1. Y.U.M.I., A.R., 1861. p. 101 & 116.

2. Briggs, A., op. cit., p. 139.

3. Heatley, J., Alnwick S.L.M.I., p. 6.

4. West Hartlepool L.M.I., Notice dated 1855.

5. South Shields L.S.M.I., M.B., Min. dated 20th Dec., 1870.

6. Richley, M., History and Characteristics of Bishop Auckland, Part IV, p. 156.

Institute in 1861, it was permitted to let the "members have refreshments in what is called the club-room".¹ The club-room seemed to have become a prominent feature of many institutes by the late '60s, one further example having been created in 1867 at West Hartlepool.² Meanwhile, games such as billiards and snooker together with refreshments paved the way for the future progress of many mechanics' institutes some of which were later transformed into community centres with bars vending alcoholic beverages. The West Hartlepool Athenaeum, for instance, presently fits this description. The pursuit of social activities, however, frequently displaced other departments. Indeed, Turner found that the Mechanics' Institutes of the West Midlands "faced a bad period"³ after the middle of the century, whilst only a few of those which "still existed during the last thirty years of the century and which were still something more than libraries and tea-rooms,"⁴

maintained an educational role. Nonetheless, the social and cultural function should not be viewed negatively. On the contrary, such facilities provided a much needed service in catering for the increasing leisure time of the working-classes. Equally, some institutes developed a clear bias towards providing a social out-let for the middle-classes. Chadwick, for instance, describing the Derby Mechanics' Institute, found that during this period it had become a "civic leaders club."⁵ Nevertheless, the successful projection of the 'club ethos' as a feature of the institutes

1. Y.U.M.I., 24th A.R., 1861, p. 19.

2. Middlesbrough M.I., letter dated 27th Mar., 1867.

3. Turner, C.M., 'M.Is. Midlands', p. 129.

4. ibid., p. 155.

5. Chadwick, A.F., 'Derby', p. 258.

could require ingenuity on the part of Committees. Therefore, it is fitting that the last word on this should be found within the context of a North East institute i.e. Blaydon Mechanics' Institute. It was here on Monday June 9th, 1862, that the song, 'The Blaydon Races' was first performed by George Ridley, its composer. He performed it "as part of the show which it was written to publicise,"¹ with an incidental advertisement for the Institute, as seen below in the verse pertaining to the Mechanics' Institute at Blaydon:

"We flew across the Chine bridge reet until 'Blaydon
Toon,
The bellman he was caallin' there, they caalled him
Jacky Broon,
Aa saa him taakin' te seem cheps an' them he was
persuadin',
Te gan an see Geordy Ridley's show in the Mechanics'
Haall at Blaydon".

One contemporary commentator confirmed that,

"That song was used as a sort of satirical
comment for the benefit of the Mechanics' Hall
audience."²

Its continued popularity has always been a measure of its guarantee to entertain those who prefer the club-room atmosphere. No doubt it not only attracted crowds into the Blaydon Institute, but further helped to establish a course which most other institutes were to follow. After all, it may be recalled from the previous chapter that the vast majority of the North East's institutions were not involved in the promotion of classes under the provisions of the South Kensington Department. Therefore, their future viability was

1. Fane, Little Billy, A Life of Ridley, p. 3.

2. loc. cit.

to be largely dependent upon the inclusion of social and cultural activities.

The audience, or more properly the membership of the institutes, however, still had to be persuaded to join the pleasures offered. And Committees applied such ingenuity as was appropriate to local circumstances and culture.

Attracting Members.

The Government's selective educational involvement did not act as a general panacea in solving the membership problems of all institutes. In cases where membership was seen to be flagging, some were inclined towards the lowering of subscription fees. This exercise was successfully carried out at the Newcastle upon Tyne Literary, Scientific and Mechanical Institution in 1860. Here, a "rapid decline" of members was reversed when a roll totalling 1,050 was achieved as a "result of a reduction of the subscription of 12/- to 6/- per annum."¹ A similar ploy was engaged at the West Hartlepool Institution in 1855, when the Committee discussed the "best means of inducing the labouring and mechanical part of the community to avail themselves of the News and Reading Room." The recommendation was again, that of "reducing the annual subscription to that class as an inducement."² If such measures were unsuccessful then other means were tried, often effectively. Actively canvassing localities, for instance, was one means which seemed to justify the end. Hemming found this to have been practised with success in the textile

1. Newcastle L.S.M.I., M.B., 1862-65. Leaflet - pp. 10-11.

2. West Hartlepool L.M.I., M.B., 1849-1859. Min. dated 4th Jul., 1855.

districts of Lancashire and Yorkshire in the second half of the century: he discovered that "canvassers were key figures in many institutes' recruitment and publicity campaigns."¹ Reference has already made to the Middlesbrough Mechanics' Institute where in 1859, canvassing the town was undertaken to reverse the desperately low membership. Indeed, at that time the number of members was so small that many of the Committee felt it useless to carry on. However, their enterprising "porter Mr Sterzel canvassed the town with great success" - when an "average membership of 281"² was achieved. So remarkable was this venture, that it was especially commented upon at the 23rd Annual Meeting of the Yorkshire Union of Mechanics' Institutions. It was duly recorded that "Middlesbrough set a valuable example for imitation by establishing a systematic and earnest canvass amongst the working men of that great centre of the Northern Iron Trade".³ The Movement, however, despite such problems within the North East and elsewhere, was optimistic concerning the future. Kelly ascribed this to the encouragement given by the Unions. He claimed that they stimulated interest in many ways,⁴ and this certainly included the recognition of novel methods of attracting members.

The status of the membership of the mechanics' institutes around mid-century is best reflected from the Report of the Select Committee on Public Libraries of 1849 which had collected vital statistical information. One section dealt with the 'Class of Persons' using the institutions. At

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1. Hemming, T.C., 'M.Is.L. & Y.', p. 168.
 2. Middlesbrough M.I., M.B., 1848-1859, A.R., 1859.
 3. Y.U.M.I., 23rd A.R., May 1869, p. 17.
 4. Kelly, T., G.B., p. 260.

Darlington, for example, the membership then was made up of "Tradesmen and Mechanics"; at Hexham there were "all classes of persons"; at Middlesbrough members were "Tradesmen"; at Morpeth - "Tradesmen and Mechanics"; at Newcastle upon Tyne - "Tradesmen"; at Shildon - "Pitmen and Mechanics"; at Stockton on Tees - "Tradesmen"; and at Sunderland - "Tradesmen".¹ It is a pity that the designations used were not more specific because the repeated use of the term 'Tradesman', suggested a class of non-manual workers or those involved in running small businesses. Tylecote in fact, described them as a rank apart from the nineteenth century manual worker.² Therefore, there is no difficulty in accepting the premise that the social orientation of many institutes was, by mid-century, biased towards the middle-classes. The membership of the Committee of the South Shields Institution in 1860 was mainly from that stratum of society.³ Also at the Old Hartlepool Mechanics' Institute in 1858, the members list included few specific trades, but the vocations of "Draper, Surgeon and Baker"⁴ were included. The increasingly middle-class appeal of the institutes was further confirmed from the occupations of members of the Berwick upon Tweed Institute in 1856: the membership comprised,

"Parish clerk, Watchmaker, Draper, Ironmonger, Mason, Clerk, Draper, Cabinet maker, Butcher, Painter, Corn-Merchant, Tailor, Grocer, Hosier, Ropemaker, Solicitor, Surgeon, Postmaster, Chandler, Veterinary Surgeon, Vicar,

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1. Report of the Select Committee on Public Libraries 1849, Appendix 3.
 2. Tylecote, M., L. & Y., p. 259.
 3. South Shields L.S.M.I. Bill listing members, 1860.
 4. Old Hartlepool M.I. Membership List, 1858. (Wood Collection).

Teacher, Cooper."¹

By 1860 its composition had changed little, whilst pertinent additions were:

"Rate Collector, Tax Collector, Inspector, Auctioneer
Gentleman, Superintendent of Police."²

In addition, it was interesting to note that membership was sought not only by natives of England, but also by immigrant Europeans. For example, at the Old Hartlepool institute in 1855, the names of members included, "Carol Karner, John Munkenbeck, C. Nielson, Otto Trenchman."³ The incidence of German names especially, indicated the arrival of families who perhaps had left their homeland during economic privations of the late '40s. Such families, of course, came not only to England, but also travelled to the U.S.A., as did the piano-makers Steinway, who began manufacturing soon after their arrival in New York in 1853.⁴ But in England it was reasonable to expect that German immigrants would join the local Mechanics' Institute, since the Movement in that country had corresponded with the English Movement since at least 1836. One issue of the Mechanics' Magazine for that year, illustrated the point in the following article.

German Mechanics' Magazine.

"In the Intelligenz blatt of the Jenaische Litteratur Zeitung fur December, 1835 is an advertisement for the Magazine der neuesten Erfindungen, Entdeckungen und Verbesserungen"
the translation advised as follows:

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1. Berwick upon Tweed M.I., Treasures Book 1856-70.
Membership List 1856.
 2. ibid., Membership List 1870.
 3. Old Hartlepool M.I., list of Members 1855.
 4. Smithsonian Magazine, Nov., 1988, pp. 144-5.

"unwearidly anxious for the improvement of our periodical we have made an arrangement with the proprietors of the well known London Mechanics' Magazine ... to send over to us casts of their engravings so that we are now able to present our members with the most interesting articles in the Mechanics' Magazine."¹

Germany had, of course, progressively established vocational schools from 1820, and between 1850 and 1870, had also progressively standardised entry qualifications: "three years of secondary education (Gymnasium or Realschule) or an equivalent standard were required."² Moreover, in Germany by 1856 the Mechanics' Magazine reported that,

"the Pestalozzian Institutions of Prussia have put forth the great principle of education for work-efficiency (Arbeits - Tuchtigkeit) from early youth. The programmes detail the means by which they intend to pursue for the accomplishment of this great purpose of the times".³

This drew attention to the competition that England was to face later in the century from superior Prussian technical education. Such matters apart, however, evidence from a sample of institutes showed that throughout this period memberships generally increased due to a wider scope of activities and facilities, i.e. social, cultural and educational. Indeed, some of the larger institutes in the towns were in a most healthy state and returned membership figures higher than ever before, due no doubt to the stimulus provided by the establishment of Government aided classes. For instance, the Institution at Darlington increased from

1. Mechanics' Magazine, Vol. 25, 2nd July, 1836, p. 240.

2. Harney, K., 'The Emergence of the Technical School System in Prussia', S.I.S., p. 133.

3. Mechanics' Magazine, Vol. 65, 5th July, 1856, p. 7.

390 in 1870 to 585 in 1874,¹ at Morpeth the increase was from 189 in 1860 to 216 in 1872,² and at Alnwick an increase from 160 in 1858 to 267 in 1868³ was reported. These returns reflected a similar state of affairs at the London Mechanics' Institution where an emphasis on academic courses resulted in an increase in membership from about 300 in 1858 to about 3,000 by 1868.⁴

By the end of this period it was clear that in spite of increasing Government involvement in library and educational provision, the region's institutes exhibited considerable determination to survive.

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1. Darlington M.I., M.B., A.R., 1874.
 2. Morpeth M.I., A.Rs., 1860 and 1872.
 3. Heatley, J., Alnwick S.L.M.I., p. 4. See also A.R., 1868, p. 3.
 4. Burns, C.D., B. Coll., pp. 73-82.

PART IV

Chapter 9.

Mechanics' Institutes in Perspective: 1874-1902.

From the Paris Exhibition of 1867 came the powerful message that British manufacturing technology had been left behind in the competition for supremacy, especially because of Prussian and American expertise. The award of a "mere dozen prizes"¹ prompted a detailed study of British technical education. The ensuing enquiry was initiated in 1868 through a Parliamentary Select Committee followed by the publication of the Devonshire Report between 1872 and 1875, and the Report of the Royal Commission on Technical Instruction, (The Samuelson Report), which investigated the situation between 1882 and 1884. It was not, of course, until 1889 that the passing of the Technical Instruction Act enabled foundations to be laid upon which was built the future pattern of scientific and technical education in England. Compared with Prussia, France and Italy this was a belated measure,² and might account for the fact that German export trade outstripped that of Britain, whilst for the last quarter of the nineteenth century, and indeed, for part of the twentieth, industrial and commercial performance continued to fall,³ precipitating the 'Great Victorian Depression'. The

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1. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914', S.I.S., p. 83.
 2. Maclure, J.S., op. cit., p. 122.
 3. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914', S.I.S., p. 80.

application of scientific technology also lagged behind that employed in several other European cities. For example, the means of providing street transport for passengers was highly developed in cities such as Brussels, Frankfurt, Cologne and Berlin, all of which were using the electric tram by 1897. Meanwhile, in Manchester, horse-drawn vehicles were still being used, even long after the turn of the century.¹

Despite such deficiencies in Britain, and despite the fact that the Government accepted that at least in part, the remedy could be achieved through a serious commitment to technical instruction, cheapness was an essential criterion. Indeed, the Local Taxation Act (1890) made 'whiskey money' available rather than the allocation of rate aid as an alternative means of funding technical and manual instruction.² Thus, revenue received from alcohol consumption relieved the Government from having entirely to support such provision. But perhaps a more difficult obstacle to be overcome in the quest for technical education was the accepted dependency upon both the 'educated amateur' and the 'practical man'. Both groups included men with some science education yet lacking in knowledge of its application, and who, moreover, were guaranteed positions in business, and men trained on the shop floor.³ From the point of view of both 'schools', formal scientific and technical instruction was regarded with suspicion. The future development of technical

1. Ensor, R., op. cit., p. 281.

2. Roderick, G.W., and Stephens, M.D., 'The Educational Role of the Mechanics' Institutes', S.I.S., p. 31.

3. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914'., S.I.S., p. 81.

education, therefore, was not resolved immediately.

Within the context of the prevailing educational malaise it was not surprising that for much of the period 1874 to 1902, the Mechanics' Institute Movement, rather than acknowledging eventual defeat, was enthused once again with renewed vigour, and seized what few opportunities there were for further expansion. By 1902, however, it may be determined with a degree of certainty that the "age of the Mechanics' Institute and its curricula amateurism was ending, if not quite dead".¹ Throughout this period, too, increasing competition for the provision of adult education and social facilities emanated from agencies such as Working Men's Clubs and increasingly from Co-operative Societies, whilst the establishment of Free Libraries also gained further ground. In response, the Mechanics' Institute Unions including the Northern Union and the Yorkshire Union, continued the policy of strengthening the Movement by approving the affiliation of the full spectrum of contemporary societies such as reading rooms, church institutes, miners' institutes, British Workmen's Institutes and the Free Libraries.

Compared with previous periods of depression, i.e. the late 1820s and early 1840s, the 'Great Victorian Depression' of 1873 to 1896 did not affect to the same extent the progress of the Mechanics' Institute Movement in the North East. Perhaps this is explained in the light of recent opinion, which has suggested that there was little evidence of a

1. Roderick, G.W., and Stephens, M.D., 'The Educational Role of the Mechanics 'Institutes', S.I.S., p. 31.

failed economy,¹ and that "deficiencies in technical and scientific education, if they existed," were "a cause without an effect."² Such evidence seemed to confirm that technical instruction provided by the various educational institutions including the mechanics' institutes, was considered to be an adequate supplement to 'on the job' training.

In the following chapters, the Movement's vitality in the North East region will be examined against the rising tide of competition for its traditional services i.e. the three elements, the library element, the element of technical instruction and the social club element.³ This chapter will test the Movement's resilience to external pressures in terms of fostering an interest in the establishment of new institutes and in terms of dealing with the advance of the Free Library Movement. Source material relevant to the exercise, whilst generally reflecting problems similar to those encountered in previous periods, has been rewarding, especially from the smaller institutions. But several other factors have affected the preparation of a fully comprehensive account. For instance, after the passing of the 1870 Education Bill, much educational press reporting was concerned with the work of the School Boards, whilst the mechanics' institutes were, by comparison, of less importance. This was typically the case in the larger regional newspapers, such as the Newcastle Chronicle, the Darlington and Stockton Times and the Northern Echo. The Teesdale Mercury, though, afforded adequate coverage for the

1. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914', S.I.S., p. 89.

2. loc. cit.

3. Kelly, T., G.B., p. 271.

affairs of the rural institutes of the dale. Other major documents, including the Annual Reports of the Mechanics' Institute Unions continued to generate confusion, especially in their lack of differentiation between mechanics' institutes and related bodies. Previous historians of the Movement, too, seem to have been unable to resolve these problems. Kelly, for instance, referred to the institute at Etherley as Etherley Mechanics' Institute, whilst it was listed as Etherley Literary Institute in the Yorkshire Union's Annual Report for 1898.¹ Moreover, the lists of affiliated societies published annually, often simply referred to a place name rather than to a specific title. And although institute delegates were invited to present reports at the Annual General Meetings of their respective Unions, very few normally accepted. Brevity in reporting was also adopted. At the Northern Union Annual Meeting held in 1878, under the heading 'Delegates' Reports' a simple statement was published, i.e.

"verbal reports of a satisfactory nature were given
by a number of delegates on behalf of their
Institutions".²

From such terse statements it may be inferred that in the late '70s, there was little cause for concern throughout the region. Fortunately from the year 1881, reports offering slightly more information were received. Detailed accounts, for example, were received from institutes at Jarrow, Blaydon, Howden, Willington, Bedlington and Gateshead. Thereafter, the number of delegates who reported remained low. In 1888, seven reported, in 1890 - eight, in 1892 - ten;² it is interesting to note that institutes which sent

1. Y.U.M.I., A.R., 1898, p. 79.

2. N.U.M.I., A.R., 1878, p. 24.

3. ibid., A.Rs., 1888, 1890, 1892.

delegates to the Annual Meetings were mostly from the Tyneside area. Despite an apparent lack of interest on the part of the majority, those delegates who attended, reported enthusiastically, and provided enough detailed information upon which to formulate a generally accurate impression of the Movement's activities. In addition, most of the previously well established institutes continued to maintain records throughout the period. As a result, it has been possible to define the Movement's progress from a sufficiently large sample of material, thereby achieving more than a superficial impression of the last quarter of the century.

The Establishment of New Institutes.

Kelly has asserted that the Movement was still vigorous up to about 1875 especially in the North of England, he also conceded that whilst a great many disappeared, new institutes were still being established "in considerable numbers".¹ For many years after 1875 the North East region made a significant contribution towards the national situation. The number of all types of institute established between 1874 and 1902 was seventy eight, although there might well have been others which were not affiliated to the Unions, and which therefore did not feature in published material. An examination of the Table in Appendix I shows that none were established in the large towns.² New foundations were to be found in the suburbs, or in expanding rural and mining communities. That such a proliferation of institutes occurred yet again, confirmed the endemic nature of the 'institute

1. Kelly, T., G.B., p. 271.

2. See Appendix I, pp. 370-380.

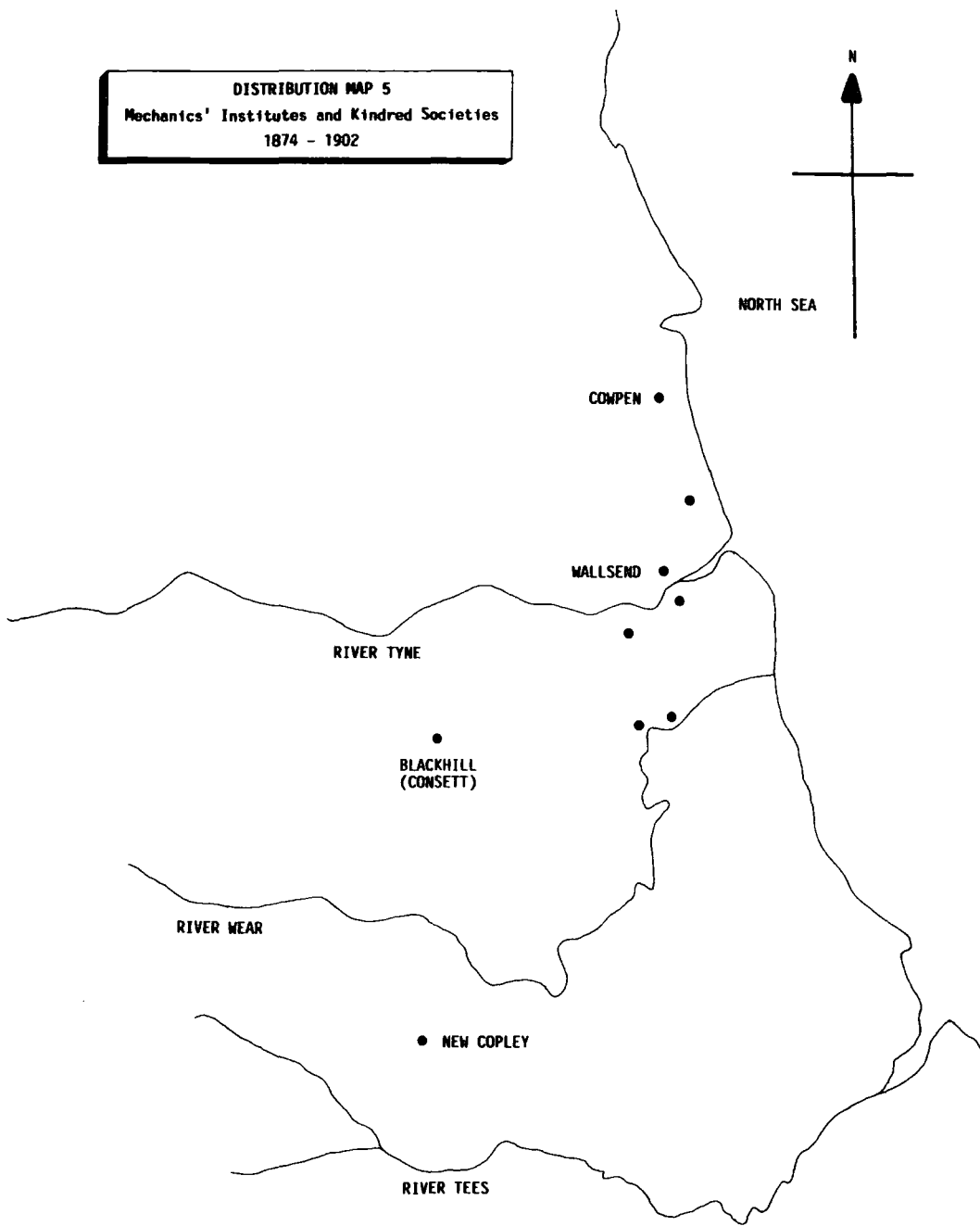
cult'. Communities were obviously keen to subscribe towards the establishment of their own focal point of meeting, where a range of activities could be staged. The application of specific titles now seemed to be of negligible importance and even original titles continued to become the subject of revision. At Scotswood, for instance, the Institute's name was changed from Scotswood Mechanics' Institute to Scotswood Reading Room by 1896.¹ Clearly, the objective here was to retain the local institute, whilst the change of designation might well have indicated a major shift of function; probably its educational facilities had been discontinued as alternative provisions were phased in as a result of Local Authorities acknowledging the various Education Acts, i.e. the Bill of 1870 for elementary school provision, and the Act of 1889 for the provision of technical instruction.

In view of the problems attending the resolution of the true nature of the vast number of newly established institutes, it seems from evidence given in titles, that from the total established, only nine were given the designation - 'mechanics' institute'. Although the Wallsend Café Club must be included since its function was that of a typical mechanics' institute. The location of these institutes is shown on Distribution Map 5, page 266; they are also listed below in Table 15.

1. N.U.M.I., A.R., 1896, Table of Affiliated Institutes.

DISTRIBUTION MAP 5

DISTRIBUTION MAP 5
Mechanics' Institutes and Kindred Societies
1874 - 1902



NOT TO SCALE

Table 15.¹

Mechanics' Institutes and Kindred Societies Established
between 1874 and 1902.

<u>Name of Institute</u>	<u>Date</u>	<u>Economic Base</u>
Fatfield and Harraton Miners' and Mechanics' Institute	1877	Mining
Perkinsville Mechanics' Institute	1877	Mining
Backworth Mechanics' Institute	1880	Mining
Heworth High Lane Mechanics'	1880	Mining
Wallsend Café Club	1883	Shipbuilding
Blackhill Mechanics' Institute	1886	Mining
Cowpen Mechanics' Institute	1886	Mining
Felling Mechanics' Institute	1886	Mining
New Copley Colliery Mechanics' Institute	1886	Mining

1. N.U.M.I., A.Rs., 1877-1890, Tables of Affiliated
Institutes. See also Appendix I, pp. 370-380.
See Distribution Map , p. 266.

Reference to Appendix I suggests that most of the others were probably reading rooms. However, the establishment of nine new mechanics' institutes between 1874 and 1890 confirmed that the Movement retained considerable momentum until relatively late in the century, whilst most of those established in earlier periods continued their work. It is interesting to note that there was some correlation between the establishment of mechanics' institutes and that of other associated societies such as reading rooms. Reference to Graphs 6 and 7 suggests that this was so until 1886.¹ Graph 6 shows that there was a reasonable number of mechanics' institutes established as late as 1886, but none thereafter.² An examination of the post 1890 Annual Reports of the Unions indicated that the Movement had entered its final and largely modified phase. This, of course, was inevitable, since both the educational and literary functions of the institutes were increasingly becoming a matter of State responsibility through powers extended to Local Authorities and County Councils. Evidence emerging from the North East confirmed more or less precisely Kelly's findings nationally. Thus, he concluded that "by 1900 the mechanics' institutes have had their day".³ It is also worth noting that throughout this period the establishment of mechanics' institutes and other societies was once more to some extent synonymous with employment and unemployment. For instance, up to 1878 unemployment was low and was reflected in the establishment of many new institutes, conversely, few institutes were established between 1884 and 1886 during which unemployment

1. See Graphs 6 and 7, pp. 269, 270.

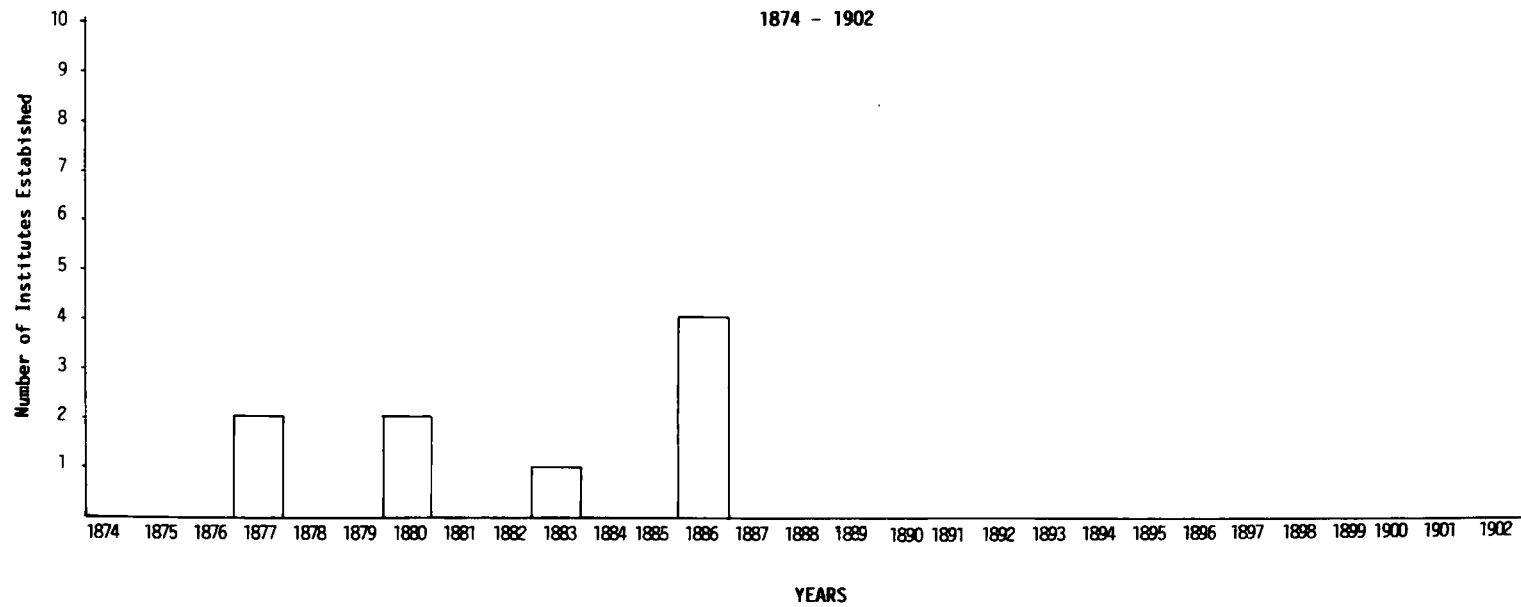
2. See Graph 6 p. 269.

3. Kelly, T., G.B., p. 271.

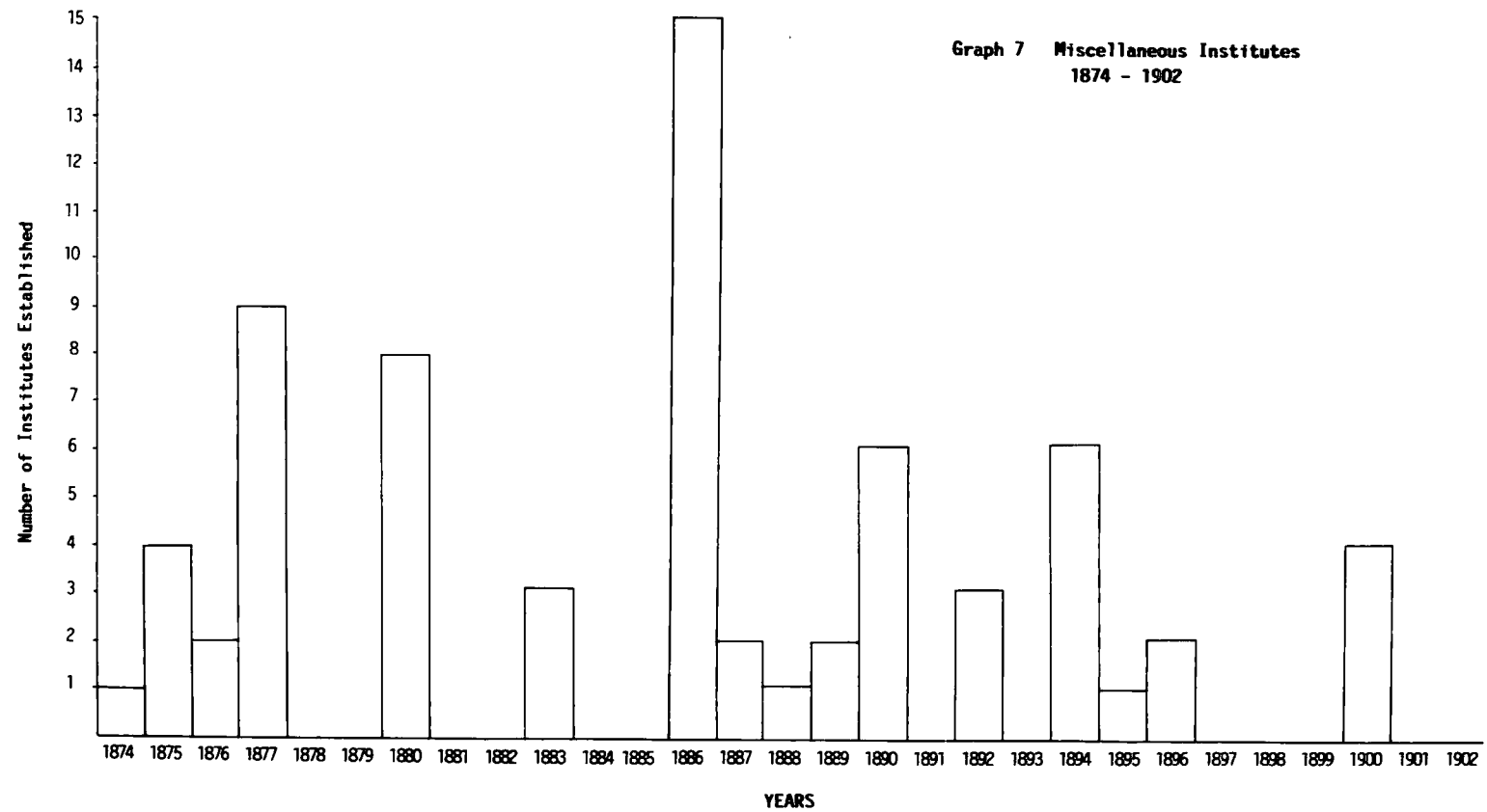
GRAPH 6

Graph 6 Mechanics' Institutes and Kindred Societies

1874 - 1902



GRAPH 7



was high.¹ However, the general improvement in the amount of disposable income was perhaps one reason why many institutes survived into the twentieth century.² Nonetheless, specific North East industries were affected by the depression of trade, and this possibly was why there were no additional foundations of any kind after 1900. Areas of heavy industry were particularly hard hit in the '90s, but fortunately the Movement's presence had been previously established in most of these communities. The point was illustrated at Middlesbrough in 1891, when Bolckow, Vaughan and Co. was "obliged to pass its half-year without paying a dividend", and at Jarrow, when Palmers the shipbuilders were "practically paying no dividend upon its ordinary capital;" and during the same period, the shipyard of Dixons at Middlesbrough had so little work that it "was going to be closed."³ The latter years of the depression not only halted the progress of the Movement, but also affected the strength of the Unions as institutes either resigned or closed. It was reported in 1892, for instance, that the number of institutes affiliated to the Northern Union, had dropped from 73 to 64, whilst there had "not been such a diminution since 1883."⁴ Clearly, many could no longer afford to pay the affiliation fee; among those forced to close was the Blaydon Reading Room.⁵ The reading rooms seemed to be especially vulnerable; some of the very small latter day foundations resigned from the Northern Union almost as soon as they had registered.

1. Saul, S.B., The Myth of the Great Depression, pp. 30-31.

See also Graph I p. 52.

2. ibid., pp. 32-33.

3. N.U.M.I., A.R., 1892, pp. 11-12.

4. ibid., p. 22.

5. loc. cit.

At Escomb, for instance, the Reading Room became registered in 1897, but had resigned after about six months.¹ However, both the Yorkshire and the Northern Unions of Mechanics' Institutions survived, largely due to the membership of the many smaller societies which remained viable. Indeed, despite such fluctuating membership statistics, the Northern Union had by 1912, retained a total of seventy seven members.² Regardless of the prevailing economic depression, and the increasing vulnerability of the Movement, the new foundations of this period like their predecessors, being voluntary bodies, still depended upon local philanthropism. Its extent increasingly exceeded that of introducing new projects; older institutes necessarily continued to rely upon such traditional sources of support throughout their remaining years of survival.

The Promotion and Support of Institutes: 1874-1902.

Evidence provided by contemporary Union Reports indicated that the last institutes to be established in the region before the end of the century were at Blackhill, Cowpen, Felling and New Copley in 1886.³ Moreover, among the last to be involved in the provision of new buildings were the Felling Mechanics' Institute in 1892, when the foundation stone was laid, followed by the opening of the building in the following year,⁴ and the old established Mechanics' Institute at Chester-le-Street which "expected that the new

1. N.U.M.I., A.R., 1897. p. 20.

2. N.U.M.I., A.R., 1912. p. iii.

3. See Appendix I, pp. 370-380.

4. N.U.M.I., A.R., 1893, p. 12.

building will be opened on December 1st, 1902."¹ Very little detail concerning the establishment of these institutes, or of the plans for carrying out improvements, has survived. But it was clear that financial support was still sought as appropriate from both the upper-classes and local employers. The latter dependency was further exemplified by the allegiance of several institutes especially to mine owners and industrialists.² An interesting example was that of the Wallsend Café Club. Here, the project was funded by Sir George Burton Hunter, a managing partner of C.S. Swan and Hunter, the shipbuilders. Built in 1883, the Café Club consisted of departments which were now typical of many larger mechanics' institutes. Hence, it boasted

"two departments, one devoted to meals and refreshments, with rooms for Clubs, Trade Union Meetings etc., and the other, the Athenaeum, a lecture hall, classroom and games room devoted to the improvement of the mind and to recreation."

Apparently the Café Club was an "exceptional institution," and although it did not bear the title 'mechanics' institute', since one had been established in 1850, it became the "local centre of technical education."³ Despite its unusual mixture of activities, the Committee did not hesitate to accept affiliation into the Northern Union of Mechanics' Institutions in 1883.⁴ After all, it was to all intent and purpose fulfilling the role of a mechanics' institute, especially in adult education, indeed, it overshadowed the

1. N.U.M.I., A.R., 1901, p. 17, see also A.R., 1902, p. 17.

2. See Appendix I, pp. 370-380.

3. Richardson, W., History of the Parish of Wallsend, pp. 446-447.

4. N.U.M.I., A.R., 1883, Table of Affiliated Institutes.

existing institute in this respect. Dependency upon continued financial support from outside was further demonstrated at the Chester-le-Street Mechanics' Institute. Upper-class involvement was observed as essential when the Committee accepted an offer from Lord Durham, who had "given a site"¹ for the provision of a new building. Philanthropic gestures on the part of the aristocracy continued throughout the closing years of the century, perhaps in a mission of responsibility towards the educational and social improvement of the working-classes. Confirmation of such concern was again demonstrated at Netherton Colliery, where the Countess of Carlisle "assisted"² in setting up a Reading Room. And in 1898 at Seaton Sluice, an institute to replace the original Seaton Sluice Mechanics' Institute was provided when "Lord Hastings gave a grant of land absolutely free."³ New premises, too, were opened at Haltwhistle in 1900, but no information has been found concerning the funding of the project.⁴ Nevertheless, these instances of renewed vision suggested that the Mechanics' Institute Movement in the North East was actually not 'quite dead' at the end of the nineteenth century.

The fact that there was more than a little 'steam' left in the Movement throughout this period, was further confirmed in the quest to up-date, re-decorate and improve facilities. At the Alnwick Scientific and Mechanical Institution, for example, in 1890, attention was turned towards the up-grading of the Institution's fabric. It was therefore decided to re-

1. N.U.M.I., A.R., 1901, p. 17.

2. N.U.M.I., A.R., 1893, p. 16.

3. N.U.M.I., A.R., 1898, p. 21.

4. N.U.M.I., A.R., 1900, p. 23.

decorate. The result was an acceptable improvement since it was reported that the "walls and ceilings have been properly washed and coloured," whilst the "whole presents a cheerful and agreeable appearance."¹ Decoration alone could not, of course, resolve some of the defects which were, after many years of use, beginning to appear in some of the older buildings. For instance, at the Shildon Railway Institute, defects that had become evident as early as 1866, increasingly caused alarm. Hence, by 1873 it was obvious that a new building was needed, but the project had to be postponed until 1906. By then, however, the state of deterioration was such, that when the walls eventually cracked, the Institute had to be "entirely closed." All educational facilities were suspended, and it was not until 1913 that the Committee were able to open a "large and very handsome new Institute."² Belated confidence in the future of the Movement was also expressed at Barnard Castle. To commemorate the Jubilee year of the Barnard Castle Institute in 1882, it was decided to mark the occasion by carrying out a modification to the building. The front of the original Institute was appropriately re-styled into its present form, together with the addition of a new reading room.³ But probably one of the most adventurous refurbishment exercises was that carried out at the Wylam Reading Room and Institute. Alterations here certainly brought it more into keeping with the expectations of a 'main stream' mechanics' institute as is illustrated in Plate 4 on page 206. In 1896, the former "very dilapidated building" was replaced by a "new building comprising a large billiards room, reading

1. Alnwick L.S.M.I., A.R., 1890.

2. Bainbridge, F.F., Shildon R.I., pp. 29-30.

3. Teesdale Mercury, 2nd August, 1882.

room, lecture hall, two bathrooms with hot and cold water."¹

A strong social concern is observed in the provision of amenities then unavailable to most working-class people.

The above examples of promotion, re-building and refurbishment, which in many instances came almost at the end of the century and even beyond, proved that the Mechanics' Institute Movement, as implied by Kelly, did not just "fade out"² as so easily might have happened. Nonetheless, to remain viable, many institutes had, out of sheer necessity, not only to become engaged in restoration but to rely increasingly upon the revenue generated from non-educational pursuits. Letting accommodation, for instance, to various organisations continued to provide a source of income wherever this was possible. At the West Hartlepool Literary, and Mechanical Institution, this practice was well established, but by 1899 it was found that the "letting was unsatisfactory;"³ it was clearly not bringing in the desired amount of cash. Therefore, in order to secure the future of the Institution, it was decided in 1900 to convert the ground floor into shops. Four "splendid shops" were thus created, and each was "let at a good rental."⁴ Due to dependency upon voluntary support, however, there were many institutes which never acquired the funding necessary to maintain their properties to a high and acceptable standard. Evidence of this was found at Middlesbrough, where subsequently, lack of maintenance contributed towards the eventual demise of the Institute.

1. N.U.M.I., A.R., 1895, p. 14, see also A.R., 1896, p. 20.

2. Kelly, T., G.B., p. 276.

3. West Hartlepool L.M.I., A.R., 1899.

4. ibid., A.R., 1900.

Entries in the Minute Book showed that by 1882, acute financial problems were apparent. Therefore, at a Committee Meeting held on March 31st, 1882, it was recorded that a shop which was part of the building should be advertised for letting. But even before this action could be taken, careful consideration had to be given to the cost of advertising in the local papers. It was decided to use the "North Eastern Gazette and Exchange, and the Echo if not too dear."¹ At the same meeting, too, the attention of the Committee was drawn to the fact that a letter had been sent to the editor of the North Eastern Daily Gazette from a Mr Baker Hudson of Redcar, in which he condemned the deplorable state of the building. He described it as being in

"one of the dirtier parts of the town the place could not be kept clean and a large ironworks owner and chemist stated his opinion when he entered the chemical laboratory that it was the dirtiest place he had ever seen the M.M.I. is not in a position to put the place into necessary repairs."²

Such publicity implied that some of the larger institutes were increasingly unable to maintain whatever facilities they had, no doubt due to rising costs and industrial depression. Contrastingly, it seemed that the institutes which might look forward to a fairly secure future, were those located in the rural areas, where there was no demand to provide sophisticated teaching facilities such as laboratories, and, moreover, where there was little threat from Local Authorities to convert them into Free Libraries. The

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1. Middlesbrough M.I., M.B., Min. dated 31st March, 1882.
 2. Middlesbrough M.I., M.B., newspaper cutting dated 3rd August, (no year).

expansion of the Reading Room Movement, therefore, probably developed confidently in the knowledge that with such small resources, they would never become the subjects of a 'take over' policy. Grimshaw, too, in his essay, 'Northern Union of Literary, Scientific and Mechanical Institutes', drew attention to the revival of the village Reading Room Movement of the late 1890s, but suggested that it was due to their emulation of the "growing strength of the public library movement".¹ Certainly this was a valid point, especially within the context of relatively isolated rural communities.

Resurgent anti-intellectualism.

If the impressions given above have conveyed the opinion that there was still overwhelming enthusiasm and support for the mechanics' institutes in the last quarter of the nineteenth century, then this was not entirely true; because instances of re-appraisal surfaced during the closing years of the period. Indeed, there were some promoters in whom it was evident that a bias towards anti-intellectualism lay just below the surface of their apparent goodwill. The fate of an institute could be determined by the variable attitudes of supporters and promoters. For example, at Dinnington in 1887, the strike in the Northumberland coal trade had to a "great extent crippled the funds"² of the Institute. The membership at this time had been beneficiaries of,

"a very good place granted by the owner (Sir Charles Mark Palmer), but six months ago it was determined to take the place from them and send them

1. Grimshaw, R.E., Northern Union of Literary, Scientific and Mechanical Institutions, p. 13.

2. N.U.M.I., A.R., 1887. pp. 25-26.

to a poor house in the Back Row, the place was swarming with bugs so that the best of the members were driven from it."

The effect of not having been able to pay for the upkeep of the building caused the membership to drop from 70 to 25. But the committee exhibited a high degree of tenacity and were unwilling to give up so easily. Consequently, they "remonstrated with the colliery manager and a good house was given very reluctantly."¹ If the outcome of such persistence favoured the Dinnington Institute, it was not repeated at the Middlesbrough Mechanics' Institute when the allotments which the Institute had let to members were suddenly removed from their control in 1872. The Committee on this occasion had received notice from the

"Middlesbrough Owners to give up possession of the land held for allotment gardens" The Committee later reported that "this has been done with great regret", since it "has been a source of profit for the Institute and greatly valued by the members."²

If there had been any request for the retention of this facility, it had not been sympathetically received.

Such examples of the authority exercised by industrialists and land owners suggest that individual institutes could become targets for the selfish designs of their promoters. Herein was a reminder that philanthropy could be just as easily removed as given. Whilst this practice was perhaps not widespread, one further instance which developed into a national debate in 1888 between Lord Armstrong and Dr Lyon

1. N.U.M.I., A.R., 1887, pp. 25-26.

2. Middlesbrough M.I., M.B., 1867-1875, A.R., 1872.

Playfair demonstrated the depth of feeling that could be generated. A wave of anti-intellectualism seemingly enveloped Lord Armstrong the industrialist, philanthropist and promoter of the Elswick Works Institute, whilst the contest was hosted by the magazine, The Nineteenth Century. Playfair, incidentally, was later to become the chief protagonist in the case for the future development of the London Mechanics' Institution; in fact the debate with Armstrong probably enabled him to resolve more precisely the events at London in 1892 and which eventually led towards the acceptance of Birkbeck College as a college of London University. Meanwhile, the ensuing anti-intellectual display on the part of Armstrong stands as an exception to the findings of John Wellens when he claimed that the

"anti-intellectual attitude is best in evidence
in the two industries in which we discerned our
backwardness at the turn of the century - electrical
and chemical engineering".¹

Armstrong's factory at Elswick was concerned with neither electrical nor chemical engineering, but rather with heavy engineering. Armstrong seemed to have been well informed on national technical instruction matters just as he was on the management of his engineering complex. After all, he was using the man-power of the existing system. But he had many misgivings and broadcast them through a willing publisher. His first article to be published was entitled 'The Vague Cry for Technical Education.' Impressions reiterated below must have developed from experiences dating back to 1847, when he

1. Wellens, J., 'The Anti-Intellectual Tradition in the West', B.J.E.S., Vol. viii. Nov. 1959 - May 1960, p. 23.

established Elswick Works on the Tyne. He believed that, "the present system of primary or elementary education is now very generally considered to be ill adapted as a preparation for the business life Many people imagine that genius is kept down from want of Knowledge This I entirely dispute. Genius is irrepressible, and revels in overcoming difficulties few who have risen to distinction have owed their success to book Knowledge James Watt, George Stephenson, Smeaton, Brindley and Telford, none of them were loaded with information at school, but were left to educate themselves in after life."¹

Obviously, Armstrong was imbued with an educational philosophy which was dying hard. And as a successful entrepreneur, he fitted perfectly a contemporary description of such men, i.e. as "indifferent at best and hostile at worst towards technical training, scientific education and scientific research."² Yet it remains difficult to acknowledge that Armstrong's remarks could have been made by one who had supported, apparently wholeheartedly, both the establishment of schools and the thriving Elswick Works Institute. But his anti-intellectual feelings waxed even stronger as he continued to describe his observations. He stated,

"upon the whole I am of the opinion that the number of persons who would be benefited by scientific

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1. Armstrong, W., Lord, 'The Vague Cry for Technical Education', The Nineteenth Century, Vol. xxiv, July 1888, pp. 45-52.
 2. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914', S.I.S., p. 86.

education of a technical nature ... constitutes a very small proportion of the population

Compulsory education is neither justifiable nor practical, except in childhood."¹

It would seem that he was now prepared to deny the opportunity of educational advancement to even the few from his works who had benefited as a result of the provisions at the Elswick Institute.

The publication of Armstrong's views did not pass without notice; Dr Lyon Playfair both read, and digested, the implications. Hence, two months later, the same magazine carried Playfair's response entitled, 'Lord Armstrong and Technical Education.' He criticised Armstrong's views in the following terms and declared,

"Lord Armstrong throws a dash of cold water on the warm efforts to promote technical education What can be Lord Armstrong's fears? I fancy it is his apprehension that we are trying to substitute the school for the workshop."²

If this, in fact, was Armstrong's opinion, then he was not alone. It is worth noting that similar sentiments were shared by the iron-masters Bolckow and Vaughan of Middlesbrough on the occasion when they refused time out from work for the training of apprentices at the local mechanics' institute.³ Similiar views were probably also held by other North East employers despite the silence which so far seems to have been

1. Armstrong, W., op. cit., pp. 45-52.

2. Playfair, L., 'Lord Armstrong and Technical Education',
The Nineteenth Century, Vol. xxiv, Sept.,
1888, pp. 325-326.

3. See above, p. 159.

carefully preserved.

However, the correspondence in The Nineteenth Century continued, and for several months it carried articles debating this sensitive issue. Armstrong, not to concede defeat, therefore, again challenged the criticism of Dr Playfair by publishing an article entitled 'The Cry for Useless Knowledge'. Therein he stated,

"I say that workshops and factories or other places where actual business is carried on are the proper schools for the learning of such trades and industries".¹

Presumably, he did not wish to alter the present system whereby foremen usually instructed the workers, "acting as teachers passing on their skills."² And to emphasise the point Armstrong then condemned Playfair's commitment to technical instruction. He began by recalling part of Playfair's defence.

(Playfair) ".... technical education became the rationale of empiricism, while the knowledge imparted dignifies and fructifies labour"

(Armstrong) " But I deny that workmen as a body have any such desires or aspirations
I will now adduce statistical facts telling in this my own personal experience to corroborate what I have stated."

The article proceeded with a description of the Elswick Works

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1. Armstrong, W., 'The Cry for Useless Knowledge', The Nineteenth Century, Vol. xxiv, Nov. 1888, pp. 653-655.
 2. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914', S.I.S. pp. 85-86.

Institute and its educational curriculum. Armstrong claimed that despite the reported high membership of the Institute, from the total,

"the number of men and boys who avail themselves of the cheap and effective institution is on average not more than 350 at one time."

Perhaps he was suggesting that the success of the Company had not been dependent upon the provision of formal technical instruction. Actually, this interpretation was qualified as he turned his attention to an assessment of current world markets. Concerning the Company's involvement, he said,

"it would be absurd to say that the successful competition of the company with foreign manufacturers is in any degree due to the educational measures it has taken, its economic value in the ordinary vocations of life is extremely small".

Although Armstrong seemed to have been disillusioned by his experiences at Elswick, he nevertheless, continued to promote technical education. Perhaps this was because he sought recognition as a benevolent, Victorian employer, thereby attracting the allegiance of his work force. But this aside, he was deeply sympathetic towards 'self-help'. This was confirmed in his last words on the subject, when he gave an account of his own rise to fame and fortune. He confessed,

"I speak as one from the educationally dead in saying that I have never had a scrap of instruction bearing on my profession beyond what I have imbibed for myself."¹

1. Armstrong, W., 'The Cry for Useless Knowledge', The Nineteenth Century, Vol. XXIV, Nov., 1888, pp. 653-667.

In consideration of the published debate, it can not be ignored that Armstrong's argument was based upon contradiction. He was practising that which he did not now preach. For this conflicting testimony, however, there was, of course, an underlying reason. The reason had its roots in political legislation from the previous decade. The implementation of the 'Nine Hour Movement' of 1871 had received little sympathy generally from employers. Armstrong was no exception. This led to a strike at Elswick in May of that year. And as a retaliatory measure it was decided to close the works, which in turn, not only affected the workers and their families, but also devastated the local economy. Shop-keepers and others dependent upon the prosperity of the Elswick work force suffered as a result. The income of the thousands on strike was reduced to 3s a week. For a period of six months the factory was closed, but in October the "employers caved in", and the employees returned to their occupations. The result was that Armstrong became regarded as "no longer the sympathetic employer, but a rather repressive Tory."¹ In wielding immense power, employers such as Armstrong had been able to exercise considerable control over whole communities; indeed, it may be recalled that similar authority was demonstrated earlier in the century at the hands of the Marquis of Londonderry, when in 1844, reprisals against the Durham mine workers culminated in hardship and suffering.² Paradoxically, both Lord Armstrong and the Marquis of Londonderry were among the region's foremost promoters of education. Significantly, Dr Alice Short who has recently been engaged in researching Armstrong's considerable contribution to Tyneside's

1. Dougan, D., The Great Gunmaker, pp. 115-117.

2. See above, p. 17.

industrial and educational heritage, concluded naively that Armstrong emerged at the end of the nineteenth century

"not as the reluctant lawyer, the engineer, the armaments manufacturer or the business tycoon, but as the true educator."¹

Retrospectively, it was unlikely that The Nineteenth Century was read by the working-classes, but even if it had been read by the Elswick Works employees, the debate between Playfair and Armstrong seemingly had no effect on the progress of the Institute. Nevertheless, the outcome of this particular strike showed that the working-classes were moving towards a relatively powerful position, and that educational advantage might be useful on future occasions.

If the 'Armstrong-Playfair' debate had brought into focus a re-assessment of the role of mechanics' institutes, then this was symptomatic of the times. Indeed, two of the major elements of the institutes were destined to come increasingly under Local Authority control; Free Libraries and Technical Colleges would certainly, in the longer term, become realities within all reasonably sized communities and towns. Hence, in contrast with the mechanics' institute building projects of the previous period, the building of libraries and colleges was now in vogue and was "growing every year."²

During this period of evaluation, when the greater strength of Local Authorities was demonstrated, many institutes suffered from the undermining of their previous roles. Some closed, but others resisted the challenge from Local

1. Short, A., Armstrong of Cragside, p. 13.

2. Kelly, T., H.A.Ed., p. 199.

Authorities for as long as possible, and modified their activities accordingly. Many throughout the North East continued into the twentieth century, providing as they had done in the past, the educational, literary, and social needs of communities. In other parts of the country some developed into technical colleges or colleges of advanced technology,¹ thus, finally achieving one of the main objectives of the early Movement. None within the North East aspired to such elevated status; appropriately, however, the Elswick Works Mechanics' Institute received special commendation in the Samuelson Report for its training of young mechanics.²

The Decline of the Mechanics' Institute Movement; 1874-1902.

As far as can be ascertained there were fewer failures during this period than in the period 1852-1873. This demonstrated the tenacity on the part of individual institutes to remain viable, often against the unequal odds created by the further implementation of the Public Libraries Act and the Technical Instruction Act. Chameleon like, rather than being easy prey, many sought to adapt whenever possible to changing circumstances. And kaleidoscopically, when shaken by events, some institutes presented new and novel patterns of activity. Although such ingenuity had a positive effect in most instances, some did not withstand certain external pressures which were brought to bear. Pressures, for instance, which frequently demanded better facilities and services other than those which could be provided on a more or less voluntary basis.

1. Argles, M., op. cit., p. 7.

2. Maclure, J.S., op. cit., p. 123.

Of the larger institutes in the North East, only six became targets during this period. These included the Literary, Scientific and Mechanical Institution at Newcastle upon Tyne, the Gateshead Mechanics' Institute, and the Middlesbrough Mechanics' Institute. The Gateshead Institute, however, managed to avoid closure by dissolving its interests into those of the local Mutual Improvement Society.¹ Probably there were smaller institutes which also closed during this period, but their fate remains obscured; what is generally known, has again, had to be gleaned from sketchy accounts contained in the Annual Reports of the Unions. Moreover, it can not be over-emphasised that not all institutes were ever members of the Unions, because in 1873, "of the 120 Mechanics' Institutes in Northumberland and Durham only half were members,"² and the choice of affiliation always remained the prerogative of individual institutes. But from such records it has been ascertained that among the smaller institutes known to have closed were the Blackhill Mechanics' Institute in 1889, the West Rainton Institute in 1897, and the Gosforth Institute in 1897.³ Statistical analysis is yet again unreliable, since included in Annual Reports was the category of institute described as having "withdrawn their fellowship", sometimes this was for varying periods of time and not always permanent. For example, both the Walker Mechanics' Institute and the West Auckland Mechanics' Institute resigned in 1885.⁴ In 1895, however, the West Auckland Institute was again listed, which suggested either

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1. Gateshead Literary, Scientific & Mutual Improvement Society, Annual General Meeting Report, 27th Sept., 1882.
 2. N.U.M.I., A.R., 1873 p. 7
 3. N.U.M.I., A.Rs., 1889 p. 27, 1897 p. 20
 4. N.U.M.I., A.R., 1885, p. 22.

a period of temporary closure, or a period during which affiliation fees were unable to be paid. The affiliated status of others was even more fickle. At Escomb, for instance, it may be recalled that the Institute was recorded as having been affiliated, and also as having resigned from the Union within the same year. This occurred in 1897, but although it was listed as an Institute, it was only a very small village reading room.¹ Therefore, in view of the on-going confusion arising from the status of the various types of institute, the best assessment of the Mechanics' Institute Movement's viability is to be gained from the recorded detail pertaining to the larger institutes.

The implementation of the Free Libraries Act as the century advanced, further challenged the existence of the larger institutes, but not always successfully. Institutes thus affected were those at Darlington, Blyth, Middlesbrough, Newcastle, and West Hartlepool. Moreover, towards the end of the century the implementation of the Technical Instruction Act affected even more, thus, this two-fold attack was directed towards the heart and soul of many of the re-established and refurbished institutes. Frequently, the Local Authorities were unable to absorb every potentially desirable institute, presumably because of a lack of local funding. This must have been the case at Blyth it may be recalled where, in 1876, the Mechanics' Institute was almost totally destroyed by fire. Surprisingly, however, and perhaps reflecting a poorly financed Local Authority, a new building was erected in 1882, thus enabling the Institute to survive until 1928 when it was taken over as a Free library by the

1. N.U.M.I., A.R., 1897, p. 20.

Local Authority.¹ Sometimes the Free Library Movement acted independently and without direct intervention in the affairs of existing institutes. At Darlington, for instance, the Mechanics' Institution had enjoyed a successful role as one of the town's foremost institutes, but in 1886 its position was seriously undermined. The town then acquired a

"free library and free newsroom and the opening",
.... so the committee reported, "has resulted in
the withdrawal of a large number of members including
the whole of the working men, apprentices and ladies,
and in the closing of the library at the end of last
year, and in the reduction of the supply of
literature to the newsroom."

Also, not only was there as a result, a "smaller number of classes," but an average attendance in 1885 of only 17.² And by 1890, when the Government had given County Councils sums of money which they were at "liberty to use for the purpose of Technical and Manual Instruction,"³ further decline followed. By 1894 after a brief involvement with the scheme, the Institution's Committee reported that, "the local Technical Instruction Committee has been re-constructed, and that in future the Mechanics' Institute Committee will not be asked to nominate representatives."⁴ Although there was no direct evidence to support the suggestion that the reason for the severance was due to a lack of laboratory facilities, this nevertheless seemed to have been most likely. During the next year, the total membership of the Institution declined

1. Swales, W.J., Blyth Mechanics' Institute, The Formative Years, (n.d.), pp. 29-31.

2. Darlington M.I., A.R., 1886.

3. Darlington M.I., A.R., 1891.

4. Darlington M.I., M.B., Min. dated 21st December, 1894.

to "no more than 77."¹ And by 1900, the Annual Report listed no educational classes other than popular lectures and excursions, and social activities such as billiards which by then was "well patronised."² Vindication for such enforced changes was sought by the Committee. But they failed to acknowledge the real causes. Hence, the report submitted at the Yorkshire Union of Mechanics' Institution's Annual Meeting held at Pontefract in 1881 suggested that, "poor trade and unemployment"³ were the chief causes of decline. It seemed that the Committee over many years had chosen to ignore competition from without; indeed, since 1857, the Darlington School of Art had overtaken the Institution in the provision of technical education, whilst this lead was maintained until 1897 when the Darlington Technical College was opened.⁴

The provision of literary and educational amenities in the Borough of Darlington towards the end of the century was pursued on the part of the Local Authority without recourse to the Mechanics' Institution. But in many instances dialogue between all parties concerned was often beneficial. At the ailing Gateshead Mechanics' Institute, for instance, in 1877 as part of a scheme to "bring new life to the Institute", suggestions raised by the Committee included, "making it into a Free Library and selling the building and erecting a

1. Darlington M.I., A.R., 1895.

2. Darlington M.I., A.R., 1900.

3. Y.U.M.I., A.R., 1881, p. 91.

4. Lucas, M., 'The Growth of Technical Education in Darlington: 1825-1915', (M.Ed. thesis, Durham, 1967), pp. 81-81 & pp. 157-158.

building in the central part of the town."¹ These plans were subsequently abandoned, since by 1880 there was "more vitality in the institute;" therefore, it was agreed to "postpone the idea of having a Free Library."² But the resurgence of interest turned out to be temporary, and by 1881 at a General Meeting of the Institute it was resolved that,

"the Committee request the Trustees to offer the Building and the contents of the Mechanics' Institute to the Town Council for the purposes of a Free Library."³

This was accepted, despite some reluctance to terminate its life. Indeed, in November, 1881, a new designation was applied in the hope of last minute revival. Accordingly, the Literary and Scientific Society of the Borough of Gateshead was launched "in the belief that new life would enter the Society."⁴ The continued pursuit of 'new life' proved to have been as elusive in 1881 as it was in 1877: by 1882 the Institute was amalgamated with the Mutual Improvement Society. This move resolved the problem, for immediately the membership increased from 184 to 600.⁵ As at the Darlington Institution, however, educational activities were no longer provided. By 1884 the main features of the revised Institute were social and cultural, whilst during that year these

1. Gateshead M.I., M.B., 1873-1885, Min. dated 21st Nov., 1877.

2. ibid., A.R., 21st December, 1880.

3. ibid., Report of General Meeting of The Literary and Scientific Society, 20th Apr., 1881.

4. ibid., A.R., 16th Nov., 1881.

5. Gateshead Mutual Improvement Society, Report of Annual General Meeting, 27th Sept., 1882.

included,

an orchestral section,

billiards room

charity concert

soirée

Monday Night Entertainments.¹

Further changes were introduced, and by December 23rd, 1884 a "choral section and Smoke Rooms"² had been set up. In adapting to change, the Institute continued to exist in spirit, even if only in so far as its social and cultural role was concerned. Seemingly, by the late '80s institutes were entering their final transitional phase.

Although generally, they were keen to preserve their identity, little animosity was recorded over the various schemes proposed towards the acceptance of change. For instance, at the Middlesbrough Mechanics' Institute, by 1873 there had also been plans to set up a Free Library. The Committee, however, not wishing to display opposition to the scheme simply recorded that they "continue to be satisfied with the movement of joining the Free Library Plan." Whatever the details of this 'Plan' were, there is evidence that the Free Library was eventually established in conjunction with the Institute. A Free Library Committee was therefore convened, and reported in 1874 that it "is procuring for the inhabitants of this town far beyond what the Institute could have procured for its members."³ More or less absolute power seemed to have been vested in the Free Library

1. Gateshead Mutual Improvement Society, Min. dated, 16th Dec., 1884.

2. ibid., Min. dated, 23rd Dec., 1884.

3. Middlesbrough M.I., M.B., A.R., 1873.

Committee, since by 1882 the future of the Institute was finally determined by this body. Hence, it was they who sent a letter to the Corporation suggesting "that the Mechanics' Institute should be offered through them to the Corporation to carry on its objects on a more extended scale." This was agreed,¹ but was not executed. However, by 1891 the dilapidated state of the buildings forced the Free Library to quit the building, whereupon the "best means of disposing of the property"² was embarked upon. In January 1892, a transaction was agreed with the Durham Street Mission for them "to take over the premises"³ in the sum of £2,150, the agreed sale price.⁴ The prolonged decline of the Middlesbrough Mechanics' Institute was neither wholly due to the influence of the Free Library lobby, nor to the condition of the building. Indeed, the Institutes raison d'être was further eroded when it was accepted that since

".... the Literary and Philosophical Society provides such excellent lectures there is no need for us to work in this direction"⁵

And being faced with such circumstances, it seemed that the Committee had lost interest. Indeed, from 1880 they had no longer sent delegates to the Yorkshire Union's Annual Meetings. There was now clearly no commitment to its continued existence.

The relatively smooth procedure of transferring institutes

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1. Middlesbrough M.I., M.B., A.R., Min. dated, 6th Dec., 1882.
 2. ibid., Min. dated, 16th Feb., 1891.
 3. ibid., Min. dated, 19th Jan., 1892.
 4. ibid., Min. dated 4th Apr., 1891.
 5. Y.U.M.I., A.R., 1880, p. 125.

into Local Authority control was further confirmed by a similar scheme involving the Literary, Scientific and Mechanical Institution at Newcastle-upon-Tyne. The building, like many others within the Movement, was a fine example of Victorian architecture funded by voluntary effort and in any discussion concerning ownership, the final verdict could perhaps only ever have favoured the town's people. Therefore, such transfers were perhaps regarded as a reasonable course of action on the part of institute committees. At Newcastle the matter of the building's transfer to the Local Authority had been raised in 1878, whereupon the Committee resolved to appoint a sub-committee for the purpose.¹ Within one month, two expedient measures were tabled. These were:

1. that the property of the Institute be transferred to the Free Library Committee of the Corporation.
2. that the classes, lectures and other educational operations be continued and extended under the title of the Newcastle Mechanics' Institute of the Free Library.²

The above measures were both accepted and adopted, and the Mechanics' Institution was "closed on June 21st 1879 as usual, and handed over to the Free Library Committee."³ As at the Middlesbrough Mechanics' Institute, this instance once more illustrated the influence extended by local Free Library Committees, their powers enhanced of course, by Government legislation.

Frequently, historians of the Mechanics' Institute Movement

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1. Newcastle L.S.M.I., M.B., 1869-79, Min dated 21st Jan., 1878.
 2. ibid., Min. dated 4th Feb., 1878.
 3. ibid., Min. dated 9th Jun., 1879.

have stated that towards the end of the nineteenth century many institutes were either "absorbed" by Local Authorities, or were the victims in which the authorities took over their work and often their premises as going concerns.¹ Such statements might imply that the institutes simply awaited the presentation of a fait accompli from which they could only emerge as losers in an unequal battle. But in the North East the above examples show that there was some evidence to the contrary. One further example illustrated the fact that institute territory could be jealously guarded when confronted with such rivalry.

The case involving the West Hartlepool Institution and the Corporation's bid to establish a Free Library demonstrated protracted disagreement on both sides and which remained unresolved. Here the question, what might be done to enforce Local Authority control? was raised. The answer seemed to be very little, even when the matter was referred to law. Therefore, in 1892 a "deputation from the Corporation, headed by the Mayor waited upon the Committee" of the West Hartlepool Literary and Mechanical Institution with a "view to handing over the building to the Town for the purpose of a Free Library." The solicitor representing the Institution declared the Committee's determined resolution i.e.

"the Committee respectfully decline to hand over the Athenaeum for the purpose of a Free Library."²

The matter rested without resolution until 1893, when another petition was received from the Town Clerk in which it was again asked that the Committee should now

"reconsider their decision with respect to handing over the building for a Free Library."

The Committee, however, remained unpersuaded, presumably in

1. Kelly, T., H.A.Ed., p. 199.

2. West Hartlepool L.M.I., M.B., No 3, A.R., 1892.

the knowledge that they simply could not be taken over. Therefore, it was resolved to reply to this request with the following statement in which it was declared that the

"Committee can only refer him (Town Clerk) to the answer they gave to the same question in October 1891 and regret they have nothing to add thereto."¹

This was the final correspondence upon the matter, and the Institute continued its role until well after the turn of the century. A public library was eventually founded, but subsequent Minutes of the Institution referred almost exclusively to its social functions.

Finally, throughout the region there was no evidence to suggest that there was a major decline in the number of small village institutes. In Teesdale, for example, rural institutes survived well into the present century. Like the larger institutes, they too, adapted to change which in turn was recorded. For example, at the Middleton in Teesdale Mechanics' Institute in 1932, a sale of work was held when the chairman reminded the gathering of its past history, showing how it had been transformed into a reading room in 1876 with a large billiards room having been added later.² Thus, the emerging pressures of the last quarter of the century created a new atmosphere in which the Movement found it difficult to avoid modification of its traditional role. Henceforth, the context in which the institutes now precariously survived was determined by several factors. These included, measures taken by the Government to bring Britain's technological instruction into line with that of Europe, the continued advance of the Public Library Movement, and the attractions of a latent leisure industry.

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1. West Hartlepool L.M.I., M.B., No 3, Min. dated 7th Mar., 1893.
 2. Teesdale Mercury, 30th Mar., 1932.

Chapter 10.

Mechanics' Institutes and the Development of Technical Instruction: 1874-1902.

Because so few mechanics' institutes failed in the North East between 1874-1902, it may be assumed that support was strong enough to sustain such voluntary organisations. People responded both to the educational services offered and to the various other facilities available. But towards this end the Mechanics' Institute Unions were especially instrumental in offering encouragement. For instance, in 1874 at the Annual Meeting of the Northern Union of Mechanics' Institutes, a timely paper was read entitled:

"On the present condition of the Mechanics' Institutes and how to develop their usefulness."

Herein advice was given relevant to the changing climate in which they operated. Yet it was maintained that,

"The Mechanics' Institutes of the present time, though not achieving the success expected of them, need not necessarily be considered as complete failures, for they form part of the agencies at work in extending and completing the education of our rising generation."¹

Significantly, the provision of scientific and technical education continued to be the underlying aim of the Movement, having been promoted in many institutes through the auspices of the Department of Science and Art since 1853. Attracting members and students through the offer of educational opportunities, however, brought further pressures to bear

1. N.U.M.I., A.R., 1874, p. 16.

upon many institutes, and yet again their future role as instruments of adult education depended upon their ability to fulfil the requirements for providing science education.

Government legislation regarding the provision of technical instruction was destined to have a twofold effect during the closing years of the century. Some institutes flourished whilst others either failed or forfeited their educational role. Grants provided for technical instruction enabled many to enjoy once more a new lease of life in the eighties and nineties.¹ But some failed to compete particularly in situations where superior accommodation became available, either in schools or in other types of institute: others failed due to the evolution of purpose built technical colleges. At Darlington² and at West Hartlepool, for instance, the responsibility for technical instruction passed relatively quickly to Local Authorities, and in the latter instance, by 1895 "science classes were under the direct supervision of the West Hartlepool Corporation."³ Even so, the Institution was not alienated by such action, and in 1902 devised a scheme offering "a scholarship to the Technical School worth £4-5-0 per annum tenable for three years."⁴ Meanwhile, at Jarrow, the Mechanics' Institute by 1890, had
"proved singularly successful especially in its
science classes now there are twelve science
classes with 170 students this is a true type of

1. Argles, M., op. cit., p. 40.

2. See above, p. 290-291.

3. West Hartlepool L.M.I., A.R., 1895.

4. ibid., A.R., 1903.

what an Institute should be."¹

The committee were clearly proud of their achievement. But generally, such measures even though successful, were temporary and were progressively replaced as Local Authorities began to provide purpose built accommodation for technical instruction. Indeed, at both Darlington and West Hartlepool, technical colleges were opened in 1897.²

Throughout the region there were smaller towns and communities whose economic base, despite being industrial, was not sufficiently large to justify the provision of a local technical college. In such cases, the institutes often continued to expand, as was the case at both Jarrow and Felling. At Jarrow, for instance, the membership increased from 479 in 1885 to over 600 by 1892.³ The most successful example, however, was that of the works based institute at Elswick. Membership returns reflected the educational success of the Institute and expectations of the Company. The rules introduced in 1876 explicitly stated that:-

"All persons employed in the various departments of the works of Sir W.G. Armstrong & Co., at Elswick shall be considered members and entitled to the privileges of this Institute. Should the Institute not be filled by the men employed then the Committee" may "admit strangers upon

1. N.U.M.I., A.R., 1890, p. 10.

2. Lucas, M., 'The Growth of Technical Education in Darlington: 1825-1915', (M.Ed. thesis, Durham University, 1967), p. 157.

See also Wood, R., West Hartlepool, p. 159.

3. N.U.M.I., A.Rs., 1885, pp. 29-30. 1891, p. 26.

payment."¹

Ten years later in 1887, there were 1,700 members, and by 1913 8,000.² Clearly, the expansion of the factory was reflected through the membership of the Institute. Comparatively, it was most likely that the membership at Elswick comprised a greater proportion of artisans than was typical of other North East mechanics' institutes. In fact the membership of the Darlington Mechanics' Institution in 1878 confirmed a clear bias towards the lower middle-classes. Categories of members included:

"Ladies 61, Merchants and Gentlemen 56, Tradesmen
104, Clerks 110, Mechanics' 114".³

The mechanics were outnumbered in the ratio of 3:1 by the lower middle-classes and female members. The distribution of the social classes within most institutes continued to favour the move towards middle-class membership, a trend identified earlier in the century. Such matters apart, the membership of most institutes, albeit subject to fluctuation, remained strong. For example, in 1878 the membership at the Alnwick Institution was 265,⁴ at Esh (Waterhouses, Durham) there were 270⁵ and in 1874 at the Stockton Institute there were 360.⁶

Perhaps the most poignant indicator of an institute's success was the educational achievement of individual members. Frequently, instances of academic excellence were recorded,

1. Rules of Elswick Works, M.I., 1876, p. 3.

2. N.U.M.I., A.R., 1885, p. 29. 1895, p. 15.

3. Y.U.M.I., A.R., 1878, p. 111.

4. N.U.M.I., A.R., 1878, p. 28.

5. Y.U.M.I., A.R., 1878, p. 111.

6. Stockton Mechanics' Institute, Y.U.M.I., A.R., 1874, pp. 106-107.

and as for educational institutions today, such 'window dressing' was good advertising. This established a notion of comparative quality. For instance, a delegate reporting to the Northern Union of Mechanics' Institutions in 1883, cited the success of the Newcastle Literary, Scientific and Mechanics' Institution, and claimed that the Institution

"had done useful work in their time and people now occupying good positions in life owed their success to their connection with the Institute."¹

From the Elswick Institute, also, two students were singularly successful. Hence, in 1888 it was recorded that after having proceeded to Dublin, they had "passed for B.A."² degrees. On reflection, two from a membership of 1,700 represented a small entry into higher education yet it was important enough, because by this time occupational rewards were to be gained particularly by those who had aspired to the acquisition of technical educational qualifications. At West Hartlepool, for instance, in 1888, it was commented upon in the Institute's Annual Report that

"a number of students have been successful in obtaining appointments in the various Drawing offices of the Engineering and Shipyards of the town."³ And again in 1891, "another of the students of the school has been appointed to a lucrative position as Chief Draughtsman to the Government of Selansor, a State in the Straits Settlement."⁴

Such instances confirmed the quality of the scientific educational work undertaken throughout the region within a

1. N.U.M.I., A.R., 1883, p. 35.

2. N.U.M.I., A.R., 1888, p. 28.

3. West Hartlepool L.S.M.I., A.R., 1888.

4. ibid., A.R., 1891.

few of the industrially centred mechanics' institutes.

Not only within the North East were some institutes successfully achieving at least a modicum of academic excellence. Tylecote identified a similar trend in Lancashire and Yorkshire, where even by 1850 it was noted at the Huddersfield Institution, that there were a "few who would be ready when the time shall come to diffuse the knowledge of the truth among others." In addition, Tylecote found that other institutes were seriously involved in

"training manual workers and fitting them for more responsible posts connected with their original callings" Others were assisted to "rise within clerical grades of work."¹

If, however, by 1888 it appeared that relatively few candidates from the North East's mechanics' institutes achieved recognised academic status, then perhaps such deficiencies were inevitable according to Sir Arthur Conan Doyle's² assessment of the situation which he described in an article entitled 'On The Geographical Distribution of British Intellect'. For the three northern counties i.e. Northumberland, Durham and Yorkshire, he compiled a Table of statistics which illustrated the north's comparatively poor intellectual performance. Thus, the celebrity ratio speaks for itself as shown in Table 16.

1. Tylecote, M., L. & Y., pp. 261-262.

2. Sir Conan Doyle qualified as a doctor but gave up his medical practice in 1890 and became the creator of Sherlock Holmes the detective.

Table 16.

On The Geographical Distribution of British Intellect.

<u>County</u>	<u>Population</u>	<u>Celebrities</u>	<u>Ratio</u>
Northumberland	386,000	17	1 in 22,000
Durham	220,000	9	1 in 24,000
Yorkshire	2,436,000	60	1 in 40,000

Further research by Doyle showed the

"average in the northern counties of one marked intellect in every 43,000, as compared with 1 in 41,000 in the Midlands, 1 in 23,000 in the South, and 1 in 22,000 in the Eastern Counties," However, it seemed that Northumberland produced "men of practical turn:- Robert Stephenson, the present Lord Armstrong, Sir Daniel Goods, engineers; with Burden Sanderson, Sir G.B. Airey and Birket Foster". Durham contrastingly produced "Miss E.B. Browning, the greatest of female poets, and can also boast of Bewick, Sir Charles Hartley the engineer, and Stanfield Clarkson the painter."¹

Notwithstanding the relatively low number of intellectual giants from the North East in the nineteenth century, it was

1. Doyle, A.C., 'On the Geographical Distribution of British Intellect.' The Nineteenth Century, Vol. xxiv, August, 1888, pp. 184-191.

interesting that among this number, there were men of outstanding genius, acknowledged world-wide, and who were concerned enough with the educational needs of the working-classes to have become associated with the mechanics' institutes of the region.¹ But even today, there is evidence enough which suggests the presence of a comparatively lower proportion of academic potential in the North East. The Times school report for 'A' level performance in 1992 placed Durham and Northumberland in the lower 25 percentile.²

The Mechanics' Institutes and the introduction of the National System of Technical Instruction.

During the last two decades of the nineteenth century attention became increasingly directed towards the education debate, especially in terms of maintaining the nation's competitiveness amongst the industrialised nations of Europe. Accordingly, the leading educational feature of the period, and extending into the early years of the twentieth century, was the attempt to establish for the first time, a national system of technical education.³ The cause was given publicity in many contemporary industrially based magazines. For example, in 1881, the Builder published a report of a paper read before the Manchester Statistical Society entitled, 'Technical Education in Connexion with Mechanics' Institutes.' Therein, it was acknowledged that

"the apathy and neglect arising from ignorance are
just yielding to zealous and earnest endeavour
with the desire and ambition to regain the

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1. The Times, 19th Nov., 1992.
 2. See above, p. 56-62.
 3. Ensor, R., op. cit., p. 317.

ascendancy formerly held by our countrymen."¹

Clearly, the contribution of the mechanics' institutes had not passed unnoticed; indeed, many past members holding responsible posts would no doubt have attributed their success to the provisions of the Movement generally. However, technical instruction was now considered not only to be necessary for personal advancement, but also for the efficient operation of most industrial tasks. Henry Solly, the late principal of the Artisans' Institute, illustrated the point in a lecture given to the members of the Balloon Society of Great Britain in 1883. The text of his lecture was reported in the Builder under the title, 'Artisan Technical Education'. He maintained that,

"technical education was necessary in most professions and trades - viz. the building, engineering, metal, cabinet making, tailoring, and boot making trades and so forth."²

The subject of this lecture made pertinent press material, and continued to do so from 1881 until the passing of the Technical Instruction Act in 1889. Further correspondence identified the weakness inherent in the Government's proposals of 1881. One correspondent replying to the editor of the Builder in 1887, and signing himself 'Technical', confirmed what must have been the observations of many. He stated,

"You truly say that the attempt to introduce a system of technical education as shadowed forth in the Government Bill is disappointing and feeble, the

1. Builder, Vol. XL Jan. - June, 1881, 23rd April, 1881, p. 520.

2. Builder, Vol. XLV, Jul.-Dec., 1883, 21st July, 1883, p. 99.

advantages of the German workman consist in his being compelled to attend during his apprenticeship" institutions "where the studies of the ordinary elementary school are continued."¹

Meanwhile, Britain's European competitors continued to add more years of technical instruction to their credit; the U.S.A., Germany, France, Belgium, and Switzerland had all embarked upon such measures at least from between twenty five to forty years earlier.² Also, in addition to the above observations, the need for the implementation of the Technical Instruction Act was further highlighted by the present deficiencies inherent within the voluntary nature of technical education.

Embodied within the Act, therefore, was a redress of current practice together with the recommendations of the Royal Commission whose findings were as follows:

1. Drawing with metal-work and woodwork should be encouraged in the elementary schools.
2. Science and art classes should be established and maintained by School Boards and Local Authorities.
3. Science and teacher training colleges should be increased.
4. Scientific and technical instruction should be greatly increased.
5. Rate limit in connection with the public library provision should be raised.³

After the passing of the 1889 Technical Instruction Act, some

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1. Builder, Vol. LIII, Jul.-Dec., 1887, 6th August, 1887, p. 220.
 2. Ensor, R., op. cit., p. 318.
 3. Argles, M., op. cit., p. 16.

of the larger institutes became formally connected with technical education provision under the direction of Local Authorities, thus achieving a secure academic future. Outside London, examples of note were the Birmingham and Midland Institute, the Huddersfield Technical College, and the Leeds College of Technology.¹ These titles were, of course, adopted more recently. The number of mechanics' institutes operating in conjunction with the Department of Science and Art "reached a peak around 1885, thereafter declining,"² presumably for reasons stated earlier.³ Whilst the role of some of the North East's mechanics' institutes embraced the development of technical institution during the period 1874 to 1902, none developed into permanent technical colleges. Moreover, the returns of the Department of Science and Art in 1875 showed that the provision of technical instruction was now becoming less the prerogative of the institutes as the century advanced. The only North East institutes involved in the Government's scheme at this date were those listed in Table 17 below.⁴

1. Argles, M., op. cit., p. 40.

2. Roderick, G.W., & Stephens, M.D., Education and Industry in the Nineteenth Century, p. 63.

3. See above, p. 300.

4. D.Sc.A., A.R. 1875, pp. 55-98.

Table 17.

North East Mechanics' Institutes receiving Government Grants
in 1875.

<u>Institute</u>	<u>Subjects (number of students)</u>
<u>Barnard Castle</u>	no return of students were listed
<u>Hebden Bridge Mechanics' Institute</u>	(9) acoustics, light, heat. (10) magnetism, electricity (10) inorganic chemistry (5) organic chemistry
<u>Jarrow Mechanics' Institute</u>	(21) geometry (16) machine drawing (10) building construction (12) applied mechanics' (8) magnetism, electricity (10) inorganic chemistry
<u>Middlesbrough Mechanics' Institute</u>	(20) machine drawing and construction (20) building construction (10) inorganic chemistry
<u>Walker on Tyne Mechanics' Institute</u>	(3) practical and plane geometry

Considering the region as a whole, the above contracted list perhaps suggested that little was being achieved, but this was not precisely the case. Because increasingly, it may be recalled, technical instruction was carried out at centres other than in the local mechanics' institute, and presumably in more suitable accommodation. At Darlington, for instance, 58 students were enrolled for technical instruction at the British and Foreign School.¹ Clearly, the importance of appropriate facilities was becoming apparent, whilst institutes involved in technical instruction now offered a range of science subjects, many of which required specialist laboratory services. Such services were essential if the requirements of local industry were to be met. For instance, at Middlesbrough in 1877, the Mechanics' Institute provided a "Select class in Metallurgical Chemistry of duration one year." Advice to potential students included in the notice advertising the course, was noteworthy. It was expressed that the laboratory facilities were "undergoing alterations" which suggested that the Committee was trying to meet the higher standard of facilities now required. The inclusion of the word 'select', however, was probably superfluous, since the cost of the course was £10-10s plus fees of £3-3s for apparatus.² The total sum needed represented about 20% of a schoolmaster's salary at that time; for instance, in 1870, the master at Coniscliffe National School received 14/- per week.³ Moreover, the notification was further divisive, since it was specifically addressed to the attention of "Managers,

1. D.Sc.A., A.R., 1875, pp. 50-98.

2. Middlesbrough M.I., Iron Trade Science Class, Bill 1st Sept., 1877.

3. Stockdale, C., 'N. & B. Schools', p. 204.

Engineers, and others engaged in the Cleveland Iron Trade."¹ 'Others' were probably excluded on the grounds of cost. Apart from such considerations, instruction at the Middlesbrough Mechanics' Institute was offered throughout the week including Saturday evenings for which advertising material was again displayed; chemistry and physics were the dominant subject areas.² But the Arts were not neglected, for in the same year, 1879, candidates were invited to enter for the Special Art Examinations devised by the Yorkshire Union of Mechanics' Institutions.³ Topically, it is significant that there was considerable emphasis upon 'Design'. This element of technology, particularly at school level, has been neglected over the intervening years, until the recent introduction of G.C.S.E. examinations, where stress once more has been placed upon the development and acquisition of such skills.

Interestingly, courses planned for holidays and Saturdays were not regarded as obstacles for the really determined student. Even summer courses were part of the work of some institutes. Again, an example from the Middlesbrough Mechanics' Institute illustrated the point. A practical course in Chemistry started in June, 1879 for one quarter, requiring attendance on Wednesdays, and Saturday afternoons.⁴

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1. Middlesbrough M.I., Iron Trade Science Class, Notice, 1st Sept., 1877.
 2. Middlesbrough M.I., Science Classes, Notice, 8th Sept., 1879.
 3. Y.U.M.I., Special Art Examinations, Notice, 22nd Feb., 1879.
 4. Middlesbrough M.I., Science Classes - Practical Chemistry, Notice, 21st May, 1879.

PLATE 6
MIDDLESBROUGH MECHANICS' INSTITUTE
NOTICE OF PRIZE GIVING

MIDDLESBROUGH MECHANICS' INSTITUTE.

The Prizes and Certificates obtained by the successful Candidates in the late Science and Art and other Examinations will be presented by

ISAAC LOWTHIAN BELL, ESQ., M.P.

In the Art School-room, Durham Street,

ON TUESDAY EVENING, NOV. 18,
AT SIX O'CLOCK.

The Works of the Art Students will be on view, and the Committee cordially invite the attendance of the Public on this interesting occasion. There will be no charge for admission.

The Students are requested to assemble punctually at Six o'clock, as Mr Bell has to leave by early train.

MIDDLESBROUGH, NOV. 14, 1870.

WM. TAYLOR, Secretary.

Similarly, Open University students of the 1990s avail themselves of courses often held during what may be described as unsocial hours. Of course, in the case of the nineteenth century student, as indeed is true of his 20th century counterpart the end justified the means, not only in terms of career enhancement, but perhaps also in the pride of receiving a prize in the presence of the general public. Such events featured in the scheme of things, and no doubt were an incentive to many, when commendation was received from some local dignitary as was described in the notice shown in Plate 6 on page 312 advertising such an occasion at Middlesbrough.¹

The relatively low profile of technical education in the 1870s, was to some extent rectified in the 'eighties and 'nineties thereby infusing life into many of the region's institutes. This increased vigour was shown in the returns of the Department of Science and Art for the year 1880, when additional institutes became involved in such work. Table 18 below shows the institutes involved, whilst the student numbers also indicate a significant increase, especially in the uptake of mathematics, the key to understanding the physical sciences.

1. Middlesbrough M.I., Prizes and Certificates Presentation, Notice, 14th Nov., 1879. See Plate 6, p. 312.

Table 18.¹

North East Mechanics' Institutes receiving Government Grants in 1880.

<u>Institute</u>	<u>Subjects (number of Students)</u>	
<u>Alnwick Mechanics' Institute</u>	(6)	pure maths
	(10)	agriculture
<u>Barnard Castle Mechanics' Institute</u>	(8)	pure maths
<u>Darlington Mechanics' Institute</u>	(21)	inorganic chemistry
<u>Jarrow Mechanics' Institute</u>	(20)	geometry
	(24)	machine drawing
	(10)	building
	(70)	pure maths stage 1,2,3.
	(5)	pure maths stage 4 and 5
	(9)	applied mechanics
	(24)	magnetism electricity
	(6)	metallurgy
	(10)	steam
<u>Newcastle (Elswick Mechanics' Institute)</u>	(40)	geometry
	(20)	magnetism, electricity
	(20)	machine drawing
	(25)	inorganic chemistry
	(12)	building
	(30)	steam
	(70)	maths
	(3)	stage 3,4,5 (maths)
	(30)	theory of mechanics
	(30)	<u>applied mechanics</u>
	(20)	acoustics, heat, light.
<u>Newcastle Mechanics' Institute</u>	(100)	machine drawing
	(40)	theory mechanics
	(100)	building
	(40)	applied mechanics
	(10)	naval architecture
	(12)	inorganic chemistry
	(20)	pure maths
	(40)	steam
<u>Walker Mechanics' Institute</u>	(18)	geometry
	(16)	maths

1. D.Sc.A., A.R., 1880, pp. 134-213.

Whilst the curricula of the institutes were devoted exclusively to the sciences, it is interesting that at Alnwick and Newcastle, for example, the application of science to agricultural and naval requirements respectively was catered for. This indicated that the conviction of Solly was at last taken up in some places, i.e. that technical education should be relevant to vocations.

Up to and including 1890 the returns of the Department of Science and Art continued to show once more an increasing number of mechanics' institutes becoming involved in technical instruction. And as expected, there were also an increasing number of alternative institutes and schools thus engaged.¹ The returns for 1890 shown in Table 19 below illustrate the expansion of technical instruction which had occurred since 1875.

1. D.Sc.A., A.R., 1890, pp. 26-120.

Table 19.¹

North East Centres for Technical Instruction 1890.

<u>Centre</u>	<u>Subjects (number of students).</u>	
	<u>Science</u>	<u>Art</u>
Barnard Castle Mechanics'	48	54
Bishop Auckland (Bishop Lightfoot's Institute, also schools).	17	32
Blaydon Mechanics' Institute	59	12
Chester-le-Street (Ouston Mechanics' Institute).	33	-
Crook schools etc.	-	-
Darlington Mechanics' Institute	85	105
Durham	-	-
Gateshead several	-	-
Hartlepool Mechanics' Institute (Athenaeum)	122	2
Jarrow Mechanics' Institute	201	39

New Shildon Mechanics' Institute	66	-
South Shields several	-	-
Stockton Literary Institute	123	10
Sunderland several	-	-
Tow Law Mechanics' Institute	17	-
Alnwick Mechanics' Institute	9	27
Berwick School of Science High Street	34	74
Blyth Mechanics' Institute	-	-
New Delavel	16	-
Bridge Street	29	-
Newcastle Elswick and several other schools	340	49
Walker Mechanics' Institute	41	2
Wallsend Athenaeum	171	39

Although the returns did not show the subject options available, they did show a healthy take-up of both science and arts courses. Returns received by the Department after 1890, whilst showing a reduction in the number of institutes involved in technical instruction, nonetheless confirmed the

continuing interest on the part of participating students. However, a decline in the number of participating institutes was first noted in 1894 in the Report of the Northern Union of Mechanics' Institutions. It was recorded that "comparatively few institutes have been holding Art and Science Classes."¹ By 1897, the situation had further deteriorated as is shown when a comparison of Tables 19 and 20 is made.

Table 20.²

Science and Art Schools and Classes 1898.

<u>Centre</u>	<u>Established</u>	<u>Number of Students</u>	
		<u>Art</u>	<u>Science</u>
<u>Durham County</u>			
Barnard Castle Mechanics' Institute	1868	30	-
Blaydon Mechanics' Institute	1882	-	40
Darlington Mechanics' Institute	1857	80	-
Darlington Technical College	1897	-	350
Jarrow Mechanics' Institute	1869	-	150

1. N.U.M.I., A.R., 1894, p. 15.

2. D.Sc.A., A.R., 1898, pp. 2-210.

New Shildon Mechanics'			
Institute	1885	34	26
Ouston Miners'			
Institute	1888	-	22
Stockton on Tees Tech. Evg. Cont. Classes Bd. School	1896	150	150
Sunderland Bd. Sch. etc.	1890	66	193
Tow Law Mechanics'			
Institute	no date	-	10
West Hartlepool Tech. School	1897	100	400
<u>Northumberland County</u>			
Alnwick Mechanics'			
Institute	1867	36	
Berwick School of Science	1873	120	20
Newcastle Mechanics'			
Institute: Elswick and other schools	1868	170	450
Walker on Tyne Mechanics' Institute	1888		60
Wallsend Athenaeum	1884	45	100

The reason for the decline was defined in the Northern Union of Mechanics' Institutes Annual Report of 1894, when it declared that it was due to "the County Council Committee for Technical Education measure."¹ The mechanics' institutes, and indeed, other ad hoc accommodation which had provided bases for classes were now becoming redundant. Hence, it is conclusive that the final demise of the educational function of the institutes dated from the time of the introduction of purpose built technical colleges.

Despite the piecemeal provision of technical instruction from 1854 the part played by the mechanics' institutes was that of undeniable commitment to this sphere of work: there was also a display of co-operation with all agencies concerned with adult education. At West Hartlepool, for example, the Institution in 1892 hosted classes on behalf of the Engineers and Nautical Academy, whilst in the year 1892-1893, one hundred and forty nine candidates had secured Government Certificates. And in continuing to serve local needs, a further 147 Masters, Mates and Engineers received Board of Trade Certificates in 1903.² Further instances of keenness to participate in Government backed educational schemes came from throughout the region. At Barnard Castle in 1896, for example, when the Mechanics' Institute resumed "control of the Science and Art and Technical Classes," it was recorded that the Committee "recognises the Technical Education Classes and accepts them on the same conditions as the Science and Art Classes".³ So strong was the general

1. N.U.M.I., A.R., 1894, p. 15.

2. West Hartlepool L.M.I., A.R., 1893 and 1903.

3. Barnard Castle M.I., M.B., 1895-1920, Min. dated 9th Sept., 1896.

commitment to technical education, that even as late as 1912, the president of the Northern Union speaking at the Annual Conference proclaimed the following supportive evidence

"You may," he said, "be inclined to think of what use is it to struggle against State aided Education, Technical Classes, Free Libraries, Art Galleries and the like. What chance have the Mechanics' Institutes? Mechanics' Institutes are not competitors of these, they supplement where is it (sic) possible, and supply the need where they are not. They still have a work to do."¹

Such commitment, of course, would not have survived in a climate where conflict existed between the institutes and the Local Authorities. Animosity, therefore, between the two parties does not seem to have arisen; indeed, the energies of both had a common goal, i.e. the provision of technical education. But within the context of the above address, whilst there seemed to be grounds for optimism and enthusiasm, there was also the shadow of enforced resignation from the educational function. This particular 'seed of dissolution' was growing rapidly and was beginning to bear fruit outside the jurisdiction of the Mechanics' Institute Movement. Perhaps this was desirable since the committees of many institutes must have resembled that of the South Stockton Mechanics' Institute, where no one serving had any professional qualifications in education.²

Increasingly, institute committees were involved in fulfilling roles for which they were not especially equipped. Nonetheless, it remained their responsibility to select and

1. N.U.M.I., A.R., 1912, p. 29.

2. South Stockton M.I., M.B. Proposal for Committee, 1875.

employ teachers for the various courses. This selective process required the application of informed management skills. This was shown at West Hartlepool in 1881, when the Institution needed teachers for the Science classes. Several responded to the invitation for the posts, whereupon it was deemed necessary to write to the applicants outlining the conditions of employment and remuneration.¹ Replies were received in just over a week, and at a meeting of the Committee, "letters were read from three science teachers either declining the terms offered or stipulating for conditions that the Committee could not grant."² Despite the fact that serious thought must have been given to these applicants other teachers were employed, since science classes continued until well into the next decade. The salaries of teachers, too, remained the responsibility of the institutes, even though they were subsidised by the County Councils. Acquiring grant support for such purposes, however, was not always guaranteed. This was admirably demonstrated at the Barnard Castle Mechanics' Institute in 1898, when concern was expressed about revised regulations governing classes and the income thus anticipated. At a Committee meeting the problem was discussed when it was reported

"that owing to the new and unexpected rules promulgated by the Education Committee of the County Councils, the Grant earning powers of the classes are so seriously affected that Teachers hesitate before undertaking to go on them."

The Institute, obviously keen to continue the provision of

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1. West Hartlepool L.M.I., M.B., letter to applicants, dated, 30th Aug., 1881. See Appendix IV for full text p. 384.
 2. West Hartlepool L.M.I., M.B., Min. dated, 6th Sept., 1881.

classes, therefore asked the Committee to try to resolve the problem. Consequently, it was suggested that they should either:

- a. "vote a sum of money from their funds which might form the nucleus of a fixed salary.
- b. ask the trustees of the Institute to do so."

Judging from the outcome of the discussion, the above proposals were demanding financial support that could not be met: indeed, the final comment on the matter was that the Committee had resolved "to grant £5 as a salary for a Teacher of Shorthand and Book-keeping."¹ Probably this was far below expectations and the outcome remains unknown.

The responsibility for the payment of teachers' salaries and for the supply of adequately qualified instructors seemed to have remained dependent upon local resources. The Department of Science and Art, however, went some way towards alleviating the problem of teacher supply by offering crash courses in certain subject areas , especially in various branches of the sciences. For instance, in 1875 special courses were arranged in Chemistry, Biology, Sound, Magnetism, Electricity, and Mechanics; but out of 549 applicants for these courses, only 192 were offered places.²

Teachers were clearly motivated towards participation in areas of work wherein worthwhile careers might have been achieved; there was certainly scope throughout the region. For instance, at the Alnwick Literary, Scientific and

1. Barnard Castle M.I., M.B., 1895-1920, Min. dated 9th Nov., 1898.

2. D.Sc.A., A.R., 1875, p. ix.

Mechanics' Institute in 1892, it was reported that there was a

"constant cry for additional classes," whilst "during five nights a week the classrooms are constantly engaged."¹

Similar pressures on accommodation caused by the demand for science education, were experienced at the Jarrow Mechanics' Institute in 1882. To resolve the difficulty the institute decided

"at large expense, to fit one of the rooms of the institute with all the necessary apparatus for teaching practical chemistry."²

Throughout this period the demand for instruction in the sciences seemed to have been insatiable, not only within the larger institutes, but in some of the smaller ones too. Hardly any part of the region failed to be touched by the cry for classes to be established under the auspices of the Department of Science and Art. Gaps in elementary knowledge left by the pre-School Board era still needed urgent treatment, especially in some villages. This became evident when it was reported from the Esh Institute near Durham City, in 1878, that an "Elementary Class" had been "placed under the Government and Science and Art Department."³

Undoubtedly, throughout this period there was a growing awareness of the benefits of technical and scientific skills, whilst adult educational facilities were stretched to the

1. Alnwick L., Sc. & M.I., A.R., 1892.

2. N.U.M.I., A.R., 1882, p. 21.

3. Y.U.M.I., A.R., 1878, p. 111.

limit to meet the demand. The revival of interest in science education was further confirmed by the introduction of other ventures such as the University Extension Scheme. From the early '70s University Extension lectures became available in many parts of the country, especially in large towns such as Nottingham which was the first participant. The science lecture once more experienced a new lease of life, but as in the earlier years of the Mechanics' Institute Movement, the lectures were not part of systematic courses of instruction.¹ This was evidently the case at West Hartlepool, where courses were staged at various venues. They were given under the general heading of 'Science Lectures for the People' and continued from the late '70s to the late '90s. A collection of posters advertising these occasions re-affirmed the interest in science; in pure and applied science lecture titles included:

"Electric Energy and its Uses.

An Hour with the Microscope.

The Finite and the Infinite.

The Atom.

The Electric Motor.

The Electric Current.

The Telephone".

The entrance fee for these lectures was 1d, but there was no indication concerning their success or otherwise.² Mechanics' Institutes were also willing to host such events. At the Darlington Mechanics' Institute, for instance, the promoters of Durham University Extension Lectures were given "the use of their excellent Lecture Room"³ in 1880. Again, there was

1. Peers, R., op. cit., p. 59.

2. West Hartlepool Art Gallery and Museum, (Wood Collection).

3. Darlington M.I., M.B., 1871-1911, A.R., 1880.

no detailed record of this work, but the fact that University Extension Schemes were established, was further evidence of the demand for scientific education. Indeed, it was

"unlikely that the extensive system of evening and part time science and technical instruction in Britain could have been developed without building on the foundations of the mechanics' institutes¹"

and the goodwill extended by all agencies thus involved.

Because the demand for adult education outstripped the facilities available, there is good reason to suggest that this was why, in the North East, there was no large scale demise of the mechanics' institutes in the late nineteenth century. Many, even after the turn of the century, were never just social clubs; in fact for several years to come they continued to augment State provision for technical education. This, moreover, was despite the fact that under the terms of the 1902 Education Act all forms of education were coordinated by the newly introduced Local Education Authorities, and that higher technical and higher secondary education was to be welded on to the University system.² But in the event the L.E.As. only "acted as fast or as slowly as they chose".³

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1. Nicholas, S.J., 'Technical Education and the Decline of Britain', S.I.S., p. 85.
 2. Maclure, J.S., op. cit., pp. 149-152.
 3. ibid., p. 149.

Chapter 11.

Mechanics' Institutes and the Leisure Revolution: 1874-1902.

The advance of the Free Library Movement and the implementation of the Technical Instruction Act were together responsible for the eventual transition of most surviving institutes from multi-function to single function bodies. Most of those which exist today, for example, the Darlington Mechanics' Institution and the Barnard Castle Mechanics' Institute, are now no more than social clubs providing recreational facilities. Very few, in the longer term were able to pursue their educational work. Therefore, it remains to show how the final transition of function was accomplished. For most institutes this meant further development of the one facility which did not attract State legislation, i.e. the provision of leisure pursuits.

For the few, however, which tenaciously clung to an educational role, the London Mechanics' Institution must have once more, provided the inspirational model. But a brief look at its progress between 1874 and 1902 reinforced the notion that the era of the tripartite function for most institutes was almost over.

The London Mechanics' Institution 1874-1902.

Throughout the 1870s the London Mechanics' Institution became increasingly involved with London University, and in the preparation of students for its examinations. The development of its exclusively academic role was observed in 1875, when

one student recorded that there was

"a general eagerness in the classes, but that the students, at least in the sciences, saw little more of the building than their own classroom; left immediately the class was finished and knew nothing of the organisation or the policy of the Institution."¹

A single minded vision of purpose was certainly apparent and now excluded whatever social activities might have been available. Various classes had become the life and soul of the Institution. A contemporary visitor described the scene on one occasion when he found

"singing classes of some three hundred persons at any one time, chemistry classes, mathematical classes, lectures on optics, elocution classes, botany classes, whilst the library was on occasions full of applicants awaiting their turn".²

In addition to such educational activity was the attendance of some of London's most controversial personalities. Annie Besant, for instance, had become involved not only with the Institution, but also with the National Reformer, a newspaper whose editorial policy was declared as being "Republican, Atheistic and Malthusian."³ Perhaps as expected, the Institution avoided any public association with Mrs Besant, but she had proved to be a talented student, and her success in examinations had to be overtly acknowledged.⁴ Persons of such strength of character and whose views challenged the old order, became influential in the future development of the Institution; another such person was Ramsey MacDonald who

1. Burns, C.D., B. Coll., p. 86.

2. ibid., pp. 89-92.

3. ibid., pp. 96-97.

4. loc. cit.

became the first leader of the Labour Party in 1906.

Despite its success, the Institution was not granted the much sought after University status. There were many deficiencies. Not least were the buildings which could not accommodate the growing student population; therefore, additional rooms became necessary. It was not, however, until 1885 after a two year building programme that this was accomplished. Examinations offered at this time were those conducted by several bodies including not only the University of London, but also the Science and Art Department, and the City and Guilds of London Institute.¹ Specialisation in the physical sciences became of paramount importance. It was after reading science at the Institution in the mid '80s, that Ramsay MacDonald was elected as one of the Institution's governors representing the London County Council. Under his guidance the Institution's future was determined, and by 1889 it had become "educational and not for evening entertainment."²

By 1890 it was an ambitious purveyor of higher education in London, whilst an increasing number of its students now took the graduate examinations of London University. However, for a brief period, and despite its success in higher academic work, the Institution was unwillingly incorporated into a body known as the City Polytechnic where lower level academic work was carried out. Nevertheless, its main work remained that of preparing students for the examinations of London University. The problems created by this merger were eventually resolved through the powerful advocacy of Dr Lyon Playfair in 1892. His earlier criticisms of the Institution

1. Burns, C.D., B. Coll., p. 100.

2. ibid., p. 102.

were now dispelled and changed to praise.¹ Such overt support gave added strength to the governors who had always disliked any association with the Polytechnic and who, moreover, sought dissociation. Fortuitously, by 1907 the City Polytechnic ceased to exist and the Birkbeck Institution officially became Birkbeck College.² The acquisition of new status completely severed all connections with education at a level lower than that of University ranking. But it was not until 1920, that full University College status was granted.³ Since 1951, the college has been established within a new building in Malet Street, near to the London University Senate House. Today, much of its work includes the provision of evening courses leading to University degrees especially in the Sciences. The college has therefore fulfilled the most significant ambition of its founders.

Clearly, the unique development of Birkbeck College was dependent upon three important factors; i. the association of the Institution with London University, ii. the support received from influential persons who were able to secure the facilities for education at this level, and iii. the exclusion of social and cultural activities. Institutes in the North East were not in the main, able to emulate the London Institution.

The North East Institutes.

In the North East region it may be recalled, local circumstances affecting the introduction of public libraries

1. See above, p. 229.

2. Burns, C.D., B. Coll., p. 120.

3. Kelly, T., G.B., p. 204.

and technical colleges determined that in many instances, mechanics' institutes continued to offer at least one or more of their traditional services to the end of the century and beyond. But alongside such expedient measures the social and cultural element enjoyed further progress and greater diversity than ever before. In some instances there was further evidence of expansion especially of the cultural curriculum. For example, languages including French, German and Swedish were taught in 1879 at the West Hartlepool Literary and Mechanical Institution.¹ And in 1882 at the Blyth Mechanics' Institute, the scope afforded by the ladies class included tuition in

"oil and water colour, pencil and chalk drawing,
painting on china, silk, satin and other material."²

Soirées, concerts, excursions and club-room games, also reflected the increasing emancipation of the working-classes who now had more leisure time at their disposal. If such activities were increasingly patronised, then so too were the libraries and news rooms, these being important features in an increasingly literate society. Together, therefore, the literary and social element of the institutes became complementary towards the further progress of the leisure revolution. This point is illustrated by a brief resume of the literary, social and cultural services offered.

Libraries and Newsrooms.

Chadwick found that at the Derby Mechanics' Institute up to 1880, the "library had proved to be a consistently popular

1. West Hartlepool L.M.I., A.R., 1879.

2. Blyth M.I., M.B., Min. dated 4th Sept., 1882.

focal point"¹ until it was handed over to the Corporation. Throughout the North East and despite the ever present threat posed by the Free Library Movement, institute libraries were held in similar esteem. Pride taken in the provision of books was frequently indicated by references to the number of volumes available, this being emphasised in both large and small institutes. Large institutes, such as the long established Alnwick Literary, Scientific and Mechanical Institution, recorded in 1890 that it held some "several thousand volumes",² whilst at the West Hartlepool Literary and Mechanics' Institution in 1884, there were 3,550 volumes,³ and at Elswick Works Institute in 1890, there were 5,677 volumes.⁴ In the latter instance, the library was classified, as was probably the case for most large collections. The 'classes' of books available at Elswick in 1878 were, however, classified under an alphabetical arrangement as shown below.⁵

- Class A History
- B Biography
- C Astronomy, Geography and Navigation
- D Chemistry
- E Botany
- F Geology and Mineralogy
- G Designing, Perspective etc.
- H Science and Art.
- J Mechanics and Engineering
- K Architectural Building

1. Chadwick, A.F., 'Derby', p. 259.

2. Alnwick L.S.M.I., A.R., 1890.

3. West Hartlepool L.M.I., A.R., 1884.

4. N.U.M.I., A.R., p. 25.

5. Elswick Works M.I., Rules of the Institute, pp. 7-72.

L Miscellaneous
M Mathematical and Educational Works
N Voyages, Travel and Narratives
O Moral and Religious Works
R Works of Fiction
S Poetry
T Magazines and Reviews
U Reports
W Reference Works

Whilst the above 'classes' offered considerable variety of choice which now included religious works, there was an absence of political works. However, at the Barnard Castle Mechanics' Institute, albeit nearly two decades later, in 1897, the Committee reported that the

"new books to be ordered were History of Socialism

by Thos. Kirkup and Social Evolution by Benj. Kidd".¹

Surely this was an indication of how much less restrictive the institute had become by the end of the century. It is reasonable to accept that other institutes also exercised a more liberal censorship of literature by this time. Comparatively, the smaller institutes such as the Felling Mechanics' Institute, had only 1,700 volumes² even by 1906 and the Etherley Literary Institute in 1898 possessed a mere 300.³ In addition to the acquisition of permanent libraries by large and small institutes other related services were offered, especially itinerating library schemes. These services were welcome in that they provided a regularly changing supply of literature particularly appreciated by the

1. Barnard Castle M.I., M.B., 1895-1920, Min. dated 11th Aug., 1897.

2. N.U.M.I., A.R., 1906, p. 15.

3. Y.U.M.I., A.R., 1898, p. 79.

smaller rural institutes. During the 1880s and 1890s, one scheme appropriately named the Village Library, and conducted under the auspices of the Northern Union of Mechanics' Institutions continued to expand its territory; reference to the lists of selected books sent out in boxes revealed the inclusion of little light reading material, and an absence of religious and political works.¹ But there was no doubting the incidental educational value of many of the volumes as is illustrated by consulting the Catalogue of the Village Library issued in the 1880s.²

If the more traditional literary diet of many institutes changed only slowly in terms of scope and variety, there was plentiful evidence to support the growing success of the news room adjunct. Above all, the great attraction must have been the many daily publications, periodicals and magazines which were organs of topical information. The institutes seemed most liberal in their provision of such material. At the West Hartlepool Literary and Mechanics' Institution, for example, in 1893, the subscription included "22 daily newspapers, 21 weekly papers and 22 of the best magazines."³ From the Alnwick Scientific and Mechanics' Institute, too, in 1890, it was reported that the

"reading room was now replete with some of the best
and choicest of Newspapers and Periodicals and Books
of Reference."⁴

Sustaining this facility required considerable financial

1. N.U.M.I., Vol. 3, 1888-1894, Catalogue of the Village Library.

2. See Appendix VI, p. 386.

3. West Hartlepool L.M.I., A.R., 1893.

4. Alnwick L.S.M.I., A.R., 1890.

support, and was probably one of the benefits procured through the increased membership of many of the region's institutes. Not only the larger institutes, however, enjoyed access to the broad spectrum of printed material, but the smaller ones, too, such as the Etherley Literary Institute, where in 1898 they subscribed to

"7 daily and 9 weekly papers together with 6 monthly periodicals."¹

The demand for a supply of fresh daily news was strong; indeed, at the Blyth Mechanics' Institute in 1882, it was decided that the

"Building be closed on the whole of Sunday;" an amendment had to be granted which allowed the "reading room to be opened from 8-10 a.m. and from 12 to 4 p.m. for reference to the Shipping Gazette alone."² It is difficult to imagine that such exclusivity was maintained.

Of course, it is pertinent to suggest that the popularity and relevance of the news room was guaranteed in an era without radio or television news bulletins. Meanwhile, meeting the literary demands of an increasingly literate public was a "salient feature of late nineteenth century publishing,"³ which resulted in a gradual reduction of the cost of books. But whilst mechanics' institute libraries were ultimately unable to compete with the expanding Free Library service, competition for custom was also generated by publishing houses such as those of Mundie, W.H. Smith, and by 1900, by Boots Book-lovers Library.⁴ Simultaneously, the institutes

1. Y.U.M.I., A.R., 1898, p. 79.

2. Blyth M.I., M.B., 1847-1858, Min. dated 19th April, 1882.

3. Kelly, T., H.A.Ed., p. 213.

4. Kelly, T., H.A.Ed., p. 213.

pursued the further development of recreational facilities. Among these the game of billiards was to assume such popularity that the designation 'institute' and the term 'billiards' became synonymous.

Billiards and the Mechanics' Institutes.

Of all recreational pursuits developed within the Mechanics' Institute Movement, that of billiards was ultimately to reign supreme. An increasing demand for the inclusion of 'club-type' amusements was perhaps the reason why billiards was especially appealing. It could be played at any time and was socially orientated within the relaxing context of conversation, of drinking and of the inter-club contest. On the other hand its promotion probably afforded the opportunity for illicit gambling. Thus, by the end of the century, there was no doubting that from the widespread incidence of the game throughout the region, it had become endemic within most institutes. Billiards infected the region's institutes rather like a consumptive disease and there were those who tried to apply an antidote, yet with little success, a point which will be discussed later. Table 21 below shows some of the known locations where the game was played, together with the date of introduction.¹

1. See Table 21, p. 337.

Table 21.

The Introduction of Billiards to the Region's Mechanics' Institutes.¹

<u>Institute</u>	<u>Date of introduction</u>
Alnwick	1901
Bishop Auckland	1868
Darlington	1900
Gateshead	1885
Newborough	1891
Newcastle (Free Library & M.I.)	1885
Jarrow	1904
Seaton Sluice	1898
West Cramlington Colliery	1895
West Hartlepool	1904
Wylam	1896

In addition to billiards, other minor games such as bagatelle, draughts, chess and cards etc.also achieved some

1.Sources include M.I., M.Bs. and N.U.M.I., A.Rs.

following. At the West Hartlepool Literary and Mechanical Institution, for instance, games played in 1879 included chess and draughts.¹ Of course, the cost of introducing the game of billiards was relatively high; therefore, some of the smaller institutes never aspired to owning a billiards table, and had to be content with the acquisition of less expensive pursuits such as bagatelle, as was the case at Cambois in 1891,² and at Etherley in 1898.³ But these games neither attained the same popularity nor conversely, the attendant contentions which billiards attracted. And as already suggested, the contentions attending billiards playing were perhaps not, in many instances, without foundation.

Indeed, there were observers who had witnessed the application of the game towards satisfying man's baser instincts. A report to this effect came from the Free Library at Newcastle upon Tyne in 1885. A Mr McKendrick proclaimed at the Annual Meeting of the Northern Union of Mechanics' Institutions, his disapproval of what he described as,

"club dancing and also the encouragement to gambling by use of billiards", he further emphasised that he "for one did not like the idea of Mechanics' Institutes being in any way supported by means of billiards."⁴

Despite such criticism these activities were good financial generators as in fact they proved to be in other parts of the country, when for instance, the St Just Literary Institute,

1. West Hartlepool L.M.I., A.R., 1879.

2. N.U.M.I., A.R., 1891, pp. 34-35.

3. Y.U.M.I., A.R., 1898, p. 79.

4. N.U.M.I., A.R., 1885, p. 31.

"By ridding itself of lectures and purchasing amusements, increased its membership and the finances flourished. In 1896 there was a debt of £86. Within two years this was reduced to a mere £10."¹

However, there was much support for the anti-billiards lobby in the North East. For example, at the Elswick Works Institute in 1885, their delegate to the Annual Meeting of the Northern Union, declared that he, too,

"didn't think billiards and science and art classes progressed well together."²

The above comment, it may be recalled, reflected experience at the London Mechanics' Institution, where even before this date, it had to be decided which path to follow, i.e. that of educational provision or that of entertainment. Also at the Blyth Mechanics' Institute, even as late as 1904, their delegate to the Northern Union's Annual Meeting reported that they too,

"did not encourage billiards, dancing and the like," since in any case, other bodies were catering for such activities. The "Conservative and Liberal Clubs provide billiards, the Anglican and other Churches the dancing - the Mechanics' Institute the literature."³

The above observation simply confirmed that perhaps in many instances the institutes had been coerced, as a result of public pressure to cater for the recreational needs of

1. Roderick, G.W., & Stephens, M.D., 'The Educational Roles of the Mechanics' Institutes', S.I.S., p. 25.

2. N.U.M.I., A.R., 1885, p. 32.

3. N.U.M.I., A.R., 1904, pp. 17-18.

communitites. Restrictions, however, on entertainment were more easily enforced where competitive societies had been established to facilitate such needs: for example, at the Annual Meeting of the Northern Union of Mechanics' Institutions in 1878, it was accepted that the Alnwick Working Men's Club founded in 1876 provided

"for its members that which the Mechanics' Institute could not conveniently supply physical recreation and refreshment"¹

The Alnwick Literary, Scientific and Mechanical Institution was able to avoid the issue of billiards playing until 1901.² There seemed to be plentiful evidence which showed that billiards was not a respectable activity, in fact it had attracted 'bad press' on a nationwide basis. The Nineteenth Century magazine, for instance in 1888, published an article in which it was claimed that,

"the public house and the billiards room have proved the ruin of many hundreds of young clerks."³

Nonetheless, the game persisted throughout the region. Many institutes eulogised its popularity, the Darlington Mechanics' Institution, for example, recorded in 1900, how "well patronized"⁴ it was: other institutes saw it as the pinnacle of recreational activity; and concerning the billiards room at the Jarrow Mechanics' Institute in 1904, it was reported to the Northern Union of Mechanics'

1. N.U.M.I., A.R., 1878, p. 28.

2. See above, p. 337.

3. Roberts, W., 'Life on a Guinea a Week', The Nineteenth Century, Vol. XIII Jan.-Jun., 1888, p. 466.

4. Darlington M.I., M.B., 1871-1911, A.R., 1900.

Institutions, that they possessed "one of the best in town."¹ And by 1916 reports from the Alnwick Institution scarcely mentioned anything but the progress of its billiards facility, the games room, and the library.² Not surprisingly, by the turn of the century billiards had assumed inter-league importance; by 1904 at the West Hartlepool Institution, a

"Billiard (sic) Handicap Cup" was acquired, and

"Bye-Laws for the Billiard (sic) Room were drawn up and ordered to be put up in the Room."³

In the meantime the anti-billiards lobby had lost the battle against the promotion of the game. Its presence could only become of increasing importance to fill the vacuum left by the demise of educational and literary services. However, it must be remembered that as far as the mechanics' institutes were concerned, Brougham had made provision from the outset, not only for adult education, but for other activities, and according to his statement in Practical Observations upon the Education of the People, he had advocated the "promotion of conversation as a most useful adjunct to education";⁴ and where better to engage in conversation, than over an enjoyable activity such as billiards?

The institutes, continued to provide other leisure activities as well as games. Popular activities such as excursions, which had their origins in earlier decades thrived, especially in the wake of expanding railway services.

At Morpeth, for instance, the Mechanics' Institute arranged a

1. N.U.M.I., A.R., 1904, pp. 15-16.

2. Alnwick L.S.M.I., A.R., 1901 to 1916.

3. West Hartlepool L.M.I., M.B. No. 3, Mins. dated 5th Jan., and 12th Jan., 1904.

4. Brougham, H., Practical Observations, p. 8.

comprehensive programme of social and cultural activities in 1888. This included lectures, concerts, recitals and Field Club outings to the Farne Islands.¹ Excursions into the countryside were not always exclusively for pleasure; they could be combined with serious learning. At the Cambois Institute in 1891, a Rambling Club was formed where it was explicitly stated that its activities "aided the study of Botany and Geology".² By 1886 the railway enabled the English Lakes to be easily accessible from the North East, whilst at the same time, once more demonstrating its ability to cope with very large numbers. A typical example of such cross country travel was that provided by the Middleton in Teesdale Mechanics' Institute, when an excursion to Lake Windermere was arranged, and "upwards of 600 passengers"³ were accommodated. Perhaps for many, this was their first visit to such distant places of interest and pleasure.

During this period, too, concerts and exhibitions continued to attract a following. Generally, these were fund-raising events, as was stated in the advertising bill for a concert given in aid of the South Stockton Mechanics' Institute in 1874.⁴ They again provided a focal point within communities where people would no doubt have found encouragement from others to aspire towards improving their creative talents. Certainly there was interest in such pursuits. At the Alnwick Institution in 1882, for instance, an exhibition included local items catalogued as,

1. Morpeth M.I., A.R., 1888.

2. N.U.M.I., A.R., 1891, pp. 34-35.

3. Teesdale Mercury, 7th Jul., 1886.

4. South Stockton M.I., M.B., Concert Bill, 2 Nov., 1874.

"Oil paintings, Water Colours, Sketches (pen and ink)
Engravings, Amateur paintings, China, Needlework,
Books, Curiosities."¹

In addition to receiving instruction within the classroom situation, women were now socially catered for on an equal footing with men. One example from the West Hartlepool Institution in 1900, showed that they were granted the privilege of their "own reading room, this being separate from the gentlemen's reading room and smoke room".² Such provision must have conferred a privileged status to the female membership.

Throughout this period it was evident that recreational activities assumed greater importance than during any previous time. Much of what became common practice between 1874 and 1902 has continued to the present day in local community centres and in institutes not yet extinct. Perhaps, therefore, in the latter decades of the twentieth century it remains that the social-cultural needs of the working-classes have not changed beyond recognition. Social barriers, too, which had initially plagued the institutes were dismantled during the last quarter of the nineteenth century, moreover, greater responsibility for community matters was engendered and religious intolerance declined. Confirmation of this was evident at the Barnard Castle Mechanics' Institute in 1884, when it was noted

"that Churchmen and Non-Conformists work amicably
together on this Committee, politics are ignored

1. Alnwick L.S.M.I., Exhibition Catalogue, Nov., 1882.

2. West Hartlepool L.M.I., A.R., 1900.

and the officers are chosen for what they are."¹

The mechanics' institutes fostered community service such as St John's Ambulance work; examples in the region were found at the Shildon Railway Institute in 1887,² and at the South Stockton Mechanics' Institute in 1889,³ whilst similar works of self-help are still valued by society today. Community spirit seemed to thrive in the fertile ground and more open atmosphere within the institutes, encouraged particularly through activities which combined the diverse talents of many people. Amateur dramatics understandably played a part in this process of social welding as was shown at the Jarrow Mechanics' Institute when a Dramatic Society was formed in 1904.⁴

It must be recognised that before 1900 the region's institutes were far advanced in the process of change. After the turn of the century the introduction of more public libraries and technical colleges hastened the pace, as it did in other parts of the country. At Derby, for example, the Free Library Movement and "the statutory provision of education steered the surviving institutes into the general category of social clubs"⁵, and rather than being in any sense promoter driven as in the early days of the century, they became membership or much more people driven. Since in the North East, it has not proved possible to trace

1. Teesdale Mercury, 30th Jan., 1884.

2. Shildon M.I., M.B., 1874-1889, Min. dated 5th Dec., 1887.

3. South Stockton M.I., M.B., 1874-1889, Min. dated 1st Oct., 1889.

4. N.U.M.I., A.R., 1904, pp. 15-16.

5. Chadwick, A.F., 'Derby', p. 302.

the origin of any technical college or institution of University status to a former mechanics' institute foundation, it is conclusive that the Local Authorities finally distanced themselves entirely from the Movement as soon as was expedient to do so. However, despite the lack of relatively humble origin among the region's present day institutions of higher education, one institute deserves special mention, i.e. Elswick Works Institute. It was for many years an outstanding North East Institute which tried, perhaps not consciously, to emulate the London Institution in so far that it made exclusive provision for both evening and day science classes.¹ In fact after Armstong's death in 1900, and until 1913 the educational role of the Institute was recorded in the Annual Reports of the Northern Union of Mechanics' Institutions where classes were described as "prosperous". Consequently, an application was confidently, submitted to the

"Board of Education for the recognition of their Day
Classes as a Junior Technical School."²

Only a minority of institutes, however, "made an important feature of day-school provision", and where this was the case they "frequently developed into secondary schools under the control of Local Authorities".³ Instances of such progression have not been identified within the North East region, not even at Elswick.

Yet at the turn of the century, it was evident that many mechanics' institutes had neither quietly faded out nor failed to leave any permanent effect on the educational,

1. Kelly, T., G.B., p. 275.

2. N.U.M.I., A.R., 1913, p. 19.

3. Kelly, T., G.B., p. 275.

literary and social life of the region, or indeed, upon that of the country as a whole.¹ As the twentieth century advanced, the forfeiture of their tripartite function was completed as the 'seeds of dissolution' were now flourishing in other ground. Nonetheless, many mechanics' institutes left behind monuments in stone to an often underrated and misunderstood Movement of which contemporary society is largely ignorant, but which was dedicated to the improvement of the working-classes.

1. Kelly, T., G.B., p. 276.

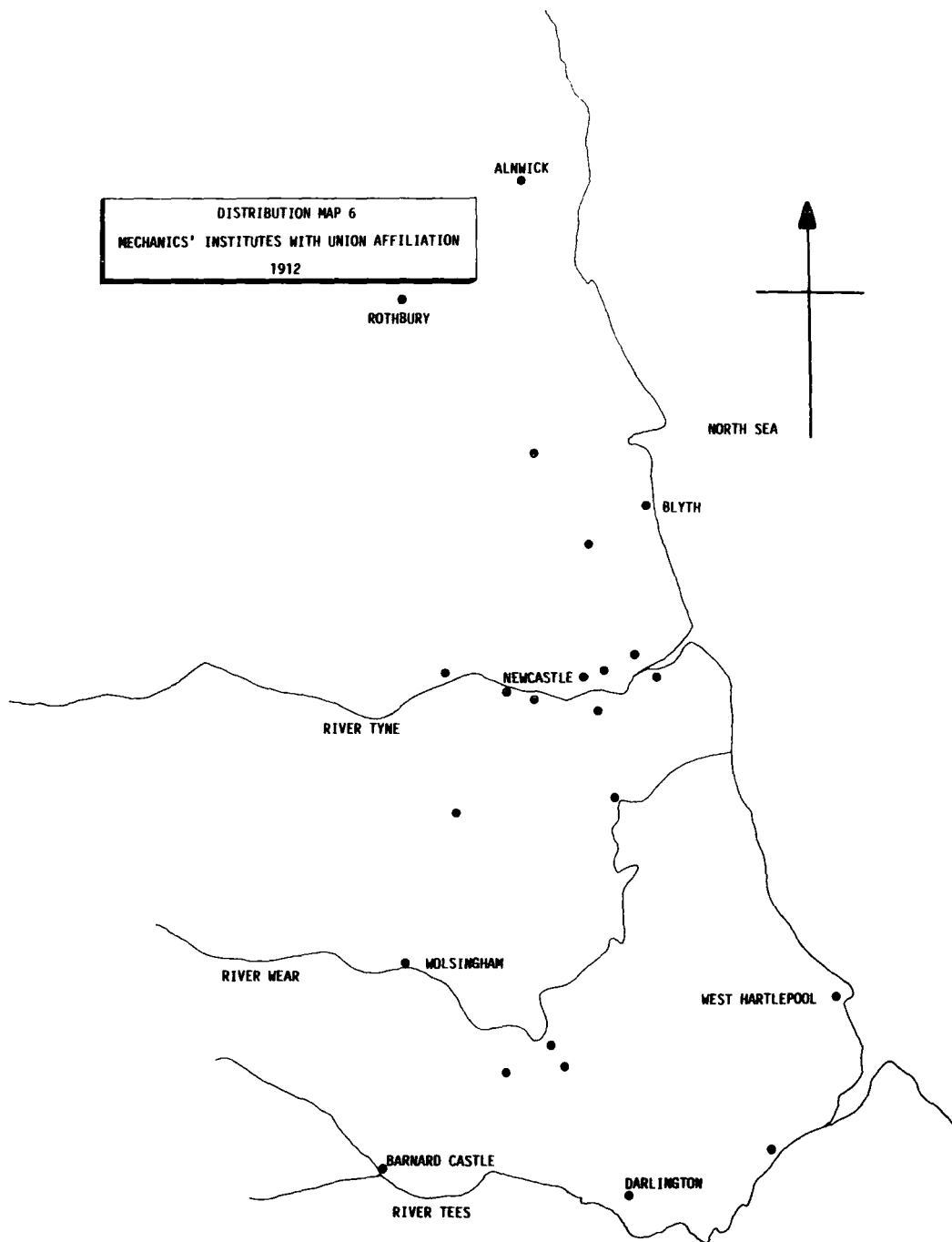
Chapter 12.

Epilogue: the Region's Mechanics' Institutes in the Twentieth Century: 1902-1913.

The purpose of this epilogue is to analyse the state of the Mechanics' Institute Movement in the North East from 1902 until just before the out-break of the Great War in 1914, a period during which the institutes either faced extinction or the acceptance of a revised role. By the end of the nineteenth century institutes which had been either closed or stripped of their educational and literary role, were generally located in the region's major industrial centres i.e. Teesside, Wearside and Tyneside. Reference to Distribution Map 6 on page 348 illustrates the point since in comparison with other periods these areas suffered most,¹ Teesside and Wearside being especially affected. The Mechanics' Institutes in Middlesbrough, Darlington, Sunderland and Newcastle, had all become casualties in the face of competition from services now increasingly provided by Local Authorities. That such urban institutes became major targets was not surprising, since it was in these locations that new purpose-built technical colleges were most strategically placed to serve the needs of surrounding industries and communities. In some instances, however, survival was achieved, albeit in the guise of something very different from original aspirations. Where this was the case, as for example, at Darlington and West Hartlepool, emphasis was now centred upon the development of their social and cultural role. On the other hand those institutes in which

1. See Distribution Map 6, p. 348.

DISTRIBUTION MAP 6



educational and literary and activities remained intact after the turn of the century, simply awaited their destiny. Their characteristic role would in due course be modified according to the gathering momentum of external pressures which demanded an equality of educational and literary service throughout the region. In view, therefore, of the state of flux in which many of the remaining institutes found themselves, Tylecote's comment as to the indeterminate nature of a mechanics' institute in a Lancashire or Yorkshire town "about the year 1850", was once more appropriate, since again, "it is not possible to say in the early years of the twentieth century what precisely it symbolised."¹ Thus, an attempt to formulate a meaningful statement that would encapsulate the role of the institutes within a specific regional setting at any arbitrarily selected date, is destined to be inconclusive. There are perhaps as many definitions as there were institutes. Indeed, it may be recalled Inkster had claimed for a much earlier period that such inevitable variety was due to their "development under local imperatives."² So, too, was their final phase of development. Therefore, the response of the region's institutes will be considered within the context of continuing Local Authority provision for technical education and library facilities.

After more than three quarters of a century since the establishment of the first mechanics' institution in London, a casual glance at the statistics produced by the Mechanics'

1. Tylecote, M., L. & Y., p. 292.

2. Inkster, I., 'Popularised Culture and Steam Intellect. A Case Study of Liverpool and its Region, Circa 1820-1850s', S.I.S., p. 44.

Institute Unions suggests that the Movement in the North East was in a relatively healthy state. According to lists published by the Northern Union in 1900, 1902 and up until 1912 the membership returns were 66, 65 and 77 respectively.¹ Once more these statistics included a high proportion of small rural reading rooms and certain other institutes, some of which confirmed the developing emancipation of women. A Women's Literary Club at Embelton, for instance, was included in the list for 1912.² Perhaps this was an early precursor of the Women's Institute Movement, which became a vigorous voluntary organisation embracing domestic educational objectives after the end of the war.³ But in returning to the task of trying to define the 'last days' of the main-stream Movement, it seems that nation-wide, the event occurred sometime after 1910. Lea in his research plotted the decline, and found that

"by 1910 only ninety three Mechanics' Institutes existed declining to fifteen in 1948."⁴

But it is unlikely that this information can be relied upon, since Lea simply referred to lists contained in the Libraries, Museums and Art Galleries Year Book and the Library Association Year Book respectively. Nonetheless, against this overall record, the North East was exceptionally successful. In the 1912 list of institutes affiliated to the Northern Union shown in Table 22 on pages 352-353, twenty three properly designated mechanics' institutes and kindred

1. N.U.M.I., A.Rs., 1900, 1902, 1912.

2. ibid., 1912.

3. Peers, R., op. cit., pp. 95-96.

4. Lea, J.T., The History and Development of the Mechanics' Institutes, p. 10.

societies may be identified as still existent.¹ Even so, this figure represented a decrease of around 75% over the longer term, since between 1824 and 1902 ninety five mechanics' institutes had been established. The implication of Lea's findings, however, was that by the middle of the twentieth century or shortly afterwards, all mechanics' institutes might be expected to have been finally removed from the English scene. Such an assumption is reasonable, since even by 1902 many had no alternative than to accept either closure or the development of their social role. In view of such impending decisions, however, the role of most of the remaining institutes became increasingly associated with the "revolution of increasing leisure".² And retrospectively, if many public libraries and technical colleges can trace their origin to the literary and educational facilities first developed by the mechanics' institutes, then the legacy of the social and cultural element is surely that of community centres, which today for many are an essential social experience. The 'social' option, and hence, survival, was in fact successfully pursued by most of the remaining institutes during the period 1900-1913. How this was achieved within the North East region may be seen from a glimpse of the work of the institutes over that brief span. However, a comprehensive account of their twentieth century role remains outside the scope of this exercise. Furthermore, an investigation of sources other than the Northern Union's or the Yorkshire Union's Annual Reports would be necessary since by this time, these documents were providing only superficial reports.

1. N.U.M.I., A.R., 1912. See Table 22, p. 347.

2. Roderick, G.W., & Stephens, M.D., 'Steam Intellect Created - The Educational Roles of the Mechanics' Institutes', S.I.S., p. 26.

Table 22.

Mechanics' Institutes and Kindred Societies existing in 1912.¹

Durham

Barnard Castle M.I.

Bishop Auckland M.I.,

Blaydon & Stella M.I.

Chester-le-Street M.I.

Darlington M.I.

Felling M.I.

Gateshead L.S. & M.I. Soc.

Jarrow M.I.

Leadgate Polytechnic I.

Shildon Railway I.

South Stockton M.I.

West Auckland M.I.

West Hartlepool L.M.I.

Wolsingham M.I.

1. Source, N.U.M.I. and Y.U.M.I., A.Rs.

Northumberland.

Alnwick S.M.I.

Blyth M.I.

Cramlington Village M.I.

Elswick Works M.I.

Morpeth M.I.

Newcastle Free Library & M.I.

Rothbury M.I.

Wallsend Café Club

Wylam R.I.

Grimshaw offered a reason for this. He suggested that attendance at the early twentieth century gatherings of the Northern Union of Mechanics' Institutions quickly degenerated into nothing more than a pleasant day out for the delegates, until it finally ceased its activities in 1913.¹

The 'leisure revolution' was a continuing and gradual process, as indeed was the implementation of Local Authority provision for public libraries and technical education, whilst the provision of the latter both nationally and in the

1. Grimshaw, R.E., The Northern Union of Literary, Scientific and Mechanics' Institutes, p. 14.

North East was "slow before 1914".¹ Consequently, throughout the early years of the century both literary and educational facilities if required, were provided in accommodation controlled by some of the larger institutes. For example, in 1906 at the Jarrow Mechanics' Institute, certain lectures were still a "principal feature,"² and were "well supported" until at least 1907.³ Presumably after this date alternative facilities became available in the area, precipitating the demise of what by now seemed to have been a minor educational role. Confirmation of the withdrawal from educational provision was evident by 1912, when it was reported that "no lectures"⁴ were given in that year. In contrast, however, at the Blaydon Mechanics' Institute, all departments continued in use until 1913 and possibly beyond, when both classes and lectures attracted students,⁵ thus servicing local requirements. Generally, though, even before the outbreak of war it became obvious that the shift towards an exclusively social function within most of the region's institutes was completed, although regretfully for some. Sentiments expressed by the Wylam Reading Institute delegate to the Northern Union's Annual Meeting in 1912, seemed to confirm on behalf of institutes for the whole region, the inevitable course of future events. He lamented that "people did not nowadays appreciate the labours of Mechanics' Institutes."⁶ Further support for this opinion was expressed

1. Nicholas, S.J., 'Technical Education and the decline of Britain, 1870-1914', S.I.S., p. 86.

2. N.U.M.I., A.R., 1906, pp. 15-22.

3. ibid., 1907, p. 17.

4. ibid., 1912, p. 15.

5. ibid., 1913, p. 16.

6. N.U.M.I., A.R., 1912, p. 18.

at the same meeting by another delegate. The representative from the Chester-le-Street Mechanics' Institute, too, claimed that

"the general signs of decay" were "due to changing tastes", when the people of the "new age must have everything free."¹

Clearly, the introduction of rate support for both library and educational facilities had ushered in new attitudes; the educational and literary needs of society were now considered to be the responsibility of the State. Voluntarism, in so far as educational and literary provision was concerned, was dead. The accent on leisure, therefore, continued to gain ground within the Movement throughout the region. It was the remaining element upon which the survival of institutes depended. At the Felling Mechanics' Institute, for instance, the game of snooker introduced in 1911, was by 1912 reported as being a "huge success", whilst apparently it was played "all purely for love".² Probably the latter condition was carefully reported in order to allay fears that the institutes of the 'new age' had not abandoned the moral principles of former times when they had firmly opposed the use of such games for gambling. Alongside the rapidly developing social orientation, most institutes retained their collections of books, whilst also continuing to provide traditional reading material such as daily newspapers and magazines. Examples of such provision at the Elswick, Newborough and Chester-le-Street Institutes confirm its widespread popularity throughout the region.³ So popular in

1. N.U.M.I., A.R., 1912, p. 18.

2. loc. cit.

3. N.U.M.I. A.R., 1906, pp. 15-22.

fact was the demand for reading material that at Earsdon in 1907, the village supported two reading rooms.¹ The various leisure orientated features of the institutes were, of course, regarded by most committees as their last hope of clinging to a useful purpose. But a few institutes found themselves in conflict with the general tide of change. At the Chester-le-Street Institute, for instance, the committee doggedly persisted to ignore the leisure trend now prevalent. Their delegate reported to the Northern Union's Annual Meeting in 1906, that unlike others, they remained "purely literary" and "provided no games or recreation".² But institutes tenaciously holding on to an outmoded role, were, judging from available Union Reports, a minority. Acknowledgement, however, must be made of the fact that where both games and literary facilities were allowed complementary status, there was always an element of incidental education present through the provision of reading material.

A significant number of institutes affiliated to the Northern Union in the early 1900s were no longer designated 'mechanics' institute', the majority being reading rooms or social clubs. And as Lea has pointed out, by the outbreak of war in 1914 it would seem that for this reason, there was little justification for the Union's continued existence; a formal organisation was hardly required to oversee the activities of the collection of social clubs which had evolved, and of which few troubled to do more than to pay their affiliation fee. Nonetheless, for almost a decade and a half the social revolution infused new life into the flagging Movement in the North East region. This was further endorsed

1. N.U.M.I., A.R., 1907, pp. 21-22.

2. ibid., 1906, pp. 15-16.

by the membership returns of the institutes during the early years of the century. After having grappled with problems caused by fluctuations in membership, the institutes were now in most instances experiencing expansion at an unprecedented rate. Reference to Table 23 below, illustrates the healthy state of affairs generally.¹ But it does more than that. Upon closer examination it also highlights the risk involved in rejecting the 'leisure revolution'. For example, the Institute at Chester-le-Street which had always been an exponent of traditionalism, was by 1910 attracting a mere fifty members in contrast to the thriving state of most others,² and in particular to that of the village institutes.

Table 23.

Membership of Institutes 1906-1913.³

<u>Institute</u>	<u>1906</u>	<u>07</u>	<u>08</u>	<u>09</u>	<u>10</u>	<u>11</u>	<u>12</u>	<u>13</u>
Blyth M.I.	+50	-	-	430	-	450	-	-
Chester-le- Street M.I.	+some	-	-	-	50	-	-	-
Bedlington M.I.	200	-	-	-	-	-	-	-
Jarrow M.I.	1,000	1,200	-	-	-	-	814	-

1. See Table 23, pp. 357-358.

2. N.U.M.I., A.R., 1910, pp. 15-16.

3. Statistics taken from N.U.M.I., A.Rs.

Elswick M.I.	6,170	-	-	6,704	-	-	8,105	-
	students							
Newborough								
R.R.	80/90	-	-	80	60/70	-	-	-
Amble R.R.	200	-	-	-	-	-	-	-
Wylam R.I.	100	-	-	-	96	-	-	-
Felling M.I.	-	-	-	200	-	108	-	-
Seaton								
Delaval R.R.	-	-	-	640	-	-	730	-
Morpeth M.I.	-	-	-	135	-	-	-	-
Ashington								
R.R.	-	-	-	-	1,500	-	-	-
Seaton								
Sluice R.R.	-	-	-	-	-	-	240	-

Information concerning the social classes of institute memberships was not recorded in the Northern Union's reports, therefore, it would be unwise, or historically unacceptable to guess at the possibilities. Grimshaw, however, had no doubt in declaring that the social bias of members at industrial centres such as Elswick, Jarrow, Blaydon and the village institutes was working-class.¹ Such an assumption was, of course, supported by the nature of these communities

1. Grimshaw, R.E., op. cit., p. 25.

which were economically dependent upon engineering, mining and agriculture.

Concerning the post 1850 mechanics' institutes, Kelly rightly claimed that "in a sense they died", and that "in a sense they also lived".¹ Significantly, it has been noted that mid-nineteenth century pronouncements of 'failure' were premature, as were similar assessments at the end of the century, especially within the context of an obvious need for the provision of technical education, public libraries and recreational activities.

Although the progress of the Movement in the North East was terminated in 1913, there is one further statement to be made. This must necessarily refer to those remaining institutes, which even today defy the forces of extinction and survive under the title of 'Mechanics' Institute' or of some other closely related designation.

Within the North East region it may be recalled, several such institutes have been identified; for instance, at Barnard Castle, at Darlington and at Bishop Auckland. These presently retain the title 'Mechanics' Institute but are simply social clubs: the works-based Railway Institute at Shildon and the Athenaeum at West Hartlepool also survive as social clubs. Equally, some of the institute buildings dating from the middle of the nineteenth century are a tribute to Victorian constructional excellence. The Wylam Reading Institute, for example, which emulated the most successful in terms of size and function, is still maintained to the highest standards.²

1. Kelly, T., G.B., p. 271.

2. See Plate 4, p. 206.

None, however, claim any educational commitment within their respective communities; they simply serve as leisure centres where billiards, snooker, social functions and the bar feature highly among their services. Forgiven they must be for having discarded the principles and practices determined by their original promoters, although occasionally the ghosts of past figures may be resurrected in the hope of resolving late twentieth century difficulties. At Darlington as recently as 1990, problems concerning the future of the Institution illustrate the point. Promoted initially by leading figures of staunch Quaker persuasion, it was deemed convenient for the members to remind the townspeople through the local press of its temperance foundation, as part of their bid to forestall an offer received for the conversion of the establishment into a wine bar. Despite the building's near state of collapse, the challenge claimed news worthiness, since there had been

"considerable protest by people in the town who felt a building first constructed by a Quaker Society, pledged to temperance and good works, was an unsuitable venue for a wine bar".¹

The ensuing controversy was of short duration and ultimately of no avail. The building was eventually sold to a developer, whereupon application for a licence to sell liquor was made through the firm's Morpeth solicitors. Today, the former Mechanics' Institution is re-furbished, and has opened as a night club and bar known as 'The Institute'.² Consequently, the members of the Institution, although now few in number, were displaced, but an arrangement was subsequently made with the new owners whereby they were granted the use of adjacent

1. Darlington & Stockton Times, 6th Oct., 1990.

2. Darlington Advertiser, 25th Jan., 1990.

premises at a peppercorn rent of £25 per annum for twenty five years.¹

The Institution's secretary presently claims a membership of about forty five, whose ages range from 50 to 80 years. He further admits to the existence of three clearly defined social groups which use the snooker tables at different times of the day. Apparently the retired bankers, solicitors and schoolmasters meet in the mornings, the blue-collar workers in the afternoons and those who may be considered to be working-class, meet in the evenings. Although the Institution has been described as an example of "hopes dashed and ideals unfulfilled", it has, nonetheless, finally reaped its reward in twentieth century values. From the proceeds of the sale of the building, the Institution received the sum of £350,000 which currently presents the membership with the problem of how best to dispose of such considerable assets.² It may be assumed that similar good fortune may not have been the experience of many other surviving institutes on the occasion of their dissolution. This was certainly felt on the occasion of the dissolution of the Wolsingham Mechanics' Institute in 1966. After having fallen into disrepair and following a period of closure, the building and its literary contents were sold and the proceeds deployed by the local council for the refurbishment of the town hall. The remaining committee member Mr A. Burn of Wolsingham, expressed disapproval of the

1. Conversation with Secretary, Mr A.E. France.

2. Lucas, M., 'The Growth of Technical Education in Darlington: 1825-1915,' (M.Ed. thesis, Durham, 1967), pp. 108-109.

Institute having become the local Working Men's Club.¹

Uniqueness occurs in a variety of forms among surviving institutes, as is evident from an example in another part of the country.

The present status of the Literary and Scientific Institute at Highgate, Islington, London was the subject of an article which appeared in a recent edition of the The Times Saturday Review. The author had discovered that the Institute

"is still the centre of village life, where the villagers meet their neighbours for lectures and feasts, and sometimes gossip take and sometimes tea".

and to add to their pleasure, they, like members of past generations

"light a proper fire every morning at ten in the reading room, every Thursday evening at 8-15pm, September through to May, there is that almost forgotten Victorian art form, the Public Lecture more than 200 villagers regularly turn out to hear a talk on a learned or interesting topic".²

No indication was given concerning the social class to which the 'villagers' belong, but the clues would seem to suggest that this is a middle-class institution, where, as in the mechanics' institutes of former times, there was no embarrassment in the middle-classes being associated with organisations designated institutes. In fact, £300,000 has recently been raised for improvements, "more than half of which came from the members".³ Perhaps there is a sense of

1. Conversation with Secretary, Mr A. Burn.

2. The Times Saturday Review, 17th Nov., 1990.

3. The Times, 6th Nov., 1993.

pride in adhering to a terminology from the past; for instance, promoters of the more recent Working Men's Club Movement were noted for their "persistent efforts to add the word 'Institute' to that of 'Club'". They believed that the term 'Institute' was synonymous with the inclusion of the respectable and elevating 'Educational Element'.¹ If, therefore, it is possible to identify similarities presently existent within those remaining Literary and Scientific Institutes, Mechanics' Institutes and Working Men's Clubs, then perhaps it is due to the past success of these organisations through whose efforts, as Keith Waterhouse comments, "the working-class has finally passed its sell by date".²

1. Solly, H., op. cit., p. 55.

2. Daily Mail, 29th Oct., 1990.

Conclusion.

Although in 1902, the future role of mechanics' institutes was more readily definable than in 1851, both dates might be regarded as significant watersheds in the history of the Movement. 1851 was certainly a point in time for reflection upon past achievement, even if the previous twenty five years had simply brought more clearly into focus the educational, cultural and social needs of a growing population of working-class artisans which in the main seemed beyond the resources of a typical mechanics' institute. The future, moreover, was overshadowed by legislation contained in the Public Libraries Act of 1850. If the development of public libraries had proceeded rapidly, then many more institutes both in the North East and elsewhere would have surely forfeited not only their most popularly supported feature, but also their existence. Looking ahead, therefore, was unlikely to have proved an optimistic exercise, since it was not yet known that within two years, a new lease of life was to be offered to those institutes which were well enough endowed to participate in the scheme for science instruction set up by the Department of Science and Art in 1853. Surrounded by such uncertainties, the Movement generally had no alternative other than to embrace leisure pursuits, and to perhaps reflect with some covert satisfaction upon the young fruit born from the 'seeds of its own dissolution'. Eventually, however, the Movement received Government recognition until alternative arrangements were made for the provision of technical instruction much later in the century. By 1902, the die was irrevocably cast, and the mechanics' institutes were in the process of losing their claim to both library and educational provision.

In the past, perhaps too many general conclusions concerning the Movement were based upon the limited scope of research

undertaken by commentators such as Coates and Hudson who were nearer in time to the Movement's development than were, for example, Tylecote and Kelly, and others who have been more recently involved. Many statements concerning the Movement's contribution to society, therefore tend to have been limited to pre-1851 experience. The post 1851 progress of the Movement was, however, equally relevant and serves as an opportunity to re-assess some of the more general conclusions. Even so, the many explicit and implicit generalisations recorded in the present work must be treated with caution because of a lack of detailed information.

The period after mid-century highlighted the growing diversity of the institutes; of course, even during the earlier part of the century the trend towards diversity was present. In view of this an awareness of the fact that individual institutes displayed specific characteristics can not be ignored. For the pre-1851 period Tylecote declared that "most mechanics' institutes were not proletarian based",¹ which was generally true. But the contribution of the post 1851 period with its several exceptions to this premise must be accorded a place in any general account of the Movement's history. In view of this, those institutes promoted by working-class initiative must have learned from bitter experience certain facts of life endemic within Victorian Britain. Their educational limitations and financial vulnerability were often confirmed, which in turn confirmed their dependency upon middle-class philanthropy for much of the century. But such experience must have provided useful lessons in the struggle for independence. And wherever success attended schemes originating from 'below', the usual

1. Tylecote, M., L. & Y., p. 292.

"suspicion and resentment of the poor"¹ towards education, might to some extent have been neutralised.

Little evidence has been found which suggests any strength of either political or trade union involvement on the part of the region's institutes. However, there were isolated examples. At Barnard Castle, the Institute did support The Early Closing Association in their bid for shorter working hours,² and the Institute at Sunderland was most probably associated with Chartism through the membership of two prominent Chartists, i.e. George Binns and Morgan Williams.³ But when considering the large number of institutes within a geographical region as vast and as varied as the North East, such exceptions were to be expected since organic institutions were places wherein the law of natural selection might be evident. Such instances undermine considerably the case made out for the stereotype mechanics' institute.

Nonetheless, and with respect to variation amongst the mechanics' institutes, general conclusions are necessary if an overall appreciation of the Movement's purpose is to be provided. This may only be based on common experience.

It would be difficult to argue that the Movement's activities precipitated such immediate results as did, say, the contemporary Primitive Methodist Revival. Yet, if it moved less spectacularly, its legacy viewed from the present time

1. Tylecote, M., L. & Y., p. 292.

2. Barnard Castle M.I., M.B., Min. dated 14th Jan., 1850.

3. Sunderland Herald, 3rd Sept., 1841. See also Kelly, T., G.B., p. 252.

was more effective in the longer term. In sympathy, however, with the Primitive Methodists and other working-class bodies it was realised above all that "if new opportunities were to be grasped" then the need to be supplied was that of "higher education".¹ But from the outset the way forward was strewn with obstacles such as a lack of elementary knowledge upon which to build. Retrospectively, therefore, the initial failure of many of the region's institutes along with those elsewhere to sustain programmes of scientific lectures was actually beneficial.² This proved to be the pivotal point of the Movement's survival during the early years of its development when basic education classes became popular. The very nature of voluntarism introduced a degree of selectivity into the life of the institutes which could not be ignored. Significantly, clients exercised their freedom of choice expressly for the provision of library and newsroom facilities, for remedial education classes and for the development of social and cultural experiences. Survival or regeneration, therefore, became dependent upon the institutes' ability to respond positively towards the needs of their clients. And in this respect as Inkster has pointed out, "steam intellect" had indeed taken flight in "the years between the clamour for reform and the Great Exhibition".³

Despite Government support for technical instruction in the 1850s and the 1880s followed by the gradual implementation of Forster's Elementary Education Bill of 1870, progress in

1. Peers, R., op. cit., p. 50.

2. Tylecote, M., L. & Y., p. 293.

3. Inkster, I., 'Popularised Culture and Steam Intellect: A Case Study of Liverpool and its Region, Circa 1820-1850s', S.I.S., p. 55.

establishing centres providing technical education was slow and only fully achieved after 1914. Generally, this was due to its rejection on the part of employers, an attitude unveiled in certain instances in the North East. But as has been recently suggested, if "deficiencies in technical and scientific education" existed they "were a cause without effect".¹ Consequently, it would seem that British on-the-job training was not inefficient in providing skilled manpower for the factories and engineering industries. And as a result, if a strong case can't be made for a highly essential input of technological expertise from the mechanics' institutes of the second half of the century, then it begs the question, what, in fact was their role at that time?

Certainly, technical instruction was successfully purveyed by many of the larger institutes but further achievements were evident as democratising influences gained ground. For example, the inclusion of women within the institutes was encouraged, whilst provision was extended towards making available many subjects which had particular attraction for females. The acquisition of office skills and cultural skills such as painting, needlework and singing were enthusiastically taken up. In addition, savings bank schemes, recreation facilities, exhibitions, musical and social events also became features of many institutes. Traditional social barriers, too, began to fall. For instance, antagonism between the members of the Established Church and the Non-Conformist chapels began to disappear.²

Although it might be claimed that middle-class values were

1. Nicholas, S.J., 'Technical Education and the Decline of Britain, 1870-1914', S.I.S., p. 89.

2. Teesdale Mercury, 30th Jan., 1884.

overtly encouraged within the institutes, then those same values surely led towards the social emancipation of a previously disadvantaged section of society. Educational advancement and the enjoyment of social events are today brought into focus in the 'offspring' of the Movement, i.e. in public libraries, in technical colleges and in community centres, where a cross-section of society is to be found pursuing the common goals of self-improvement and of self-expression. If this is, in part, the legacy of the mechanics' institutes founded during the nineteenth century in the towns and villages of the North East, then it is a legacy which contributed towards the making of both Victorian and twentieth century England.

Appendix I

Mechanics' Institutes and Kindred Societies and Miscellaneous
Institutes established in the North East of England: 1824-
1902.

The list has been compiled from various sources including:-
Census of Great Britain, 1851, Education.

Coates, T., Report of the State of Literary, Scientific and
Mechanics' Institutions, (1841).

Department of Science and Art, Annual Reports.

Hudson, J.W., The History of Adult Education.

List of M.Is. & L. Is. in England: 1851.

Kelly, T., George Birkbeck, Apendix VI.¹

Langley, J.B., Report of the Select Committee on Public
Libraries, (1849).

Local Histories.

Local Press Reports.

Mechanics' Institute Minute Books.

Northern Union of Mechanics' Institutions and Yorkshire Union
of Mechanics' Institutions, Annual Reports.

Unpublished theses.

The institutes have been arranged chronologically under
'County' headings and further classified under the headings -
'Mechanics' Institutes and Kindred Societies' and
'Miscellaneous Institutes'.

Full titles of institutes have been given where known.

Certain observations have also been included in the Table.

* Denotes probably Reading Room.

1. Kelly's list is complete to 1851.

DURHAM

Mechanics' Institutes and Kindred Societies

<u>Date</u>	<u>Name of Institute</u>	<u>Observations</u>
1824	Sunderland M.I.	
1825	Chester-le-Street M.I.	
	Darlington M.I.	
	Durham M.I.	
	Hamsterley M.I.	
	South Shields L.M.S.I.	
	Stockton M.I.	
1826	Wolsingham M.I.	Not listed by Kelly
1828	Bishop Auckland M.I.	Not listed by Hudson
1832	Barnard Castle M.I.	
1833	Old Hartlepool M.I.	
	Shildon M.I.	Kelly gives foundation date 1846.
<hr/>		
1836	Burnhopefield M.I.	Not listed by either Hudson or Kelly
	Gateshead M.I.	
1837	Sunderland M.I.	Re-established
1840	Darlington M.I.	Re-established
1841	Low Fell M.I.	Not listed by either Hudson or Kelly
1842	Pittington L.S.I.	
1844	Middlesbrough M.I.	Kelly suggested foundation date 1836?
1845	Etherley L.I.	
	West Auckland M.I.	
1846	The Londonderry L.S.I., Seaham Harbour. Shotley Bridge M.I.	Not listed by either Hudson or Kelly
<hr/>		
1847	Blaydon & Stella M.I. Middleton in Teesdale M.I.	Not listed by Hudson
	Sunderland Mechanics' and Apprentices' I.	
	Winlaton L.M.I.	
1848	Crook M.I.	
	Dunston M.I.	Not listed by either Hudson or Kelly

1849	Sedgefield I.L.S.	
	West Hartlepool L.M.I.	
1850	Easington Lane M.I.	Not listed by either Hudson or Kelly
	Egglestone M.I.	Not listed by either Hudson or Kelly
	South Shields	Not listed by either Hudson or Kelly
	Workmen's I.	
1851	Castle Eden	
	Ferryhill & Chilton	
	Colliery Library & L.I.	
	Leadgate Polytechnic I.	
	Rainton M.I.	Not listed by Hudson
	Swalwell M.I.	Not listed by Hudson

1852	Houghton-le-spring M.I.	Became Church Institute
	Staindrop M.I.	
1855	Consett M.I.	
1856	Tow Law M.I.	
	Witton Park M.I.	
1860	Annfield Plain	
	Birtley L.I.	
	Mickleton-in-Teesdale M.I.	
	Spennymoor R.R. & Library	
1861	Cotherstone M.I.	
	Jarrow M.I.	
1863	Gainford L.I.	
	South Stockton M.I.	

1877	Fatfield & Harraton Miner's M.I.	
	Perkinsville M.I.	
1886	Blackhill M.I.	
	Cowpen M.I.	
	Felling M.I.	
	New Copley Colliery M.I.	

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Miscellaneous Institutes.

1848	Greenside*	
1849?	Bishop Wearmouth M. & Apprentices' Library	

Westgate L.I.
Hetton-le-Hole
Reading Society

Not listed by
Kelly
Not listed
either by Hudson
or Kelly

1852	Felling Chemical Works I.
	Washington Chemical I.
1853	Marley Hill I.
1857	Washington Colliery I.
1861	Carville I.
	South Hetton
1862	High Felling I.
	Stockton & Darlington Railway Institute, Darlington
1866	Eighton Banks I.
1870	Willington Miner's I. & Library
1873	Downs & Eppleton*
	Etherley Dene*
	East Rainton
	Gateshead Parochial I.
	Kibblesworth*
	Low Moorsly*
	Philadelphia*
	Springwell*
	Waldridge* Colliery*
	Wrekenton

1875	Houghton-le-Spring Colliery Reading Society
1876	Peases West Miner's I.
	<u>Esh - Waterhouses</u> *
1877	High Grange
	Howden-le-Wear British Workmen's Hall
	North Hetton Colliery
	Thornley R.R.
	Tudhoe Colliery R.R.
	Willington Colliery R.R.
	Willington Mutual Improvement Society & R.R.
1880	Brancepeth L.I.
	Dipton R.R.
	Seaham British Workmen I.
	Shiremoor Colliery I.

1883	Cockfield Escomb R.R.	Not determined
1886	Byers Green R.R. & I. Croxdale Colliery Literary & Social I. Tow Law Co-operative Society	
1887	Leamside Working Men's I.	
1888	Ouston Miner's I.	
1889	Leasingthorne Colliery West Rainton Literary & Reading Society	
1894	Middle Rainton Workmen's Stanley Miner's I. Whitburn*	
1896	Ravensworth Colliery R.R.	

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Mechanics' Institutes and Kindred Societies

<u>Date</u>	<u>Name of Institute</u>	<u>Observations</u>
1824	Alnwick S.M.I. Newcastle S.M.I.	
1825	Morpeth M.S.I. Hexham L.S.I. Tynemouth S.M.I.	
<hr/>		
1835	Corbridge Library & R.R.	
1836	Walker Iron Works M.I.	

1847	Blyth M.I. Howden M.I.	Not listed by Kelly
1848	Bedlington M.I. Elswick Engine Works L.M.I. Framlington M.I.	Not listed by either Hudson or Kelly
1849	Wooler M.I.	Not listed by either Hudson or Kelly
1850	Wallsend M.I. Wylam Reading I.	Not listed by Hudson Not listed by either Hudson or Kelly
1851	Bellingham M.I. Berwick upon Tweed M.I. Haltwhistle M.I. East Howden M.I. Newcastle & Carlisle Railway I. Rothbury M.I.	Not listed by either Hudson or Kelly Not listed by either Hudson or Kelly Not listed by Hudson Not listed by Hudson

Warkworth M.I.

Not listed by
Hudson

Willington Quay M.I.

1853	Seaton Sluice M.I.
1855	Walker M.I.
1856	Scotswood M.I.
1859	Cramlington M.I.

1880	Backworth M.I.
	Heworth High Lane Mechanics'
1883	Wallsend Café Club

NORTHUMBERLAND

Miscellaneous Institutes

<u>Date</u>	<u>Name of Institute</u>	<u>Observations</u>
1835	Haydon Bridge News Room & Library	Not listed by Hudson
1844	Wylam Colliery I.	Not listed by either Hudson or Kelly

1847	Ovingham R.R.	Not listed by Kelly
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1849	Humsheugh Reading Society	Not listed by either Hudson or Kelly
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1852	Blanchland R.R. & Literary Society
1853	
1855	Alwinton Reading Society Bywell Library & R.R. Craster R.R. Newhouse* Seaton Delaval*
1856	Allen Smelt Mill* Biddleston Reading Society Howick R.R. Killingworth R.R.
1857	Cramlington Colliery Earsdon R.R.
1858	Bebside*
1859	Newbottle* Seaton Burn* Windy Nook*
1860	Netherton* Stephenson Memorial I. Newcastle
1861	Shilbottle*
1862	Burradon* Dudley* Hawkeswood* Scotswood St Anthony's Church I.

1863 West Swalwell*
1864 Newcastle Working Men's Club
1873 Amble*
Ashington*
Broomhill*
Bulman Village*
Cambois*
Choppington*
Dinnington*
Earsdon*
Hauxley*
High Allotment*
Newbiggin by the Sea*
North Seaton*
Ponteland*
South Benwell*
West Sleekburn*

1874 Tanfield*
1875 Hebburn St Andrew's Church I.
New Hartley*
Shank House*
1877 Nursery Cottage
British Workmen, Newcastle
Throckley Colliery R.R.
1880 Alnwick Club & R.R.
Church of England I.
Newcastle
Holywell Institute
Newburn Working Men's Club

1883	Thropton*
1886	Beadnell News Room
	Byron Colliery I.
	Chatton R.R.
	Embleton R.R.
	Elswick Leather Works
	Reading Society
	Longbenton Temperance
	Library & R.R.
	North Sunderland Book
	Club & R.R.
	St Thomas' Mutual
	Improvement Society
	Stamfordham R.R.
	Wheelbirks Reading Society
	Whitfield R.R.
	Whickham Young Men's
	Church I.
1887	West Woodburn R.R.
1890	Cambo R.R.
	Featherston R.R.
	Gillswood Library
	Gosforth I.
	Preston Lending Library
	Whitley Chapel Library
1892	Netherwiton R.R.
	St John's Library Backworth
	Seahouses R.R.
1894	Barden Mill R.R.
	Netherton Colliery I.
	Nine Banks R.R.
1895	Horsley I. & R.R.
1896	Gilsland R.R.

1900

Brinkburn Reading Club
Long Framlington & Brinkburn
Parish R.R.
Scotswood Colliery R.R.
Stobswood Colliery R.R.

Appendix II.

Crook Mechanics' Institute.

September 19th, 1848.

Gentlemen,

I am directed by the Committee to forward to you a copy of the Rules of Crook Mechanics' Institute and to draw your attention to its present position.

The institute was established on the 9th August, now numbers about 70 members and is endeavouring to form a library of standard works on Science and Literature.

The Committee is of the opinion that in order to carry out its plans the assistance of the landed and other proprietors and gentlemen in the neighbourhood may without impropriety be solicited and hopes you will air them either by a donation of money or books, or by an annual subscription to the funds in the formation of a library.

I am respectfully,

Anthony Atkinson.

To the Bishop Auckland Weardale Railway Company.

Appendix III.

Sunderland Mechanics' Institute.

Tavistock Place,
November 14th 1853

Gentlemen,

I cannot help acknowledging a very strong feeling of having recieved (sic) from you, in the matter of my recent lecture, less courtesy and consideration than, I presume to think, was due to me under the circumstances; - certainly far less than I have ever experienced before, in any instance, - even where it was a matter of professional or pecuniary remuneration to me.

Anxious to do all justice to my promise and to you, I was careful to be at the Lyceum a few minutes before the nominal time stated for the lecture to commence, and waited there alone, in a room without either a fire or a seat; for upwards of half an hour naturally expecting that some officer of the Institution one, at least would apprise me when to begin, and show me the usual attentions. On the contrary, I was solely indebted to the courtesy of Mr Thompson the solicitor, as a private individual, in apologizing to the audience for their having been so long kept waiting, which the lecturer was also waiting, ready for his duties. I was then left without a chairman or even a single person on that dreary platform, to

mark the least respect. At the conclusion of a long and difficult lecture a great deal of which was expressly written for the occasion, not a single voice of approval or acknowledgement for me in the least degree the common-place satisfaction almost universally accorded even to paid lecturers.

I have still further, and indeed, more seriously to complain, that your Bills not only concealed the fact of the Institute having anything to do with the lecture but conveyed to the Public that it was delivered for my own purposes and involvement.

I have fought many a hard battle, both with tongue and pen, for Mechanics' Institutes, and may reasonably and naturally look for some feelings of respect in return. It was scarcely in accordance with that, that I should find in one newspaper a cold and blundering statement with regard to this evening, and in another, not a single word of notice.

I remain Gentlemen,

Your Obedient, Honourable, Servant,

J.G. Grant.

T. Dixon, Secretary,
Sunderland Mechanics' Institute.

Appendix IV.

West Hartlepool Literary and Scientific Institution.

The following is copy letter sent to the teachers
Athenaeum, West Hartlepool 30 August 1881.

Dear Sir,

Science classes.

The committee of the above are willing to grant you use of room (Library) gas, fire and cleaning for establishment of a Science Class during the ensuing season. They cannot however guarantee any amounts of salary or any number of pupils. The venture must be entirely at your own risk.

If you are willing to commence a class on these terms (please reply at your earliest)¹ convenience and state

- (1) What subjects you will teach.
- (2) What night in the week.
- (3) Your proposed fee for pupils.

I am dear Sir,

Your obedient servant,

D. Downey

1. Part of document missing, suggested inclusion.

Source, West Hartlepool L.M.I., M.B. No. 2, 29th August, 1881.

Appendix V.

Northern Poetical Keepsake

Britain

By James Steele

The wavelets sparkle on the sea
That guards the land where man is free,
The land of beauty, wealth, renown,
Where commerce wears her golden crown.
The tyrant's rod there lies at rest,
No more is man by man opprest-
On Britain's fair expansive shore
The chains of slavery clank no more.
What realm on earth-no matter where-
Can with our native land compare?
What monarch dares her queen assail?
What forces o'er her might prevail?
Vast toils and triumphs high proclaim
her peerless on the roll of Fame!
Sing all with mingled pride and glee,
Our cherished isle of liberty!
In one harmonious chorus raise
An anthem to our country's praise,
Nor now forget, 'mid blessings stored,
The giver of them all-the Lord.
Praise to the Great Almighty Hand
That guards secure our native land!
Still may he bless each blooming field.
and us from strife and sorrow shield!

Sonnet.

By James Souter.

Of Science, Industry, and Arts, I sing;-
Meet subjects these for true poetic fire,-
Whose vast achievements might full well inspire
The noblest flight of far sublimer wing!
O Britain! chief of nations! 'tis for thee,
In thrilling peans to celebrate their praise;
For what thou art in glorious modern days,-
The land of progress, light, and liberty,-
From what thou wert when Caesar's legions trod,
With ruthless foot, brave Albion's sea-girt shore,
Thou owest not unto a tyrant's rod:-
Thy sons are mightier than their sires of yor,
By faith in Truth, Humanity, and God;-
A bulwark this which lasteth evermore!

Appendix VI.

The Northern Union of Mechanics' Institutions.
Village Library.

A Selection of Boxes of Library Books and Their Titles.

Catalogue

BOX NO. 1.

- 1 Vasari's Lives of Painters, vol. 1
- 2 Do. do. vol. 2
- 3 Do. do. vol. 3
- 4 Do. do. vol. 4
- 5 Do. do. vol. 5
- 6 Disraeli's Alroy and Sybil
- 7 Primeval Man
- 8 Tennant's Anster Fair
- 9 Waverley Novels. Rob Roy
- 10 Puritan Divines: Bunyan
- 11 Bremer's diary
- 12 Bastiat's Essays
- 13 Barrow's Tour on the continent
- 14 Adam Graem
- 15 Smile's Life of Telford
- 16 Leatham's Poems
- 17 Rennie's Bird Architecture
- 18 Paris and its Revolutions
- 19 Cooper's Pioneer
- 20 Chambers' Papers

BOX NO. 2.

- 1 Proctor's Light Science
- 2 Thackeray's Works: The Paris Sketch Book
- 3 Forster's Lectures, vol. 1
- 4 Do. vol. 2
- 5 Berington's Literary History
- 6 Laing's Residence in Norway
- 7 Smile's Self Help
- 8 Traits of American Humour
- 9 Waverley Novels: The Abbot
- 10 Brougham's Lives of Philosophers
- 11 Tales of the Borders: The Unknown
- 12 Lane's Modern Egyptians
- 13 Lytton's Pelham
- 14 Dickens' David Copperfield
- 15 English Puritan Divines in Reign of Queen Elizabeth
- 16 Ancient Spanish Ballads
- 17 Cooper's Pilot
- 18 Wittich's Physical Geography
- 19 Paris, vol. 1
- 20 Paris, vol. 2

BOX NO. 3.

- 1 Brook's Journal, vol. 1
- 2 Do. vol. 2
- 3 Trollope's Vicar of Bulhampton
- 4 Cowper's Letters
- 5 Whately's Essays
- 6 Dickens' Martin Chuzzlewit
- 7 Life of Louis XIV, vol. 1
- 8 Do. do. vol. 2
- 9 John Halifax
- 10 Matthew Wold
- 11 Waverley Novels: Guy Mannering
- 12 Hall's Works
- 13 Hazlitt on Painting
- 14 Lytton's Eugene Aram
- 15 People's Novels, vol. 5
- 17 The Englishwoman in Italy
- 18 Art of Modern Economy
- 19 Mill on Political Economy
- 20 Schlegel's Miscellaneous Works

BOX NO. 24.

- 1 Bell's New Tracks in North America, vol. 1
- 2 Do. do. vol. 2
- 3 Thackeray's Roundabout Papers
- 4 Dickens' Our Mutual Friend
- 5 Whately's Essays
- 6 Art and Nature Under an Italian Sky
- 7 Memoirs of John Grey, of Dilston
- 8 Philosophy of Life
- 9 Waverley Novels: Annie of Gierstein
- 10 Lever's Charles O'Malley
- 11 Coleridge on Political Economy
- 12 Larmartine's French Revolution
- 13 Warren's Diary of a late Physician
- 14 Meander's Memorials of Christian Life
- 15 British Costume
- 16 Gulliver's Travels
- 17 Religio Clerici
- 18 Women in the 19th Century
- 19 Eminent Zoologists
- 20 Reid on Chemistry

BOX NO. 25.

- 1 Thompson's Magic
- 2 Brougham's Sketches of Statesmen, vol, 1
- 3 Do. do. vol, 2
- 4 Do. do. vol, 3
- 5 Trollope's Orley Farm
- 6 Wynter's Curiosities of Toil

- 7 Disraeli's Vivian Grey and Ixion
- 8 Life of Gilpin
- 9 Lytton's Zanoni
- 10 Persia, Mesopotamia, &c.
- 11 Philosophy of History
- 12 Say and Seal
- 13 Waverley Novels: The Betrothed, &c
- 14 Guthrie's Sundays Abroad
- 15 Croker's History of the Guillotine
- 16 Whewell's Astronomy
- 17 Secret Societies
- 18 Marryat's Midshipman Easy
- 19 The Wizard of the North
- 20 Exposition on Excluding Men of Genius

BOX NO. 26.

- 1 Dilke's Greater Britain
- 2 Thackeray's Esmond, &c.
- 3 Bulwer's Historical Characters
- 4 Shakespeare's Works
- 5 Gostick's German Literature
- 6 Tales of the Borders: The Cripple, &c.
- 7 Dickens' American Notes
- 8 Brougham's Lives of Philosophers
- 9 Lane's Modern Egyptians, vol. 1
- 10 Do. do. vol. 2
- 11 Early Years of Prince Consort
- 12 A Life for a Life
- 13 Lytton's Lucretia
- 14 Waverley Novels: Fortunes of Nigel
- 15 Holcroft's Memoirs
- 16 Cowper's Poems
- 17 Vegetable Substances Materials of Manufacture
- 18 Head's Emigrant
- 19 Ranke's Ferdinand I., &c.
- 20 Wittick's Western Coast of Norway

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- 1 Trollope's Last Chronicle of Barset
- 2 Brougham's Political Philosophy, vol. 1
- 3 Do. do. vol. 2
- 4 Do. do. vol. 3
- 5 Dickens' Sketches by Boz
- 6 Life of Thomas Cooper
- 7 Border Tales: Judith, &c.
- 8 Lytton's Rienzi
- 9 Hudson on Adult Education
- 10 Guthrie's Out of Harnes
- 11 The Carafas of Maddaloni
- 12 Waverley Novels: Red Gauntlet
- 13 Schiller's Historical Dramas, &c.

- 14 Pompeii
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BIBLIOGRAPHY

Primary Sources

Manuscripts (in order of repository)

1. Minute Books and Correspondence of Mechanics' Institutes and Kindred Societies.

(Minute Books differed widely in both content and quality of presentation: sundry items e.g. Reports of Annual Meetings, newspaper cuttings, catalogues, notices, tickets of membership etc. were often included).

Berwick upon Tweed Public Library, BRO/32/1. BRO/32/2.

Berwick upon Tweed Mechanics' Institute, Minute Book 1851-1862

Berwick upon Tweed Mechanics' Institute, Treasurer's Book 1856-1870

Blyth Public Library.

Blyth Mechanics' Institute, Minute Books
1847-1858
1857-1877
1877-1903

Bowes Museum, Barnard Castle, L906/Ba.

Barnard Castle Mechanics' Institute, Minute Books
1832-1845
1845-1855
1895-1920

Cleveland County Record Office, Middlesbrough.

Middlesbrough Mechanics' Institute, Minute Books

1844-1847

1848-1859

1859-1866

1867-1878

1878-1892

South Stockton Mechanics' Institute, Minute Books

1862-1874

1874-1889

Darlington Public Library.

Darlington Mechanics' Institution, Minute Books

1825-1847

1853-1871

1871-1911

Shareholder's Minute Book 1825-1830

Gateshead Public Library.

Gateshead Mechanics' Institute or Literary and Scientific

Society of the Borough of Gateshead, Minute Books

1836-1845

1845-1856

1856-1873

1873-1885

Newcastle upon Tyne City Library, SL.374, N. 536.

Newcastle Literary, Scientific and Mechanical Institution,

Minute Books

1834-1846

1847-1856

1856-1868

Members' Meeting Books 1855-1867
1862-1865
1869-1879

Northumberland County Record Office, N.R.O. 990/J1.

Morpeth Mechanics' Institute, Minute Book 1868-1883

Public Record Office, P.R.O. 1272, 1273, 1274, 1275.

New Shildon Mechanics' Institute, Minutes of Committee Meetings, 3rd March, 1847, 3rd Nov., 1847, 17th Nov., 1847, 23rd June, 1848, 11th Nov., 1852, 21st Nov., 1855, 2nd Aug., 1858, 28th Feb., 1871, 7th Oct., 1872, 3rd Feb., 1873, 30th Oct., 1884, 5th Dec., 1887, 19th Sept., 1888, 4th May, 1891, 6th June, 1898.

Public Record Office, Rail 461/34.

Crook Mechanics' Institute. Letter from Anthony Atkinson to the Bishop Auckland, Weardale, Railway Co., 19th Sept., 1848.

South Shields Public Library, L.027.2, L. 027.64.

South Shields Exchange Subscription Room, Minute Book 1800-1855.

South Shields Working Men's Institution, Minute Book 1860-1865

L.027.64. South Shields Literary, Scientific and Mechanical Institution, Minute Books
1825-1834
1862-1872

Tyne and Wear Archives, Dixon Papers, 717/15.

Sunderland Mechanics' Institute. Letter from J.G. Grant, Tavistock Place, London, to Sunderland Mechanics' Institute, 14th Nov., 1853.

West Hartlepool Athenaeum.

West Hartlepool Literary and Mechanical Institution, Minute Books

1849-1859

1859-1887

1887-1904

Letter from W. Downey to applicants for science teaching positions, 30th Aug., 1881.

West Hartlepool Art Gallery and Museum, Wood Collection.

Old Hartlepool Mechanics' Institute. Letters to members, 27th March, 1867, 20th July, 1867.

2. Miscellaneous Manuscripts

Blyth Public Library, 374.94282.

Anon., 'Blyth Mechanics' Institute - a brief history', MS with first page missing, n.d.

Durham City Library, 9331.85/L.I.

Letter and papers from Thomas Kelly, Director of Extra Mural Studies, University of Liverpool, to Librarian, Durham City Library, March, 1955.

Durham County Record Office, EP/AU.SA 135, EP/BC. 5/3.

Vestry Minutes, St Andrew's Auckland, 1823-1847.

Vestry minutes Parish and Township of Barnard Castle, 1827-1854.

Durham University Library, S.R. Cabinet, C.I.

Middlesbrough Pottery - terms on which the Pottery Co. take apprentices, 23rd March, 1835.

National Society.

Whorleton National School, Application Form, 12th Sept., 1848.

Northumberland County Record Office, LLC 25, 26, 27, 28.

London Lead Company Court Minutes, March 1844 - December 1858.

Tyne and Wear Archives. Wallace Collection.

Church of the Divine Unity, Newcastle upon Tyne. Vol. of miscellaneous MSS., correspondence and newspaper cuttings.

Annual Reports.

British Museum, 8365. B.71.

Yorkshire Union of Mechanics' Institutions. Annual Report, 1862.

Durham County Record Office, DX 243/145.

Old Hartlepool Mechanics' Institute. Annual Report, 1848.

Durham University Library, 053. 7899.

Department of Science and Art. Reports 1854-1898.

Gateshead Public Library. Local Tracts D. 137.

Wylam Reading Institution. Annual Report, 1851.

Leeds City Library, 374.06 Y82Y.

Yorkshire Union of Mechanics' Institutions. Annual Reports,

1838-1850

1860-1861

1875-1900

National Society.

Annual Report of National Society, 1838.

Newcastle City Library, L. 374.

Northern Union of Mechanics' Institutions. Annual Reports,

1848-1849: 1853-1854, Vol. 1.

1855-1856: 1873-1880, Vol. 2.

1881-1887, Vol. 3.

1888-1894, Vol. 4.

1895-1905, Vol. 5.

1906-1913, Vol. 6.

Newcastle upon Tyne University Library.

The Burman Collection, Alnwick. Catalogued by Peter C.G.

Isaac, 1973. Alnwick Scientific and Mechanical Institution,
Annual Reports, 1825-1901 (incomplete).

Northumberland County Record Office, Newcastle upon Tyne.

Woodman Collection - Morpeth Collectanea. Vols II & IV (M.16-B2).

Morpeth Mechanics' Institute. Annual Reports, 41st, 45th, 47th, 63rd. (BMO/1332).

South Shields Public Library.L.027.64.

Chester-le-Street Mechanics' Institute. Annual Report, 1826.

South Shields Literary, Scientific and Mechanical Institution. Annual Reports, 1828-1872.

South Shields Working Men's Institute and Club. Annual Report, 1866.

Sunderland Mechanics' Institute. Annual Reports, 1823-1827.

Tyne And Wear Archives, Newcastle upon Tyne. 1637/5.

Yorkshire Union of Mechanics' Institutions. Annual Report, 1878.

West Hartlepool Public Library, 2 envelopes No. 370.

West Hartlepool Literary and Mechanical Institution. Annual Reports, 1863, 1864.

Published material.

The place of publication is London unless otherwise stated.

1. Parliamentary Papers

The Population of Great Britain in the Years 1801-1811, 1821 and 1831, Nothumberland and Durham,
House of Commons, 1831.

Hansard, Parliamentary Debates, 1833-1841.

Appointed under the Provisions of the Act 5 & 6 Vict. C. 99).
Report of the Commission to inquire into the operation of that Act and into The State of the Population in Mining Districts, 1846,

H.M.S.O., 1846.

Report of Select Committee on Public Libraries, Appendix 3,
H.M.S.O., 1849.

British Parliamentary Papers, 1851 Census of Great Britain. Reports and Tables on Education in England and Wales and on Religious Worship and Education, Scotland, Shannon, Ireland: Irish University Press Series, 1970. (First published Eyre & Spottiswood, 1854).

Report of the Commissioners appointed to inquire into the State of Popular Education in England. (Newcastle Report), 1861. H.M.S.O.

Royal Commission on Scientific Instruction and Advancement of Science, Vol. XXV. 1871-1872. H.M.S.O.

Report of the Royal Commission on Scientific Institutions and the Advancement of Science (Devonshire Report), 1872-5. H.M.S.O.

Report of the Royal Commission on Technical Education,
(Samuelson Report), 1882 - 1884. H.M.S.O.

2. Contemporary Printed Material relating to Mechanics'
Institutes (in order of repository).

Durham City Public Library. 042.812/L.

Anon.,

Felling Mechanics' Institute. Opening by Sir C.M. Palmer,
M.P., 22nd Sept., 1892. Reprint of article in Newcastle Daily
Leader, n.d.

Literary and Philosophical Society, Newcastle upon Tyne
042.4. Tracts, Vol. 93. No. 7.

Liddell, D.

Suggestions relative to the Best Means for Diffusing Useful
Knowledge among the Miners of the North of England. Newcastle
upon Tyne: Printed by Mitchell, 1836.

Newcastle upon Tyne City Library. D 133. L. 042.

Anon.,

Account of the Proceedings of A Public Meeting held at
Burnhopefield on Tuesday, the 12th of January, 1836 for the
purpose of establishing a Literary and Mechanical
Institution.

L.027.64.

Burnet, R.,

A Word to the Members of the Mechanics' Institutes,
Davenport: Johns, 1826. L.027.64.

Hawkins, J.,

The Influence of Practical Intelligence, Lectures addressed
to young men, Newcastle upon Tyne: Wilson, 1873. L. 374.

Local Tracts 11.L.042.

Heatley, J.,

Alnwick Scientific and Mechanical Institution: Historical
Sketch, Printed pamphlet. No date.

Local Tracts, D.40, L.042.

Hutt, W.,

An Address delivered to the Members and Friends of the
Gateshead Mechanics' Institute and Literary and Scientific
Society. Gateshead: Lowther & Douglas, 1837.

Local Tracts, L.370.9.

Robertson, A.,

The Educational Institution of Alnwick with especial
reference to Technical Education at the Mechanics' Institute.
(Reprinted from the Alnwick Journal, Aug., 1878.

Local Tracts. L.374.

Rutter, R.B.,

An Address Delivered before the Workmen of Jonathan
Priestman, Newcastle upon Tyne. Printed paper, n.d.

L.027.64.

Turner, W.,

An Introductory Address at the First Meeting of the Literary,
Scientific and Mechanical Institution of Newcastle upon Tyne,
11th May, 1824, Printed paper.

3. Miscellaneous Printed Material. (in order of repository).

Cleveland County Record Office.

Middlesbrough Mechanics' Institute,

Notices: 'Iron Trades Class' 1st Sept., 1877.

'Science Classes' 8th Sept., 1879.

'Science Classes Practical Chemistry' 21st May,
1879.

'Prizes and Certificates', 14th Nov., 1879.

Yorkshire Union of Mechanics' Institutions,

Notice: 'Special Art Examinations' 22nd Feb., 1879.

Durham County Record Office. Q/R/S 1-13.

Bishop Auckland Literary, Scientific and Mechanics'
Institution: Rules - 1903.

South Shields Literary and Scientific Society: Conditions and
Rules.1889.

West Hartlepool Literary and Mechanical Institution: Rules
and List of Members, 1847.

Hartlepool Mechanics Institute, DX243/146

Quarter Session Records, 1863 Q/R/S1.

Newcastle upon Tyne City Library.

Crook Mechanics' Institute: Rules 1878. (L.384.C.948).

Elswick Works Literary and Mechanics' Institute Rules and Catalogue of Books. n.d.,

Newcastle upon Tyne: Carr, 1876. (L.042).

Hexham Mechanics' Institute. Catalogue of Paintings and other objects of Art, Natural History, Antiquity etc. in the New Town Hall, Hexham.

Hexham: Courant Office, 1867. (L.374.H.614).

Northern Union of Mechanics' Institutions, Table of Statistics of Mechanics' Institutions in the North of England, 15th Nov., 1864, (within Minute Book, 1834-1846 Newcastle Mechanics' Institute). L.374.N.536.

L.374.R845.

Rothbury Mechanics' Institute, Rules, Bye-laws and Catalogue, (n.d.).

South Shields Public Library. L.027.64.

South Shields Literary, Scientific and Mechanical Institution, Circular: 19th Nov., 1825: Establishment of the Institution. Catalogues (miscellaneous), 1828 - 1872.
Sunderland Mechanics' Institute, Catalogues, 1823 - 1827.

West Hartlepool Art Gallery and Museum. (Wood Collection) .

Printed material including posters, notices, programmes, membership lists, tickets of membership re: mechanics' institutes in the Hartlepoons.

West Hartlepool Public Library. Two envelopes, No. 370.

West Hartlepool Literary and Mechanical Institution, Catalogue of books and Periodicals, 1852.

4. Contemporary Newspapers (in order of repository).

Bowes Museum. Barnard Castle, L914.281 - BA/NE.

Newspaper Cuttings of Bishop Auckland and District, written by Matthew Richley, compiled by Ralph Nelson, all undated, typewritten insert 'Auckland Times and Auckland Herald, 1890 ----'.

Darlington Public Library

Darlington and Stockton Times, weekly, 7th Oct., 1847 - 21st Mar., 1883.

North Star, weekly, 6th Jan., 1881 - 7th Aug., 1897.

Northern Daily Express, 20th april, 1865.

Northern Echo, daily, 4th Jan., 1870 - 8th Nov., 1875.

Darlington Telegraph, weekly, 31st Dec., - 17th Oct., 1863.

Durham County Record Office.

The South Durham Herald, 30th May, 1868.

Hartlepool Public Library.

The Sunderland News & North of England Advertiser,
11th Sept., 1852.

Newcastle upon Tyne Public Library

Daily Chronicle, 18th June, 1849 - 4th Aug., 1858.

Newcastle Guardian, weekly, 27th May, 1848.

Newcastle Journal, weekly, 17th April, 1847 - 29th June, 1850.

Sunderland Public Library

Sunderland Herald, weekly, 8th July, 1837 - 20th Oct., 1858.

Teesdale Mercury Office. Barnard Castle,

Teesdale Mercury, weekly, 5th Sept., 1860 - 30th March, 1932.

5. Contemporary Periodicals. (in order of repository).

Bowes Museum, Barnard Castle,

The Illustrated London News, 14th May, 1853.

John Bull, weekly, Vol. V. - No 51, 18th Dec., 1825.

The Spectator, weekly, 24th Oct., 1846 - 7th Nov., 1846.

Literary and Philosophical Society, Newcastle upon Tyne.

Athenaeum, weekly, Dec 1830 - Mar., 1840.

Builder, monthly, Vol. VII, 1849 - Vol. LV, 1888.

Edinburgh Review, April, 1825 - April, 1849.

Mechanics' Magazine, weekly, Vols. First 1823 - Sixty ninth 1858.

Monthly Chronicle, June, 1888.

The Museum, quarterly, July, 1861.

The Newcastle Magazine, monthly, Jan., 1827 - March, 1830.

Newcastle: Mitchell, 1827 - 1830.

The Nineteenth Century, monthly, Vol. XXIII, 1888 - Vol. XXIV, 1888.

Punch, weekly, Vol. VIth, Jan. - June, 1844. Vol. XII, Jan. - June, 1847.

The Quarterly Journal of Education Vols. 1 - 5, 1831 - 1833.

Quarterly Review, Vols. XXIV - XXXII, 1820 - 1825.

6. Contemporary Monographs and Directories.

Anon.,

The Northern Poetical Keepsake, Newcastle upon Tyne: Fisher, 1856. (Newcastle upon Tyne City Library, L.821.0.8T513).

Augustus, St John James,

The Education of the People, Woburn Press, 1970. First published Chapman & Hall, 1858.

Baker, C.,
Mechanics' Institutes and Libraries, Central Society of Education, Papers, Woburn Press, 1968, First Published Taylor & Walton, 1837.

Brougham, H.,
Practical Observations upon the Education of the People, addressed to the Working Classes and Their Employees, Longman, Hurst, Rees, Orme, Brown & Green, 1825. (Literary & Philosophical Society, Newcastle upon Tyne, Tracts 62.042/4).

Coates, T.,
Report of the State of Literary, Scientific and Mechanics' Institutions in England, The Society for the Diffusion of Useful Knowledge, London, 1841.

Cochrane, A.,
The Early History of Elswick, Newcastle upon Tyne: Mawson, Swan & Morgan Ltd., 1909.

Dawes, R.,
Mechanics' Institutes and Popular Education, Groombridge and Sons, 1856.

Dawson, J.,
Peter Mackenzie, Charles H. Kelly, 1897.

Duppa, B.F.,
Lord Brougham's Bill for Promoting Education in England and Wales; Central Society of Education, Papers, Woburn Books Ltd., 1968, First published Taylor & Walton, 1838.

Engels, F.,
(Trans. F.K., Wischnewetzky, 1892), The Condition of the Working Class in England in 1844, George Allen & Unwin Ltd., (Reprinted 1926). First published 1845.

Fordyce, W.,
The History and Antiquities of the County Palatine of Durham.
Two vols., Newcastle upon Tyne: Fullerton & Co., 1857.

Hole, J.,
An Essay on the History and Management of Literary, Scientific and Mechanics' Institutes, Longman, Brown, Green & Longmans, 1853.

Hudson, J.W.,
The History of Adult Education, Woburn Press Ltd., 1969.
First published Longman, Brown, Green and Longmans, 1851.

Knight, C.S.,
History of Hartlepool, Hartlepool Borough Council, 1978.
First published John Procter, 1851.

Mackenzie, E.,
The Self - Instructor: Young Man's Best Companion, Newcastle upon Tyne: Mackenzie & Dent, 1818.

Page, W. (ed.),
The Victoria History of the County of Durham, Vol. 11.,
University of London Institute of Historical Research, 1907:
Reprinted by Dawsons: 1968.

Parkinson, G.,
True Stories of Durham Pit Life, Charles, H., Kelly 1912.

Patterson, W.M.,
Northern Primitive Methodism, E. Dalton, 1909.

Pease, A.E.,(ed.),
The Diaries of Edward Pease, Headley Brothers, 1907.

Postgate, C.,
Middlesbrough, (History of), Middlesbrough on Tees District,
Independent Order of Oddfellows, Manchester Unity and
Friendly Society, 1899.

Richley, M.,
History and Characteristics of Bishop Auckland, Part IV,
Bishop Auckland: W.J. Cummins, 1872.

Roberts, R.D.,(ed.),
Education in the Nineteenth Century, Cambridge: University
Press, 1901.

Solly, H.,
Working Men's Social Clubs and Educational Institutes,
Garland Publishing, Inc., New York and London, 1980. First
published Simpkin, Marshall, Hamilton, Kent & Co., 1904.

Sopwith, T.,
An Account of the Mining Districts of Alston Moor, Weardale
and Teesdale in Cumberland and Durham, Alnwick: Davison,
MDCCCXXXIII.

Taylor, J.R.,
The Rise and Progress of Mechanics' Institutes in England, An
Address delivered at St. Pierres-les-Calais, France, to The
Pierres Young Men's Matural Improvement Society, Simpkin,
Marshall & Co., 1860.

Watson, A.,
A Great Labour Leader, Brown, Longham & Co., 1908.

Watson, R.S.,
The History of the Literary and Philosophical Society of
Newcastle upon Tyne (1793-1896), Walter Scott, 1897.

Whellan, F. & Co.,
History, Topography and Directory of the County Palatine of
Durham, Durham: C. Thwaites, 1894.

Whellan, W. & Co.,
History, Topography and Directory of Northumberland,
Whittaker & Co., 1855.

Williams, G.,
Rowland Detrosier, A Working Class Infidel 1800 - 34,
Boothwick Papers No. 28, University of York Boothwick
Institute of Historical Research, York: St. Anthony's Press,
1965.

Secondary Sources.

1. Monographs general.

Altick, R.D.,
The English Common Reader, Chicago, U.S.A.: University of
Chicago Press, 1967.

Argles, M.,
South Kensington to Robbins. - An Account of English
Technical and Scientific Education since 1851, Longmans,
Green & Co. Ltd., 1964.

Aspinall, A.,
Politics and the Press. C1780 - 1850, Home & Van Thal Ltd.,
1949.

Best, G.,

Mid-Victorian Britain, 1851 - 75, Fontana Press, 1989.

Briggs, A.,

Victorian People, Odhams Press, 1954.

Briggs, A.,

Victorian Cities, Odhams Press, 1963.

Burn, W.L.,

The Age of Equipoise, George Allen & Unwin, 1964.

Burns, C.D.,

A Short History of Birkbeck College, University of London Press, 1924.

Chadwick, O.,

The Victorian Church, Part 1, A & C. Black, 1966.

Church, R.A.,

The Great Victorian Boom 1850 - 1873, Macmillan Press Ltd., 1975.

Clark, G.K.,

The Making of Victorian England, Methuen & Co. Ltd., 1977.

Davies, H.,

George Stephenson, Hamlyn, 1980.

Dicey, A.V.,

Law and Public Opinion in England During the Nineteenth Century, Macmillan & Co. Ltd., 1962.

Dobbs, A.E.,

Education and Social Movements, 1700-1850, Longmans, Green & Co., 1919.

Ensor, R.,
England 1870 - 1914, Oxford: Clarendon Press, 1966.

Gregg, P.,
A Social and Economic History of Britain, 1760 - 1970, George
G. Harrap & Co. Ltd., 1971. (First published 1950).

Hammond, J.L., & Hammond, B.,
The Town Labourer, Longman, 1978. (First published 1919).

Harrison, J.F.C.,
Learning and Living, 1790 - 1960, Routledge & Kegan Paul,
1961.

Harrison, J.F.C.,
The Early Victorians, 1832- 51, Weidenfeld & Nicolson, 1971.

Hart, I.B.,
Makers of Science, Oxford: Oxford University Press, 1924.

Hildebrandt, D.,
Pianoforte - a Social History of the Piano, Hutchinson, 1988.

Hunt, C.J., The Lead Miners of the Northern Pennines in the
Eighteenth and Nineteenth Centuries, Manchester: Manchester
University Press, 1970.

Hurt, J.S.,
Elementary Schooling and the Working Class 1860 - 1918,
Routledge & Kegan Paul, 1979.

Inge, W.R.,
The Victorian Age, Cambridge: Cambridge University Press,
1922.

Inkster, I., (ed.),
The Steam Intellect Societies, Essays in Culture, Education
and Industry Circa 1820 - 1914, Nottingham: Dept. of Adult
Education, University of Nottingham, 1985.

Jarman, T.L.,
Landmarks in the History of Education, John Murray, 1963.

Kelly, T.,
George Birkbeck, Pioneer of Adult Education, Liverpool:
Liverpool University Press, 1957.

Kelly, T.,
A History of Adult Education in Great Britain, Liverpool:
Liverpool University Press, 1970.

Lea, J.T.,
The History and Development of Mechanics' Institutions,
Library Association Final Examination, 1949. Oldham:
Published by Research in Librarianship, 1968.

Maclure, J. Stuart,
Educational Documents, England and Wales 1816 to the present
day, Methuen, 1986 (5th edition).

Manning, J.,
Dickens on Education, Oxford University Press, 1959.

Mathews, H.F.,
Methodism and the Education of the People, 1791 - 1851,
Epworth Press, 1949.

Mathias, P., (ed.),
Science and Society, 1600 - 1900, Cambridge: Cambridge
University Press, 1972.

Moorman, J.R.H.,

A History of the Church in England, Black, 1967.

Muthesius, S.,

The English Terraced House, Book Club Associates, 1982.

Parry, R. St. J., (ed.),

Cambridge Essays on Adult Education, Cambridge: Cambridge University Press, 1920.

Peers, R.,

Adult Education, A Comparative Study, Routledge & Kegan Paul, 1972.

Riley, N.,

Victorian Design Source Book, Oxford: Phaidon Press Ltd., 1989.

Roderick, G.W., & Stephens, M.D.,

Education and Industry in the Nineteenth Century, Longmans, 1978.

Roderick, G.W., & Stephens, M.D.,

Scientific and Technical Education in 19th Century England, Newton Abbot: David & Charles, 1972.

Saul, S.B.,

The Myth of the Great Depression 1873-1896, Macmillan Press Ltd., 1972.

Silver, H.,

English Education and the Radicals, 1780-1850, Routledge & Kegan Paul, 1975.

Tames, R.,
Economy and Society in Nineteenth Century Britain, George
Allen & Unwin Ltd., 1972.

Tylecote, M.,
The Mechanics' Institutes of Lancashire and Yorkshire before
1852, Manchester: Manchester University Press, 1957.

Ward, J.T., (ed.),
Popular Movements, 1830-1850, Macmillan, St. Martin's Press,
1970.

Wearmouth, R.F.,
Some Working Class Movements of the Nineteenth Century,
Epworth Press, 1948.

Webb, R.K.,
The British Working Class Reader, 1790-1848, George Allen &
Unwin, 1955.

Young, G.M.,
Portrait of an Age, Oxford University Press, 2nd ed., 1953.

2. Monographs local.

Atkinson, F.,
Life & Tradition in Northumberland and Durham, J.M. Dent &
Sons Ltd., 1986.

Atkinson, F.,
Victorian Britain: The North East, Newton Abbot: David &
Charles, 1989.

Bean, D.,
Tyneside - A Biography, Macmillan, 1971.

Burt, T.,

Thomas Burt, M.P., D.C.C., Pitman and Privy Councillor, T. Fisher Unwin Ltd., 1924.

Cadogan, P.,

Early Radical Newcastle, Consett: Sagittarius Press Ltd., 1975.

Dewdney, J.C.,

Durham County and City with Teesside, Durham: British Association, 1970.

Dougan, D.,

The History of North East Shipbuilding, George Allen & Unwin Ltd., 1968.

Dougan, D.,

The Great Gun-Maker, The Life of Lord Armstrong, Newcastle upon Tyne: Frank Graham, 1970.

Dougan, D., & Graham, F.,

Northumberland and Durham A Social Miscellany, Newcastle upon Tyne: Frank Graham, 1969.

Douglas, D.,

Pit Life in County Durham, History Workshop, Ruskin College, Oxford, 1972.

Fane, Little Billy,

A Life of Ridley, Newcastle upon Tyne: Evening Chronicle, 1985.

Hempstead, C.A., (ed.),

Cleveland Iron and Steel. Background and Nineteenth Century History, British Steel Corporation, 1979.

Hepple, L.W.,

A History of Northumberland and Newcastle upon Tyne,
Phillimore & Co. Ltd., 1976.

Lamont-Brown, R.,

The Life and Times of Berwick-upon-Tweed, Edinburgh: John
Donald Ltd., 1988.

LeGuillon, M.,

A History of the River Tees, Middlesbrough: Cleveland County
Libraries, 1978.

Lillie, W.,

The History of Middlesbrough, Middlesbrough: Middlesbrough
Corporation, 1968.

McCord, N., (ed.),

Essays in Tyneside Labour History, Newcastle upon Tyne:
Department of Humanities, Newcastle upon Tyne Polytechnic,
1977.

McCord, N.,

North East England, The Region's Development, 1760-1960,
Batsford, 1979.

McKenzie, P.,

W.G. Armstrong, Longhirst Press, 1983.

Meech, T.C.,

From Mine to Ministry, Darlington: North of England Newspaper
Co. Ltd., n.d.

Nicholson, C.P.,

Darlington Sociology - Those Boys O' Bondgate, Abroath:
Bunkle & Co., 1949.

Raistrick, A.,
Two Centuries of Industrial Welfare: The London (Quaker) Lead Company, 1692-1905, Friends Historical Society, 1938.

Raistrick, A., & Jennings, B.,
A History of Lead Mining in the Pennines, Longmans, Green & Co. Ltd., 1965.

Richardson, W.,
History of the Parish of Wallsend, Newcastle: Northumberland Press Ltd., 1923.

Ridley, N.,
Portrait of Northumberland, Robert Hale, 1965.

Smailes, A.E.,
North England, Thomas Nelson & Sons Ltd., 1960.

M.E.S., and K.R.S., (A Memoir by),
Sir Joseph Wilson Swan, F.R.S., Ernest Benn Ltd., 1929.

Tomlinson, W.W.,
The North Eastern Railway - Its Rise and Development, David & Charles, 1967.

Watson, G.,
Northumberland Villages, Robert Hale, 1976.

Wilson, T.,
The Durham Book, Washington, Tyne & Wear: Reed Print and Design, 1982.

Winlaton & District Local History Society,
A History of Blaydon, Gateshead: Gateshead Metropolitan Borough Council, 1975.

Wood, R.,
West Hartlepool, West Hartlepool: West Hartlepool
Corporation, 1967.

3. Pamphlets.

Abley, R.S.,
The Byers Green Branch of the Clarence Railway, Durham:
Durham County Local History Society, 1975.

Bainbridge, F.F., (Compiler),
Centenary of Shildon London and North Eastern Railway
Institute, Gateshead: Kelly Printers, 1933.

Dando, T., (ed.),
The Coming of the Princess, (Princess Marie Louise). Bishop
Auckland: G.W. Rudd, 1921.

Graham, T.B.,
Nineteenth Century Self-Help in Education - Mutual
Improvement Societies, Vol. Two, (Case study: The Carlisle
Working Men's Reading Rooms). Nottingham: Department of Adult
Education, University of Nottingham, 1983.

Short, A.I.,
Armstrong of Cragside, North East Centre for Education about
Europe, School of Education, University of Durham, 1991.

Staniforth, F., & Hurrell, F.E.,
Robert Spence Watson (1837 - 1911), Beamish Museum: n.d.

Stockdale, C.,
A Century of Elementary Education in Darlington, 1800 - 1900,
Darlington: Darlington Corporation, 1972.

Sturges, R.W.,
Aristocrat in Business, Durham: Durham County Local History
Society, 1975.

Tomlin, D.M., & Williams, M.,
Who Was Who in 19th Century Cleveland, Redcar: C. Books,
1987.

4. Articles.

Clarke, J.F.,
'Labour in Shipbuilding on the North East Coast', Durham
County Local History Society. Bulletin No. 12, 1970, pp. 33 -
39.

Garner, A.D.,
'The Society of Arts and the Mechanics' Institutes: The co-
ordination of endeavour towards scientific and technical
education, 1851 - 54', History of Education, Vol. 14, No. 4
1985, pp. 255 - 262.

Garner, A.D., & Jenkins, E.W.,
'The English Mechanics' Institutes. The Case of Leeds, 1824-
1842', History of Education. Vol. 13, No. 2 1984, pp. 139 -
152.

Katoh, Shoji,
'Mechanics' Institutes in Great Britain to the 1850s',
Journal of Educational Administration and History, Vol XXI,
No. 2, July, 1989, pp. 1 - 7.

Lundgreen, P.,
'Education for the Science - based industrial state? The Case
for nineteenth century Germany', History of Education. Vol.
13, No. 1 1984, pp. 59 - 67.

Rowley, J.,

'Education and the Working Classes in the Black Country in the Mid-Nineteenth Century. A Further Dimension', History of Education Society, Bulletin No. 21, 1978, pp. 18 - 24.

Shapin, S., & Barnes, B.,

'Science, Nature and Control: Interpreting Mechanics' Institutes', Social Studies of Science, Vol. 7, No. 1 1977, pp. 31 - 74. Sage Publications.

Ward, L.O.,

'Technical Education and the Politicians (1870 - 1918', British Journal of Educational Studies, Vol. XXI, 34 - 39.

Wellens, J.,

'The Anti-intellectual tradition in the West', British Journal of Educational Studies, Vol. VIII, No. 1 Nov., 1959, p. 22 - 28.

Wilcock, D.,

'Butter Wives and the Darlington and Barnard Castle Railway', Durham County Local History Society, Bulletin No. 11, 1969, p. 41.

5. Typescripts.

Blyth Public Library, (374. 94282).

Swales, W.J.,

Blyth Mechanics' Institute: The Formative Years. Typescript sheets, n.d.

Darlington Public Library.

Grimshaw, R.E.,

The Northern Union of Literary, Scientific and Mechanical

Institutions, Essay No. 189. Library Association Final Examination, 1949.

Lea, J.T.,

The History and Development of the Mechanics' Institutions. Library Association final examination, Part 6, November 1949. (Subsequently published, see Monographs general.)

The Guildford Institute of the University of Surrey.

The Guildford Mechanics' Institute. Collection of xerox papers, n.a., n.d.

6. Theses and Dissertations, (unpublished).

Batley, S.A.

'The Blyth Mechanics' Institute', (B.A. thesis, School of Librarianship and Information Studies, Newcastle upon Tyne Polytechnic, 1985).

Bovill, D.G.,

'Education of Mercantile Mariners in the North East Ports (1840-1902)', (Ph.D., Durham, 1987).

Chadwick, A.F.,

'Derby Mechanics' Institute, 1825 - 1880', (M. Ed., Manchester, 1971).

Donnelly, J.F.,

'The Development of Technical Education in Bradford, 1825 - 1900', (M.Ed., Leeds, 1982).

Evans, T.,

'The Mechanics' Institutes of South Wales', (Ph.D., Sheffield, 1965).

Hall, W.G.,

'The Provision of Technical Education in Sunderland prior to 1908', (M.Ed., Durham, 1964).

Harrison, J.F.C.,

'Social and Religious Influences in Adult Education in Yorkshire between 1830 and 1870', (Ph.D., Leeds, 1955).

Hay, R.L.,

'The Technical Education of the Mine Worker with Special Reference to the effect of the Industry on the Receptivity of the Student', (M.Ed., Durham, 1935).

Hemming, T.P.,

'The Mechanics' Institute Movement in the Textile Districts of Lancashire and Yorkshire in the Second half of the Nineteenth Century', (Ph.D., Leeds, 1974).

Henigan, H.P.,

'A History of Education in Stockton on Tees with particular Reference to Technical Education', (M.Ed., Durham, 1964).

Herdson, A.C.M.,

'The Development of Education in Sunderland during the Nineteenth century', (M.Ed., Durham, 1931).

Heyes, J.F.,

'Roman Catholic Education in County Durham, 1580 -1870', (M.Ed., Durham, 1969).

Lucas, M.,

'The Growth of Technical Education in Darlington: 1825 - 1915', (M.Ed., Durham, 1967).

Morris, D.C.

'The History of the Labour Movement in England, 1825 - 1852',
(Ph.D., London, 1952).

Stockdale, C.,

'National and British Schools in Teesdale and Teesside from
1833 to 1870', (M.Ed., Durham, 1972).

Thompson, F.V.,

'South Shields Literary, Scientific and Mechanical
Institution', (Year 3 dissertation, Ripon College, N. Yorks,
1969). South Shields Public Library, L.027.64.

Turner, C.M.,

'The Development of Mechanics' Institutes in Warwickshire,
Worcestershire and Staffordshire, 1825 - 1890: a Regional
Study', (M.Ed., Leicester, 1966).

7. Newspapers and Magazines.

Daily Mail, 29th Oct., 1990.

Darlington Advertiser, weekly, 25th Jan., 1990.

Darlington and Stockton Times, weekly, 24th Apr., 1948, 3rd
Feb., 1990, 6th Oct., 1990.

The Times Saturday Review, 17th Nov., 1990.

The Times, daily, 19th Nov., 1992, 17th May, 1993., 6th
Nov., 1993

Smithsonian, monthly, Vol. 19, No. 8 Nov., 1988

8. Works of Reference.

British Museum General Catalogue of Printed Books to 1955,
Trustees of the British Museum, 1962.

General Catalogue of Printed Books 1976 - 1985,
The British Library of Humanities and Social Sciences.

Index to Theses accepted for Higher Degrees by the
Universities of Great Britain and Ireland and the Council for
National Academic Awards, Vols. 1 - 40, 1950 - 1991, ASLIB.

Literary and Philosophical Society, Newcastle upon Tyne,
Catalogue of 18th Century, 19th Century and 20th Century
Periodicals. Held in archives.

Manders, F.W.D. (ed.),
Bibliography of British Newspapers, Durham and
Northumberland, British Library, 1982.

Nineteenth Century Short Title Catalogue.
Series II, Phase I, 1816 - 1970, Newcastle upon Tyne: Averro,
1990.

Potts, A., & Jones, E.R., (compilers),
Northern Labour History, A Bibliography, Library Association,
1981. Durham City Library.

The Waterloo Directory of Victorian Periodicals 1824 - 1900,
M. Walff, J.S. North & D Deering, (eds.), U.S.A., Wilfrid
Laurier University Press, n.d.

