MECHANICS' INSTITUTES IN SUSSEX AND HAMPSHIRE: 1825-1875

Jana Hilda Sims

Institute of Education, University of London

Thesis for the degree of PhD 2010

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Mechanics' institutes were the first systematic attempt to provide adult education for the skilled working classes, with emphasis on science and mechanics at a time when the quest for knowledge was a concern of the labour aristocracy. Traditionally associated with the northern and industrial areas, recent scholarship has revealed thriving and multifarious institute activity in the south. Although part of the national movement, each institution was a unique creation of its own environment, with local and regional networks.

Thomas Kelly's pioneering work identified where institutes existed. This study of Sussex and Hampshire draws together a range of sources to indicate the presence of many more mechanics' institutes. While some survived only a short time, others endured for seventy years or more, charting their own history of change, continuity and progress. Religious issues were prohibited at the institutes, but Unitarian influence was crucial in their development. Management structures varied and affected the success of individual institutes, combining with influential patrons and charismatic leaders to direct their public image and relationship with the media. By the 1830s, mechanics' institutes had also begun to attract the middle classes and the original strict scientific curriculum had been modified to include more general subjects. Scientific dominance however persisted in some institutions such as those at Lewes and Portsmouth. Music featured prominently as a cultural focus, whilst a spirit of civic pride was fostered through the institutions' buildings and social events. Women's roles changed from non-inclusion to significant participation, encouraged by Unitarian/Quaker influences and pioneering female lecturers. By 1875, mechanics' institutes had initiated vital developments in adult educational progress and above all, cultivated a desire for learning.

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I hereby declare that, except where explicit attribution is made, the work presented in this thesis is my own.

Jana Sims

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CONTENTS

LIST OF TABLES AND FIGURES

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Above all I wish to give most appreciative thanks to my husband Derek who has lived with mechanics' institutes for so long.

GLOSSARY

Hants and Wilts Adult Education Society: established in 1853, had various changes of name but known chiefly by this title and latterly the Southern Counties Adult Education Society, (1860). Aimed to establish libraries, reading rooms and lectures in rural areas and provide support for many M.I.s which affiliated with it. Inspired by Rev. Samuel Best, its leaders included many Anglican clergy.

Mechanics' Institute and Institution are used as interchangeable terms.

Quakers or members of the Society of Friends; a Christian movement devoted to peaceful principles and belief in the 'Inner Light' or a sense of Christ's direct working in the soul. They rejected both formal ministry and set forms of worship.

Unitarians: Christians who believed that God is one being and rejected formal dogma in favour of a rational approach to belief.

SIGNIFICANT DATES IN THE DEVELOPMENT OF THE MECHANICS' INSTITUTE MOVEMENT

1823 Foundation of the London M.I.
Also of the *Mechanics' Magazine* which acted as a forum for news of M.I. activities.

1825 Total of 80 newly established M.I.s.
Henry Brougham's *Practical Observations upon the Education of the People* appealed to employers to support M.I.s.

1826 Society for the Diffusion of Useful Knowledge (SDUK) founded.
Published cheap, authoritative texts on sciences and humanities, especially for M.I. clientele.

1839 Thomas Coates' *Report* for the SDUK encouraged local Unions of M.I.s, modelled on those of Yorkshire, to collate and disseminate news of good practice.

1851 Great Exhibition visited by many M.I.s.
Total number of M.I.s reached 700.

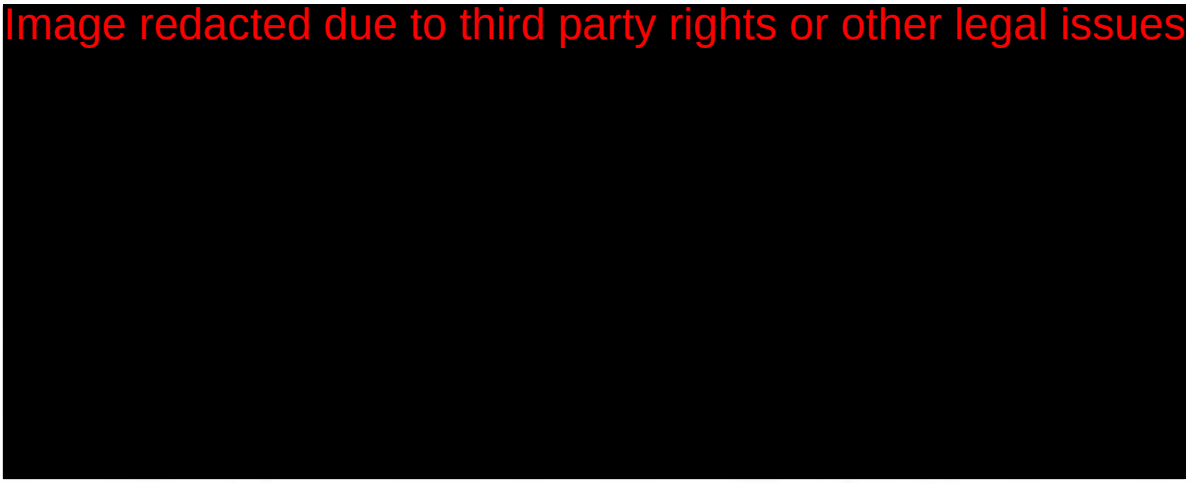
1852 Society of Arts set up Central Union to which many M.I.s affiliated themselves; by 1856, organising examinations in Science and Commerce.

1859 Government Science and Art Department awarded grants for science teaching and in 1861, examination in sciences began.

1862 The Working Men's Club and Institute Union established with which numbers of M.I.s associated themselves to provide a more relaxing and recreational atmosphere for their members.

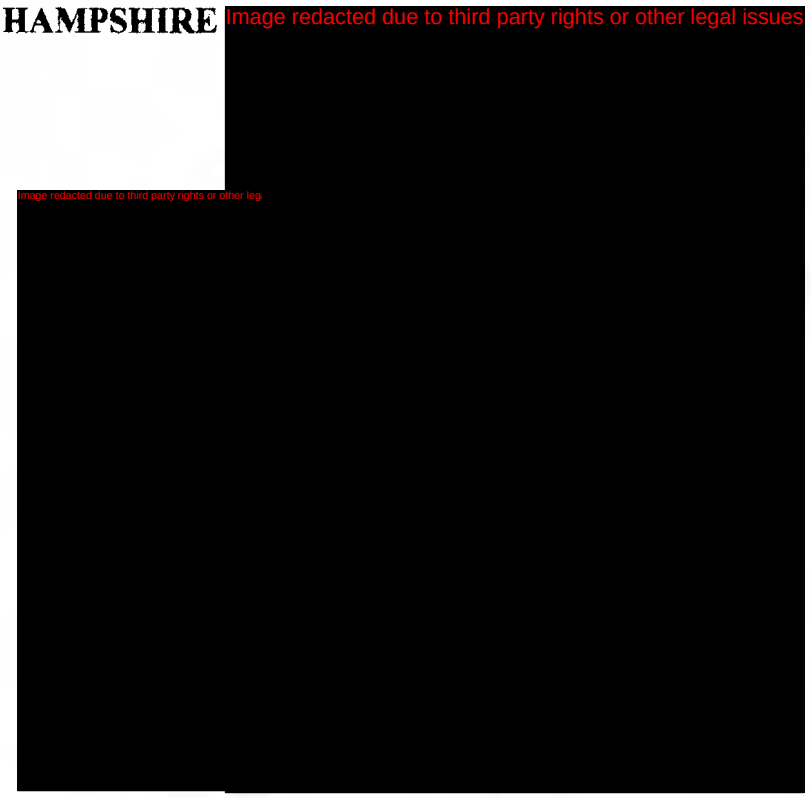
OUTLINE MAPS OF SUSSEX AND HAMPSHIRE WITH PRINCIPAL TOWNS IN THE NINETEE

SUSSEX



Map based on outline maps from *A History of Sussex* by J.R. Armstrong, (Phillimore, 1995).

HAMPSHIRE



Map from *The Politics of County Power* by R. Foster, (Harvester Wheatsheaf, 1990), p. 5.

The Mechanics' Institutes and Similar Societies in Hampshire and Sussex 1825 – 1875

Foundations classified by decade

Hampshire		Sussex	
1825 – 30		1825 – 30	
Portsmouth & Portsea M.I.	1825-1870	Brighton M.I.(1)	1825-1828
Newport M.I.	1825-1865	Lewes M.I.	1825-1890s
Southampton M.I.	1830-1907	Chichester M.I.	1825-1923
		Battle M.I.	1828-1840+
		Horsham M.I.	1829-c.1862
1831 – 40		1831 – 40	
Fareham I.	1834-1858	Hastings & St. Leonards M.I.	1833-1885
Winchester M.I.	1835-1921	Worthing I.	1837-1859+
Romsey L.S.I. (1) & (2)	1836; 1849-1851	Shoreham L.S.I.	1837
Cowes M.I.	1835-1851	Arundel M.I.	1838
Ryde M.I.	1836	Petworth L.S.I.	1838-1851+
Alton M.I.	1837-1920	Rye L.S.I.	1839
Petersfield Subscription Library and R.R.	1838-1859		
Emsworth Lit. Soc.	1834-1842		
Andover M.I.	1840-1886		
Lymington L.S.I.	1840-1950+		
1841 – 50		1841 – 50	
Basingstoke M.I.	1841-1923	Rye M.I.	1841-1867+
Odiham M.I.	1844-1875	East Grinstead L.S.I.	1845-1867+
Portsea Watt I.	1848-1870	Battle M.I. (2)	1849-1867+
Ventnor & Bonchurch L.S.I.	1847-1940	Midhurst L.S.I. (M.I.)	1848-1867+
Newport L.S.I.	1848-1851	St. Leonard's M.I.	1848-1898
Ryde L.S.I.	1849-1857		
Fordingbridge M.I.	1850-1859+		
Gosport & Alverstoke L.S.I.	1850-1886		
1851 – 60		1851 – 60	
Bitterne M.I.S.	1851 Ce.	Bognor People's I.	1851 Ce.
Christchurch M.I.S.	1851 Ce.	Brighton M.I. (2)	1851-1859
Whitchurch M.I.S.	1851 Ce.	Eastbourne Lit. I.	1851 Ce.
Whitchurch M.I.	1855-1878	Hailsham M.I.S.	1851 Ce.
Shanklin M.I.	1851 Ce.	Henfield U.K.I.	1851 Ce.
Niton M.I.	1854-1859+	Littlehampton M.I.	1851 Ce.
Aldershot I.	1858-1864+	Steyning M.I.	1851 Ce.
1861 – 75		1861 – 75	
Odiham I. (from Odiham M.I.)	1875+	Bognor M.I.	1867+
		Hailsham M.I.	1867+
		Henfield M.I.	1867+
		Hurstpierpoint M.I.	1867+
		Worth L.S.I.	1867+
		Uckfield M.I.	1867+

Key: Ce. = 1851 Census; M.I. = Mechanics Institute; M.I.S. = Mutual Improvement Society; I. = Institute; Lit. I. = Literary Institute; L.S.I. = Literary and Scientific Institute; U.K.I. = Useful Knowledge Institute. + indicates that the date of cessation is undetermined.
The chart has been based on information gathered from a number of printed sources which are mentioned in the thesis.

INTRODUCTION

A long-term fascination with the history of education and the conviction that an individual's education can be life-long, have been the inspirations behind this study of mechanics' institutes. I first came across the term in my reading for the BA in History and the opportunities that the institutes gave for adult education in the nineteenth century found empathy with my own philosophy. A case study of the Guildford M.I. for an MA dissertation, revealed correspondence with other southern mechanics' institutes and stimulated my curiosity to find out more.

Chapter One

The Mechanics' Institutes of Sussex and Hampshire 1825-1875

Mechanics' institutes were the first formal attempt to provide part-time evening tuition for working mechanics in the science and arts of their various trades. The establishment of the London Mechanics' Institute in December 1823, (hereafter London M.I.),[1] heralded the rapid spread of such institutions in England. This study will examine the influence of the mechanics' institute movement in Sussex and Hampshire in the period 1825-1875: in particular the contribution that mechanics' institutes made to the development of the region's adult education in the nineteenth century, their significance for community culture in the localities and their part in a growing sense of civic consciousness throughout the period. Consideration of these roles has given rise to the many themes of the thesis. The analysis will focus on the following broad aspects: personnel; management; curriculum; religious dimensions and particularly the role of Unitarians; women; and music. These themes first emerged in the author's M.A. study of the Guildford M.I. in Surrey, 1834-56.[2]

The mechanics' institutes have traditionally been associated with the processes of industrialisation and urbanisation in the period to 1823-1850. Hastening technological change and rapidly increasing populations in the new industrial towns such as Manchester, Glasgow, Bradford and Leeds, together with increased manufacturing in centres like Birmingham and London, had all created the need for a better educated and well-disciplined workforce. Thus much of the academic literature and scholarship which has been written on the institutes in Britain has focussed on the northern and midland urban areas, while the London M.I. has received special attention as the pioneer of its kind in England.[3] As a result, an impression of much more subdued mechanics' institute activity in the rural and southern counties has been provided. The thesis will test this

assumption in Sussex and Hampshire, two of the least industrialised areas in the south of England.

This chapter will firstly survey the historical background and context in which the mechanics' institutes were situated, with discussion centring around the economic, political, social, educational and cultural factors that had a bearing on their evolution. The aims and purpose of the institutes will be considered while the relevant secondary literature will be reviewed as an integral part of this analysis. The methodology and organisation of the thesis are explained in the final two sections.

Adult Education and Mechanics' Institutes

This study considers mechanics' institutes as a distinct category within the diverse and contested sphere of nineteenth-century adult education. The controversies surround the content of actual educational provision, the aims of the various providers, the intended receivers and as Philip Gardner has recently suggested, the 'hard struggle' to acquire knowledge on the part of the learners.[4]

An exact definition of adult education is difficult to formulate but J.F.C. Harrison, (1961), suggested a broad description 'to include the many forms of social, political, cultural, and religious activity of adults which had some educational intent,' and to incorporate all activities considered as adult education by contemporaries. Thomas Kelly would have preferred to call his '*History of Adult Education*' (1970), a '*History of the Education of Adults* ' to signify the inclusion of informal modes of learning as well as taught instruction and it is Kelly's preferred title, imbued with the breadth of Harrison's description, that informs the interpretation of the work of the mechanics' institutes in this present study.[5]

Various initiatives in adult education had been inaugurated during the eighteenth century, many of which were inspired by an increasing interest in science. While such endeavours have often been considered in terms of just those for the working classes, scientific interest in upper and middle-class circles inspired widespread public lectures and the establishment of literary, philosophical and scientific societies in many towns,[6] which will all be considered early steps in adult education for the purposes of this study.

One of the earliest working-class ventures was the Spitalfields Mathematical Society in London, (from c.1717), comprising mainly weavers and shopkeepers who met weekly to discuss mathematical problems, hold lectures and perform experiments. Their library was an integral part of the activities. Similar working-class societies, especially amongst weaving communities, existed in other parts of the country.[7]

While these societies were of working-class origin, there were also efforts by the middle classes to provide education for working-class adults such as the promotion of adult literacy by the Sunday School and Adult School Movements. These however had the additional aim of inducing an obedient populace to know their rightful place in society.[8] The Birmingham Brotherly Society, established in 1796, was an outstanding example of a scheme to continue the education of young men who had been through Sunday Schools in the town and it offered both elementary subjects and scientific instruction. Many of its students were working mechanics. A Birmingham Artisans' Library was established at the same period.[9] The first adult school, independent of children's teaching, was set up in 1798 in Nottingham to give basic education to women in the lace and hosiery factories.[10] Adult schools for men and women followed in the early 1800s first in Wales and then in Bristol, where they found particular support from the Society

of Friends. The Bristol schools attracted considerable attention and numerous visitors, resulting in the spread of the movement to many parts of the country as well as to America and Sierra Leone.[11]

From the 1820s, a number of factors had combined to encourage the development of initiatives in adult education. Despite fears on the part of the ruling classes that education would promote unrest and dissatisfaction with the existing social order amongst the working classes, many employers remained convinced that education was essential to serve the needs of industry and worth the political risk. A considerable number of workers themselves realised the employment advantages to be gained from being literate and acquiring new skills.[12]

The political arena further enhanced the prospects for the development of adult education in the 1820s. As Brian Simon explained, the defeat of the Tory government in 1823 ended a period of repression and opened one of greater concession and improved economic conditions under the new Liberal-Tory administration of Canning and Huskisson. It was with the aim of steering and influencing the thought and actions of the working-class intelligentsia, that Whig and Radical politicians like Henry Brougham turned from their unsuccessful efforts to promote state-funded elementary schools, to supporting adult education with the mechanics' institute movement and the Society for the Diffusion of Useful Knowledge (SDUK).[13] A host of middle-class philanthropists and employers gave support and leadership to these new mechanics' institutions and although many of the intended skilled working-class clientele were to shun their efforts as vehicles of social control, others were to benefit greatly from their educational offerings.

Many of the literary and philosophical societies included members who actively pursued a desire to extend scientific and intellectual knowledge to the working classes for a variety of reasons: for some it was in the interests of social control and a desire to curb or guide working-class independence, while others wished for moral improvement and the promotion of rational recreation amongst the workers.[14] Other philanthropists and social reformers such as Robert Owen and many Unitarians, including Dr. Southwood Smith, the public health reformer and factory owners such as the Greggs of Manchester and the Strutts in Derbyshire, with their mission to reform ignorance, wanted to educate in order to alleviate the appalling living conditions in which the majority of urban workers lived.[15] A healthier, more efficient workforce would also result from such living improvements.

The technical developments involved in industrial production helped to create an upper stratum of enquiring working-class mechanics and artisans who craved scientific knowledge, together with an understanding of economics and politics. They developed their own informal schemes of education through their radical political societies, unstamped press, trade union and co-operative ventures and self-help measures. Richard Johnson highlighted the workers' quest for 'really useful knowledge' embracing practical political knowledge, economy and social science which would be relevant to a real understanding of their condition of life and the political means to improving them.[16] Such 'really useful knowledge' contrasted with that provided by the bourgeois-controlled SDUK and the mechanics' institutes, both of which carefully avoided the very topics the working classes wanted to discuss such as politics, economics, and at times, religion.

Radical working-class education did not always take institutional forms but was an incidental part of life and communal activities: reading aloud, listening and debating issues in pubs, clubs, coffee houses and other meeting places. These self-help educational measures had been practised by autodidacts such as Thomas Cooper and particularly by handloom weavers.[17] Jonathan Rose has augmented our perception of nineteenth century working-class intellectualism with examples of other autodidacts and significantly, the hostility and suspicion that this could arouse amongst the employing classes.[18]

However, efforts at collective self-help education were frequent and would manifest themselves in some form of mutual improvement group. At its most basic, such a group would utilise the ability of the most literate to teach reading skills to the others, while groups with greater literacy might have one member read a paper on any subject such as politics, literature or 'useful knowledge' to be followed by a general discussion. With the weekly pence subscriptions, a collection of books could gradually be acquired, forming the basis of a lending library. Although these mutual improvement societies were generic in eighteenth and nineteenth century Britain, particularly in the 1840s to 1860s, their existence has largely been hidden, for they left few surviving records and were often transitory according to fluctuating needs, membership and location.[19] Apart from their working-class origins and management, the mutual improvement groups differed significantly from the first mechanics' institutes in that they often admitted women as well as men, a principle that was also incorporated in the various Owenite and Chartist educational activities.[20] Through their Halls of Science and Co-operative Societies, the Owenites wanted to educate men and women to function fully in their vision of a new society. Similarly, the Chartists employed a range of educational

elements including lectures, classes, reading rooms and Chartist churches to prepare people for political action.[21]

It was this whole sphere of political education and debate which the middle-class founders of the first mechanics' institutes strove to avoid and to curtail working-class attempts to overturn the status quo. The tensions between skilled working-class aspirations and middle/upper-class intentions in the adult educational sphere were to affect its progress and development for much of the nineteenth century.

Differentiation between and within the middle and working classes, is also a matter of debate. Whilst nineteenth-century contemporaries may have understood certain modes of living and conduct according to a strict social class classification, recent historical scholarship has taken account of a broad field of social ordering which also incorporates cultural, linguistic, economic and political spheres of human experience. There was also much fluidity as individuals moved between classes according to their changing economic or family circumstances. Nevertheless, as Martin Hewitt has concluded, 'it is class which gives nineteenth century Britain its identity;'[22] aspects of class identity as related to the mechanics' institutes will be referred to in the course of this study.

The Spread of the Mechanics' Institute Movement

The establishment of the London M.I. in 1823 owed its origins to developments in Scotland following the success of the scientific lectures that George Birkbeck, a Quaker doctor, gave to mechanics at Anderson's Institution in Glasgow from 1799. Although Birkbeck left Glasgow in 1804, the mechanics' class continued to prosper and influenced the foundation of the Edinburgh School of Arts in 1821, the first mechanics' institution in all but name. In 1823, the Glasgow mechanics' class transformed itself

into an independent Glasgow Mechanics' Institution. Whereas the Edinburgh School of Arts was financially supported and directed by prominent citizens, the Glasgow M.I. was self-supporting, with a democratic management elected from its members. Both ventures were dedicated to providing scientific education for mechanics by means of lectures, a library and collections of apparatus for experiments, but the Edinburgh School of Arts was more specific in its provision of lectures 'in such branches of physical science as are of practical advantage in their several trades.'[23] The implication of the differences in the aims of these two Scottish institutions on the educational curricula of the mechanics' institutes in England are further discussed in Chapter Four.

The immediate effect of the establishment of the Glasgow M.I. was a proposal by the editors of the *Mechanics' Magazine* to found a similar institution in London. The London M.I. was inaugurated in December 1823 with George Birkbeck as President and the support of middle-class Whigs and Radicals who included Henry Brougham, Jeremy Bentham and James Mill. The aim of the London M.I. was 'the instruction of the Members in the principles of the Arts they practise, and in the various branches of science and useful Knowledge'. This was to be accomplished through lectures, classes, a library and reading room, a museum of machines, models and natural history, together with a workshop and laboratory.[24]

The wave of new mechanics' institutions which followed the foundation of the London M.I. were centred mainly in the industrial towns and the north of England. They included those at Manchester and Leeds in 1824, with institutes at Liverpool, Derby and Birmingham the following year. 1825 also witnessed foundations in central London and at southern ports and resorts such as those at Bristol, Brighton, Portsmouth and Plymouth. Institutes at Reading, Exeter and Dover were established in 1826. By this

latter year there were more than 100 mechanics' institutes in existence, united by similar aims, but with varying titles.[25] News of their establishment was spread through the national and local press and in particular by the *Mechanics' Magazine*, a weekly publication read widely by working mechanics and tradesmen.[26] The London M.I. became a proto-type institution with its library, lecture programme and classes. It also became a central dissemination point for the national mechanics' institute movement.[27] Economic depression in 1826 adversely affected the spread of the movement and from 1827-31 there were only a handful of new creations each year, while many institutes were forced to close by falling memberships.[28]

Thomas Kelly, (1957), identified a more flourishing mechanics' institute scene in the period 1832-41 with 20 or more new institutes per year and he estimated that further research would highlight even greater numbers of new foundations during these years. Despite the failure of some institutions each year, the combined total of mechanics' and literary and scientific institutes in England and Scotland trebled from 107 in 1831 to 305 a decade later, with a total membership of at least 60,000.[29] Moreover, there was an increasing tendency to establish institutes in rural areas, especially in country and market towns.[30] Rural industries and agricultural production needed scientific and engineering knowledge too: for instance, a course of three lectures at Lewes M.I. in Sussex in the late 1830s on 'The Steam Engine' by C.F.Partington, included its application to the steam plough. The frequency of "Chemistry" as a lecture topic at this Institution would almost certainly have included its relevance to agriculture, given the fact that Lewes was a market town and its hinterland largely agricultural.[31]

Chartism and the economic downturn at the beginning of the 1840s slowed the growth of the movement, but the later years of the decade witnessed a resurgence of interest in

mechanics' institutes and their numbers grew to over 700 by 1851, with a total membership in excess of 111,000.[32] Stimulation was generated for the institutes from the 1850s by the central roles that the Society of Arts and the government-sponsored Science and Art Department were to play in the next two decades. A national union of mechanics' institutes was formed in 1852 by the Society of Arts and from 1856 the Society introduced its examinations in science and commerce. The Science and Art Department began awarding grants to teachers of science in 1859 and inaugurated examinations in the basic sciences two years later.[33] These measures promoted more systematic teaching while both advertising and inspiring the mechanics' institute movement at local and national levels. As the achievement of merit through the system of examinations became increasingly common in schools and colleges after 1850, this development was both utilised and then exploited by mechanics' institutes as a raison d'etre for their existence.[34] Bolstered by such support, the mechanics' institute movement continued to prosper with new institutions being founded into the late 1860s and 1870s, even though the same period also witnessed either the decline, demise, or metamorphosis of others.

Definition of terms

In order to avoid confusion, some concepts which are integral to the subject matter, need clarification at this point. The terms 'institute' and 'institution' have been used as interchangeable titles, having the same meaning; Kelly (1957) pointed out that the use of the words "Mechanics' Institution" by the Glasgow M.I. was emulated as a formal title throughout Britain, but that "Mechanics' Institute" was the popular form in general use.[35]

The mechanics for whom these institutes catered, have been the subject of debate amongst historians and also the source of many controversies surrounding the alleged failure or success of the mechanics' institute movement. When the first institutes were established in the 1820s, power driven machinery was not yet widespread in factories and a 'mechanic' was not necessarily a machine operator but more a craftsman or tradesman. The term was often used to denote a manual worker and was even used at times to describe the working classes.[36] The problem of definition of the word 'mechanic' taxed the first committee of the London M.I. in 1823. They finally agreed that any man who earned his living by 'the work of his hands' ought to be considered a mechanic, but this could be extended for the purpose of admission to the Institute, to those who worked at trades for daily, weekly or quarterly wages.[37] Kelly suggested that such an extension in meaning could be said to include the skilled artisan, but not the masses of the working people. The reference to work of hands would seem to emphasize a working-class background. Furthermore while 'mechanics' in the early nineteenth century included tradesmen, by the 1840s such persons were usually regarded as belonging to the lower middle classes. In fact by mid-century, the mechanics' institutes were attracting a mixture of upper working class to lower middle class membership with skilled manual workers, clerical workers, shop assistants and sometimes their employers, together with employees from business and professional occupations.[38]

It was the title "mechanics' institute" and its traditional association with machine operators that was largely responsible for the assumption that most mechanics' institute activity was in the northern and industrial areas of the country. This further explains why much contemporary and earlier historical writing and research centred on those areas. Even the mid-twentieth century historians of the movement who were

themselves northern based,[39] left the southern half of England virtually untouched except for Kelly, (1957), who compiled an extensive national list of mechanics' and similar institutes by collating information from various nineteenth-century sources.[40] Although there was a heavier concentration of mechanics' institutes in the north and midlands, Kelly's list highlighted the extent of the movement in the southern half of the country and from the 1970s, historians have begun to reveal how active these institutes were.[41] While conforming to the national mechanics' institute pattern, the southern institutes also responded to the particular needs of their locality, creating a healthy diversity which allowed each one to develop as a unique creation of its own environment.

Kelly, (1957), highlighted the fact that the term "Literary and Scientific Institution", once associated with middle-class institutions in London, began to be used as an equivalent for "mechanics' institute" but usually denoted an institution that catered for 'all classes rather than for mechanics only.'[42] It is one of the contentions of the thesis that in Sussex and Hampshire and probably in neighbouring counties, the titles of "Literary and Scientific Society" and "Mechanics Institute" were often interchangeable and were frequently varied when mentioned in local newspaper reports. The latter practice was undoubtedly due at times to imprecise reporting on the part of the local media, but as Keryl Moir found in her Kent researches, institutes had a proclivity to change their names through the century and the whole issue of titles has too often clouded rather than clarified the differences and similarities between mechanics'-type institutions.[43] R.A.Thomas concluded in his study of the north-western Home Counties that nearly half the mechanics' institutes in his area were entitled 'Literary and Scientific Institute' or similarly named in recognition of their likely appeal to the 'middling classes' and 'respectable tradesmen'.[44]

While this obfuscation may surprise researchers and historians, contemporaries certainly displayed signs of confusion. The newly established institution at Midhurst, Hampshire in 1848 'on the plan usually adopted by Mechanics' Institutes',[45] found itself described as both a 'Literary and Scientific Institution' and 'Literary and Philosophic Institution', within the period of a month by the *Sussex Agricultural Express*.[46] It later appeared as the 'Midhurst Mechanics' Institution' in the list of Literary Institutions in Kelly's *Directory of Sussex,* 1867.[47]

The range of titles used by such institutes presents the modern historian with a demanding analytical task, but their subscriptions where known, can provide a more accurate tool by which to classify them. Thus the Basingstoke M.I., Newport Athenaeum and Southampton Polytechnic Institution all had quarterly subscriptions of 2/- and were in line with the usual mechanics' institutes' subscriptions. By contrast, the annual subscriptions of the Romsey L.S.I. at 42/- and 30/-, or the Hastings L.S.I. at 25/-, were beyond the means of most working-class men. They offered no quarterly option and were clearly aimed at a middle-class clientele.[48] The formal aims of institutions where known, or their descriptions in directories may also clearly indicate the intended class of membership.

A social class analysis of memberships of mechanics'-type institutions in the south is clearly complex. R.A.Thomas found that there was more interaction between the middle and working classes in their social relationships in the north-western Home Counties, and that mechanics' institute activities reinforced this trend.[49] Similar tendencies have been found in this study of Sussex and Hampshire and can be seen as one of the unifying factors in Victorian society through which the working classes could

associate with the respectable, recreational 'mores' of the middle classes. The founders of the Midhurst Literary and Scientific/Philosophic Institution in Sussex in 1848 stressed 'the great advantages that all classes, particularly the rising generation, may derive from such an institution.' [50] In a similar vein, the object of the Worthing Institution established in 1838, was 'the supplying to all classes of society the means of acquiring information in every branch of science, literature and art, at the least possible cost.'[51] Thus there is also the idea here of a common culture for all classes.

The meaning of the word 'culture' has been debated extensively by scholars; here it is interpreted in its broadest sense as defined by Ludmilla Jordanova through involving 'the full range of human experience' and 'what people make of the world,' particularly its 'construction of meaning, rather than the world itself.'[52] Writing on 'cultural history', Jordanova defines it as giving 'priority to mental processes, to what are usefully called mediations, in any historical study.'[53] Raymond Williams described two other sorts of culture which have relevance for this study. He categorised a 'working-class culture' which created 'the collective democratic institution, whether in the trade unions, the cooperative movement, or a political party.'[54] Where mechanics' institutes functioned as vehicles for the education of the working classes, they can be considered as part of such a working-class culture for the purpose of this study. Williams further explores the common culture of a community that fits well with the developing role that is promoted for the mechanics' institutes in this research. He argued that:

> The making of a community is always an exploration, for consciousness cannot precede creation, and there is no formula for unknown experience. A good community, a living culture, will, because of this, not only make room for but actively encourage all and any who can contribute to the advance in consciousness which is the common need.[55]

In the same way, the unique character of each mechanics' institute could not consciously be determined at its foundation; its aims and objectives could only guide its initial creation and protect its path from complete deviation from the general pattern.

The Area of Study

From the four southern home counties of Surrey, Kent, Sussex and Hampshire, the latter two were chosen for this study for a number of reasons. Sussex and Hampshire provide a significant comparison for the study of mechanics' institutes in this period. They both corresponded to and diverged from each other and the national picture of the movement, yet exhibited unique characteristics borne from their particular environments and circumstances.

Each of the two counties had mechanics' institutes from the earliest years of the movement with 1825 foundations at Newport and Portsmouth in Hampshire and Lewes, Brighton and Chichester in Sussex; this determined the starting date of the thesis. 1875 was selected as the finishing date because it marked a half-century of the mechanics' institute movement, which saw the development and continuation of some institutes, the demise of others, and the birth of new generations of such institutions in succeeding decades. By the 1850s and 1860s, mechanics' institutes had become a common feature of the English educational landscape.

Neither Sussex nor Hampshire has been the subject of sustained research in mechanics' institute history before, yet preliminary research by the author demonstrated that each featured many of the characteristics of the national movement. Both counties witnessed unique developments in their own respective mechanics' institute movement, arising from geographical, environmental, religious and membership circumstances. The two

counties complemented each other in terms of coastal and inland urban mechanics' institutes as well as those in small villages. The latter in both counties were sometimes more akin to a mutual improvement society. Overall, the area chosen for this study posed promising potential for intensive research into the mechanics' institute movement and an opportunity to contribute to a void in the current knowledge.

Both Sussex and Hampshire enjoyed efficient transport links with the metropolis. Good road communications to London in the 1820s were strengthened with the coming of the railways from the 1830s: the London to Brighton line opened in 1841[56] with branches to Chichester, Lewes and Hastings by 1846;[57] the London to Southampton railway via Basingstoke was completed in 1840.[58] The Chichester to Portsmouth line opened in 1847,[59] providing additional coastal communication links between the Sussex and Hampshire mechanics' institutes. Such transport communications enabled close relationships to flourish between institutes, the exchange of lecturers and also contributed to the success of the Hants and Wilts Adult Education Society.

In religious persuasion, Hampshire was probably dominated more by the Established Church and its radiating influence than Sussex, but both counties had their share of Nonconformist denominations. While each of the two counties possessed Anglican strength and landed gentry, they were both served by enduring Unitarian networks which often combined with Quaker influences to found and nurture their mechanics' institutes.

As shown in Table 1, the five Unitarian congregations in Sussex were more evenly spread over the county than in Hampshire, where they occurred only in the south and in

the Isle of Wight. Quaker meetings stretched further north in Hampshire to Alton and Basingstoke and probably contributed to the success of the mechanics' institute in the latter town. Alton M.I. was strongly supported by prominent Quaker families. Some of the longer-lived institutes benefited from having both Unitarian and Quaker meeting houses in their localities such as Lewes, Horsham, Southampton and Portsmouth.

Table 1. Unitarian and Quaker Meetings in Sussex and Hampshire

Unitarian
Sussex: Battle, Billingshurst, Brighton, Chichester, Ditchling, Lewes, Horsham and Northiam.
Hampshire: Newport, Portsmouth, Ringwood, Romsey and Southampton.

Quaker
Sussex: Brighton, Chichester, Horsham, Ifield and Lewes.
Hampshire: Alton, Basingstoke, East Tytherley, Fordingbridge, Newport and Southampton.

(Table based on information from Vickers' volumes on the Religious Census of 1851 in Sussex and Hampshire.)[60]

Key Texts in the Historiography

In terms of historiography, mechanics' institutes have received varied treatment over a 150 year span. Here the discussion will analyse the literature to survey the general narrative of the mechanics' institute movement to outline its perceived strengths and weaknesses and to highlight the main debates that it has inspired. This will also signify the complexity of the movement and why its sphere encompasses more than just educational history. More specific discussion will preface the particular themes of each chapter.

Publications by Timothy Claxton (*Hints to Mechanics,* 1839) and Thomas Coates (*Report,* 1841), both disseminated information on good practices, advice and statistical intelligence.[61] Their particular relevance for Sussex and Hampshire mechanics' institutes are discussed in Chapter Two. By mid-century, leading practitioners and

contemporary writers on adult education such as J.W. Hudson and James Hole, while appraising the achievements of mechanics' institutes, argued that they had failed to realise the expectations of their founders in two ways.[62] Firstly they failed to attract large numbers of the working classes and secondly, instead of providing serious scientific education for this class, they had been largely dominated by the middle classes who demanded popular lectures and amusing social recreation.

Such pessimistic beliefs influenced later nineteenth and early twentieth century writers on the subject and it was not until the contributions of Mabel Tylecote and Thomas Kelly in the late 1950s that the more positive and far reaching attainments of the movement could be fully understood and appreciated.[63] It remained for Edward Royle, in 1971, to turn the 'failure' legacy into one of success. [64] He asked how it was that these 'failures' could become such an 'established feature of community life' in Lancashire and Yorkshire, and drew attention to the way their critics contradicted themselves: for instance, while upholding their failure to attract mechanics and impart scientific instruction, James Hole still considered that mechanics' institutes had 'established the right of the people to culture'. Royle also highlighted other nineteenth writers such as J.V. Godwin, who when writing on the Bradford M.I., emphatically disagreed with the critics and argued that the institutes had been 'one of the strongest powers in the work of popular education'.[65]

Writing in the same vein as Royle, a few years later, W.B. Stephens reassessed the concepts of social control and the supposed decline of working-class clientele at the institutes.[66] He found 'social control' theories to be 'extremely complex' and often unhelpful in analysing the varying facets of the mechanics' institute movement. Stephens also suggested that the term 'working class' has not been clearly enough

defined and that there is too much conflicting evidence for a meaningful conclusion to be drawn about class divisions within the mechanics' institutes' membership.[67] Kelly (1957), had already stressed the fact that the majority of the institutes' membership remained working class in its broadest sense with skilled manual workers, clerical workers, shopkeepers and their assistants, together with some business and professional people; in fact similar in composition to the membership of the Workers' Educational Association in the early twentieth century. Moreover, as Kelly pointed out, the institutes were originally intended to provide instruction for the skilled craftsman and not the unskilled manual worker and in this sense the critics' arguments are weakened.[68]

Kelly and Tylecote's work inspired a regeneration of interest into the neglected mechanics' institute phenomenon by later twentieth century historians. Kelly emphasized the need for the mass of material to be examined 'in the light of detailed local research',[69] and modern historians have contributed valuable studies from a number of different viewpoints.[70] Through his work on the Warrington M.I., W.B. Stephens concluded that while historians have sought to generalise about the common experiences of the institutes and consider them as part of a national movement, they have neglected the fact that 'each institute was also a creation of its local community'.[71] This concept is certainly integral to the present research and emphasises the fact that a mechanics' institute in turn, became a centre of its community culture.

Between the 1960s and 1980s, scholarship on mechanics' institutes tended to explore the extent of their science education and reflected the strong promotion of the scientific culture of these decades.[72] This later research also reflected the approaches of the 'newer' historiography of the later twentieth century. Aspects of social control, upward social mobility, and the role of science at the institutes have been considered by Ian Inkster,[73] while more detailed regional studies have researched points from Kelly and

Tylecote's findings at a more local level. Jeff Robinson's study of the Surrey mechanics' institutes also considered them as agencies of social control.[74] John Laurent has argued that there was a connection between some long-standing Yorkshire institutes imbued with working-class intellectual activity and the spread of socialist ideas and the late nineteenth century Labour movement.[75] Shoji Katoh highlighted the 'autonomous entity' of each individual institute and their variety of forms and management styles and argued the need for more case studies to support this diversity.[76] One of the aims of this thesis is to respond to this requirement; it will analyse management structures and those practices which seem to have been the most successful in terms of viability and endurance.

There are three other areas of mechanics' institute activity that emerged as worthy of further study from the author's work on the Guildford M.I., but none of these has received major research in its own right. The present research seeks to contribute knowledge to these gaps in the mechanics' institute scholarship. The first area of concern involves religious influences at the institutes. These have usually only been dealt with in terms of the prohibition of their discussion and by the mention of clerics, (mainly Anglican), who opposed the institutes as well as those who gave particular support such as Unitarians and Quakers.[77] The religious motivation of such supporters however, their networks and overall influence in the development of particular institutes and the movement generally in Sussex and Hampshire, was felt significant enough to devote a chapter to the subject.

A second theme to warrant attention was the presence of women at the mechanics' institutes. This has been given incidental treatment by historians of the movement but the matter has only been dealt with at length by June Purvis.[78] As gender and feminist

studies have increasingly made women more visible in so many hitherto neglected spheres of their existence in nineteenth-century life, their gradual inclusion and acceptance at the mechanics' institutes has provided stimulating material for discussion in Sussex and Hampshire.

Music as an activity at the institutes has been referred to by Kelly and Tylecote in some detail and to a minor extent by historians of music, but no one has yet provided a major treatise on its influence as a cohesive and cultural force in the institutes' history and development.[79] Such an omission would seem to need correction. As demonstrated in this research, music assumed an important place in the social history of all classes in the nineteenth-century, with a corresponding vital significance for the cultural and community roles of the mechanics' institutes in Sussex and Hampshire.

Civic Pride and the Mechanics' Institutes

As the present investigation progressed, it became clear that not only did the mechanics' institutes in the study often become centres of community culture in their locality, but that they became integral to its civic consciousness. These two concepts have become a twinned theme of the research and relate strongly to the areas of religious influence and musical activity mentioned above.

The notion of civic pride intensified in importance during the nineteenth century as increasing numbers of people were living in towns. As Rachel Milestone aptly illustrates in her work on nineteenth-century Stalybridge, the series of political reforms which began with the repeal of the Corporation and Test Acts (1828-29), and encompassed the 1832 Reform Act and the 1835 Municipal Reform Act led to a much extended enfranchisement and more democratic internal administration of towns.[80]

This in turn resulted in a more defined consciousness of a town's independent status and importance: rivalry between neighbouring towns and localities ensued. It was displayed in assertive public buildings, particularly town halls of which Leeds had perhaps the best example, statues, squares and parks, while in literary spheres it emerged through local newspapers, directories, and histories. Culturally, urban pride was expressed through art galleries, libraries and educational institutions.[81] The phenomenon of civic pride became so important that it has been treated by many historians of the period, creating a varied vocabulary to describe its concepts. Asa Briggs spoke of 'provincial culture' in Victorian cities and referred to the 'civic gospel' philosophy which was to inspire life and town planning in Birmingham in the 1800s.[82]

The majority of successful mechanics' institutes fostered a civic spirit both consciously and unconsciously in advertising their events and existence. Many indeed held their meetings, lectures and entertainments in their local town hall and utilised its central importance to enhance their existence. More rural institutes promoted a complementary sense of community pride and awareness. Instances of civic and local pride at the institutes in Sussex and Hampshire will be emphasized as appropriate throughout the thesis. David Eastwood highlighted an important contribution of the mechanics' institutes with his suggestion that they played 'a central role in thickening the culture textures of Victorian towns' and together with lending libraries, reading rooms and booksellers, they helped 'the complex process of translating literacy into reading habits.'[83]

Associated with the concept of civic consciousness, recent historical scholarship on the notion of 'Civil Society' has expanded debates on nineteenth century social conditions by highlighting the 'Victorian culture of voluntary association' which encompassed

politics, religion, sport, leisure and adult education. As Lawrence Goldman has argued, the existence and flexibility of this associational culture allowed for the integration of new or previously excluded groups such as religious Nonconformists and women, who were thus enabled to forge a stake and identity in society.[84] The extent to which women utilised mechanics' institutes to legitimise their emergence into a public space is explored in Chapter 7.

Ian Inkster had already contended in the 1970s that mechanics' institutes provided 'legitimate foci' for sub-groups of middle-class marginal men, many of whom were Unitarians and imbued with a strong scientific spirit, to be integrated into the 'national society'.[85] Tristram Hunt has pointed out further that it was the Unitarians in particular amongst the Nonconformists, 'who stood out as the most articulate champions of civic virtue'.[86] Unitarians' prominence in fostering the spirit of civic pride in their localities followed an emphasis on civic responsibility in their religious training.

The spirit of civic consciousness and community culture which were discernible in the activities of the mechanics' institutes by the latter half of the nineteenth century, have continued to feature in adult and higher educational initiatives, albeit with intermittent emphases in the intervening years. A recent area of debate on the civic and community associations and responsibilities of modern universities and higher educational institutions has relevance for discussion of the nineteenth century situation in its historical context. In her paper on 'Higher Education and civil society', Maria Slowey highlights the complex ways in which universities engage with civil society and their local communities through public courses and lectures, sharing of their cultural facilities and in their intellectual, business and industrial capacities.[87] Sir David Watson has defined the challenge of civic engagement for universities as 'not simply to engage in

"knowledge-transfer" but to establish a dialogue across the boundary between the University and its community which is open-ended, fluid and experimental.'[88] He analyses the richly diverse ways in which the University of Brighton has been able to respond to this challenge through its 'Community-University Partnership Programme'.[89] It will be argued that the nineteenth-century mechanics' institutes anticipated many of the above challenges of civic engagement in their evolving roles as centres of community culture and learning during the period of this study.

Methodology and use of Sources

The starting point for research in this study began with Kelly's list of mechanics' institutes in Sussex and Hampshire.[90] This was supplemented by information from printed primary sources such as Claxton, Coates, Hudson and the 1851 Census, whose combined intelligence furnished many details of membership numbers, size of library, frequency of lectures, subscription amounts and often the name of secretary.[91] Kelly's list indicated the location of the archives for individual institutes where known, and letters were sent to Libraries and County Record Offices to confirm this information. On visiting the relevant Libraries and Record Offices, searches were made in the local intelligence columns of nineteenth-century newspapers and in directories for any reports or details of mechanics' institutes. Any relevant local history books which might have some mention of mechanics' institutes, were also consulted.

Some institutes have left rich sources of archives such as Lewes M.I., whose minute books, lecture bills, scrapbooks and other printed records have been invaluable in furnishing a fuller picture of its activities. Basingstoke M.I.'s history is documented through its first three half-yearly manuscript reports from 1840-41, and then, after a gap in years, printed annual reports from 1855 to 1867, with others for 1877 to 1881.

Various printed papers such as insurance details for the end of the century have provided some evidence of its later years. [92] Archive material for other institutions has been scarcer or non-existent, but printed reports, rules and a subscription book survive for the first Brighton M.I. (1825-7), while printed yearly reports for the second Institute (established in 1851), for the mid 1850s, give full details of its activities.[93] Printed rules and a library catalogue exist for Chichester M.I. and augment the details of its work given in the *Mechanics' Magazine* in 1837. The original *Central Society of Education* Report from which the *Mechanics' Magazine* information was derived, also gave details of Chichester and Lewes M.I.s.[94] A bound manuscript minute book for Odiham M.I. from 1860 to 1875 has survived, although some of the faded handwriting is impossible to decipher. The existence of a successor minute book, discovered only recently by the author, is important for recording the reasons why a change of name and status to a Literary Institute were made.[95] Only three papers still exist for the Alton M.I., but even these, which include the rules of the Institution, its library and reading room, are valuable for their signatures of President, officers and committee members, and the information given about the character and management style of the institute.[96]

Where archive materials have survived, however few, the historian can begin to build a picture of the institute's activities, organisation, personnel and relationships with the locality. Where gaps occur, reference to local contemporary directories often furnishes missing details. Some give names of officers, premises and indications of yearly programmes. French's *Directory of Worthing* in 1859, gave a short history of the origins of the Worthing Institution from 1838 with information concerning its programme, management and admission charges.[97] Directories for Southampton and the Isle of Wight have provided similar evidence for their institutions. Pigot's *Commercial Directory for Hampshire* of 1830 has given some details of contemporary institutes with

location and names of officers where known; from the lists of inhabitants, it is sometimes possible to deduce the occupations of an institute's leading personnel and thus estimate whether the management might be more professional, artisan or a mixture of both.[98] Some of the county Directories have recently been transferred to commercial CDs and many of these have been invaluable for this thesis.[99] 'Google' has been used as a search engine on the internet for information on both the mechanics' institutes under study and their localities in the nineteenth century. Local histories, both primary and secondary texts, have helped to fill gaps left by primary documentation of the institutes. Baigent and Millard's *History of Basingstoke* (1889),[100] supplied details of the town's Institute buildings and patrons, while William Curtis's *History of Alton* (1896), gave the background and other expansive information for the Alton M.I. of which his father was a long-term President.[101] Information from recent secondary volumes on the towns of the mechanics' institutes have often highlighted the civic contributions of prominent institute personnel. The *Town Book of Lewes 1837-1901* was particularly helpful in this respect as it was transcribed from existing Town Records.[102] Biographies can provide family details of members and friends of institutions helping to build up a picture of networks of relationships and influences within the societies.[103]

The *Mechanics' Magazine* is a useful reference for contemporary attitudes towards mechanics' institutes, and for comparing the efforts and successes or otherwise of those highlighted. Letters to the editor from Brighton and Crayford M.I.s were examples of those which revealed their identity and then disappeared from its pages.[104] The historian is left wondering whether these institutes faded, had a change of policy in their public relations, or purely a change of secretary who had no time to write to the *Magazine.*

If no printed or manuscript archive material has survived for a particular institute, the void can often be filled with evidence from local newspapers on their district institutes' activities. Other historians of mechanics' institutes such as K. Moir and M.I. Watson, have made substantial use of newspapers to fill in the gaps left by scarce records.[105] Some regional papers were very keen to promote the work and development of the institutions in their catchment area. In this study of Sussex and Hampshire, two newspapers in particular have been valuable sources of information. The *Sussex Agricultural Express* from its foundation in 1837 to the 1850s was consistent in its encouragement and advertising of both the establishment of new institutions and their onward development. Not only did it complement other sources, but it also highlighted the existence of additional societies which are not documented elsewhere, thus justifying Kelly's estimation that further research would reveal new mechanics' institutes which were not in his lists. The *Hampshire Independent*, from 1836, served a similar purpose for central and south Hampshire, including the Isle of Wight. It seems to have gone even further by actually sending its own reporter to some institute meetings instead of relying purely on the society's own reports. The *Surrey and Hants News* has been very useful for evidence in the 1860s of Aldershot, Alton and Odiham M.I.s. Where evidence has been extensive and quite repetitive for a number of years in for instance the *Sussex Agricultural Express,* a sampling process has sometimes been necessary because of the sheer geographical size and long-time period of the study.

Religious sources for the thesis have been investigated at both primary and secondary level. John Vickers' volumes on the 1851 Religious Census for Hampshire and Sussex provide a definitive starting point.[106] Local histories and directories have augmented the details, while specialised texts on Unitarians[107] and Quakers[108] have highlighted their general organisational practices and beliefs, together with names of individuals who

might have been important motivators in their local institution. Michael Watts' volume on *The Dissenters* in the eighteenth and nineteenth centuries, portrayed the background against which the Nonconformist sects lived.[109] Other perspectives of the religious atmosphere of the time have been proposed in D.G. Paz's recent volume on *English Religious Traditions*.[110] Primary sources for Unitarianism, particularly key individuals, have been gathered from Unitarian periodicals such as *The Inquirer*, and extracted information from *The Monthly Repository*.[111] Invaluable secondary sources for Unitarians have been the volumes and articles by Ruth Watts, especially her *Gender, Power and the Unitarians in England*.[112] Kathryn Gleadle's work on those she terms 'Radical Unitarians', emphasized the vital connections between Unitarianism and the feminist movement.[113] Quaker primary sources have not been so easily available but valuable evidence has been gathered from secondary sources. In particular, Geoffrey Cantor's article in 'Culture and Science in the Nineteenth-Century Media' explores Quaker periodicals for their illumination of various Friends' ideas on science and education; John Reader's lecture '*Of Schools and Schoolmasters*' and Camilla Leach's articles have extended knowledge of Quaker education; James Walvin's *The Quakers* discusses Quaker history in the eighteenth and nineteenth centuries in depth.[114]

In order to clarify and authenticate the present, essentially 'local studies' research, a number of more recent historical approaches have been utilised. For example, microhistorical methods have been employed as a tool to reveal aims, actions, symptoms and behaviours held in common by the committees and memberships of mechanics' institutes; contextualizing these clues has enabled generalisations and conclusions to be offered.[115] Analysis of the language and discourses used by official reports, contemporary writers, media accounts and correspondence between institutes has allowed a greater understanding of the historical processes and social relationships.

This was particularly relevant with regard to the position of women and in examining the social class membership of the institutes.[116]

Organisation of the Thesis

The area of study covers Sussex and Hampshire but care has been taken to maintain a consistent comparison of their mechanics' institute activity with that of the national mechanics' institute movement. Thus each chapter has a section on its themes from a national perspective before analysing the situation in the two counties. The concept that each institution was a unique creation of its own environment and membership, whilst also being part of the national movement, is integral to the rationale of the thesis. Unitarian influence at the institutes is highlighted wherever it occurs in order to assess its significance in the development of the institute movement in Sussex and Hampshire.

This first chapter provides an introduction to the history and place of mechanics' institutes within the wider sphere of adult education. The historiography of the mechanics' institute movement is examined with its breadth of debates which signify the complexity of the field. Specific terms of reference are defined and a justification for the chosen area of study is given together with the principal geographical, social, religious and cultural characteristics which influenced the development of the mechanics' institutes in Sussex and Hampshire. The importance and role of civic pride is explored with regard to its significance for the development of the institutes.

Close attention as to how the mechanics' institute movement operated and spread in Sussex and Hampshire is considered in Chapter Two. The importance of networks, local associations, newspapers, religious links and the concept of civic pride with regard to institute buildings, museums, exhibitions, concerts and social events are examined.

Patronage and the influence of charismatic leaders on the style and constitution of their institutions are assessed. Notions of the institutes as cultural spaces are also considered, with particular reference to their local communities. These concepts are further evaluated for the post-1850 period in Chapter Five.

Management of the institutions is considered in the Third chapter, highlighting the practices that were essential for their survival. Different styles and structures of management found within the institutes such as the use of subcommittees are analysed. Particular prominence is given to the varying attitudes and care of the institutes in their efforts to remain solvent. Some of the institutions were very conscious of the need to cultivate effective public relations with their local populations and utilised the concept of civic pride very successfully in this sphere.

Chapter Four analyses the specific formal activities that occurred at the institutes in terms of education. The pedagogical role of the mechanics' institutes is placed alongside other formal and informal agencies of adult education such as adult schools, Owenite and Chartist practices and efforts in self-help groups. The original aims of the institutes to teach science to the skilled working classes are monitored through the following decades to reveal that modification and popularisation of the subject was not uniform or necessarily the experience of all the institutions in this study.

Chapter Five considers the transition of the mechanics' institutes from their initial role of teaching science to working men to becoming centres of community culture, serving much wider sections of their local populations and the diverse directions of culture and recreation that this created. Central to the chapter is the Great Exhibition of 1851 and its varied effects on the institute movement in the two counties from the examination

systems of the Society of Arts and the government Department of Science and Art in order to stimulate the country's science and technical education to the hosting of impressive local exhibitions by the institutes themselves. The increasingly significant concept of civic or local community pride is discussed in relation to the institutes and their local environment. The role of institute museums are analysed as agents of civic pride as well as their stimulus in an educational sense. The position of the institutes in the 1860s and 1870s is examined, showing how many had affiliated themselves to the Working Men's Club and Institute Union and provided more leisurely pursuits such as billiards in order to suit the changing needs of their memberships and to survive as institutions. Lecture programmes often included or were replaced by more popular Penny Readings. Although many institutes had disappeared by the later years in this study, Sussex especially saw the creation of new foundations in the last two decades. In areas where a mechanics' institute had ceased without a direct successor, there was often a Government sponsored School of Art or Science which catered for those who wished to further their knowledge of these subjects with the option to sit examinations.

In Chapter Six where religious influences are examined, a particular purpose was to investigate whether Unitarian contributions to the mechanics' institute movement in Sussex and Hampshire were as significant as has been found in some other areas of the country, and especially at Guildford M.I. in the South. Quakers had a quieter, less obvious and less public, but still important influence, especially at Alton M.I. The strength of the Anglican Church in the Hampshire mechanics' institute movement is manifested through its hegemony of the Hants and Wilts Adult Education Society. Although discussion of religion was prohibited at the institutes, it was difficult to ignore its underlying motivation amongst the founders and leading members.

Women as the 'forgotten minority' has been chosen as the theme for Chapter Seven and gives a teleological presentation of developments: the initial exclusion of women from the institutions, through their struggles to gain entry, often amidst strong male opposition, to a gradually more welcoming ethos. The influence of early nineteenth-century discourses on 'separate spheres' is examined and the contrasting significance of Unitarian promotion for the education of women is highlighted. From the 1840s mechanics' institutes were becoming spaces where women could speak publicly. Sussex and Hampshire institutes engaged some of the best-known female lecturers of the period. There is even evidence of women in a "managing" or caretaker role at two of the institutes in the later 1870s.

The Music Chapter, number eight, performs a dual function. Its first aim is to highlight the extent and rich diversity of music practices at the institutes and to emphasise the importance of these in promoting their public image and relationships, as well as for their entertainment and fund raising qualities at social events. It is hypothesised that music assumed a major role in attracting new members, especially women from the 1830s who were vital members of their choirs. As a popular pastime amongst the middle and working classes, the organisation of regular, respectable choral and instrumental activities would have created an enthusiastic following and advanced the reputation of an institute as a community space. There is much evidence in this study to suggest that music was the strongest cultural activity at its mechanics' institutes and also served to enhance aspects of civic pride. The chapter's second function is to contribute to the ongoing academic discourses to redress the nineteenth-century belief that 'England was the land without music', a derogatory phrase coined in the nineteenth century, comparing England unfavourably with European countries, especially Germany.

The Conclusion assesses the work and legacy of the institutes in Sussex and Hampshire, analysing how this evidence contributes to the existing scholarship on both the mechanics' institutes in the south of England and the wider national movement. The processes of, as well as the actual achievements in each sphere of the mechanics' institute activity are examined, in an attempt to deepen understanding of the changes in Victorian society. The various effects of the Great Exhibition of 1851 in relation to the institutes is traced. Particular attention is given to the relevance of processes in the development of the institutes as centres of community pride and culture and their impact on the growing sense of civil society in the nineteenth century.

Chapter One Notes

1. Individual mechanics' institutes hereafter to be referred to as—M.I., e.g. London M.I.

2. J. Sims, *The Guildford Institutes 1834-1856*, (University of London, Institute of Education unpublished MA dissertation, 1987).

3. T.Kelly, *George Birkbeck*, (Liverpool: Liverpool University Press, 1957): this volume gives an exhaustive history of the London M.I. as well as detailed coverage of the national mechanics' institute movement; T.Kelly, *Adult Education*, (Liverpool: Liverpool University Press, 1970); M.Tylecote, *Mechanics' Institutes of Lancashire and Yorkshire before 1851,* (Manchester: Manchester University Press, 1957); JFC. Harrison, *Learning and Living,* (London: Routledge and Kegan Paul, 1961); B. Simon, *The Two Nations and the Educational Structure, 1780-1870,* (London: Lawrence and Wishart, 1981), pp.153-163.

4. P.Gardner, 'Literacy, Learning and Education', *A Companion to Nineteenth-Century Britain*, ed. C. Williams, (Oxford: Blackwell, 2007), p.353.

5. Harrison, op.cit., p.xiv; Kelly, (1970), op.cit., p.v.

6. Kelly, (1970), op.cit., pp.98-102, 105-109; R.Fieldhouse, *A History of Modern British Adult Education*, (Leicester: NIACE, 1997), pp.11-12.

7. Kelly, (1970), op.cit., pp.103-5; Tylecote op.cit., p. 2.

8. Fieldhouse op.cit., pp.1 and 20-21.

9. Tylecote, op.cit., pp.3-4.

10. Kelly, (1970),op.cit., p.79-80.

11. T.Pole, *Origin and Progress of Adult Schools*, (London: Woburn Books, 1969 reprint of 1816 edition), especially pp. 20-21.

12. Fieldhouse, op.cit., p.2.

13. Simon, op.cit., pp.152-153; The Society for the Diffusion of Useful Knowledge, hereafter SDUK, was established in 1826 by Lord Brougham to support mechanics' institutes and similar societies by publishing cheap educational literature for the working classes on scientific and literary subjects.

14. Fieldhouse, op.cit., p.12.

15. Harrison, op.cit., pp. 242, 267, 271; D.G. Paz, Ed., *Nineteenth Century English Religious Traditions,* (Westport, Conneticut and London: Greenwood Press, 1995), p.110; R.V.Holt, *The Unitarian Contribution to Social Progress in England*, (London: Lindsey Press, 1952), pp. 242, 267, 271.

16. R. Johnson, 'Really Useful Knowledge,' in *Working Class Culture*, J. Clarke et. al, (London: Hutchinson, 1979), pp. 84-88.

17. Fieldhouse, op.cit., p13; T. Kelly, (1970), pp.142-4; B.Graham, *The Carlise Working Men's Reading Rooms* (Nottingham: Nottingham Studies in the History of Adult Education, University of Nottingham,1983), Introduction, pp.1-5.

18. J. Rose, *The Intellectual Life of the British Working Classes,* (New Haven and London: Yale University Press, 2002), pp.20-25.

19. Graham, op.cit. p.4; Fieldhouse, op. cit., p.14.

20. Fieldhouse, op.cit., p.14.

21. Ibid., pp. 16-17.

22. M. Hewitt, 'Class and the Classes', in C. Williams, ed., *A Companion to Nineteenth-Century Britain*, (Oxford: Blackwell, 2007), pp.318-19 and pp.308-10; quote is p.318.

23. Kelly, (1970), pp.118-120.

24. Ibid., pp.118-122.

25. Kelly, (1970), op.cit., p.122.

26. *The Mechanics' Magazine,* founded in 1823 by J.C. Robertson, was a popular weekly review of scientific discovery and invention and was widely read by mechanics.

27. For instance, in 1835 Guildford M.I. received details of 'first rate' lecturers from the secretary of the London M.I., in J. Sims, op.cit., p. 42.

28. Kelly, (1957), op.cit., pp. 225 and 230.

29. Ibid., p. 233.

30. Ibid., p. 232.

31. Lewes M.I Scrapbook 1, (1824-54); Partington's lectures on 'The Steam Engine' were on 20/21/23 Nov., 1838/9; the exact year is unclear. Chemistry lectures were frequently mentioned throughout the Scrapbook.

32. A. Chadwick, et. al., *Victorian Learning and Leisure, 1, Mechanics' Institutes,* section D2, (Nottingham: University of Nottingham, SCUTREA, Dept. of Adult Education, 1984).

33. Kelly, (1970), op.cit., p.197.

34. See discussion in Chapter 5 of this thesis.

35. Kelly, (1957), op.cit., p.74, note 4

36. Ibid., pp.104 and 244-245.

37. Ibid., p. 86.

38. Ibid., pp. 244-245.

39. Kelly, Tylecote and Harrison, op. cit. were all historians based in the north of England

40. Kelly, (1957), op.cit., Appendix V1.

41. A.Thomas, 'The Mechanics' Institutes of the Home Counties, c. 1825-70', *Vocational Aspects of Education*, Vol.XXX1, Nos. 79 and 80, (1979); J.J.Robinson, *Adult Education and the Imperative to Control*, (unpublished University of Surrey Ph.D. Thesis, 1985); J.Sims op.cit; K.Moir *Mechanics' Institutes in Kent, 1825-70* (University of London, Institute of Education, unpublished MA Dissertation, 1990).

42. Kelly, (1957), op.cit., p.212.

43. Moir, op. cit., pp.9-10.

44. R.A. Thomas, op.cit., No. 79, p. 68.

45. *Sussex Agricultural Express*, 25th Nov., 1848.

46. Ibid, and 16th Dec., 1848.

47. Kelly's *Directory of Sussex*, 1867, p.2243.

48. J.W. Hudson, *History of Adult Education*, (London:Woburn Press,1851, reprinted 1969), pp. 225 and 231.

49. R. A. Thomas, op.cit., No.80, p.108.

50. *Sussex Agricultural Express*, 16th Dec., 1848.

51. French and Son's *Directory of Worthing*, (Worthing:1859), pp.37-38.

52. L. Jordanova, *History in Practice*, (London: Hodder Education, 2006), p.73.

53. Ibid, p.4.

54. R. Williams, *Culture and Society 1780-1950*, (Harmondsworth: Penguin, 1961), p. 314.

55. Ibid, p. 320.

56. H.P. White, *A Regional History of The Railways of Great Britain, Vol. Two, Southern England*, (London: Phoenix, 1961), pp.72-76.

57. J.R. Armstrong, *A History of Sussex*, (London: Phillimore, 1995), p.147.

58. White, op. cit., p.114.

59. Ibid., p.119.

60. J.A.Vickers, *The Religious Census of Hampshire 1851*, (Winchester: Hampshire Record Series,1993); *The Religious Census of Sussex1851*, (Lewes: Sussex Record Society, Vol.75,1989).

61. T. Claxton, *Hints to Mechanics,* (London: Taylor and Walton,1839); T. Coates, *Report of the State of Literary, Scientific, and Mechanics' Institutions in England*, (London: SDUK, 1841).

62. J.W. Hudson, *The History of Adult Education*, (London: Woburn Press, 1851); J.Hole, *An Essay on the History and Management of Literary, Scientific and Mechanics' Institutes*, (London: Longman, Green and Roberts, 1853).

63. Tylecote, op.cit.; Kelly (1957), op.cit.

64. E. Royle, 'Mechanics' Institutes and the Working Classes, 1840-1860', *Historical Journal*, XIV, 2, (1971), p. 305-321.

65. Ibid., quoting Godwin, p.307.

66. W.B. Stephens, *Adult Education and Society in an Industrial Town,* (Exeter: University of Exeter, 1980), pp. 46-7.

67. Ibid., p.74.

68. Kelly, (1957), op. cit., p. 244-5.

69. Ibid, p. 258.

70. R. A. Thomas op.cit.; J.J. Robinson, op. cit.; J.Sims, op.cit.; K.Moir, op. cit.

71. Stephens, op. cit., p. 47.

72. M.D. Stephens and G.W. Roderick, eds., *Scientific and Technical Education in Early Industrial Britain*, (Nottingham: Nottingham Studies in the History of Adult Education, University of Nottingham,1981); I. Inkster, ed., *The Steam Intellect Societies*, (Nottingham: Nottingham Studies in the History of Adult Education, University of Nottingham,1985).

73. Inkster, op. cit., and on the role of science see his 'Science and the Mechanics' Institutes 1820-1850', *Annals of Science*, 32, (1975), pp. 451-474.

74. Thomas; Robinson; Moir; Sims; op.cit.

75. J.Laurent, 'Science, Society and Politics in Late Nineteenth Century England',

Social Studies of Science, Vol. 14, (1984), pp.585-619.

76. S. Katoh, 'Mechanics' Institutes in Great Britain to the 1850s', synopsis of his book in *Journal of Educational Administration and History,* Vol.XX1. No.2, (July, 1989).

77. For instance, many references in Tylecote, Harrison and Kelly's two volumes, op.cit.

78. J. Purvis, *Hard Lessons*, (Cambridge: Polity Press, 1989), pp. 99-160.

79. Kelly, (1957), op cit., pp.120, 126, 132 and 136; Tylecote, op.cit., 15 entries in Index under Mechanics' Institutes: Instruction, Subjects of, music.

80. R. Milestone, 'That monstrosity of bricks and mortar': The Town Hall as a Music Venue in Nineteenth-Century Stalybridge, *Music in the British Provinces 1690-1914*, R. Cowgill et. al., (Aldershot: Ashgate, 2007), p.295.

81. J.Walvin, *Victorian Values,* (Granada Television,1987), Municipal Government Section; T. Hunt, *Building Jerusalem,* (London: Weidenfeld & Nicolson, London, 2004), pp.162-172; G. Best, *Mid-Victorian Britain*, (Glasgow: Fontana, 1979), pp. 80-84.

82. A. Briggs, *Victorian Cities*, (Harmondsworth: Penguin Books, 1968), pp.47 and 184-239.

83. D. Eastwood, *Government and the Community in the English Provinces,1700-1870,* (Basingstoke: Macmillan, 1997), p.73.

84. L. Goldman, 'Civil Society in Nineteenth-century Britain and Germany', in *Civil Society in British History*, ed. Jose Harris, (Oxford: Oxford University Press, 2003), pp. 97-98.

85. I. Inkster, 'The Social Context of an Educational Movement', *Oxford Review of Education*, Vol. 2. No. 3, (1976), especially pp. 284, 287-293 and 299.

86. Hunt, op. cit., p. 106.

87. M. Slowey, 'Higher Education and civil society', in *Higher Education and the Lifecourse*, ed. M. Slowey and D. Watson, (Maidenhead: Society for Research into Higher Education & Open University Press, 2003), pp.135-138.

88. D. Watson, *Civic and Community Engagement*, (Maidenhead: Open University Press, 2007), p.3.

89. Ibid., pp. 52-55.

90. Kelly, (1957), op. cit., Appendix VI.

91. Claxton; Coates; Hudson, op. cit.; *Census of Great Britain, 1851.*

92. See Bibliography.

93. First Brighton M.I., First Quarter's Report, 1825; Rules of 1825 and 1826; Second Brighton M.I., Rules 1851-55; Annual Reports 1855-7. All in *Brighton Pamphlets*, Vol. 6, at Brighton Public Library, 1st Brighton M.I. Subscription Book, 1825-27, Brighton Public Library.

94. Chichester M.I., Rules and Library Catalogue, 1840; *Mechanics' Magazine*, Vol. 28, Nov. 18th, 1837, p. 102; C. Baker, 'Mechanics' Institutions and Libraries', *Central Society of Education,* First Publication 1837, (Reprinted London: Woburn Press, 1968).

95. Odiham M.I. Minute Book 1860-1875.

96. Alton M.I., Rules of 1855; Rules of the Reading Room and Bye Laws of the Library (both papers undated); A paper exempting the Alton M.I. from local rates, 1855.

97. French and Sons, *Directory of Worthing,* 1859, p. 37-39.

98. Fletcher and Sons, *Directories of Southampton*, 1834, 1836, 1839 and 1845. Sheriden, *Isle of Wight*, 1834; Pigot *Commercial Directory, (including Hampshire), 1830.*

99. For instance those published by Archive CD Books Ltd and S&N Genealogy Supplies.

100. F.J. Baigent and J.E. Millard, *History of Basingstoke*, (Basingstoke and London: C.J. Jacob,1889).

101. W. Curtis, *A Short History and Description of the Town of Alton*, (Alton:1896).

102. V. Smith, ed., *The Town Book of Lewes, 1837-1901*, (Lewes: Sussex Record Society,1976).

103. For instance, R.A. Armstrong, *Henry William Crosskey – His Life and Works*, (London:1895).This gives a good analysis of his Unitarian family in Lewes and its strong association with the Lewes M.I.

104. *Mechanics' Magazine,* Vol. 4, No. 86, 16th April 1825, p. 26; No. 91, 21st May, 1825, p. 111; No. 94, 11th June 1825, p. 150; Vol. 5, 22nd Oct., 1825, p. 4.

105. Moir, op. cit.; M.I. Watson, *Adult Education in North Lancashire in the Second Quarter of the Nineteenth Century*, unpublished University of London, Institute of Education, Ph.D. Thesis, 1988.

106. Vickers, (1989 and 1993), op. cit.

107. R.V. Holt, *The Unitarian Contribution to Social Progress in England,* (London: Lindsey Press, 1952);H. Mclachlan, *The Unitarian Movement*, (London: 1934); Hague, op. cit.; L Smith, *The Unitarians*, (Arnside, Cumbria: Lensden Publishing, 2006); R. Watts, 'Some Radical Educational Networks of the late Eighteenth Century', *History of Education*, Vol. 27, No. 1.(1998); R. Watts, *Gender, Power and the Unitarians in England 1760-1860*, (London:

Longman,1998).

108. D.B. Windsor, *The Quaker Enterprise*, (London: Muller,1980); J. Walvin, *The Quakers,* (London: John Murray, 1997); E. Isichei, *Victorian Quakers*, (Oxford: Oxford University Press, 1970); M.R. Watts, *The Dissenters*, Vol.2., (Oxford: Clarendon Press,1995).

109. M.R. Watts, op.cit.

110. G. Paz, *Nineteenth Century English Religious Traditions* (London: Greenwood Press, 1995).

111. *The Inquirer;* A. Ruston, *Monthly Repository 1806-1832; Index to and synopsis of the Obituaries,* extracted and edited by Alan Ruston, (Oxhey, Hertfordshire : A. Ruston,1985).

112. R.Watts, *Gender, Power and the Unitarians*, op.cit.

113. K.Gleadle, *The Early Feminists*, (Basingstoke: Macmillan Press,1995).

114. Cantor, 'Friends of Science? The Role of Science in Quaker Periodicals', *Culture and Science in the Nineteenth-Century Media*, ed. L. Henson et. al., (Ashgate: Aldershot, 2004); J. Reader, *Of Schools and Schoolmasters*, (London: Quaker Home Service, 1979); C. Leach, ' Religion and Rationality: Quaker Women and Science Education 1790-1850', in *History of Education*, Vol. 35, No.1. Jan. 2006, pp. 69-90; C. Leach, 'Advice for Parents and Books for Children: Quaker Women and Educational Texts for the Home, 1798-1850', in *History of Education Society Bulletin*, No. 69, May 2002, pp. 49-58.

115. See for example, G. Levi, 'On Microhistory', in P. Burke, ed., *New Perspectives on Historical Writing*, (Cambridge: Polity Press, 2001).

116. Guiding texts included C. Hall et. al., *Defining the Victorian Nation*, (Cambridge: Cambridge University Press, 2000), pp.21-32. Also E.J.Yeo, ed., *Radical Femininity*, (Manchester: Manchester University Press,1998), pp. 6-10.

Chapter Two

The Extent and Diffusion of Mechanics' Institutes in Sussex and Hampshire 1825-75

This chapter analyses how and why the mechanics' institute movement spread through Sussex and Hampshire, selecting some of the chief agencies responsible for this and their interactions with the institutes themselves. The role of civic pride is explored here in relation to the localities of the institutes and in its contribution to their developing importance as centres of community culture.

The Physical Setting

Hampshire was the larger of the two counties at 1628 square miles and a population of 283,000 in 1823, while Sussex had 1463 square miles of land with 233,000 inhabitants. Both counties had large agricultural areas which supported cattle and sheep while the forested areas provided timber, particularly oak, which was heavily utilised in shipbuilding for the English navy. Sussex oak timber was superior in quality and quantity to any other in the country. Corn was grown in each of the two counties while Hampshire was famous for its honey.

Hampshire benefited from good inland navigation, aided by canals centred on Andover and Basingstoke. The latter ran into Surrey and linked with the Thames near Chertsey, as well as providing a waterway with Sussex via the cut from Chichester and Arundel to Portsmouth.[1] These early communications were expanded by the coming of the railways in the later 1830s and beyond.

In historical terms, Hampshire's chief claim to fame lay in the fact that its county town of Winchester had been "the metropolis of England" until the time of Henry 1, when it

was superseded by London as the seat of royalty and government. Winchester Cathedral was one of the largest and most magnificent buildings of its kind in England.[2] Southampton was the other county town of Hampshire and in fact was a county in its own right. There were twenty-four other market towns and prior to the 1832 reforms, Hampshire had sent twenty-six members to Parliament.[3]

Notable features of Sussex included the city of Chichester with its "noble" cathedral and the seaside resort of Brighton, transformed from a small fishing village to a place of popular esteem, heightened by the patronage of King George 1V and his frequent residences at the Royal Pavilion. Arundel, famed for its magnificent castle, was the seat of the Duke of Norfolk. Besides Chichester, Sussex had twenty market towns and before the 1832 Reform Bill, it returned twenty-eight members to Parliament.[4]

Characteristics of the Mechanics' Institutes

In this study of Sussex and Hampshire a whole range of titles from Mechanics' Institute, Literary and Scientific Institute, People's Institute, Athenaeum etc have been incorporated if they exhibited characteristics that were indicative of a typical mechanics' institute's procedures such as a library, lectures, classes and sometimes a museum. The social class of membership has, in most cases, been identifiable through subscription charges and where available, from the statistical analysis of different classes of membership such as that in the 1851 Education Census with its details of proprietary, annual, quarterly and other types of membership.[5] The aims of an institute can also indicate the intended clientele.

Further evidence relating to the social background of membership has been gleaned from the descriptions of the members and their institute's activities in its minutes,

reports and newspaper coverage; the style of language used in these has sometimes been a useful tool in analysing the social composition of membership. The existence of other institutions for wealthier patrons in the same area such as literary and philosophical societies with much higher subscriptions have emphasized the status of the mechanics' type institutions.

In general there was less distinction between social classes in the membership rolls of mechanics' and similar institutions in Sussex and Hampshire compared with their counterparts in the more populous northern and industrial areas, where several socially divergent institutions might be sustainable within one town. A rural southern market town the size of Basingstoke, Southampton or Chichester might theoretically be capable of supporting two or three adult educational institutes for different sections of the community, but in practice usually only one survived. It often happened through a merger of two rival institutions as at Chichester or Southampton in the late 1830s to early 1840s period. A country village however such as Fordingbridge in Hampshire or Petworth in Sussex, would probably only have been able to sustain one institute which would therefore have catered for a range of social classes as illustrated by Midhurst L.S.I. in Sussex, in Chapter 1.

The Situation and Extent of the Movement in Sussex and Hampshire

Both the counties in this study of mechanics' institutes were represented in the first years of the movement by institutes founded as early as 1825. In Sussex these were established in towns of importance in the county at Chichester, Lewes and Brighton, while Hampshire's earliest institutions were founded at the major seaport of Portsmouth and Newport on the Isle of Wight. By 1830 Sussex had seen the establishment of five institutes with the first Brighton M.I. failing in 1828. Hampshire had a total of two

recorded foundations in 1825 with the addition of Southampton M.I. in 1830. It is important to note that the five early institutions at Portsmouth, Newport, Southampton, Lewes and Chichester were the most enduring, lasting until at least 1865 and all were situated in areas of Unitarian strength.

Hampshire experienced a spurt in growth in the foundation of mechanics' institutes during the 1830s and 1840s, followed by a continuous but slower expansion in the 1851-60 era. Sussex's experience mirrored that of Hampshire between 1830 and 1860, but with a smaller average number of foundations of six per decade to Hampshire's average of eight. Sussex however, continued to create new establishments with no recorded predecessor, well into the 1860s at Hurstpierpoint, Worth (near Crawley) and Uckfield. Interestingly, the first and last of these still chose "Mechanics' Institute" as their title, although many older and continuing societies had already changed their names.

Thus trends in Sussex and Hampshire appear to have followed the national mechanics' institute pattern in the 1820s but were less affected by the progress of Chartism and economic decline in the 1830s-40s. The evidence in this study mirrors that of other recent regional researches on the mechanics' institute movement which have begun to indicate the presence of continuing strength well into the latter years of the century, contrary to earlier conclusions that there was a decline from the 1860s.[6] Occasionally an institute which began in the 1820s and failed prematurely, then witnessed a rebirth in a later period of greater support or prosperity, as with the mechanics' institutes at Darlington and Bishop Auckland in County Durham. This was also the experience in Sussex of the two Brighton M.I.s of 1825-8 and 1851-59 respectively and might also

have been the case for the Battle M.I.s where the first lasted only a year in 1828, but the second institute flourished from 1849-67. [7]

The Agencies of Diffusion

The chief sources of inspiration for the earliest institutes in Sussex and Hampshire came from the London M.I., *The Mechanics' Magazine* and from George Birkbeck himself. The latter spoke at the opening ceremony of the Brighton M.I. in August 1825 on the benefits of mechanics' institutions and the committee of the new Institution ambitiously planned to create an impressive society to emulate a 'little university of studies and lectures' rather than a 'confined and limited provincial Institution'.[8] The Brighton M.I. in turn, influenced the foundation of the neighbouring Lewes M.I. three months later, for the latter's inaugural meeting was chaired by M. Ricardo Esq., a key figure in the establishment of the former institution. There was a strong Unitarian presence at this first Lewes M.I. meeting which included Henry Browne and the Rev. T.W. Horsfield who would almost certainly have provided a link with the Chichester M.I., opened in the same year and inspired by the Unitarian pastor of its town, the Rev. John Fullagar.[9] As will be seen from evidence throughout the thesis, Unitarian networks became an additional regional agency for the dissemination of institute intelligence in both Sussex and Hampshire.

In Hampshire, the Newport M.I. acknowledged its existence to the influences and publicity derived from the mechanics' institutes in Scotland and the Metropolis. The *Southampton Herald* observed that Newport M.I. was the first such institute in that part of the country but anticipated that 'they will soon become general'.[10] This statement was made in March 1825 and although the issue of the foundation of a 'Dockyard Mechanics' Association' at Portsmouth had been raised by a shipwright correspondent

as early as January 1825, the Portsmouth M.I. was not established until later in the year. Significantly, the writer also referred to 'the distinguished successes of mechanics' institutes in the north and the metropolis' [11].

As highlighted in Chapter One, the *Mechanics' Magazine* was a further distributor of great influence in the spread of the mechanics' institute movement from its earliest years and carried regular reports of institute activities. In October 1825, a report of Mr. Ricardo's course of lectures on Artificial Light at the Brighton M.I. appeared in the columns of the *Magazine*. This could well have encouraged other readers to suggest similar courses in their own institution, or even inspired the establishment of new institutes.[12]

Correspondence to the *Mechanics' Magazine* revealed much about the local conditions surrounding the establishment of mechanics' institutes. In 1826 a letter from a supporter of the mechanics' institutes' cause pointed to the fact that there were many places in which the desire to form an institute existed but due to local circumstances this had never been realised. The writer referred to the success of the Portsmouth M.I. which he had experienced when visiting the area but he expressed vexation that there was no such institute at Southampton. His enquiries in the locality about the dearth of a mechanics' institution, elicited the explanation that 'Southampton is a party town,' suggesting that party politics and factions had mitigated against such a venture.[13]

The work of John Field on nineteenth-century Portsmouth and Southampton led him to conclude that the latter town had an 'affluent elite with access to resources' and was socially more divided than Portsmouth, which had fewer wealthy citizens. Moreover there was considerable overlap in financial status between the bourgeoisie and skilled

craftsmen in Portsmouth, giving it a more 'egalitarian' character than other nineteenth-century towns. In particular, the highly paid workforce in the dockyard made it more difficult for the Portsmouth middle classes to exert the market-place authority which their counterparts in the northern industrial towns and even in Southampton could wield. Field considered that these factors modified the behaviour of Portsmouth's middle classes with regard to local government, charities and in their display of affluence. He pointed to the paucity of Portsmouth's Victorian public architecture compared with that of Yorkshire and Lancashire. However, the lack of such distinctive class differentiation in Portsmouth eased the development of both formal and informal social relationships which could transcend class barriers.[14]

A more comprehensive social organisation in Portsmouth could well explain the greater united support for an earlier mechanics' institute in the town than at Southampton, where distinctive social hierarchies could command divisive political and religious allegiances. There is strong evidence from contemporary sources that many Tories and Anglicans opposed mechanics' institutes as dangerous seedbeds of dissension, especially if they were promoted by Unitarians.[15] A Unitarian presence was indeed influential in both the Portsmouth and later Southampton Institutes. In Southampton's case, religious tensions between Unitarians and more orthodox Christian believers may have contributed to the party factions referred to by the correspondent to the *Mechanics' Magazine* in 1826, and thus helped to delay the foundation of the town's mechanics' institution.

The writer to the *Mechanics' Magazine* mentioned above, had been informed that despite the lack of progress on this issue, Southampton did have 'several gentlemen of much prudence and liberality, resident in the town, who have ever seemed anxious to

promote the benefit of the lower classes' and he urged the Editor and other correspondents to the *Magazine* to suggest ways in which such philanthropic desires could procure the establishment of a mechanics' institute.[16] Public exposure of this kind must have stimulated interested individuals in the town in their determination to found their own institution, which was realised in 1830. The fact that the Southampton M.I. purchased its own building from the outset, emphasised its promoters' superior financial means; it must have commanded respect as an Institution, for by 1834 it had secured the patronage of HRH the Duchess of Kent. One of its Vice Presidents was the Unitarian Rev. M. Maurice, thus indicating the denomination's influence from early days.[17]

A case of class conflict may have contributed to the early demise of the first Brighton M.I., (1825-28). One of its members, a William Bryan, was also chairman of the Committee of Brighton Trades and arguments arose between some members and teachers of the Institute as to whether they should collect funds in support of striking Yorkshire weavers. Dr. William King, a leading teacher at Brighton M.I. and a well-known co-operator, felt that no union men should be members of the Institute.[18]

The *Mechanics' Magazine* acted as an important forum for the publication and dissemination of new developments and good practices in the mechanics' institute sphere. In 1837, the *Magazine* focussed very favourably on the state of Chichester and Lewes M.I.s, following a report by the Central Society of Education on the *'State and Progress of Mechanics' Institutes and Libraries.'* Chichester M.I. was compared very favourably with Birmingham M.I., the former having 300 members from a population of only 8,000 and a twentieth the size of Birmingham. Chichester M.I.'s practice of sending book boxes to its two branch societies at Bognor and Selsey and organising monthly lectures for them which were attended by up to 50 people, were particularly

highlighted: 'This plan might be extensively carried out if its good effects were more generally known.'[19] Such praise probably encouraged other institutes elsewhere to consider the idea of creating branches in neighbouring villages with circulating libraries, but its long-term effect on the dependent Bognor branch institute may have inspired its development into the Bognor People's Institute as recorded by the 1851 Census and continuation as the Bognor Mechanics' Institute into the late 1860s.[20]

In 1825 the *Mechanics' Magazine* had received a very far-sighted suggestion from the founder of the Plymouth and Devonport M.I., regarding the compilation of annual returns of all mechanics' institutes and mechanics' book clubs in order to publish statistics such as numbers of members and books:

> thus affording the materials of much important information, not only to the present generation, but to the historian, whose duty it may be in after ages, to trace the causes that have operated in accelerating the march of useful information among the working classes. And if annual returns of the same kind could be made, and tabulated according to the best form, the successive steps which mark the growth and extension of mechanical information might be traced from year to year, and from one generation to another.[21]

Although this recommendation had to wait a number of years to be realised in later publications, pioneers of the mechanics' institutes were already envisaging the strategic importance of a national adult education movement.

The diffusion of the mechanics' institute movement both nationally and locally was stimulated by the various Reports which were produced by individual writers and agencies, particularly the SDUK. These also began to realise the collation of information proposed above by Mr. George Harvey, FRS, of Plymouth. The first such publication by Timothy Claxton, *Hints to Mechanics* (1839), contained a list of 'Institutions for Popular Improvement' which included the Lewes, Portsmouth, Southampton and Winchester Mechanics' Institutes together with details of their

membership numbers, subscription charges, library circulation, lecture provision and whether they had their own building. Seven other institutes including Chichester Mechanics' Institute were listed from the Sussex and Hampshire area, but insufficient data had been provided to do more than list their locality.[22]

Thomas Coates' *Report* for the SDUK followed in 1841 and stressed the need for more contact between mechanics' institutes as well as the advantages of setting up a central agency for the institutes to correspond with and to use for pooling resources. He strongly publicised the activities and organisation of the West Riding Union of Institutions and by his own visits to various regions such as Bristol and Sussex, Coates encouraged a number of local associations of institutes to be formed in the 1840s. These included the Sussex Association based on Lewes Mechanics' Institute which was organised by the institute's secretary, Henry Browne. This union encompassed institutes at Chichester, Hastings, Horsham, Lewes, Rye and Worthing. No record of its working has been found but initial correspondence between the institutes must have encouraged forms of contact and networking.[23] One of the most useful things the *Report* offered for both contemporary readers and later historians was its list of lecturers. For institutes, it provided a source of likely speakers and for future generations, an invaluable point of reference. Coates' *Report* must also have promoted the meeting of delegates at Southampton in 1840 to form a Hampshire Union of Institutes, but according to the *Hampshire Advertiser*, the majority of representatives 'were averse and the proposal was adjourned sine die.'[24] This probably indicated the strength of 'local' feeling that had to be overcome to enable these unions to be successful. Thomas Coates experienced similar disinterest, but on a regional scale when he tried to encourage the new unions to form a national federation of institutions. The cost of sending delegates to distant meetings mitigated against the poorer institutes supporting a national venture,

while the fear of loss of independence and self-government still persisted as an issue when a national association was finally inaugurated by the Society of Arts in 1852. This had attracted 368 institutions by 1855.[25]

Hampshire acquired its association of institutions a decade later than Sussex, but it was to secure documented achievement in promoting adult education compared with the Sussex union of institutes. Inspired by the Hon. and Rev. Samuel Best of Abbot's Ann, Andover, in 1853, the Hants and South Wilts Lecturers' Association became known successively as the Hants and Wilts Education Society (1854), the Hants and Wilts and Dorset Education Society (1859), and finally the Southern Counties Adult Education Society (1860).[26] It aimed to sponsor libraries and reading rooms in villages which needed them and to provide a central depot from which such places could borrow diagrams, educational and scientific apparatus and to establish a panel of lecturers. Bryan Field, its biographer, emphasised the 'considerable success' of the Society in this work, and attributed much of this to Rev. Best and his committee. Best was the son of the Lord Chief Justice of the Court of Common Pleas and connected to the Pitt family, which may have enabled him to secure upper-class support for working-class educational ventures. His Adult Educational Society had Prince Albert's patronage until the latter's death in 1861 and the Vice-Presidents included the Lord Chancellor, Lord Palmerston and the Bishops of Winchester and Salisbury. Thus the Society had the approval and endorsement of Establishment figures which was a powerful factor in any educational issues and jealously guarded its predominance and authority in this sphere. Although some Anglican clerics were hostile to mechanics' institutes, especially in the early years of the movement, there were a number who supported their local institution, particularly if they had some control in its' management.[27]

As discussed in the Religious Chapter, the Anglican hegemony of the Hants and Wilts Adult Education Society enabled it to establish firm affiliations with mechanics' institutions which had Church of England clerics on their management committees such as Basingstoke and Winchester M.I.s. However, there was also an influential Quaker on the committee in the figure of George Edmondson. He had bought the Harmony Hall estate near Broughton from Robert Owen after it failed as an experimental socialist community and re-opened it as a boys' boarding school, Queenwood College, in 1844. Members of its staff lectured regularly to mechanics' institutes on chemistry and other scientific subjects; Basingstoke M.I. was a particular beneficiary.[28] Queenwood was run as both a primary and a trades school, making it an important rural foundation for technical instruction.[29] By 1855, many institutes including Winchester, Southampton, Basingstoke and Andover were sending representatives, both clerical and secular, to the Southern Counties Adult Education Society.[30] Therefore the contacts and networking between institutions must have ranged widely.

The Society's impact on the progress of the mechanics' institute movement and adult education within Hampshire must have been considerable. Its own scheme of examinations introduced in 1856, was designed to motivate adult learning and from 1860, a credit system enabled candidates with passes in three subjects to gain a certificate. Prizes were awarded to students and teachers' salaries were augmented by grants from the Society according to their students' results. The success of the examinations was evinced by the rise from three candidates in 1856 to over 800 by 1869. In the later 1860s the Society inaugurated a quarterly paper for its members and institutions through which scholastic and clerical positions could be advertised and holders of certificates could publicise their qualifications. Finally, from 1854, annual conferences were held at which educational papers were presented and discussed.[31] The

1856 meeting was hosted by the Basingstoke Mechanics' Institute through the influence of its President, W.S. Portal and was hailed as:

> one of the most numerous and influential meetings ever held in the town, attracting as it did, the attendance of many talented gentlemen of eminence and influence in the cause of Education, and in the advancement of Science and Art.[32]

According to this Report, the Conference proceedings were reported nationally by the London and provincial papers which greatly enhanced the status of both the Society and Institute. The latter's sense of civic pride was uplifted even more the following year when the Hants and Wilts Society again selected Basingstoke:

> for that intellectual gathering; thereby paying a very great compliment to the Town and it's Mechanics' Institute, well calculated to elevate the character of both; as the growing importance of such a Meeting, --- the celebrity of the many talented and learned men attending it, --- and the general interest excited by its proceedings, must exercise a very great and beneficial influence in promoting and improving Adult Education throughout both Counties. [33]

In 1860, Basingstoke M.I. accepted the responsibility for being a "depot" for the diagrams and apparatus of the Hants and Wilts Society, for an annual rental of £2.[34] The central roles accorded to Basingstoke M.I. by the Adult Education Society would suggest that it was considered to be a model of good practice and it is likely that it acted in an advisory capacity to other institutions in the region. Southampton, Andover [35] and Alton [36] Mechanics' Institutes have also been recorded as "in union" with the Hants and Wilts Society in the 1850s and Basingstoke M.I. remained so until at least 1867.[37]

The Hants and Wilts Society ceased in 1873 but it had succeeded in establishing its position as a regional organisation to which institutions for adult education could affiliate themselves in return for guidance, practical help in the loan of apparatus, recommendations for suitable lecturers and a viable examination system to motivate their students and the opportunity for institute members to network with others through

the Society's conferences and quarterly paper. It also enabled the Church of England to quietly grasp the initiative in adult education in north and central Hampshire, especially in the absence of Unitarian strongholds and opposition in this area of the county. In this respect it shared similarities with the Buckingham and Berkshire Lecturers' Association (1854) which was composed largely of clergymen, including several from Eton College and also had its own exam and prize system.[38]

Networks of Lecturers

A further and vital means of aiding the progress of the mechanics' institute movement was in the persons of the lecturers themselves. This element in the diffusion has often been underestimated but was almost certainly a channel through which news of developments in the movement and of individual institutes was disseminated and which encouraged the foundation of new institutions, both to emulate or to rival those already established. Itinerant professional lecturers had existed, especially in the scientific field, long before the advent of mechanics' institutes, but the latter provided a very convenient and reliable source of location and finance for those men. Popular speakers could expect to earn between £4 and £5 per lecture, although some individuals such as the traveller J.S. Buckingham, could command ten guineas per lecture. Many eminent lecturers such as Professor C.F.Partington, Dr. D.Lardner and Dr. John Epps in the 1830s travelled throughout the country and took up engagements at various Sussex and Hampshire institutes. Dr. Epps and Dr. Cantor were listed in Coates' *Report* and this in turn provided a source for institutes which wanted to expand their pool of lecturers beyond individuals in their locality. In the 1840s and 1850s other lecturers of national repute such as Charles Cowden Clarke and a few female speakers including the popular Clara Balfour and Mrs. Fanny Kemble joined the ranks of those who were eagerly sought after on the mechanics' institute lecture circuit. [39]

Recommendations between institutes regarding lecturers and between the latter themselves when they discussed their most favoured venues would have broadened awareness of which invitations to accept and which societies might be worth approaching in the hope of an engagement. The London M.I. itself suggested suitable lecturers to the Guildford M.I. in the 1830s [40] and feedback from such institutions expanded the metropolitan institute's knowledge of who were the most successful speakers. More locally, leaders and experienced lecturers from the Sussex and Hampshire institutions were invited to speak at neighbouring societies thus disseminating news of activities and good practice on a more regional basis. Rev.J. Fullagar of Chichester M.I. and Mr. Bullar of Southampton M.I. were frequent lecturers to other institutions in their locality and beyond.[41]

Areas without a Mechanics' Institute

Although there were so many positive channels through which knowledge of the mechanics' institute movement could be diffused both nationally and locally, it is pertinent to inquire why some areas remained without any form of mechanics' or literary and scientific institution throughout the 1825-75 period. In the case of Southampton, the delay was claimed to be factious social relationships, which could have been political or religious. In other places where conditions appeared more favourable it is harder to understand the dearth of such facilities. Billingshurst in Sussex presented strong potential for the establishment of an institution in 1840 when the Rev. J. Edmonds of Petworth was reported to have given two stimulating Astronomy lectures on consecutive evenings in January at the Kings Arms Inn, to a very respectable and welcoming audience. The *Sussex Agricultural Express* confirmed that this was the first time any such event had been attempted in the village and that many

hoped to have another such treat.[42] No further mention of lectures or developments however have been found in the newspaper or any other source of mechanics' institute activity. It can only be assumed that notwithstanding any other obstacle, no significant individual or group of men in the locality came forward to initiate the proceedings to establish a Billingshurst Institute.

The lack of continuity in this sphere is hard to understand at Billingshurst for it possessed a Unitarian (General Baptist) Chapel with an average of nearly 60 adults attending services in 1851.[43] As revealed at various points in the thesis, Unitarians were usually amongst the most prominent supporters of any adult educational initiatives in their locality. The Rev.J.Edmonds who gave the Astronomy lectures in January 1840, had given a similar course of three lectures to large audiences at the Petworth L.S.I. the previous year and was able to advertise the advantages of creating a village institute.[44] Since they had successful institutes at Petworth and nearby Horsham, those seeking more intellectual stimulation at Billingshurst may have felt that their needs were well catered for in their adjacent neighbourhoods. However, a Working Men's Club was in existence by 1874. Its location 'in the centre of the village', the fact that it had a Rev. John Kennard as its secretary and the absence of any other recorded institute at this time, could all suggest that it might have hosted opportunities for the type of intellectual activity that a mechanics' institute could offer at this period.[45]

The Role of Newspapers

The support or lack of interest from the local press was always a significant factor in the success of individual mechanics' institutes and also for the movement's regional development. Both Sussex and Hampshire were fortunate in obtaining supportive press coverage for their institutes from the 1820s. The newspaper intelligence columns might

advertise an institute's lectures to potential new members or even occasional spectators whose ticket fees were vital to the financial survival of most societies. Discerning philanthropists might well feel motivated by a favourable press report to become a benefactor of a new or needy institution. In a similar vein to the national effects of the *Mechanics' Magazine,* a regional newspaper could act as a disseminator in the counties for local institute developments and also be the springboard of inspiration for new foundations. Conversely a hostile or indifferent press which ignored a particular institution or the whole concept of adult educational societies could both restrict the scope of such establishments and at the same time deprive itself of a potential section of its readership. However, the generally favourable press coverage in Sussex and Hampshire, encouraged the mechanics' institute movement to flourish and similar circumstances were found by Moir in Kent and M.I.Watson in Lancashire. Both scholars discovered a rich source of evidence in contemporary newspapers, especially for the discovery of institutes which may not have appeared in the officially published statistics.[46]

From 1825 the progress of mechanics' institutes in southern Hampshire and Sussex was closely monitored by the *Southampton Herald* which covered news for Hampshire, Wiltshire, Dorset and Sussex and the *Hampshire Telegraph and Sussex Chronicle* (hereafter, just the *Hampshire Telegraph).* The *Southampton Herald* published a long letter to its editor from a Portsmouth Dockyard mechanic in January 1825 stressing the manifold advantages of mechanics' institutes and pleading the establishment of such a society in Portsmouth itself.[47] This newspaper followed the developments of the Newport M. I. on the Isle of Wight from February 1825 with interest and after reporting on its second meeting, added, 'we feel great satisfaction in inserting the above account' and 'this is the first in this part of the country that has come under our observation, but

we hope they will soon become general.' This sign of regional pride was followed optimistically by the hope that 'gentlemen will always be found who will come forward with donations of money and books' and that all moderately large towns could have mechanics' institutes because the expense to the mechanics themselves was small. [48]

The *Hampshire Telegraph* gave extensive coverage to the proceedings of the Chichester M.I. in 1825 and highlighted the inaugural meeting of the Lewes M.I. in November of that year. News of events at both the Newport and Portsmouth M.I.s was also reported in the years following and although the details were probably supplied by the societies themselves without a newspaper reporter's presence, the reviews were highly positive.[49] At Chichester M.I. such statements as 'a numerous and attentive audience,'[50] and again a 'highly gratified' audience expressed their satisfaction by 'repeated plaudits,'[51] gave a most favourable impression. In a similar vein, the founding meeting of the Lewes M.I. was described as 'numerously and most respectably attended' with 'liberal subscriptions' from various gentlemen.[52] All such announcements would have engendered a positive interest from those readers who favoured causes which would advance the progress of popular education and knowledge.

The majority of local newspapers covering Sussex and Hampshire in the 1825-50 period which have been consulted, seem to have been generally supportive of mechanics' institute activity in this period. Conversely the *Hampshire Advertiser and County Herald*, researched only for the years 1830-32, (due to time constraints and apparent lack of relevant evidence), published nothing about mechanics' institutes, during this period: various causes, either political or religious, may have been the reason but silence on the subject could adversely affect the public's perception of such institutions.

The Sussex institutes benefited greatly from the favourable attention given to their activities by the *Sussex Agricultural Express*, published from 1837 by John Baxter and son in Lewes. The father was a well-known publisher of agricultural, historical and topographical works and deeply concerned with the town's affairs, where he had occupied most of the parochial and civic offices.[53] Thus, the paper's policy was directed by a man of culture and experience in local affairs. His newspaper was consistent in its championing of any society that sought to improve the intellectual or cultural welfare of local citizens and in so doing, emphasized such a society's role as a centre of local culture. Its encouraging comments regarding the recently established Worthing Institution in 1838 were typical of its stance: 'Appearances augur much in favour of the institution, which promises to be of value to the town and Neighbourhood,' whilst amongst its one hundred members, 'are parties of very considerable importance in the town.'[54]

The Petworth L.S.I. received caring and protective covering from the *Sussex Agricultural Express* in April 1838 when it commented, 'We should like to see this Institution better supported than it is, as we think it tends much to the improvement of the mind, and to keep youth from the path of vice.'[55] Almost certainly as a result of the interest stimulated by the newspaper, it was able to report an improvement at Petworth by November 1838: 'It gives us much pleasure to state that several new members were proposed and accepted.'[56]

In 1839, the newly established Rye L.S.I. received a warm welcome in its first report from the *Sussex Agricultural Express* which hoped 'to be able to report progress with ten fold success' and looked forward to a time when the institution's foundation would be considered 'an era in the history of the town.' The paper further promised that:

> we shall occasionally advert to the society and its proceedings, literary and scientific and trust that what will afford amusement and instruction to the inhabitants of a town, may not prove uninteresting to a public, every day the recipients of the advantages of literary and scientific improvements.[57]

There is very much a sense of local culture and community pride in the establishment of such a new institution already in the late 1830s and this spirit was to increase considerably during the next forty years.

While the *Sussex Agricultural Express* gave favourable publicity wherever it thought fit, the editor was not slow to expose poor practice. It was without doubt that a newspaper reporter was sent to hear a lecture on Optics at the Petersfield Library and Reading Room Meeting in October 1839 at the Town Hall, for the Society itself would have been unlikely to publicise such a disparaging report about the Rev.G.D.Mudie of Fareham, a well-known lecturer. According to the paper, Mudie's lecture was 'a thing of shreds and patches', 'containing but very little original matter, and that little, anything but interesting.' Worse still, 'we feel constrained to depreciate this slovenly mode of treating a subject, as, instead of enlightening and instructing, it is only calculated to mislead and bewilder the minds of the young.'[58]

A few years later, the same newspaper exposed a contemporary example of "plagiarism" at the Worthing M.I. where a lecture on Dramatic poetry was delivered.

According to the informant the lecture was:

> exceedingly well attended, and gave great satisfaction, until it was discovered that the lecture was not original. The lecturer, supposing that the audience were not very deeply read in such matters, attempted to palm off as his own a lecture taken from a now almost forgotten work, called 'The Literary Remains of Henry Neal!' This has caused an inquiry to be made as to the other lectures delivered at the institution by the same person in preceding years, and all of them

are discovered to have been pirated.[59]

While the newspaper was not averse to condemning such shameful practice, a more lenient attitude prevailed when they decided that 'in mercy, as we are bound to think, the writer suppresses the name of the talented individual alluded to in the paragraph. We wish to practice the virtue of following so charitable an example.'[60]

Similarly, the *Hampshire Independent* criticised Rev. T. Adkins of Southampton when he lectured at Winchester M.I. in March 1839 for 'some remarks on the Church of Rome (which) were uncalled for, and exceedingly injudicious.'[61] As an Independent Chapel minister he may have had some personal prejudices against the Roman Catholic religion. The same newspaper had only a week before, in an article entitled 'SHABBY FELLOWS', threatened to expose two or three gentlemen who had reneged on promised subscriptions to the Winchester M.I. building funds: 'We know the parties, and if they continue to withhold that which they are in honour bound to pay, they may expect to see their names posted in the columns of the "*Hampshire* Independent".'[62]

Throughout the 1830s to 1850s, the *Sussex Agricultural Express*, the *Hampshire Telegraph* and the *Hampshire Independent* showed great interest in the mechanics' institute movement in their respective areas and were keen to foster their success. The *Sussex Agricultural Express* was particularly keen to champion an institution which was endeavouring to overcome hard times as with the Battle M.I. in 1852 when its publicised annual report revealed that its funds were in a much better condition than the previous audit and that the debt of £11 had been liquidated.[63]

The Hampshire Independent catered for the institutes of central and southern Hampshire and the Isle of Wight in the same way. Such a strong interest was taken in the

Winchester M.I. that the newspaper seemed to have sent a correspondent to attend its events on more than one occasion with comments such as, 'We again paid a visit to this very promising institution...we beheld with much pleasure so large a company of visitors, a great portion of which were ladies, indicating that lively interest the proceedings of the institution are exciting.'[64]

From the 1860s, the *Surrey and Hants News,* one of the newer local newspapers, was favourably publicising the activities of the north Hampshire institutes, particularly those of Aldershot, Alton and Odiham. Their annual reports were published in detail which helped the movement to flourish successfully beyond the period when many areas of the country were struggling to maintain their mechanics' institute movements. Just as the earlier newspapers had encouraged their native institutions, the *Surrey and Hants News* took every opportunity to promote the good effects that these societies could have for their communities. Great pains were taken to aid the Aldershot Institution, of six years' duration, in raising funds for its new building in 1864 when apathy threatened to delay its plans: 'We say boldly that the public ought to support the Institution more liberally than has yet been done.' ...'it will be an unlooked for disgrace, and one without precedent in the annals of the town, if we have to go another year without an adequate Institution.'[65] This was a particularly significant example of civic pride and community belief in the importance of their Institute as Aldershot had little cultural history. Before its rapid expansion as an army base for the Crimean War in 1854, it had a population of less than 900, rising to over 16,000 by 1861. [66]

The impact of local newspaper coverage on the mechanics' institute movement in Sussex and Hampshire is difficult to evaluate exactly, but it was certainly an influential factor in the spread of the movement and for their development as centres of community

culture. It is even more difficult to estimate who the readership of the local press comprised. The four main Hampshire newspapers, the *Chronicle, Telegraph, Advertiser* and *Independent* had a total weekly circulation of seven-and-a half to eight-and-a-half thousand copies between 1837 to 1852.[67] The *Sussex Agricultural Express* had sold 160,000 copies between 1837 and 1847 and quickly gained the largest circulation in south east England.[68] The gentry, middle and upper classes should certainly have figured prominently amongst the readers of such papers by mid-century. Geoffrey Best in his *Mid-Victorian Britain*, indicated that the majority of working-class people could read in the 1830s and that general literacy improved through the century with continuing advances in popular education. He cast doubt on the traditional concept of the 'illiterate working man', painting him as a rarity, while emphasising the expenses of newspapers and winter lighting as reasons for workmen being read to as a group in their public house or club.[69] The reduction of the 'newspaper tax' in 1836 from 4d to 1d and its final abolition in 1855 would have encouraged the purchase of newspapers by an ever increasing number of working-class readers. The typical mechanics' institute took at least a small selection of the daily and weekly national and local press and made these available in the reading room or library, to all its members. Most of the latter would have been literate enough to benefit from such opportunities and thus able to keep abreast of new initiatives in adult education.

There was an early tendency in some Tory and Anglican quarters to oppose the early mechanics' institutes: for instance the response of the Tory *Quarterly Review* to the establishment of the London M.I. dwelt on the latter's lack of religious and moral teaching.[70] In Sussex and Hampshire however, the local Tory press did not show disapproval of the institutes and were often as encouraging as the Whig./Liberal media. The *Sussex Agricultural Express* founded in 1837 by the Anglican and Tory Baxter

family was always supportive and indeed almost paternalistically, proud of the successes of its area's mechanics' institutes. It had been founded as a Conservative rival to the *Sussex Advertiser.*[71] The earlier *Southampton Herald* which had publicised the foundation of the Newport M.I. and effort to start a Portsmouth Dockyard Institute in 1825-6, was probably a Tory newspaper, for it proclaimed itself as a supporter of 'the King, the Law and the People'. These two papers however, gave no hint of any Tory prejudice against the mechanic's institute movement. Only the Southampton based *Hampshire Advertiser* with its Tory bias, was conspicuous for its dearth of reference to the movement in the 1830-32 period which has been investigated. Conversely, the two overtly Liberal newspapers of Hampshire, the Whig *Hampshire Telegraph* and the Liberal-Radical *Hampshire Independent* were both keen to promote their mechanics' institutes in glowing and protective terms.[72] Therefore it would be fair to conclude that institutes in Sussex and Hampshire benefited very positively from their county press whose far reaching patronage could also publicise that of influential individuals.

Patronage

The issue of patronage was a matter of vital consequence for the mechanics' institutes and can be analysed on a number of levels. Firstly there were those chosen by the institutions themselves who were often from noble or prominent civic rank, or a respected local religious minister. During the course of its existence, an institution might attract newspaper patronage as exemplified in the previous section. A third form of sponsorship could be promoted by a union or association of institutes such as the Hants and Wilts Adult Education Society, or a national convening body such as the Society of Arts.

Many of the mechanics' institutes in Sussex and Hampshire had patrons from the aristocracy or nobility whose influence drew visitors to the institutions' public and social events, making welcome additions to their funds and raising their status in the eyes of their local community. Sometimes an institute received indications that a member of the local aristocracy was favourable to its establishment. Such was the case with Chichester M.I. when at its foundation meeting in April 1825, letters were read from the Duke of Richmond and Lord G. Lennox, tendering their services in any way that could be most beneficial.[73] Accordingly, a month later it was agreed to request the Duke of Richmond to accept the office of President, 'his Grace having expressed himself very friendly to the Institution.'[74] A impression of how important the Duke and his family's patronage was to the Chichester M.I. can be gauged from a report on a forthcoming Ball in 1838:

> Expectation is on the qui vive till the evening arrives from the rumour that the noble Vice Patroness, the Duchess of Richmond, and a party from Goodwood, will honour the room with their presence. An immense number of tickets have already been disposed of, and we have no fear that the result of the evening's amusement will fully realize the expectations of those at whose instigation it has been set on foot. [75]

In a similar fashion, Lewes M.I. advertised its Soiree and Exhibition of 1854 as having the Right Hon. Earl of Chichester in the Chair [76] and a 'Grand Concert' to raise funds for repairs to the Institution in the 1850s was given 'under the distinguished patronage of the Right Hon. Earl of Sheffield.'[77] In an example at the end of the period of this study, Basingstoke M.I. paid tribute to its aristocratic Vice President, Wyndham B. Portal in 1877 for hosting 'another most successful Fete' in Malshangar Park with a reminder of how he 'thereby added to his many former acts of kindness another proof of his earnest goodwill towards the Members of this Institution.'[78]

Civic patrons may not have been so influential as the aristocracy and nobility in attracting audiences to their institute's events, but their respected status in the locality

must have been instrumental in raising their institution's profile and prestige as well as enabling amenable relations with the local authorities and social hierarchies. Attention must be drawn here to the number of Unitarian leaders and patrons who successfully inspired the lives of their mechanics' institutions: Abraham Clarke and Rev. Edmund Kell at Newport M.I., Rev. John Fullagar, Vice President of Chichester M.I. and Henry Browne of Lewes M.I.; all involved themselves in the civic affairs of their town as well as being totally committed to the cause and effective management of their mechanics' institution. The discussion of their roles throughout this thesis and in their biographical accounts, emphasize the 'civic gospel' which emanated from their religious teaching and embued their life's work.

Evidence of similar Quaker leadership in this study has only been found with William Curtis, President of Alton M.I., although R.A. Thomas has indicated more in his area of research.[79] In the case of Curtis, the Testimonial with which he was presented by the members of Alton M.I. in 1857, referred to 'the high regard in which he is held in the Town and Neighbourhood, and particularly for his great and long continued exertion in the establishment and subsequent advancement of the Alton Mechanics' Institution.'[80] After his death in 1881, the membership of the Institution commemorated his 44 years of service by christening its new museum building 'The Curtis Museum'.[81]

Of course not all the civic leaders of mechanics' institutes were of Unitarian or Quaker background: Basingstoke M.I. paid tribute to its late Patron and President, C.E.Lefroy, Esq., after his death in 1856, for his 'personal superintendence and influence' during its first twelve years' existence and for leading it to its 'encouraging prosperous position.'[82] Lefroy was a devout Anglican, as discussed in Chapter Six, but shared a passionate

concern for the intellectual improvement of his town's working men with those other mechanics' institute founders who enabled their institutions to be successful ventures.

Civic Pride in Sussex and Hampshire

The incidence of Civic Pride in Victorian England was highlighted in Chapter One with its provision of a medium through which mechanics' institutes could strengthen and emphasize their position and importance in their localities. Here the discussion will focus on the role of architectural space and its impact on an institution's status.

Many of the mechanics' institutes in Hampshire and Sussex started life in rented rooms, often above a shop or warehouse, in a school, or in a more public venue such as a theatre or town hall. It was usually only after a substantial period and when their future seemed assured, that they embarked on the costly plan of raising a subscription for a purpose-built home of their own. The first Brighton M.I. (1825-28) and the Southampton M.I., established in 1830, were exceptions to this rule. At Brighton, after a first overcrowded meeting at a local inn, the committee ambitiously chose to rent a house and refit the whole building on a plan similar to the London M.I.[83] While this gave the Institution a wonderful start, the expense proved to be one of the downfalls of the society which failed after only three years. Southampton M.I. opened in 1830 in its own premises, built by subscription at Hanover Buildings, but no obvious sense of civic pride can be discerned at this stage.[84] The earliest mechanics' institutions seemed more concerned with securing their future as a successful society rather than being an accoutrement of their town. Civic consciousness was more apparent from the mid-1830s when for instance in 1836, Cowes M.I. proposed building a room over the Market Place large enough to accommodate its 100 members and noted that the town would then also have a room for assemblies which it had hitherto lacked.[85] Winchester M.I.

celebrated the opening of its 'very handsome building' in the City Square in 1839, four years after its establishment, with its President drawing attention to the fact that the site had once been that of a Palace of William The Conqueror. Civic connections were also emphasised when tribute was paid to the Mayor, an early member of the Institution, who had done so much to raise funds for the new building.[86]

Where a mechanics' institute had begun in a humble fashion, renting rooms in a school like Basingstoke M.I. or in a storeroom as Alton M.I. did, its subsequent success and transition to a grander home often invoked the pride and involvement of the local community.[87] Thus could begin an interaction between institution and its neighbourhood as suggested by David Watson and Maria Slowey and discussed in Chapter One. Basingtoke M.I.'s 'well-appointed' new building was opened in 1869 by Canon Charles Kingsley.[88] The latter's stature as a well known author, social reformer, respected local clergyman and Professor of history at Cambridge University all enhanced the sense of occasion.

Alton M.I.'s final home in 1880 was part of a new purpose built civic complex comprising Mechanics' Institute, Assembly Rooms and caretaker's cottage. The new Institute was planned as 'a handsome building, well fitted to meet all its requirements', and to be 'of greater benefit to the Town and neighbourhood than the Institution has hitherto had it in its power to confer.' The concurrent erection of the fine Assembly Room would serve as 'a commodious lecture hall' for the Alton M.I.. The £2,360 cost of the new Institute building was raised by subscription and the sale of the old building in Market Street. The Lord Chancellor, Earl Selbourne, formally opened the new premises in October 1880 and presented the Mechanics' Institute President, Dr. William

Curtis, with an illuminated address and his portrait which was to be placed permanently in the Museum. [89]

A museum was usually a source of great pride for a mechanics' institute and one which could become the focus of civic heritage interest. The Chichester Literary Society and Mechanics' Institute glowed in the comment by Professor Tennant that it had 'one of the best arranged provincial museums in the kingdom' and had attracted over 1,350 visitors in 1854. [90] Three years later the Institution was keen to broaden its local appeal to all classes and discussed the feasibility of opening the museum 'at some periods more suited to the convenience of the operative and working classes.'[91]

Lewes M.I. was even more ambitious for the reputation of their museum, envisaging that it might become a 'Sussex Museum' for the Lewes hinterland abounded with botanical and entomological specimens, while 'in antiquities, too, few counties can excel Sussex.'[92] Cowes M.I. hoped their museum would provide wide-ranging attraction for a variety of people: 'Such a source of amusement would tend much to enliven this place in the summer, particularly when we have so many visitors here.' It would also hopefully encourage the port's young seamen to 'procure specimens of Natural History' from their voyages to enrich the collection of materials.[93]

These sentiments are testimonies to the spirit of civic and local community pride that was evolving around the mechanics' institutes in Sussex and Hampshire by the 1850s. Many of them were becoming significant forces of community culture and learning in their localities and had developed far beyond the role of bringing scientific training to the skilled working classes, which their early pioneers had intended.

As the century progressed, the broadening roles of the mechanics' institutes were influenced further by the effects of significant events such as the Great Exhibition, the creation of an examination culture and the proliferation of other institutions and societies which catered for the differing cultural, intellectual and social needs of a rapidly developing society. These themes are explored in succeeding chapters and particularly in Chapter Five.

Conclusion

There were many channels through which the mechanics' institute movement spread in Sussex and Hampshire. External disseminators of information included the *Mechanics' Magazine*, official Reports, personal contact between institutes and their national promoters such as George Birkbeck. Local unions of institutions, if organized effectively, provided the means of uniting and promoting adult education and its best practices throughout their region. The significance of the Hants and Wilts Adult Education Society was the leadership of the Church of England in this process, given its variable regard for mechanics' institutes nationally in the past. The support of the local media was of considerable importance in the two counties. Its reports furnished a many-sided portrait of mechanics' institute activities, often highlighting the roles of individual patrons and promoting a sense of community, civic consciousness and regional pride in the movement's achievements. The next chapter examines the ways in which management of the institutes determined such attainments.

Chapter Two Notes

1. Pigot's *Directories of Sussex and Hampshire, 1823*. Page numbers unclear in CD copies by S&N Genealogy Supplies.

2. White's *Directory of Hampshire 1859*, pp. 52-53.

3. Pigot's *Directory of Hampshire 1844*, p. 2.

4. Pigot's *Directory of Sussex 1839*, pp. 215-16.

5. 1851 *Education Census*, pp. 220-222 for Sussex and Hampshire.

6. K. Moir, *Mechanics' Institutes in Kent 1825-1870,* University of London, Institute of Education unpublished M.A. Dissertation, 1990, Table 1.2; C.Stockdale, 'Mechanics' Institutes in North East England: a pathway towards survival, *Durham County Local History Society*, Bulletin 54, May 1995, pp.34-48.; M.A.Walker, *Examinations for the 'underprivileged' in Victorian times; the Huddersfield Mechanics' Institution and the Society for the encouragement of Arts, Manufactures and Commerce,* WSG Research Paper1, (William Shipley Group for RSA History, 2008), Appendix 13.

7. T. Kelly, *George Birkbeck*, (Liverpool: Liverpool University Press,1957), Appendix V1; also Post Office *Directory of Sussex, 1867.*

8. Brighton M.I. Opening Ceremony, 17th Aug., 1825, *Brighton Herald,* 20th Aug., 1825, Brighton Pamphlets, Vol. 6; Brighton M.I. First Quarter's Report, 29th Sept., 1825, Brighton Pamphlets, Vol. 6.
9. Lewes M.I. Report of Initial Meeting held at Star Inn, 2nd Nov., 1825, Ref. AMS 6006/4/1; F.W. Steer, *The Chichester Literary and Philosophical Society and Mechanics' Institute, 1831-1924*, (Chichester: Chichester City Council, 1962).

10. *Southampton Herald*, 7th March, 1825.

11. Ibid., 18th Jan., 1825.

12. *Mechanics' Magazine*, Vol. 5, p.4, 22nd Oct., 1825.

13. Ibid., Vol. 6, p.267, 26th Aug., 1826.

14. J. Field, 'Portsmouth's Middle Class, 1800-75, in *Class, Power and Social Structure in British Nineteenth-century towns,* ed. R. J. Morris, (Leicester: Leicester University Press, 1986), pp. 68-100, especially pp. 69, 76, 88 & 100.

15. J.F.C. Harrison, *Learning and Living*, (London: Routledge & Kegan Paul,1961), pp.173-5.

16. *Mechanics' Magazine*, Vol. 6, op. cit.

17. Fletcher's *Directory of Southampton*, 1834, p.118.

18. A.Durr, 'William King of Brighton: Co-operation's Prophet?, in, *New Views of Co-operation,* ed. S.Yeo, (London: Routledge, 1988).

19. *Mechanics' Magazine*, Vol. 28, 18th Nov., 1837, p.102.

20. T. Kelly, op. cit., Appendix V1; Kelly's *Directory of Sussex, 1867*, p. 2243.

21. *Mechanics' Magazine*, Vol. 4, 1825, pp. 411-2.

22.T. Claxton, *Hints to Mechanics*, (Taylor and Walton, London, 1839), pp. 223-6.

23. T. Coates, *Report*, (London, SDUK, 1841), p.93.

24. *Hampshire Advertiser*, 1st Feb., 1840, quoted in B. Field, 'The Southern Counties Adult Education Society', *Studies in Adult Education*, Vol.12, 1980, p.101.

25. P. Keane, 'Individualism and Efficiency in the Mechanics' Institutes', *Studies in Adult Education*, Vol.6, 1974, pp.146-160.

26. Field, op. cit., pp. 101-108.

27. See Chapter Six of this thesis; Thomas op.cit., No. 79, p.71 and No. 80, pp. 104-5; W.B. Stephens, *Adult Education and Society,*(Exeter: University of Exeter, 1980), pp. 47-51.

28. Geddes, *Samuel Best and The Hampshire Labourer*, (Andover: Andover Local History Society, 1981), pp. 29-30.

29. M.D. Stephens and G.W. Roderick, eds., *Scientific and Technical Education in Early Industrial Britain*, (Nottingham: University of Nottingham, 1981), p. 22.

30. Geddes, op. cit., pp. 29-30.

31. B. Field, op. cit., pp. 102-3.

32. Basingstoke M.I., 1857 Annual Report.

33. Ibid., 1858 Annual Report.

34. Ibid., 1860 Annual Report.

35. Geddes, op. cit., p. 29.

36. W. Curtis, *A Short History and Description of the town of Alton*, (Alton,1896), pp. 141-142.

37. Basingstoke Annual Reports from 1855-1867. There is then a gap in the available Reports until 1877.

38. R.A.Thomas, ' The Mechanics' Institutes of the Home Counties', Part Two, *Vocational Aspect of Education*, Vol. XXX1, No. 80, Dec. 1979, p. 106.

39. M.Tylecote, *The Mechanics' Institutes of Lancashire and Yorkshire before 1851*, (Manchester: University of Manchester, 1957), p. 150; Sims, op.cit., pp. 53-54; Coates, op. cit.; see also for instance, Lewes M.I. Scrapbooks, Basingstoke M.I. Annual Reports and Brighton M.I. Annual Report, 1856.

40. Sims, op.cit., p. 42.

41. *Hampshire Telegraph*, 20th Jan.1834, when Mr. Bullar lectured to the Fareham Institution; and 4th Nov. 1839, when Rev. Fullagar spoke on Animal mechanics at Emsworth Lit. Soc.

42. Ibid., 25th Jan. 1840.

43. J.A.Vickers, *Religious Census of Sussex,* (Sussex Record Society, Lewes, 1989), p. 127.

44. *Sussex Agricultural Express,* 26th Oct. 1839; 9th Nov. 1839.

45. Post Office Directory of Sussex 1874, pp. 2501-2.

46. Moir, op. cit.; M.I.Watson, *Adult Education in North Lancashire in the Second Quarter of the Nineteenth Century*, (University of London, Institute of Education, unpublished Ph.D Thesis, 1988).

47. *Southampton Herald,* 24th Jan. 1825.

48. Ibid., 28th Feb. and 7th Mar. 1825.

49. *Hampshire Telegraph,* 24th Oct. 7th Nov. and 21st Nov. 1825; 13th Nov. 1826; 3rd Nov. 1828; 15th Dec. 1828.

50. Ibid., 24th Oct. 1825.

51. Ibid., 7th Nov. 1825.

52. Ibid., 7th Nov. 1825.

53. G. Holman, *Some Lewes Men of Note,* (Lewes: Lewes Record Office Edition, 1927, originally published 1905.)

54. Sussex *Agricultural Express*, 27th Jan. 1838.

55. Ibid., 28th April 1839.

56. Ibid., 10th Nov.1838.

57. Ibid, 19th Jan. 1839.

58. Ibid., 19th Oct. 1839.

59. *Sussex Agricultural Express*, 22 March 1845.

60. Ibid.
61. *Hampshire Independent*, 16th March 1839.

62. Ibid., 9th March, 1939.

63. *Sussex Agricultural Express*, 6th Nov., 1852.

64. *Hampshire Independent*, 15th/16th Jan., 1836.

65. *Surrey and Hants News*, 21st May, 1864.

66. http://en.wikipedia.org/wiki/Aldershot, accessed on 4th August, 2010.

67. R. Foster, *The Politics of County Power*, (Hemel Hempstead: Harvester Wheatsheaf, 1990), p. 141.

68. C.Brent, *Georgian Lewes*, (Lewes: Colin Brent Books, 1993), p. 126; C. Brent and W. Rector, V*ictorian Lewes*, (Phillimore: 1980), under 'Commerce' section, no page numbers.

69. G. Best, *Mid-Victorian Britain*, (Glasgow: Fontana, 1982), p.246.

70. *Tory Quarterly Review*, Vol. xxxii, pp. 421-2, quoted in T. Kelly, (1957), pp.107-8.

71. Brent and Rector, op. cit.

72. Foster, op. cit., p. 141.

73. *Hampshire Telegraph*, 25th April 1825.

74. Ibid., 2nd May 1825.

75. *Sussex Agricultural Express*, 24th Feb. 1838.

76. Lewes M.I. First Scrapbook, Notice of a Soiree and Exhibition at the Corn Exchange, 7th April 1854.

77. Lewes M.I. Second Scrapbook, Notice of a Grand Concert, c. mid 1850s.

78. Basingstoke M.I. Annual Report, 1877.

79. R.A. Thomas, op. cit.

80. Subscription List, testimonial fund for William Curtis, with account 1857, Winchester R.O., 1M60/41.

81. William Curtis, (Junior), *A Short History and Description of the Town of Alton*, (Alton: 1896).

82. Basingstoke Annual Report, 1857.

83. First Brighton M.I., (1825-28), Report of its Formal Opening, 17th Aug.,1825, (extract from *Brighton Herald,* 20th Aug.1825); and its First Quarter's Report, 29th Sept.,1825; both references in Brighton Pamphlets, Vol.6.

84. Robson's *Directory of Southampton*, 1839, Southampton Central Library, Local Studies; Kelly, T., *George Birkbeck,* (Liverpool: Liverpool University Press, 1957), p.308.

85. *Hampshire Independent*, 26th Feb. 1836.

86. Ibid, 9th Mar. 1839.

87. Basingstoke M.I., First Half-year Statement, Sept., 1841; C. Hawkins, *The Story of Alton,* (Alton: Alton Urban District Council, 1973).
p 186.

88. F.Baigent and J.Millard, *A History of Basingstoke*, (Basingstoke: Jacob, 1889), p. 83.

89. W. Curtis, op. cit., pp. 143-144; Hawkins, op. cit., p.188.

90. *The Hampshire Telegraph*, 7th Oct. 1854.

91. Ibid., 17th Oct. 1857

92. *Sussex Agricultural Express,* 2nd Dec. 1848.

93. *Hampshire Independent,* 5th Feb. 1836.

Chapter 3

The Management of Mechanics Institutions in Sussex and Hampshire 1825 – 75.

The management of an institution and its relationships with its membership, immediate locality and outside agencies, were all critical factors affecting its success or failure. Such considerations were understood and emphasised by interested contemporaries who were keen to promote the well-being of societies for adult education. They regarded the style and structure of the management of institutions as crucial factors in their operation.[1] However, with the exception of Mabel Tylecote, later nineteenth and early twentieth-century historians of the mechanics' institute movement tended not to single out this aspect for more detailed and in-depth analysis.[2] This chapter will analyse a range of management concepts integral to the organisation of the mechanics' institutes in Sussex and Hampshire and attempt to evaluate their effectiveness.

Aspects of Management

While R.A. Thomas has highlighted the political and religious persuasions of the managers in the institutes of the Home Counties,[3] there has been a tendency for twentieth century writers on mechanics' institutes to highlight management achievement only in terms of provision and financial solvency, rather than examining how their business management skills and structure developed. It is these latter facets which need to be emphasised for their long-term significance in an institute's history. These views have been supported by the Japanese professor, Shoji Katoh, in a synopsis of his *History of British Mechanics' Institutes*. He argued that to tackle and overcome the various difficulties that faced them, the institutes 'had to devise innovative management plans from time to time. These devices deserve careful examination.' He concluded that 'each institute was an autonomous entity' and that 'they inevitably

appeared in an endless variety of forms, operations and management styles.' Professor Katoh called for the accumulation of case studies to verify this diversity. [4]

Close examination of the day-to-day organisation of an institute can reveal a whole substructure and network of decision-making which combined to enable these voluntary societies to exist and propel themselves forward. They were autonomous in the sense that they were not directed by a national authority and did not depend on external inspection as the later state-inaugurated institutions did; nor did they usually have to abide by certain stipulations to secure funds. Whilst the majority of mechanics' institutes largely conformed to, and tried to emulate, the pattern of organisation and management set by the larger metropolitan institutions, each institute as Katoh has observed, was a unique creation of its own membership and shaped by its locality, environment and interaction with the surrounding population. Greater differences might have occurred in rural areas where villages were more isolated and perhaps developed distinct characteristics which might influence the tone and nature of their institute. Whereas one institution might have received favourable support from its local nobility and gentry, another a few miles away could have been restricted to a far more working-class provision.

The distinctly varied circumstances of individual institutes would have dictated different styles of management as appropriate to each institute's situation. Changing conditions such as raising funds for purpose built accommodation, and the modification of organisation to suit a new building could have quite marked effects on management styles. Similarly, an amalgamation of two neighbouring societies, especially if of different social class memberships, might engender a completely new administrative approach for the reconstituted society, as probably happened at Chichester with the

merging of the Literary and Philosophical Society and the Mechanics' Institution about 1849-50.[5]

Management therefore comprised several facets which all contributed to the overall organisation of a mechanics' institute. Decisions relating to the day-to-day running of the society such as the lectures, subscriptions and accounts were usually taken by the general committee, or delegated to subcommittees for these purposes. Similarly, specific subcommittees might deal with publicity, advertising and relationships with the press and other societies, as well as intermittent issues such as soiree arrangements or raising funds for a new building. Longer term items such as building maintenance or leasing out rooms of an institute's property might also dictate subcommittee management, rather than whole committee decision making. How dynamic the management was, would largely have depended on the drive and commitment of the leading personnel on the committee and often there were one or two 'leaders' who lent their weight, experience and knowledge to the management procedures and could have a strong influence on the way in which the administration functioned. The analysis of institute administrative structures in this study will highlight how the above considerations modified and enhanced individual societies' organisations.

The first generation of mechanics' institutes in the 1820s were able to draw on the experience of the London M.I., request advice from the pioneers of the movement, such as Dr. Birkbeck and Lord Brougham, or correspond with central agencies such as the *Mechanics' Magazine* and the SDUK. In 1839 the latter society promoted the formation of unions of institutes to co-ordinate and foster good practice and facilitate the sharing of lecturers and equipment which would reduce costs to individual institutes. The West Riding Union of Institutes, established in 1837, served as the model for the

SDUK's '*Report*', written by Thomas Coates in 1841. In this he suggested the benefits that might be accrued by management of institutions which belonged to such a Union: 'The Reports of that [West Riding] Association... are all drawn up with great care, and usually indicate many of the causes of success and failure in the Institutions united together in that district.' [6]

The Sussex Union of Mechanics' Institutes was created following Coates' initiative and was led by Henry Browne of the Lewes M.I. Although this Union was seemingly of only short duration, its probable dissemination of good administrative practices would have aided its fellow member associates. The influence of Unitarians and Quakers is discussed fully in the Religious Chapter of this thesis, but attention must be drawn to three out of six institutions in the Sussex Union – those of Lewes, Chichester and Horsham – which each had strong congregations of both religious persuasions in their localities. Lewes M.I. had Unitarian and Quaker members; Chichester M.I. had strong Unitarian leadership in the person of the Rev. John Fullagar, Vice-President of the Institution, and it is possible that Quakers were subscribers there also, given that there was a Friends' Meeting House in the town. After the demise of the Sussex M.I. Union, its influence was most probably continued through the religious organisations, especially as their own management committees were usually efficient and business-like. Henry Browne, the secretary of the Sussex Union, was himself a Unitarian and continued to participate in Lewes M.I. affairs until late into the century. Those guests who were assembled to celebrate the twenty-first anniversary of the Lewes M.I. in 1846, included many locally well known Unitarians such as Rev. J Fullagar from Chichester and his colleague, Rev. S. Wood from Lewes. The latter praised the management structure of the Lewes M.I. with pride, stating that he 'knew no similar institution, the affairs of which were managed with so much care and judgement as this;...' Rev.

Wood also considered that not only was the Institution 'accomplishing great good in its own locality, but that it might serve as an example and an incitement to others.' [7]

By mid-century, the first generation of students from the institutes had grown to maturity and some who chose to enter their management structures or administer the Unions of Institutions, like James Hole, were ready to give ideas and advice on the best administrative practices for such societies. Hole had been a student of the Manchester M.I. and was secretary to the Yorkshire Union of Institutes from 1847. Throughout his life he was 'an ardent co-operator, social reformer, and adult educator.'[8] He won first prize in an essay competition organised by the Society of Arts in 1853. The designated title, '*The History and Management of Literary, Scientific, and Mechanics Institutions*', signified the importance attached to management by contemporary bodies. Hole devoted a whole chapter to 'Business Management' in his essay, drawing on his experience both as a member of classes at the Manchester M.I. and his secretaryship of the Yorkshire Union of Institutes. [9] He advised on financial practices such as collecting subscriptions when due, on the role of officers and subcommittees, and perhaps more importantly for the internal morale of the institution, he highlighted tendencies which might alienate a committee from its general membership. He advised that they should guard against becoming too prescriptive in their decisions, or over-legislating and wasting time to little purpose.

A typical example of an over-prescriptive committee occurred at the Guildford Institute in the 1850s when some of the subcommittees began to chafe against over-supervision by the management, especially in financial spheres. The library subcommittee's autonomy over the spending of its grants probably caused jealousy amongst the other teams, but the library committee itself resigned in 1855-6, regretting its members'

inability to satisfy the general committee in their duties.[10] Fortunately, the Guildford M.I. committee modified their attitude and asked the library personnel to resume their positions.

Hole also commented on the composition of an institute's committee in terms of social class and suggested that 'management of Institutes should be as popular as possible' with both working class and employer membership included, although he qualified this with the advice that the lower class committeemen should have some previous administrative experience. [11] Brougham had staunchly opposed undemocratic control of mechanics' institutes from the earliest days, maintaining that the loyalty and co-operation of the artisans could only be retained if they played an active and responsible part in the management of their institutions.[12] Birkbeck also argued that institutes would only prosper if mechanics themselves took over the management as soon as possible after their initiation. [13] At the Manchester M.I., the refusal of the directors to allow working class participation in the management, led to the secession of about 100 members under Roland Detrosier, a prominent Radical, to establish the New Mechanics' Institute in 1829. A rapid democratization of the old Mechanics' Institute soon afterwards, was attributed by Detrosier, to the example set by the seceders. The attitude of the old Mechanics' Institute management at Manchester was probably exemplified by their deputy chairman, John Davies, when he stated of the original subscribers that: 'If they came for instruction, they were of course incompetent to manage.' [14]

James Hole was a member of the Manchester M.I. classes in the 1830s and must have been aware of the legacy of such autocratic sentiments and the events leading to the split. These could well have coloured his beliefs when he became involved in

administration himself. However, his preference that working men on committees must have some administrative experience, probably came from his observation of instances where a predominantly working-class management caused the decline or even demise of an institution through their lack of business knowledge and naivity. Such reasons may have been a factor for the short-lived Crayford M.I. in Kent and the demise of the Godalming M.I. after only seven years existence. Dr. Jeff Robinson concluded that Godalming M.I., judging by its Minute Book entries, was rather more working class than many other similar institutions. He considered their arrangements for the visit of Dr. Epps to lecture on Phrenology and Botany, to be rather haphazard and muddled. This Institute ceased on 20th October 1843 with the last words in its Minute Book stating, 'And so it Died.' [15]

A further point that Hole made in his *Essay*, warrants consideration. He warned of committees talking too much and calling it 'business', and suggested the advantage of a managing director.[16] However, some of this 'talking' and discussion would be valuable in giving younger, inexperienced men the chance of learning to voice their opinions, the art of management debate, and the opportunity to formulate more efficient procedures.

The Use of Subcommittees at the Sussex and Hampshire Mechanics' Institutes

Most institute managements found that delegation of business to subcommittees for the organization of various departments such as the library, museum and lectures, or even for special occasions such as a soiree, made the general running of the society much smoother. Lewes M.I. certainly made good use of subcommittees even from its inception when a subcommittee drew up its first Rules in 1825. The first Brighton M.I. too recognised the advantages of such procedures: its Rules of 1826 stated that the Committee should have the power to divide itself into subcommittees and that each one

was to keep minutes of its transactions. [17] Where records of the Hampshire institutes are available, reports indicate that subcommittees were appointed at Odiham for administration of the Library and in 1865, for Penny Readings and the Annual Soiree.[18] At Alton M.I., a subcommittee was constituted in 1857 to raise subscription funds to present a token gift to their founder, Dr. William Curtis, as 'a Testimonial of the high regard in which he is held in the Town and Neighbourhood, and particularly for his great and long continued exertion in the establishment and subsequent advancement of the Alton Mechanics' Institute'. [19] Basingstoke M.I. Annual Reports (1841-2 and 1855-77) make no specific mention of subcommittees, but their accounts, library membership and lecture records are so well documented that it is highly likely that these responsibilities were delegated. At Chichester M.I., the novel delegation of management to committees of farmers for its two village branch societies, was upheld as a model of good practice by the *Central Society of Education* in 1837, a body formed to collate information and publish papers on all aspects of education.[20]

Tylecote has pointed out that the Yorkshire Union particularly advocated the creation of subcommittees for managing separate departments in the 1840s – a practice which was found to be beneficial.[21] James Hole, its secretary and also a Unitarian, had warned against bringing 'everything under the deliberation of the whole committee', for 'the result is an amount of work utterly unattainable'. [22]

Essential Practices for Survival

When analysing the management structures of mechanics' institutes in this study, it would seem that certain principles and practices were prerequisites for successful survival. The beneficial use of subcommittees has already been discussed. Another practice that most of the institutes in this area of study seemed to employ and which

served as an external support was to affiliate themselves to a local union of institutions or at least to the Society of Arts from the 1850s. Later in the century, the latter may have been superseded by, or at least added to, with membership of the 'Working Men's Club and Institute Union.' [23]

An essential principle for all societies to observe was solvency and financial prudence. James Hole warned that: 'Debt is a state of disease, into which associated bodies are very liable to fall, and find it very difficult to recover from.' [24] He further advised that institutes should estimate their probable income at the beginning of each year and apportion each department's expenditure allowance accordingly, adhering strictly to these budgets. Whether such specific advice in anticipation of events was followed, is difficult to ascertain from existing records, but a careful annual review and adjustment for the succeeding year must have been the norm for any long enduring institution.

In Sussex, Battle M.I. must have given such attention to its finances in the early 1850s for in 1852 it was noted that its funds were in a much healthier state than previously.[25] Lewes M.I. developed sound financial acumen from its inception, when after only two weeks, the secretary was requested to procure 'Proper Account and Minute Books'.[26] Furthermore they lost no opportunity to increase their income by investment: in November 1826 it was decided to lend £50 to Overseers of the Poor in a local Parish at an interest of five per cent. [27] That such a large sum was available to loan out after only one year's existence, suggested most careful and opportune business sense, especially when a challenging programme of lectures, classes and book purchase had also been sustained.[28] The loan to the Parish Overseers also highlights the social and civic connexions that the officers of the Mechanics' Institute enjoyed, for many of them served the town in administrative positions.[29] The whole ethos of the Institute seemed to

encourage good fiscal awareness amongst its members: Cobbett's *'Cottage Economy'* was loaned to the library by Henry Browne in 1826 and a year later a Book-keeping class was requested. [30] By 1847, a Finance Committee was in operation, suggesting that the Lewes M.I. had evolved its accounting procedures to a very highly bureaucratised system, as with many other facets of its administration.

Similar care in financial organization was to be found at Guildford M.I. in Surrey and this could well have been due to the fact that both institutions had a leading Unitarian and Quaker partnership on their management committees.[31] Walvin, in his book on *The Quakers,* stresses the highly advanced and detailed recording of their religious Meetings, business arrangements and other aspects of their lives. Many Unitarians exhibited comparable thoroughness in their administrative habits: Rev. Kell's careful and consistent records at Newport Unitarian Chapel are referred to in Chapter 6; the Unitarian John Cooke, founder and committee member of Guildford M.I., demonstrated similarly efficient secretarial and administrative skills in his Institute contributions and was praised as 'the example to all Secretaries' with his 'very legible, lucid and comprehensive reporting' at Meadrow Unitarian Chapel, Godalming in Surrey. [32]

A vivid contrast to the prudent practices at Lewes M.I. was provided by the ambitious ideals of its neighbour, the first Brighton M.I., established also in 1825, but which lasted for less than three years. It would seem that unrealistic spending and lack of financial planning contributed to its decline. Its aim to resemble 'a little university' rather than a 'limited provincial Institution' led to the rental of extensive premises at 31, West Street, Brighton, with a Reading Room which it claimed almost rivalled that of the London M.I. A 'liberal salary' was planned for a well qualified librarian. At the end of the first quarter, the Insitute had spent all but £9.1s.8d out of its total income of £148.17s; nearly

£100 had been spent on fitting up the premises and rent for two months had consumed £10. The accounts show an error of one pound in the expenses, but no further explanation is given, which might indicate a less scrupulous attitude than that of the flourishing institute at Lewes. [33] Surprisingly, the Brighton committee included an accountant, but one can speculate that he may have had little influence on its proceedings. [34]

A very different approach was taken by the management at Chichester M.I.: lavishly praised for its practices by the '*Central Society of Education'* and the *Mechanics Magazine* in 1837, this institution refused to overstretch itself by employing paid teachers when funds were scarce. Although this resulted in the failure of its classes which were staffed by irregular and gratuitous teachers, the compensation was a healthy and long-lived society, able to provide lectures and library services to its own and two branch societies' members. [35] Extreme care continued into the next year when in April, 'the poverty of the funds' precluded the purchase of new books, but by October 1838, the institute reported itself to be in 'a very flourishing state' and even allowing for the current trade depression, which had slightly reduced the number of members, it had several pounds in credit. [36] The *Sussex Agricultural Express* reports of the Chichester M.I. in 1838 certainly highlighted its fiscal care. Its subscription of six shillings per annum for adult members would have been considered too low for the efficient running of a useful institution, by James Hole, [37] but the 'excellent course of lectures', library of 1,000 volumes and 'much valuable philosophical apparatus' can only have been sustained by resourceful budgeting.[38]

Fewer records are available for the Hampshire institutes, but the earliest written statements of Basingstoke M.I. (1841-2) show the same painstaking financial care as the

Lewes, Chichester and Guildford Institutes. Lists of individuals' cash donations from £1 to £10 were recorded, a general Accounts book and separate accounts book for each of Treasurer and Librarian were mentioned. At the end of the first half-year there was a balance of over £67, and the Basingstoke M.I. had been able to invest £35 in the local savings bank. The innovative expedient of renting out the Reading Room garden emphasised the fiscal awareness of the first committee. [39] Continued financial care enabled the Institution to maintain a favourable balance throughout the 1850s and to congratulate itself in 1856 on a 'very satisfactory and cheering financial prospect'.[40] By 1859, the rising balance, together with profits from an 'Exhibition of Works of Art' (1854), and a legacy from the late President, enabled the Institute to purchase land for building its own premises at a cost of £300. [41] Even at the termination of its existence as the 'Basingstoke M.I. and Club', its Lloyds Bank Deposit Account Book showed a balance of over £94 in 1923, although the Annual Report of 1922 claimed a gross deficit of £5.17s.11d that year, blaming the Trade depression and consequent unemployment for adversely affecting the Institute. Nevertheless, such a prosperous financial history bears witness to outstanding management skills.

In order to facilitate the efficient running of an institution, Hole advocated the employment of paid officers for such important tasks of collecting subscriptions, account keeping, librarian's duties and cleaning:

> it is the falsest economy to entrust such duties to honorary officers. Pay for the service, and you can choose its character and its amount. Pay for it, and you can require it to be properly performed. But when it is not paid for, you cannot complain of deficiencies, for whatever was done was more than you had a right to expect. [42]

Paying an officer to collect subscriptions served a dual purpose of increasing the society's revenue and retaining a more permanent membership. Hole maintained that many members allowed their subscriptions to lapse and consequently they left the

institution, merely because no-one chased them to renew at the correct time. Some institutes justified the salary of a Librarian by combining this role with the collection of subscriptions. Lewes M.I. actually increased their Libararian's incentive in this sphere by paying him two-and-a-half per cent to collect the quarterly subscriptions from March 1834. [43] The Lewes committee must have been striving to become ultra-efficient, for two weeks earlier they had changed the rules to entitle all members renewing their quarterly subscriptions within one month of their being due, to a free lecture ticket. [44] Basingstoke M.I. probably had a similar arrangement with their Librarian, for they paid him a generous salary of £17.10s. per annum from its beginning, considering that 'the duties of the Office are necessarily heavy, occupying considerable time, and requiring almost constant attendance at the Rooms, and they consider such an Officer would not be adequately renumerated by a less sum'. [45] The committee appeared very satisfied by their first appointee and he was certainly very diligent in enforcing and collecting book fines, which amounted to £2.6s.2d in the first year. By this time, there were 587 volumes in the Library, with a weekly issue of over 70 books. From 1858, a 'Librarian's Report' was printed in the official Annual Reports, giving a detailed summary of the numbers and different classes of membership subscription. [46] Such careful recording enabled a clear display of the greatly increased membership from 177 in 1842 to 248 in 1860 and provided additional justification for the librarian's salary.[47]

Alton M.I. went even further by introducing a new practice in 1855. While preserving the office of Librarian on their Management Committee, they decided that 'an acting resident Librarian also be appointed who shall not be a Member of the Committee'. One of his jobs was to collect the quarterly subscriptions in advance, while annual subscribers were to pay the secretary.[48] The addition of a Corresponding Secretary also, suggested that the role of the main secretary was a very busy one and that the Alton M.I.

probably had extensive corresponding links with other societies and agencies. It was likely that this Institution was well subscribed to and a popular focus for intellectual activity in the town, for their Reading Room was open from 10 a.m. to 10 p.m. each day except Sunday, and available to non-members from 5 p.m. to 10 p.m. on payment of a guinea per annum. As at Lewes and Basingstoke, Alton M.I. had expedients for increasing its funds: temporary visitors could use the Reading Room for two shillings per week or five shillings per month. [49]

Committee Discipline

The well-managed institutes could have committees which imposed very strict discipline upon themselves. At Alton M.I., five committeemen were needed to form a quorum; if this number was not attained within 15 minutes of the appointed time, all absentees were to be fined two pence each. [50] The Rules of the second Brighton M.I. (founded in 1851), required the secretary to keep a register of attendance at committee meetings. If any member failed to attend three consecutive meetings and failed 'to apologise by letter for his non-attendance, such Committeeman shall be succeeded by the next highest on the poll.' [51]

Even greater pressure was brought to bear upon Lewes M.I. committeemen to attend their meetings; their register 'distinguishing those who attend late or after 9 o'clock and those who do not attend' was to 'lie on the Table in the Reading [Room] for the Inspection of the Members'. [52] Furthermore, 'Late' could be added by the name of the unpunctual member in the Minutes. [53] In 1838, J.W. Woollgar Esq. was elected to the committee in place of another 'who had gone out for Non-Attendance.'[54] Joyce Goodman highlights similar authoritarian and highly structured bureaucracy in the committees of her study on women school governors in the early nineteenth-century.[55]

Lewes M.I. shepherded and guarded its resources with infinite care: a notice was placed in the Reading Room in 1826 'directing the members not to remove the books from the shelves of the Library themselves, but to make application for anything that may be wanted to the Librarian.' [56] Censorship was exercised over anything that might harm the Institute's reputation and even led to the removal of Charming's *Observations on the Life and Writings of John Milton* later that year because it was inconsistent with the Institution's Rules. [57] It seemed in fact that Lewes M.I. developed such an obsession for rules that many of their ordinary members must have sometimes despaired over their prescriptive tone. In March 1834, 'Regulations relative to the Newspapers' were drawn up which instituted fines of a half-penny per day for the late return of papers, and stipulated that the *Morning Chronicle* was to remain in the Reading Room for the first day of publication until 9.45 p.m., when a Mr. Ridge became entitled to it for a day. Once it was a week old, any member might borrow it for three days. [58] The rule that daily papers might only be kept for ten minutes if wanted by another reader, was probably a common one, for it also featured in the Alton M.I. Reading Room rules of 1855.

Institute Self-publication

Another salient feature of successful institutes was their ability to publicise themselves. Hole advised that a mechanics' institute should make known what it could offer, as a tradesman did his wares.[59] He emphasized how 'employers would frequently offer facilities for such announcements' and urged Institute managements to use such opportunities. From the earliest days, Lewes M.I. advertised its activities in the *Sussex Advertiser* and also took every opportunity to liaise with other institutes. In 1826 the secretary of the Hammersmith M.I. was staying in the town and was invited to attend a

meeting. He was given a copy of the Lewes M.I. Rules for his own institution, and this must have been reciprocated, for in the Lewes Library Catalogue of 1827, Rules of the Hammersmith M.I. are recorded, together with those of the London and Portsmouth M.I.s. [60]

During the later 1830s, all those Sussex mechanics' institutions wishing for publicity, found a willing forum in the columns of the *Sussex Agricultural Express*, which gave overwhelming support to both new and well established institutes. The example of the opening of the Rye L.S.I. in 1839, as discussed in Chapter 2, indicated the advantages which such press publicity could bring.[61] Many Sussex institutions, including those of Lewes, Chichester, Hastings and Worthing communicated with the newspaper and had their existence advertised in this way.

Similar newspaper support was given to the Kent institutes by the *Maidstone Gazette*, [62] and in Hampshire by the *Southampton Herald* and the *Hampshire Independent*. The *Southampton Herald* took an active interest in the movement from the mid-1820s when it followed closely the progress of the newly opened Newport M.I. on the Isle of Wight. Its founder, Unitarian philanthropist and curator of the local museum, Abraham Clarke, had also lectured to the town's Philosophical Society and was no doubt aware of the importance of publicity to the new society. The newspaper's report of its second meeting highlighted the 'several handsome donations' of books and money received and concluded: 'We feel great satisfaction in inserting the above account' and observed that all moderately large towns could have mechanics' institutes because the expense to the mechanic was small and 'gentlemen will always be found who will come forward with donations of money and books'. [63]

This faith in the benevolence of the gentry was an important and realistic element in the early history of most mechanics' institutes and explains why the Lewes M.I. was so anxious to advertise its first list of donations in the *Sussex Advertiser*[64] Not only did it publicise the new Society, but it would have given satisfaction to its local patrons and hopefully encouraged others to contribute to the venture. Even if some of the books were unsuitable 'cast-offs' from a gentleman's library, the majority would hopefully form the nucleus of the essential 'Library' for the Institution.

Such patronage continued to be of value and importance. By mid-century, the Basingstoke M.I. committee stated in their 1856 Annual Report that 'rapid and decided progress' had been made by mechanics and similar institutions in promoting the intellectual advancement of the 'Industrial Classes', 'while many of the leading men of the day, amongst the Aristocracy of the land, are displaying their sympathy in the onward movement, by delivering Lectures, and by affording other liberal and well-timed assistance in aid of the benevolent and elevating objects contemplated by such Institutions;'... The results of such support were felt to have 'a very salutary and beneficial influence upon the moral and intellectual improvement of the Working Classes, and must be attended with corresponding advantages to the community at large,...'[65] The reference to 'community' here would suggest that Basingstoke M.I. and similar institutions were generally by mid-century, being recognised for their 'improving' contributions to their local neighbourhoods.

The significance of newspaper promotion was illustrated by Basingstoke M.I.'s Annual Report of 1857 when, following the Institution's hosting of the *Hants and Wilts Adult Education Society,* it claimed that 'the discussions and general proceedings excited the

greatest interest and attention, and were conveyed by means of the daily and weekly London and Provincial Newspapers, throughout the Kingdom.'[66]

There must have been instances where a mechanic's institute could find little or no favourable newspaper coverage. In such circumstances, a determination to succeed would have to rely heavily on links with neighbouring institutions, local unions of institutes, and correspondence with national focal points such as the London M.I. or the Society of Arts. By the 1850s however, local press advertisements may not have been so important as an institute's own initiative in publicizing itself. (It is noticeable that from this period some local newspapers such as the *Sussex Agricultural Express* tended to give less coverage to institute activities; instead more news on such topics as the Crimean War and the Railways was included as if more interesting for its readers.) In 1855-6, the second Brighton M.I. distributed cards and circulars giving substantial publicity to the objects and advantages of the institution. Many of these notices had been suspended in 'the Banks and Chief Establishments of the Town' and 'the results have been most beneficial to the best interests of the Institution.' [67]

Committees of the various institutions decided how their society was to be run, but often their management style was shaped by the influence of one or two leading personnel. These individuals might chair the majority of committee meetings, or alternate between important offices of Treasurer and Secretary, as well as sitting on the main subcommittees. Lewes M.I. was endowed with such men in the personages of Henry Browne and later Charles Aspull Wells. Both were prominent public figures as well as ardent supporters and leaders of their Institution. At one point C.A. Wells was a member of the Finance, Book, Building and Lecture Subcommittees. [68] In the latter days of the Institute, he was also responsible for preserving its archives. There must

have been mutual benefit to both Institution and individual concerned as such members matured in administrative experience and public office.

Where records are intermittent it is difficult to discern how the management skills of particular societies evolved. However, consistent care from the earliest days was apparent at both Lewes and Basingstoke M.I.s. Such comprehensive administration at Basingstoke enabled their annual reports to record details of each year's membership, finances, and library activity from 1841 to 1881 (last available Report). Lewes M.I. Minute Books were undeviating in their thoroughness but a further development occurred in 1849, when margin heading in the Minutes made it even easier to follow their transaction of business. It could also be taken as evidence of a greater degree of planning for committee meetings. [69]

A central theme and chapter in this thesis examines the position and influence of women on the mechanics' institutes under study. Sufficient evidence is available to suggest that most management committees were generally favourable to at least partial acceptance of women in their institutions' activities by the mid-1830s. At Lewes, the committee were twice challenged in 1834 by aggrieved male members who objected to their decision to allow females to use the Library and attend lectures for two shillings per quarter. [70] The Committee's steadfast refusal to change their ruling may well have been influenced by their Unitarian/Quaker membership, for both religious sects encouraged the education of women.

Of all the managements analysed so far, the Lewes M.I. committee exhibited the strictest control over its activities, members, resources and reputation. Care for its premises and awareness of public opinion may have led them to refuse the request for

hire of their Committee Room for 'Dancing' on two evenings per week, and to appoint only the most important and experienced committeemen to its subcommittee to arrange a public Anniversary celebration for the Institution. [71]

It was such close control which was lacking and had repercussions at the Odiham M.I. in the 1860s when their committee regretted that many books had gone missing from the Library 'to such an extent that makes it very difficult to account for; as the result of carelessness or accident. In future the Library rules must be strictly enforced.' [72] If such weaknesses occurred in other spheres of the Institute's affairs, it would partially explain the situation which prevailed by 1874 when the committee minutes reviewed the 'present unsatisfactory condition of the Institution' and proposed that 'a Public Meeting of the Inhabitants of Odiham and its vicinity be held on Friday Dec. 18th at the Reading Room to consider the propriety of closing or entirely remodelling the Odiham Mechanics' Institute.'[73] A few weeks later, a circular was sent out to the Odiham inhabitants to ascertain if the Institute Reading Room and Circulating Library should be continued.[74] What is particularly interesting here are the references to the local community which suggest that the Institute had become important as a village literary and cultural centre. Its reconstitution as the Odiham Literary Institute in June 1875 stated that 'its objects shall be to encourage intellectual culture, to promote the diffusion of useful knowledge and to afford facilities for wholesome recreation and instruction.'[75] This is a prime example of a mechanics' institute becoming an important focus of its neighbourhood's cultural and intellectual life and to such an extent that the committee felt obliged to appeal to the inhabitants to voice their views on the Institute's future. These transitional processes in the Odiham M.I.'s development relate closely to those described by Raymond Williams in his analysis of a common community culture.[76]

Conclusion

When considering the implications of the discussion in this chapter, it is worth remembering the final thoughts of James Hole in his Chapter on the 'Management of Mechanics' Institutes'. He cautioned that while good machinery and organisation were essential to the prosperity of institutions:

> they are not everything. The spirit in which they are worked is even more important. High aims and an earnest purpose [may] perform wonders with even poor materials and opportunities. The dingy garret in which they offer the bread of knowledge to the ignorant, shall fill as worthy a purpose as the groves of Academus or the cloistered College. [77]

Hole's words would equally have applied to the more transient and often more impoverished mutual improvement societies which existed alongside mechanics' institutes in this period and which must have helped many poorer working-class men and women to gain some basic education. Conversely, had the first Brighton M.I. been content to remain in their own words a more limited 'provincial institution', in modest and more affordable premises, they might have secured a longer future.

Finally, if one accepts that effective and efficient management as defined in this chapter, was vital for the successful existence of an institution, the historian could enquire further as to the wider implications of such administrative practices on the lives of mechanics' institute members and society at large. Undoubtedly those who experienced the smooth running and orderly organisation of an institute would carry this experience with them and perhaps influence the committee procedure and management of a wider range of societies that they might join. The dissemination of good organisational practices such as record keeping, drawing up of essential rules and regulations and personal debating skills were integral to the evolving bureaucratic state in nineteenth century Britain and its institutions. For instance, the huge number of

social reforms during the century required new administrative machinery at both local and national level, with personnel to carry out their functions.

Goodman has drawn attention to the concept of personal power which was generated for individuals who involved themselves in management practices of educational spaces.[78] Self confidence as a corollary of such feelings of empowerment would encourage a very positive outlook for those responsible for a mechanics' institute's future. Similarly, strong organisational influences from Unitarian and Quaker religious procedures could permeate the institutes which included such members; in turn the mechanics' institutes became one more channel through which the business-like approach of these religious sects would have gained broader recognition.

At a local level, an efficiently managed and well-run institute could make a very significant and enduring impact on its surrounding neighbourhood. If it provided a focus of activity for the local population, it might be regarded as an integral part of daily life in the district community and attract a great deal of respect. A collective feeling of civic pride amongst its members would further enhance the aura that the institute projected of itself. Its commendable practices would influence other societies in the area, especially if its members participated in other clubs and leisure activities in the locality. Sound administrative customs would also permeate outside the immediate area and help to spread networks of desirable management structures throughout the country's institutions and local government. After 21 years of successful survival, the Worthing Institution was paid a fitting tribute and one that epitomises the theme of this chapter: 'on the whole the institution is very carefully conducted, and is deserving to the utmost the support of the townspeople.' [79]

Chapter Three Notes

1. Lord Brougham, *Practical Observations upon the Education of the People, Addressed to the Working Classes and their Employers*, (London: 1825); T. Coates, *Report of the State of Literary, Scientific, and Mechanics' Institutions*, (London: SDUK, 1841); J. Hole, *An Essay on the History and Management of Literary, Scientific and Mechanics' Institutions*, (Society of Arts, 1853).

2. M. Tylecote, *The Mechanics' Institutes of Lancashire and Yorkshire before 1851,* (Manchester: Manchester University Press, 1957), various references, especially pp.134-7 and pp.180-81.

3. R.A. Thomas, 'The Mechancs' Institutes of the Home Counties, c.1825-70, *Vocational Aspects of Education*, Vol. XXXI, Nos. 79 and 80, (1979)

4. Katoh, 'Mechanics' Institutes in Great Britain to the 1850s', *Journal of Educational Administration and History*, (July 1989), Vol. XXI, No. 2, pp.1-7.

5. F.W. Steer, *The Chichester Literary and Philosophical Society and Mechanics' Institute, 1831-1924*, (Chichester: Chichester City Council, 1962), pp.4-5.

6. Coates, op.cit.

7. 'Report of the Twenty-First Anniversary Proceedings', Lewes M.I. Archives.

8. T. Kelly, 'Light, more Light! On the History of Adult Education,' *Studies in Adult Education*, Vol. 2, 1970.

9. Hole, op. cit.; also Tylecote, op. cit., pp. 64, and 260-61.

10. J. Sims, *The Guildford Institutes*, unpublished University of London, Institute of Education M.A. Dissertation (1987).

11. Hole, op.cit.

12. Tylecote, op.cit., p.61, where she refers to Brougham, *Practical Observations*, p1, 11-12, 15-17.

13. K. Moir, *Mechanics' Institutes in Kent 1825-1870*, unpublished University of London, Institute of Education, M.A. Dissertation 1990, p.33. Her evidence is based on reports from the *Maidstone Gazette*, 18th Nov., 1823, and 9th Dec., 1823.

14. Tylecote, op.cit., pp.134-7: quote by John Davies, p. 135; T. Kelly, *George Birkbeck*, (Liverpool: Liverpool University Press, 1957), p.139, note 1.

15. Robinson, op.cit., Vol 2, pp. 55-63.

16. Tylecote, op.cit., pp. 280-281.

17. Brighton M.I. Rules, 1826.

18. Odiham M.I. Minute Book, various entries.

19. Alton M.I. Subscription List and Testimonial for William Curtis, 1857.

20. 'Report of the Central Society of Education', quoted in the *Mechanics' Magazine*, 18th Nov., 1837; Vol. 28, p.102. The Central Society produced three annual *Publications* in the years 1837-9: see also T. Kelly, 'Light, more Light!' op. cit.

21. Tylecote, op.cit., p.281.

22. Hole, op.cit., p.116.

23. Basingstoke M.I. Annual Report, 1877. In 1877 the Lewes M.I. changed from its mid-century title of 'Lewes Institute' to 'Lewes Institute and Club' as stated in the Revised Rules, 1877.

24. Hole, op.cit., p.118.

25. *Sussex Agricultural Express*, 6th Nov., 1852.

26. Lewes M.I. Minute Book No. I., 16th Nov., 1825.

27. Lewes M.I. Minute Book No. 2., 20th Nov., 1826.

28. Lewes M.I. Minute Books I and 2, passim.

29. V. Smith, ed., *The Town Book of Lewes 1802-1837,* Sussex Record Society, Vol. 69, (Lewes: 1973), and *The Town Book of Lewes,* Vol.70, (Lewes: 1976), passim.

30. Lewes M.I. Minute Book, 2nd Nov., 1826; 6th Feb., 1827.

31. Sims, op.cit., pp.30 and 46.

32. J. Walvin, *The Quakers*, (London: John Murray, 1997), pp. 45-46; J. Sims, op. cit.; C.F. Houghton, *In Search of a Minister: A Profile History of Meadrow Unitarian Chapel, Godalming*, (Godalming: a Unitarian Chapel pamphlet, c. 1983), pp. 3-4.

33. Brighton M.I. 1st Quarter's Report, 29th Sept., 1825.

34. Brighton M.I. Rules 1825.

35. *Mechanics' Magazine*, Vol. 28, p.102, 18th Nov., 1837.

36. *Sussex Agricultural Express*, 14th April and 13th Oct., 1838.

37. Hole, op.cit., p.87.

38. *Sussex Agricultural Express*, 13th Oct., 1838.

39. Basingstoke M.I., the first three half yearly statements, 1841-2.

40. Basingstoke M.I. Annual Report 1856.

41. Basingstoke M.I. Annual Reports 1859 and 1860.

42. Hole, op. cit., p.115.

43. Lewes M.I. Minutes, 24th March, 1834.

44. Ibid, 10th March, 1834.

45. Basingstoke M.I. first half-yearly Report 1841.

46. Basingstoke M.I. Annual Reports from 1858.

47. Basingstoke Annual Report 1860.

48. Alton M.I. Rules 1855.

49. Ibid., Reading Room Rules.

50. Alton M.I. Rules, 1855.

51. Brighton M.I. Rules, 1853.

52. Lewes M.I. Minute Book, 27th Feb., 1833.

53. Ibid, 24th Feb., 1834.

54. Ibid, 21st May, 1838.

55. J. Goodman, ' A Question of Management Style: women school governors, 1800-1862,'*Gender and Education,* Vol. 9, No.2. , (1997). especially, pp.155-156.

56. Lewes M.I. Minute Book, 23rd Oct., 1826.

57. Ibid, 21st Dec., 1826.

58. Ibid, 24th Mar., 1834.

59. Hole, op.cit., p.117.

60. Lewes M.I. Minute Book, 23rd Oct., 1826; Lewes M.I. Library Catalogue, 1827.

61. *Sussex Agricultural Express*, 19th Jan., 1839.

62. Moir, op.cit.

63. *Southampton Herald*, 18th Jan., 1825.

64. Lewes M.I. Minute Book, 18th Nov., 1825.

65 Basingstoke M.I. Annual Report, 1856.

66. Basingstoke M.I. Annual Report 1857.

67. Brighton M.I. Annual Report 1856.

68. Lewes M.I. Archives: undated list of committees (AMS 6006/2/4).

69. Lewes M.I. Minutes, March 1849 onwards.

70. Ibid, 14th Feb., 1834; 12th May, 1834.

71. Ibid, 8th Sept., 1834.

72. Odiham M.I. Minute Book, 14th AGM Report, 4th Oct., 1861.

73. Ibid, 4th Dec., 1874.

74. Ibid, 19th Jan., 1875.

75. Odiham Literary Institute and Club Minute Book, 4th June, 1875.

76. Ibid.

77. Hole, op.cit.

78. Goodman, op. cit., p.158.

79. French and Sons, *Directory of Worthing*, 1859.

Chapter Four

The Educational Experiences of the Mechanics' Institutes in Sussex and Hampshire: Science and Useful Knowledge from 1825 to the 1850s

This chapter will analyse the educational activities at the Sussex and Hampshire mechanics' institutes in the 1825 to 1850s period with particular reference to the institutes' original aims and objectives. The role of science is highlighted and recognition is given to the broad concept of useful knowledge. Parallels are drawn with trends in the national mechanics' institute movement but the response of the institutes in Sussex and Hampshire to their local circumstances regarding industry, agriculture and employment is emphasized with the focus on each institute as a unique product of its environment. Indications of civic and community pride are noted and especially the interaction of the mechanics' institutes with such consciousness in their locality.

One assumption to be particularly reassessed in this chapter is the notion that mechanics' institutes were mainly a phenomenon of the northern and industrial regions of the country because of the direct application of science and mechanics to the industries and manufacturers of those areas. It will be argued that the same scientific disciplines were equally applicable and useful to more rural areas and smaller towns, where agricultural improvement and technology were also advancing. Many towns like Lewes were acquiring their own gasworks in the 1820-30 period and scientific knowledge would be essential for the planning and maintenance of the company. Service industries associated with agriculture such as ironmongers, wheelwrights, tanners, saddlers and blacksmiths all had to take advantage of technical developments if they were to stay in business. The country's population was increasing and small rural towns were expanding, with consequent demands for more building and out-put from local domestic industries.

The dates chosen for this chapter coincide with the foundation of the first mechanics' institutes in Sussex and Hampshire and encompass the period in which the institutes were at their most active in the 1840s to 1850s The latter decade witnessed the beginnings of a new era of examination centred goals and government sponsored initiatives. Initial discussion concerns the aims of the first mechanics' institutes nationally: these were to shape the overall character of the mechanics' institute movement and enable each institution to develop its unique identity as a product of its own environment.

The Earliest Mechanics' Institutes

The aims and objectives of the earliest English mechanics' institutes were usually modelled on those of the London M.I., with a few adhering to the more strictly defined 'science only' aims of the Edinburgh School of Arts, founded in 1821 by Leonard Horner. This provided working men with systematic courses of lectures 'in such branches of physical Science as are of practical advantage in their several trades' with emphasis on chemistry, mechanics and mathematics.[1] The London M.I., established in December1823, assumed a broader perspective with 'the instruction of the Members in the principles of the Arts they practise, and in the various branches of science and useful Knowledge'.[2] The wider perspective of useful knowledge owed much to the influence of George Birkbeck, President of the London M.I., whose earlier lectures to the Glasgow mechanics at Anderson's Institution in 1802-4 had included courses on geography, astronomy and natural history in a curriculum dominated by the physical sciences.[3] Birkbeck's ideas on enhancing the cultural horizons of mechanics beyond a purely utilitarian diet of scientific knowledge had been written in a statement in 1800 to accompany his lectures.[4] He advocated that they should learn about the 'extensive

researches of the illustrious philosophers, by whom the boundaries of science have been enlarged', and that vast benefit will accrue to the community by every successful endeavour to diffuse the substance of 'great works'. Kelly has furthered argued that Birkbeck viewed mechanics' institutes 'primarily as agents of cultural education' which would liberate and enrich the minds of their members.[5] In contrast, many middle-class promoters had more vocational, moral or social aims for the institutes they supported. However, most mechanics' institutes which endured for more than a few years, did develop a broader cultural curriculum and thus reflected the atmosphere which Birkbeck envisaged.

Mabel Tylecote drew attention to the ways in which the differing aims of the pioneering institutes at Edinburgh, Glasgow and London influenced the varied objectives of the mechanics' institutes of Lancashire and Yorkshire.[6] Manchester M.I.'s constitution was based on that of the Edinburgh School of Arts. In a similar fashion, Bolton M.I. decreed that:

> the primary object of the Institution being the diffusion of mechanical science among the operative classes, no consideration of the excellence of other departments of human knowledge was allowed to divert the attention of the Committee from this fundamental principle.[7]

Conversely, Edward Baines, Junior, argued that Bradford M.I. ought not to confine itself to so strict a scientific diet as the institutions at Leeds, London and Edinburgh. At institutes where the founders were largely from the artisan classes, the aims often reflected more a spirit of co-operation in the pursuit of knowledge rather than purely vocational objectives. This was the case at Keighly M.I. where no particular subject interest was to dominate but 'each member striving, not only for his own improvement, but for the general advantage of the whole.'[8] Tylecote found that this type of institution would frequently develop a system of classes based on mutual instruction as well as, or

instead of a more orthodox programme of lecture courses which occurred in the bigger institutes.

Instruction to the members of the initial institutions at Edinburgh, Glasgow and London was by means of lectures in scientific subjects supported by a library, a collection of apparatus for experiments and classes for more elementary instruction. Nearly all the early mechanics' institutions attempted to mount long, systematic courses of lectures on science and mechanics but found these too expensive to sustain at £4 to £5 per lecture from competent speakers, who were in any case, scarce. Working-men, exhausted at the end of a twelve hour day, were unable to concentrate on such specialised subjects and desired a more varied and less arduous diet of instruction.

In addition, an economic depression in 1826 forced institutes to modify their original curriculum in order to maintain their memberships, or go into decline. Those which survived into the 1830s found that like the London M.I., it was usually only possible to sustain a short course of lectures on a scientific subject when it was integrated with single lectures on literary or general interest themes. Classes had proved themselves to be popular however at the London M.I. in both science and mechanical drawing with French, basic literacy and numeracy also drawing large numbers. In some subjects the classes become mutual instruction sessions, using text-books and the occasional help of a knowledgeable member of the Institute. The library and reading room were a great attraction to the membership but little is known about the use of the museum, with its miscellaneous collection of material. The scientific apparatus however was used by both lecturers and students in the classes. These trends appear to have been a common experience of the earliest mechanics' institutes nationally.[9]

Economic conditions had improved after the slump of the late 1820s and by 1831 the mechanics' institute movement witnessed a sharp revival, more than doubling the number of institutes between 1831 and 1841.[10] In Sussex and Hampshire, the number of new foundations between 1830 and 1850 showed a four-fold increase, thus providing evidence of a considerable demand for adult education. Further indications of the desire for intellectual self-improvement in the non-industrial and southern areas of England were highlighted by the 1851 Census. Of the 39,783 scholars in adult evening schools, 6,709 were agricultural labourers compared with only 4,418 factory workers. Since much of the farming land was in the south of England, it would suggest that many rural workers in Sussex and Hampshire desired opportunities for education and knowledge. Such a need was in fact supplied at Selsey and Bognor in Sussex by the two branch societies of the Chichester M.I. and the various mutual improvement societies which existed in the two countries, as well as the fully-fledged mechanics' institutes.[11] While Tylecote found that there were few mechanics' institutes in the countryside of Lancashire and Yorkshire until the 1840s,[12] Sussex and Hampshire experienced a steady expansion in the numbers of institutes being founded in the rural surroundings of the ports and main towns from 1830.

Sussex and Hampshire Mechanics' Institutes in the 1820s

The towns of Brighton and Lewes in Sussex demonstrated many of the preceding points with regard to demographic, economic and scientific developments in the rural areas and their impact on the region's mechanics' institutes. Brighton's popularity as a resort was instrumental in more than trebling its population from 7,000 in 1801 to 24,000 in 1821. This increase and the influx of several thousand seasonal visitors including Royalty, led to a corresponding rise in new buildings and accommodation which in turn stimulated both the building and furniture trades, together with the local food, clothing

and luxury industries.[13] It is therefore, not surprising to find that a least half the committee of the first Brighton M.I. in 1825 were connected with the building industry and included an ironmonger, plumber, a carver and gilder and a gardener. Many ordinary members were similarly employed.[14]

These members' desire to acquire a greater understanding of the scientific basis of their trades was reflected in the Rules of the Institution. The original set of 1825 echoed the strictly scientific aims of the Edinburgh School of Arts by affording members 'the means of obtaining instruction and information in Mechanics, and in such other branches of Science as are immediately connected therewith.'[15] Probably as a result of George Birkbeck's influential visit to the opening celebrations in August 1825 and the experience of running the Institution for a few months, the committee broadened the aims of the Brighton M.I. in 1826 to 'the instruction of members in the principles of the Arts they practise on and in the various branches of Science and useful Knowledge.'[16]

Scientific studies were at the heart of the ambitious opening plans of the Institution which, on a smaller scale, equalled those of the larger urban institutes. The committee rented a house at 31 West Street and at a considerable cost, fitted it up with a lecture room to hold 200 and 'which approaches very near to a perfect theatre', a reading room nearly as large as that of the London M.I., a library able to house 2,000 volumes and plans for a paid librarian. Several other rooms, including the attics and cellar were to serve for a classroom, museum and various workshops with equipment where members could make models for the society or for lectures.[17] The lecture programme consisted principally of applied science with subjects such as natural philosophy, the use of the air pump, botany and gas lighting and only one title of a more general appeal, on the origin and progress of knowledge. Dr. King, the well-known co-operator, gave the natural

philosophy lecture, with other notables in the town contributing to the programme on their subjects of expertise. Mr. Ricardo, for instance, a Vice-President of the institute, gave a course on gaslights and another member and local architect, Mr. Busby, gave a course of lectures on mechanics.[18]

The success of the Institution in its beginning months surpassed the committee's expectations:

> and although some of us at first doubted whether lecturers could be found at all in this town, we are now enjoying the friendly co-operation of so many generous individuals, that a division of study has necessarily taken place, and we resemble more a little university of studies and lecturers, than a confined and limited provincial Institution.[19]

This over ambitious desire for higher education extended to the description of classes at the Brighton M.I., which were termed 'Schools of the Institution' and which aimed to teach the various branches of mathematics and their different applications, 'particularly to perspective, Architecture, Mensuration and Navigation.'[20] In reality, the classes did support the scientific and mechanical work of the institute, with two drawing classes of 30 pupils in total and two levels of mathematics classes. The higher mathematics group was taught by Dr. King , while one of its students took the lower class. The geography class which included 'Use of the Globes' would have appealed to men interested in learning the art of navigation, especially in a coastal area and thus closely serving a local labour market. Together with a writing class giving basic instruction in literacy, these subjects maintained the Institute's commitment to useful knowledge.[21] Classes in French and other languages were also planned.[22] The strong emphasis on science was also reflected in the library stock and after three months it was claimed that the chemistry, mathematics and natural philosophy sections ' may be said to be sufficient to answer every purpose' but other departments were not so complete.[23]

After such an auspicious beginning, the Brighton M.I. faded within three years. It is plausible to argue that some of its high academic ideals were incompatible with the needs of its mechanics' clientele.[24] Vestiges of its educational work were continued by the Brighton Co-operative Society which took over the building at 31, West Street and employed a librarian to run their evening library and do some teaching.[25] In a letter to Henry Brougham, M.P., in December 1828, Dr. King clarified the connection between the Brighton M.I. and the Co-operative Society, stating that the 'elite of the society were members of the Mechanics' Institution, and my pupils, and their minds were no doubt prepared there for this society.'[26] But the influence and connections of the Brighton M.I. were further continued in the more successful and enduring Lewes M.I., situated only a few miles away and served by good road communications with Brighton.[27]

Lewes was a market centre for the exchange of regional produce and also the county town of East Sussex.[28] The numerous workshops, mills and businesses of Lewes provided employment for skilled workmen, particularly millwrights, who could benefit from instruction in mechanical and scientific principles. The trade in livestock led some farriers to study and practice animal medicine while scientific knowledge would have been invaluable to the managers of Thomas Evershed's soap factory and the local Gas Works, both of which had connections with Lewes M.I.[29]

The Lewes M.I. had been established in November 1825 at a meeting in the Star Inn, Lewes, chaired by Mr. Ricardo of the Brighton M.I. and with Dr. King also in attendance.[30] The association between the two Institutes was further strengthened when Mr. G. Richardson of Brighton M.I. sent copies of his lecture on 'The Rise and Progress of Knowledge' which he had given earlier to this own institution and hoped it would inspire the membership at Lewes.[31] In January 1827, Dr. King was to begin a course of

lectures at the Lewes M.I.,[32] and its Pneumatics class was renamed the 'Natural and Experimental Philosophy Class' in anticipation of his lectures.[33] King remained connected to the Lewes M.I. and in 1846 he attended its twenty-first anniversary celebrations.[34]

The Lewes M.I. adopted similar objectives to those of the Brighton M.I., but with the additional specification of creating 'select classes' for the 'attainment of useful knowledge'.[35] This broader concept of education was explained to the Lewes membership by their Vice-President, the Unitarian Rev. T.W. Horsfield, in his Address in December 1825. Through more widespread general knowledge amongst the 'lower and middling classes' of society, they would be able to serve the community with 'their portion of wisdom, science and serviceable information' and 'improve their own arts and professions' as well as to 'instruct the rising generation, to make new and useful discoveries in nature and art' and generally to become better citizens. The Unitarian ideals of civic consciousness radiated through this address and the strong Unitarian leadership at the Institution ensured a determined commitment to its aims and an active pursuance of its scientific objectives. Horsfield finished his discourse with a series of astronomical diagrams including telescopic appearances of the planets which delighted his audience, according to contemporary accounts.[36]

In the first weeks of its existence, the Lewes M.I. set aside a room for models and plans and reserved £50 for the purchase of apparatus.[37] A year later the committee was 'anxious to promote the formation of classes in every department of science and will be willing in particular cases to grant the use of the apparatus on the application of individual members'.[38] Accordingly, a chemistry class was to be added to those already existing in pneumatics, geography, English grammar, writing, drawing, arithmetic and

French.[39] Thus the two spheres of science and useful knowledge were well catered for by the end of the Institution's first year.

An extension to the educational work of the Lewes M.I. was provided by a monthly 'Reading and Conversation' meeting from 1827 and the committee's interest in the administration of the classes was shown by their direction to the teachers that a letter B was to be entered in the attendance register if a pupil was known to be prevented from attending.[40] The Library assumed a central role from the beginning of the Lewes M.I. and within three weeks a librarian and two sub-librarians had been appointed.[41] Donations of books were frequent with many volumes coming from Henry Browne who acted as assistant secretary to the institution in the first year[42] and was also librarian of Westgate Unitarian Chapel.[43]

Browne was one of the staunchest supporters of Lewes M.I. and like so many Unitarians he had a strong interest in science.[44] He had a private chemical laboratory and also a private printing press on which he produced several of the notices for the institute. His scientific knowledge enabled him to give many interesting lectures to the Lewes M.I., particularly on chemistry subjects.[45]

Chichester M.I., established in April 1825, experienced a mixed diet of lectures in science and useful knowledge in its first year.[46] According to the local press, 'a very instructive and amusing' lecture on stenography was given in October 1825.[47] This was followed by an evening's exhibition of philosophical apparatus manufactured by William Allie of Winchester in his spare time until partially blinded and disabled in a chemistry experiment. Although a carpenter by trade, he had constructed an air pump, a working model of a steam engine, an electrifying machine and an eight-foot high

transparent orrery.[48] Allie was an example of a self-taught mechanic and amateur scientist who wished to inspire others. A few days later, the Chichester M.I. received its first chemistry lecture on 'The Power and Properties of Matter and the Laws of Chemical Changes' from Messrs. M. and J. Slight of Portsmouth who offered to further the objects of the Institution by further lectures on the subject.[49]

Julian Slight was a surgeon by profession and both men were members of the Portsmouth Literary and Philosophical Society,[50] but they maintained their support of the mechanics' institute movement with scientific lectures to the Portsmouth M.I. as well, in its first decade.[51] In this respect they were typical of many professionals nationally who wished to share their field of expertise with members of their local mechanics' institutes. It was difficult to gauge such lecturers' motivation; some were inspired by a genuine desire to aid the self-improvement of the working classes while others were determined to influence, and even control, working-class members. Others simply lectured to earn a living. Mechanics' institutes clearly provided and hosted a pool of regional lecturing talent, which was comparatively inexpensive, even if the quality varied. The Slights' association with both the Chichester and Portsmouth M.I.s in their early years, emphasized the serious commitment to science in these Institutions. In addition, Chichester M.I., guided by its leader and Vice-President, the Unitarian Rev. J. Fullagar, benefited from the full breadth of Unitarian educational and scientific values which were to shape its success in the first two decades of its existence.

There is evidence that the enthusiasm which was aroused by the establishment of these early mechanics' institutes and the powerful desire to obtain scientific knowledge amongst the mechanics was very strong in Portsmouth. In January 1825, a shipwright in the Dockyard had communicated a plea to the *Southampton Herald* for a 'Dockyard

Mechanics' Association' to enable his fellow workers to acquire the theoretical knowledge of scientific principles that underlay their mechanical operations. He hoped that 'the plan which has been carried into effect with such distinguished success in the northern parts of the kingdom, and in the metropolis, may be adopted here. My brethren are as capable of acquiring a knowledge of the scientific principles of their profession as other manual operators...' Such a plan would give workers the opportunity of 'uniting theoretical knowledge with mechanical ability.'[52] The large number of men who were employed in the Royal Dockyards and the town's brewing industry must have provided a potential clientele for an early mechanics' institution.[53]

The Portsmouth M.I. opened a few months later in October 1825 'for the diffusion of useful knowledge' and consisted of a library, reading room, classes and lectures.[54] Scientific knowledge was certainly a prime objective and was emphasized in the introductory lecture by its President, Daniel Howard Esq. He illustrated by examples from several trades, 'the intimate connection which exists between science and the operations of the workman: and the advantages to accrue to the mechanic and to the community at large by the general instruction of the working classes, in the scientific principles which it concerns them to know.'[55] Such sentiments had also been expounded by Rev. T. W. Horsfield in his Address to the Lewes M.I. and at Portsmouth they underpinned the educational provision of the Institution from its earliest years. A course of chemistry lectures in 1828 featured one on 'The Sources and Equilibrium of Heat' by Mr. H. Slight,[56] which would have had a direct relevance to the daily work of many of the Institute's membership.

In contrast to the evidence from the local press, J. W. Hudson, in his 1851 *History of Adult Education*, gave a rather pessimistic picture of the Portsmouth M.I.'s early history:

> During the first five years of the existence of the Mechanics' Institution, instruction by means of evening classes was afforded to an average attendance of nearly one hundred working-men and apprentices. In the succeeding ten years but little good was effected by the society, and it was with some difficulty that its patrons were retained.

Hudson appeared to be unaware of the Portsmouth M.I.'s lecture programmes unless 'the evening classes' were an alternative description of the lectures. 'Classes' of a hundred adult students would have been unusual for a southern mechanic's institute. Whatever the reality of the class/lecture instruction, Hudson did not consider the Portsmouth M.I. to be a success until 1841, when with a change of management and title to 'Athenaeum and Mechanics Institution', it began to cater more for the middle classes who he claimed were its chief supporters.[57]

Daniel Howard remained President of the Portsmouth M.I. until at least the mid-1830s and supported its commitment to a programme of mainly scientific education, (see Figure 1), at a time when mechanics' institutes nationally were having to modify their lecture curriculum to include more topics of general interest, in order to survive. It is unlikely that the prosperity of the Portsmouth M.I. declined very much during his leadership for he had been a dedicated pioneer of the Mechanics' Institute movement and in 1826 wrote to Lord Brougham suggesting the formation of a central organisation in London which could facilitate a supply of lecturers to institutes nationwide.[58]

One remaining early foundation was that of the Newport M.I. on the Isle of Wight, in March 1825. This was established through the efforts of Unitarian philanthropist Abraham Clarke who was curator to the Isle of Wight Philosophical Society[59] and had a

wide ranging knowledge of scientific subjects. The Newport venture was initially intended 'for the purpose of establishing a Library, on a cheap and extensively useful plan' for 'the mechanical part of the community.'[60] Within two weeks it had received donations of a hundred volumes of standard English works and was known as 'The tradesmen's mechanics' apprentices' Library'.[61] Descriptions of it as a 'Mechanics' Society'[62] and 'Mechanics' Institute'[63] appeared in the regional press in the earliest days, but by 1826 'Mechanics' Institute' seemed to have been its chosen title. While the library department initially remained its raison d'être, a lecture programme confirmed its status as a typical mechanics' institute.

Abraham Clarke seemed to have been both the secretary and treasurer of the Newport M.I.[64] in the first months and also gave its first lecture on Chemistry in May 1825 which was preparatory to a series of science lectures to be given by gentlemen and members of the Institution.[65] These included one on the air pump and another on the science of electricity, illustrated by numerous experiments 'which greatly amused and gratified the members present.'[66] Effective use was also made of the lectures written by Lord Brougham and the reading of these papers to members filled many an institute's lecture calendar when a real lecturer could not be found or afforded.[67] In April 1827, the Hampshire Telegraph announced the SDUK's new tract on 'The Object, Advantages and Pleasures of Science' as the first in a series of sixpenny, fortnightly publications on science, the arts, history and biography, and a local branch of the Society was opened in Newport.[68] The thriving Mechanics' Institute Library and the part of the population who were already literate, assured the viability of such a venture.

The continued stimulus to literacy and the library at the Newport M.I. was highlighted in 1829 by a lecture on the 'Improvement of the Mind' in which John Cooke, a

Unitarian and leading member of the Institute, urged his listeners to consider 'the necessity of methodical and persevering attention to one particular branch of reading, in preference to desultory and volatile study, which rendered such readers master of no one subject.' He pointed out a suitable course of study required to obtain a knowledge of various subjects, with the titles of books to be found in the library.[69] No references to the formation of classes at this early period have been found at the Newport M.I.[70]

What becomes clear from this survey of initial institutions in Sussex and Hampshire was that in common with the majority of institutes nationally, science, particularly the mechanical sciences, received the highest priority. However, how science was taught and what exact emphasis was placed on specific aspects depended on the individual and particular reasons for each foundation. These considerations also governed the ways in which these institutions responded to the changing climate and membership demands in the 1830s.

The Broadening of the Curriculum from c. 1830

The developments in educational and social provision have been well documented in their archives at some of the larger institutes. A new plan, for instance, was adopted at the London M.I. from 1829 with shorter courses of four to five lectures on the mechanical and physical sciences on one evening per week with lectures on chemistry or literary subjects on another evening.[71] In 1831 the Quarterly Report observed that:

> it is necessary for the artisan to know something beyond the use of his tools.....and to be acquainted with many things besides those immediately connected with his peculiar business, there arises the necessity of general knowledge such as may be obtained in this place.[72]

Such principles had already been voiced by the Rev. T. W. Horsfield at Lewes M.I. six years earlier and were embodied in the first year's lecture programme at the Chichester

M.I. in 1825. The Unitarian ministers who led those two Sussex Institutes, were clearly in touch with the needs and capabilities of the working memberships of their Institutions. The sheer size of the larger urban institutes often made such intimate knowledge on the part of the management more difficult. Even so, it was significant that it was the Unitarian founder of the Manchester M.I., Benjamin Heywood, who instigated the changes there from 1830. He realised the restrictive impact of the original narrow scientific aims and advocated more elementary studies, rational recreation, amusements and moral improvement.[73] Consequently the whole educational policy at the Manchester M.I. broadened with more general literature works in the library and additional non-scientific subjects such as poetry, travel, education, music, drama, history and other cultural topics included in the lecture series. By 1840 half of the lecture programme consisted of non-scientific subjects. More elementary and cultural subjects were offered in the classes and many social occasions such as tea parties, soirees, exhibitions and excursions were added to the calendar.[74] Newspapers were finally allowed with the introduction of a newsroom in 1841.[75]

One of the major changes in the institute programmes nationally seemed to be the increasing importance of classes of instruction. Kelly argued that after 1830, the real educational work of the institutes had transferred from the lecture hall to the classroom where teaching could be in smaller groups and at more elementary levels.[76] Hudson, writing in 1850, felt that the most essential feature of a mechanics' institute was its evening classes.[77] While lectures remained a constant phenomenon of the Sussex and Hampshire Institutes, their experience of organising classes varied and in some instances the classes became an extension of, or preparation for lectures. Analysis of both methods of instruction will be discussed in the following section.

Both Hudson and Kelly were dismissive of the workshops, philosophical (scientific) apparatus and museums of the majority of the institutes. In Hudson's opinion 'these stores if not absolutely valueless, have been comparatively useless'[78] while Kelly considered that the majority of the 'collections of apparatus for experimental purposes rusted unused.'[79] These statements however need qualification for there were individual institutions where such equipment was valued and used. As historian of the London M.I., Kelly himself had recorded the benefits of its scientific equipment to the mechanics and chemistry classes in the 1820s.[80] Similar use was made of the apparatus at Lewes M.I. and Guildford M.I. in Surrey where items were often lent out,[81] but such details were usually only recorded in the minutes of committee meetings which may not always have survived.

Despite his denigration of the general workshops and scientific apparatus at the mechanics' institutes, Hudson did concede that chemical laboratories and classes at such Institutes as Leeds, Bradford, Manchester and Westminster were indicative 'of the general taste for chemical science.'[82] Jack Meadows' recent study of Victorian Science revealed that as a result of German influence, a new development in nineteenth-century England saw the creation of communal laboratories where teaching and research could be combined together. An early example of this was Lyon Playfair's laboratory, located in some cellars in Manchester in the 1840s. From about 1810, private individuals could learn how to set up a laboratory from texts such as Parkes' 'Chemical Catechism'.[83] Chichester M.I. had this volume and others with similar titles in its Library in 1840 [84] and this would have enabled interested and scientifically inquiring members to avail themselves of such scientific treatises at the mechanics' institutes. Henry Browne of the Lewes M.I. for instance, set up his own chemical laboratory.[85] Others made use of their institution's chemical facilities. It was significant that chemistry was the most popular

science subject in the lecture programmes of the Hampshire and Sussex Institutes from the 1830s.

Tylecote's assertion that 'within a few years lectures in science had nearly everywhere proved a failure,' [86] is a generalisation that has little relevance for the mechanics' institutes in Sussex and Hampshire. There is sufficient evidence in this study to suggest that many of these institutions witnessed a late and continuing interest in scientific studies throughout the 1830s and 1840s. While nearly all mechanics' and similar institutions exhibited characteristics that could be related to the London M.I. and other large urban institutes, their individuality would bring divergence as they developed over time. Regional trends might emerge in contrast, or complementary to the overall picture and these would have been influenced by other factors such as strong religious networks, reform groups like the Temperance Movement or working-class organisations such as Owenism and Chartism. Inkster drew attention to the '*variety*-of origins, motivations, provisions, membership etc.', which inspired the foundation of individual institutes and which could differ considerably from the formation of the London M.I.[87] Above all, each mechanics' institution was a voluntary organisation of like-minded individuals in an age when locality was of paramount significance, but affiliation to a national movement gave security and a measure of support to a new venture.

The above considerations help to explain the similarities and variations that can be discerned in the lecture patterns of the mechanics' institutes in Sussex and Hampshire from the 1830s. As illustrated by the following analysis of educational programmes at these Institutes, a common experience in both counties was that scientific subjects retained their fascination for memberships for a longer period than the reported national average.

The Portsmouth M.I. lecture programme for the 1835-6 season highlighted the fact that the scientific principles outlined at the establishment of this Institution were still very much alive.

Figure 1

The Portsmouth, Portsea and Gosport Mechanics' Institution

Course of Lectures 1835 –36

1835		
Oct 12	-	Mr.Williams – Constitution of Nature
Oct 16	-	Mr. J. Slight – Circulation of the Blood
Nov 9	-	M. G. Martell – Mastication
Nov 23	-	Dr. Meadows – Physiology of Digestion
Dec 7	-	Dr. Tate – Physiology of Plants
Dec 21	-	Mr Hurley – Hydrostatics, Pressure of Fluids
1836		
Jan 4	-	Mr. Hurley – Hydrostatics, Equilibrium of Fluids
Jan 18	-	Mr. J. Slight – Empiricism
Feb 1	-	Mr. Hay – Chemistry
Feb 15	-	Mr. Brooks – Mechanical Powers
Feb 29	-	Rev. J. Neave – Optics
Mar 14	-	Rev. H. Hawkes – Pneumatics
Mar 28	-	Mr. Hurley – Electricity
Apr 11	-	Rev. G. D. Mudie – Phantasmagoria Lantern, and Lucernal Microsope

(From *The Hampshire Telegraph*, 9th May, 1836.)

However, it did feature other topics of a general nature in its lectures as in October 1834 when the Unitarian Rev. Michael Maurice of Southampton spoke on Education, based on data from Parliamentary Reports and stressed the benefits of education for the poor. This coincided with much national debate on state funding for popular education and came in the wake of the Factory Education Act and the first Government grants for Education. Maurice's talk was hailed as 'the most interesting lecture we have listened to for sometime.'[88] A month later a lecture on English composition was given by Rev. H. Hawkes. He was the Unitarian Minister of the Portsmouth High Street Chapel from 1833 to 1872 [89] and in the 1840s became secretary to the town's Literary and Philosophical Society.[90] By the late 1850s he had also become President of the

Portsmouth M.I.[91] A Unitarian influence was clearly evident in the management of the Portsmouth M.I. and would have been a supportive factor in the continued inclusion of serious scientific studies as well as more general themes in the lecture programmes. Rev. Hawkes at Portsmouth, Rev. Fullagar at Chichester and Henry Browne of Lewes were all Unitarian leaders of their respective Mechanics' Institutions. Their scientific expertise combined with a wide general knowledge to enable them to lecture on a variety of stimulating subjects. This ability emphasized the Unitarian ideals of education which sought to develop a scientific understanding of the world through rational education.

Contrary to the national trend of reducing the number of science lectures in the mechanics' institutes' programmes from the 1830s, Lewes M.I. actually intensified its concentration on scientific subjects during this period. This was probably partly due to the exceptional expertise amongst its leading members which stimulated the appetites of the ordinary membership. 1833-7 included discourses on Galvanism, Hydrostatics, Electro individual Chemistry, Electricity, the Atmosphere, Acoustics, the Steam Engine and four separate lectures on Astronomy. Chemistry in its many popular guises was the most frequently selected science in the Lewes lecture programme and a course of seven Chemistry lectures were given by Henry Browne over an eighteen month period from October 1834 to January 1836.[92] Lighter relief was provided by the well-known peripatetic lecturer Dr. John Epps on the popular science of Phrenology,[93] together with single and varied topics, such as Music and Horology. Overall however, science continued to predominate at the Lewes M.I. and short courses of two to three science lectures remained a feature of the programmes until the 1840s.

From 1838, the Lewes membership was introduced to ways in which science had been applied to contemporary trades, machinery and everyday life. Talks were given on Dyeing, Warming and Ventilating Dwelling Houses, and The Influence of Machinery on the Condition of Society.[94] A course of three lectures given by C. F. Partington on the Steam Engine with models showing its application to Rail Roads, the Steam Plough and the Steam Printing Press, was received with great interest and attended by over 200 people, even though the weather was very unfavourable. Partington had already given these lectures publicly at the County Hall in Lewes to a 'full and respectable' audience as the subject matter had attracted the attention of a large number of Lewes citizens.[95] The Professor was one of a new breed of professional itinerant lecturers who travelled the mechanics' institute circuit and made a good living from their lectures and sales of their books. After a lecture at the Stalybridge M.I. in the north of England, Partington was successful in the sale of his encyclopaedia,[96] and it is highly likely that his books sold well in Lewes, particularly with its apparent interest in applied science.

Mabel Tylecote found that science also predominated at the Manchester M.I. until about 1840, but unlike the Lewes M.I., talks on the relation of science to different aspects of industry and agriculture excited no special interest in the northern Institute.[97] This disinterest was probably due to the domination of machines and mechanical science in the working lives of the factory operatives in Manchester to whom study of the peripheral uses of science would have little relevance.

Scientific topics were still in the majority in the Lewes M.I. lecture lists in the mid-1840s, but the talks of a more general nature included topical issues such as Principles of Friendly Societies, Popular Superstitions and History of the English Language. Some less commonplace topics for lectures were often explained by the personal

interests of speakers, as for instance when Rev. Samuel Wood of Westgate Unitarian Chapel in Lewes and a member of the Lewes M.I., lectured there on School Buildings, Furniture and Tactics in 1844.[98] Two years earlier he had proposed the establishment of a Unitarian sponsored 'Normal School' and on his death in 1850 he left a bequest of £2,000 for promoting the education of poor, destitute and orphan children.[99] Notices of Rev. Wood's Unitarian Chapel Lectures were posted in the Lewes M.I. Scrapbook amongst its own lecture posters and acts as a further testimony to the close connections between the two organisations.[100]

The strong influence of Science was constantly to the fore of proceedings at the Lewes M.I. and even at social functions. No opportunity was lost to demonstrate the more spectacular aspects of the discipline. In 1842 a Tea Party was 'rendered more interesting' by Henry Browne's exhibition of the Hydro Oxygen Microscope, a collection of works of Art and Science with Philosophical Experiments, beside recitations and musical items. A similar Soiree and Exhibition was held in 1854 when the Earl of Chichester and several notable gentlemen attended. Many natural history specimens such as insects, shells and geological exhibits were included on this occasion.[101]

The Worthing Institution, established in 1837, had an unusually long course of ten lectures on Chemistry in the autumn of 1838,[102] but subsequently had a more standard pattern of science mixed with the general subjects that was the experience of many other mechanics' institutes in this period. Cowes M.I. emulated the Lewes M.I. in the 1836-9 years with newspaper reports mentioning lectures of a mainly scientific nature, albeit a broadly based one of physical, biological, botanical and human sciences.[103] More popular and general subjects may have been accommodated at its sister Institution, the

Cowes Literary and Philosophical Society. The latter had some members who also enrolled at the Mechanics' Institution in the early part of 1836 where a greater concentration on science might have been the attraction.[104]

Science lectures at the Cowes M.I. were not without their problems however. In February 1836, a full attendance of members heard Mr. Kernott's discourse on The Properties of Oxygen and Hydrogen during which there was an accident when the glass vase of gases 'went off with a tremendous explosion.' Fortunately none of the audience were near enough to have been fatally injured, but 'the worthy President, Secretary and some few others, received the whole contents of the acid on their clothes, and had to retire more like Ancient Britons with red patches than like Officers of the Mechanics' Institution.' No derogatory comments were reported, merely that as the lecturer had lost the thread of his discourse, it was to be adjourned for six months when 'he may be more lucky.'[105]

Winchester M.I., founded in 1836, did not experience the strong tendencies of the earlier institutes towards a science dominated lecture programme, but on the contrary, took on the more diverse culture of literary and general subjects, together with the occasional popular scientific topic. Astronomy was a favourite lecture topic in the early years,[106] with other titles such as Craniology, A Philosophical Debate, The Progress of Knowledge,[107] The Elements of Machinery and Instrumental Music,[108] being the standard fare of the institution's first few years.

A different culture and atmosphere again was to be found at the Alton M.I. which was founded by the Quaker, Dr. William Curtis in 1837 and was strongly supported by members of his family and the working men of the town.[109] A library was formed and

the beginning of the collections which were to form the basis of the Museum that was to become so important a part of the Institution. In the first years the lectures were mainly given by the founder himself on predominantly the Natural Sciences which were Dr. Curtis's field of expertise, besides his professional knowledge of medicine.[110] The available evidence suggests that the Institution was directed mainly at the working classes. A natural history class was mentioned but a report of 1845 showed that the Institute had made slow progress in this sphere.[111] From 1853, Alton M.I. affiliated itself to the Society of Arts and a year later to the Hants and Wilts Adult Education Society, from which it received aid in lectures and advice. From this time onwards it began to hold its own Exhibitions of Works of Art, Industry and Natural Objects and was able to purchase more suitable accommodation for its activities.[112]

Basingstoke M.I. was established in 1841 with strong support from the town's leading citizens including the Mayor, Charles Simmons, the postmaster, Robert Cottle, a surgeon, Thomas Workman and the long serving local vicar, Rev. James Blatch. Its objects were the 'Instruction of its Members in Science and Useful Knowledge, by means of Lectures, Conversations, and Readings, at stated periods; a Library, Museum, and Philosophical Apparatus, to which the Members will have access; and the formation of classes among the Members.'[113] The significant contrast between these aims and those of the earliest mechanics' institutes was the specific inclusion of 'Conversations and Readings' as well as lectures as methods of instruction. Fear of political or religious controversy had led managements in the past to censor any opportunities for this to arise. A request for a history class at the Manchester M.I. in 1838 had been refused because it was feared that it 'would lead to the introduction of political debates.' by the directors.[114]

At Basingstoke M.I. it was clearly stated in the Rules that the choice of Lectures, Conversations and Readings were to be at the discretion of the committee, 'provided that all controversies on religion and politics be decidedly excluded.'[115] There seemed to be a sense of paternalistic or even patronising benevolence towards ordinary members at the Institution on the part of the management, probably due to its strength of Anglican clergy and hierarchy. The reluctance of some members to support the classes which the committee was so keen to promote, could be interpreted as a reaction to such an attitude.[116] It was significant that the management considered 'that properly regulated classes must prove of very great advantage to all who are anxious to improve their knowledge of Science.'[117]

The failure of the early science classes at Basingstoke M.I. was counterbalanced by the number of scientific and mathematical subjects in the lecture programme during the first eighteen months. Astronomy, always a popular subject and the Mechanical Properties of Steam were included in the lecture titles. The last subject was given as a course of two lectures, but single talks were the norm.[118] An unusual practice occurred when the committee paid ten pounds to a Dr. Warwick for the admission of members to his course of eight lectures in the summer of 1842. [119] These would almost certainly have been of a scientific nature, to justify such expense on external lectures when the Institution's own discourses were mainly given gratuitously. A few talks on literary and more general themes such as Poetry, History and Cabinet Making were placed between the more educational lectures, but the overall tone of the Basingstoke lecture programme at this period was of a more serious nature than that of Winchester M.I. in its first years.[120]

Basingstoke M.I. lecturers included its own members and gentlemen from the town. Visiting speakers from Winchester, Andover, Portsmouth and Southampton suggest that the new Institute had begun to forge links with the existing networks of mechanics' institutes further south in the county.[121] Although there was a gap in the Basingstoke archives from 1843 to 1854, the latter year's programme maintained a good balance of scientific topics, with almost a third of the lectures on such popular subjects as Astronomy, Heat and Atmospheric Air. In the committee's opinion, the year's lectures 'have been more numerous and of a much higher order than at any former period, embracing a great variety of instructive subjects, of the greatest interest and value.' Some of the lecturers and apparatus for the discourses had been obtained through the Hants and Wilts Educational Association and it was expected that 'many and great advantages' would be gained by Institutions in union with this Association.[122]

The President of the Basingstoke M.I., W.S. Portal, who came from one of the leading aristocratic families of the county,[123] gave a significant opening lecture for 1854 on the present position and future prospects of mechanics' institutes.[124] Two of the season's science talks were given by speakers from Queenwood College, East Tytherley, which had been a Quaker boarding school since 1847. Its founder, George Edmondson, had a reputation for his 'modern' teaching of crafts and agriculture.[125] The Queenwood site had formerly housed an Owenite Community under the governorship of John Finch, who came from Liverpool. The Community possessed a Hall of Science and because of his Unitarian background, Finch would undoubtedly have encouraged scientific studies and adult education amongst the residents.[126]

Although the Owenite experiment in co-operative living was dissolved at Queenwood in 1846 and little is known about the changes in personnel when the Quaker School was

established there, the existing facilities were clearly conducive in encouraging the teaching of scientific subjects. In 1859, a lecture was given at Basingstoke M.I. by George Edmondson himself, (then Principal of Queenwood College), on Artificial Light, illustrated with experiments and diagrams.[127] The position of science in the lecture programmes at Basingstoke M.I. actually declined after the peak year of 1854-5 when just under half the sixteen lectures were on scientifically related topics, including three on Astronomy. In the next few years more general titles were in the majority, but by 1858, the popular scientific subjects, such as Astronomy and Chemistry of the Kitchen were again clearly in evidence.[128] The latter subject area held great interest for institute audiences at this time.

Chichester M.I. continued to flourish and was regularly reported in the local press from the 1830s onwards. Its collection of apparatus suggested that there must have been an ongoing bias towards science for the Institution possessed an electrical machine, air pump, microscope, telescope and 'good chemical apparatus'.[129] Its catalogue of 1840 also listed a planetarium and a small orrery.[130] A good balance of lecture subjects both scientific and literary were maintained with scientific titles on a par with national trends, having popular single subjects, with many pleasing experiments.[131]

The highly developed library service and lectures were strongly valued by the Chichester M.I. membership, but *classes* had proved unsuccessful by the late 1830s, owing to the irregular attendance of gratuitous teachers.[132] (See also Chapter Three). In complete contrast, Southampton M.I., founded in 1830, had established an itinerary of detailed weekly lectures by 1836 and these were supplemented by classes which enabled 'the more complete study of particular subjects---the beneficial effects of which

have been very apparent.' Five classes for music, chemistry, phrenology, drawing and French had been formed, 'to which any member who chooses is eligible.'[133]

Many factors influenced the success or otherwise of classes at the mechanics' institutes, including the attitude of the management, the desire and receptiveness of the membership and the availability of suitable teachers. Above all, it was the quality of the teaching that was one of the most decisive issues affecting the success of classes at the institutions. Charles Baker, writing in *The Central Society of Education Report* in 1837, maintained that class instruction was the most important aspect of a mechanics' institute's work and could not be carried out effectively by gratuitous teachers. 'Nothing can, or ought to supersede classes conducted by clever and active teachers, for where else could adults and youths 'deprived of the benefits of early education', seek to acquire the basic knowledge necessary to understand the principles of science? He quoted the example of Sheffield M.I. where classes which had formerly been taught gratuitously, were by 1836, 'superintended by paid teachers; their efficiency is thereby considerably increased without materially affecting the funds of the institution.' He even suggested that mutual instruction amongst the members should not be encouraged but that competent teachers should be engaged to ensure that 'all those who attend for the benefits of instruction should be employed, not in teaching others but in learning themselves.'[134]

Such arguments might have convinced the Chichester M.I. management to reorganise their funding to employ renumerated teachers as at Sheffield, but membership interests and the attitude of the committee clearly dictated that priority should be given to good library provision and the principle of mutual self-help. In 1839, when funds were so low that the members' desire for the purchase of new books had to be rejected, sixty

members formed themselves into a Reading class, with an additional subscription of sixpence per quarter specifically to 'obtain a library of new, popular, and interesting works, to become the property of the members so subscribing.'[135] This procedure was in keeping with the spirit of the 1840 Rules of the Chichester M.I. in which the library, museum, collection of apparatus, lectures and classes for study were all mentioned as means by which knowledge in science, literature and the arts was to be promoted. However, it was significant that classes were just given a perfunctory three lines out of one and a half pages devoted to educational details: those wishing to form a class were to apply to the secretary who would inform the committee.[136] Again, the evidence emphasised the individuality of each institution and the futility of applying too many generalisations to the mechanics' institute phenomena.

By the 1850s, those institutes in Sussex and Hampshire which organised classes were usually experiencing more success than similar ventures in the earlier period. This was undoubtedly helped by the activity of the Society of Arts and local associations of institutes. Basingstoke M. I. which had endured a very luke warm reception to its class initiatives in the 1840s, was more successful with Music, Discussion and Elocution classes a decade later and paid tribute to:

> The great stimulus...by the Society of Arts, as well as by the Hants and Wilts Society to Candidates, for proficiency in subjects of useful knowledge, will prove of great value to all Members who are earnest in desiring mental improvement.[137]

Even with this improvement in the mid-1850s, the Basingstoke committee felt that their efforts to establish classes for 'different branches of useful learning' had been 'but feebly seconded by those most likely to profit thereby.' [138]

Again, there was contrast in the experiences of the institutes, as the second Brighton M.I. (1851-c.59) encountered a very positive response from members to its class provision. In 1856 the committee reported that 'the Classes of the Institution have this year put forth more intellectual strength than they have before assumed, and a more healthy tone has pervaded them. With few exceptions they have been well attended.'[139] This must also have been a reflection of the expert tuition that was offered. The Elocution class was conducted by the Rev. A.J.Ross, a V.P. of the Institute and was stimulated by Lady Byron's invitation to hold its meetings in her fashionable home at No.6, Pavilion Buildings and her donation of book prizes of £5. A class on 'The Human Frame' was taught by the experienced and enthusiastic Dr. King, while the Institute Band, which can be considered as a musical instrument class, played at the Institute entertainments.[140] As at Basingstoke M.I. in the 1850s, elocution and music proved to be of enduring attraction to the membership as subjects worthy of class attendance.

Lewes M.I. continued to run a variety of educational classes throughout the 1830-60s period and its experiences illustrated many of the problems and solutions which institutes must have found in their efforts to provide facilities for study. Lewes classes included elements of self-help and mutual instruction as well as groups with designated teachers. A popular class for reading, writing and English grammar began in September 1833 under the 'superintendance of Mr. Till and others'.[141] As secretary of the Institution,[142] Mr. Till was probably too busy to devote sufficient time to this well-subscribed class which by January 1834 was meeting twice a week with four other named teachers.[143] A year later the committee appointed two of the latter as salaried teachers at two pounds each for a period of five months.[144] Another class for the 'Mutual Study of Algebra and Geometry' had a committee member as its teacher, but its

title would suggest an element of mutual improvement.[145] A Natural Philosophy class flourished at this period which would have covered scientific studies,[146] and such interest was shown in the sciences over the next ten years that in May 1849, the committee received a request to establish a class in Scientific Philosophy at 5.30 am.[147] Permission was granted, but provision delayed in order to find a teacher.

A comparison of educational activities at the Lewes, Brighton and Basingstoke M.I.s during the 1845-60 period reveals some interesting parallels. Science classes were requested and supported at the Lewes and Brighton Institutes, while music instruction was greatly valued at all three Institutions. Lewes M.I. was running two music classes per week by 1848 and their members gave a concert a year later.[148] Some form of reading and conversation/discussion or elocution class featured at all three Institutes.[149] Additionally, Lewes and Brighton M.I.s offered the rarer opportunity of Latin tuition.[150]

Lewes M.I. was unique amongst the mechanics' institutes in this study for its breadth, flexibility and attention to detail in the organization of its classes. A class committee was appointed in August 1836 to form classes and engage teachers for the season.[151] Despite the contrary advice of Charles Baker in his *Central Society Report*, the Lewes management maintained the principle of mutual instruction where necessary. A teacher could not be found immediately for the newly formed Drawing class in November 1848 and it was agreed that this should be a mutual improvement class until a teacher was appointed.[152] It was especially significant that teachers of the more advanced mathematics classes such as the arithmetic and geometry group were renumerated at a higher rate of two pounds per quarter while those tutoring the more basic literacy and numeracy classes received only half this rate.[153]

Conclusion

When assessing the educational achievements of the mechanics' institutes in this study to the 1850s, the combined effects of both lectures and classes must be considered. James Hole in his Prize Essay for the Society of Arts in 1853 reported that managers of mechanics' institutes constantly complained that 'people have got tired of lectures' and 'very often derive no real advantage from them.' Hole considered that the most valuable lectures were those which were, like class instruction, with enough information on key points, accompanied by oral or written examination and frequent reviews of past lessons.[154] The lectures which Hudson termed 'classes' at the Portsmouth M.I. may well have been the sort of lectures which Hole was advocating, as discussed earlier this chapter.

The evidence found in this study does not support Tylecote's claim that science lectures proved a failure after the initial years of the mechanics' institute movement.[155] On the contrary, the experiences of Lewes, Portsmouth and Basingstoke M.I.s indicate that a wide variety of scientific subjects formed a substantial proportion of each year's lecture programme and that at Lewes, Brighton and Southampton Institutes, scientific interest amongst their memberships was to demand and sustain class provision in the subject. The additional spheres of institute activity which could extend the role of science such as museums and exhibitions, are discussed in Chapters Two and Five.

Useful Knowledge was well provided for in both lectures of general interest and the large range of non-scientific classes at the mechanics' institutes; geography, French, music, elocution and phonography, besides the ubiquitous literacy and numeracy, were to be found amongst the class subjects at the Sussex and Hampshire Institutions. More leisurely pursuits such as the chess class at Lewes M.I. and a cricket club at Brighton

M.I., provided relaxation and physical recreation.[156] Penny Readings began to feature in, or instead of lecture programmes at some institutes from the 1860s and were especially popular at Basingstoke and Odiham M.I.s.[157]

To a great extent the Sussex and Hampshire mechanics' institutes did indeed become the agents of a *cultural* as well as scientific education that Kelly claimed Birkbeck envisaged.[158] While parallels and contrasts can be drawn between the mechanics' institutes in Sussex and Hampshire, what stands out is the degree of experimentation that took place in lecturing, classes, library provision, mutual instruction and curriculum.

By the 1850s and 1860s, the mechanics' institutes had entered into a more formal world of examinations and regulations as instituted by the Society of Arts and the Science and Art Department. Both these organisations stimulated the teaching of science and technical subjects within the mechanics' institute movement in its later years and anticipated the introduction of Government sponsored Art and Science Schools in the main towns. These aspects are considered and analysed in the next chapter.

Chapter Four Notes

1. T. Kelly, *George Birkbeck,* (Liverpool: Liverpool University Press, 1957), op.cit., p.71.
2. Ibid., p.88.
3. Ibid., pp.33-34.
4. Ibid., pp.29-30.
5. Kelly, (1970), op. cit., p.123.
6. M. Tylecote, *Mechanics' Institutes of Lancashire and Yorkshire before 1851,* (Manchester: Manchester University Press, 1957), pp.60-63.
7. Ibid, p. 62.
8. Ibid, pp. 62-3.
9. Kelly, (1957), pp.112-113, 119-121; Kelly, (1970), p.124.
10. Kelly, (1957), p. 230.
11. 1851 Census
12. Tylecote, op. cit., pp. 66-67.
13. S. Farrant, *Georgian Brighton*, (Brighton: Centre for Continuing Education, University of Sussex, 1990), pp.14, 23, and 45-7.
14. Brighton M.I. Rules 1825 and Subscription Book.
15. Brighton M.I. Rules 1825.
16. Brighton M.I. Rules and Orders 1826.
17. Brighton M.I., First Quarter's Report, 29th Sept., 1825.
18. Ibid.; *Brighton Gazette,* 13th Oct. and 10th Nov., 1825.
19. Brighton M.I. First Quarter's Report.
20. Brighton M.I. Rules 1825 and 1826.
21. Brighton M.I. First Quarter's Report.
22. Brighton M.I. Formal Opening Report; *Brighton Herald,* 20th Aug., 1825.
23. Brighton M.I. First Quarter's Report.

24. Brighton M.I. Rules 1825 and 1826.

25. A. Durr, 'William King of Brighton', *New Views of Co-operation*, ed. S. Yeo, (London: Routledge, 1998), p.19.

26. Letter from Dr. William King to Henry Brougham, 12th Dec., 1828, quoted in *Dr. William King and the Co-operator 1828-1830*, ed. T.W. Mercer, (Manchester: The Co-operative Union Ltd., 1922), p.120.

27. Pigot's *Directory of Sussex*, 1823.

28. C. Brent, *Georgian Lewes,* (Lewes: Colin Brent Books, 1993), Chapter 2. J.Goring, *Burn Holy Fire*, (Cambridge: Lutterworth Press, 2003), pp.11-12.

29. Brent, op. cit. pp. 36-37 and 128; C. Brent and W. Rector, *Victorian Lewes*, (Lewes: Phillimore, 1980), no page numbers; C. Brent, 'Voting Patterns at Lewes Borough in 1865-68', *Southern History*, 1980, Vol.2, pp.129-177.

30. Lewes M.I. Report of Meeting at Star Inn, 2nd Nov., 1825.

31. Lewes M.I. Minute Book 1, 18th Nov., 1825.

32. Lewes M.I. Minute Book 2, 23rd Oct., 1826.

33. Lewes M.I. Minute Book 2, 15th Jan., 1827.

34. Lewes M.I. Anniversary Report, 1846.

35. Lewes M.I. Report of Meeting at Star Inn, 2nd Nov., 1825.

36. Lewes M.I. Introductory Address, 5th Dec., 1825.

37. Lewes M.I. Minute Book 1, 18th and 20th Nov., 1825.

38. Lewes M.I. Minute Book 2, 4th Dec., 1826.

39. Lewes M.I. Minute Book 2, 23rd Oct. and 20th Nov.,1826.

40 Ibid., 25th Jan., 1827.

41. Lewes M.I. Minute Book 1, 18th Nov., 1825.

42. Ibid., 14th Nov., 1825; also references to Henry Browne's book donations occur throughout Minute Books 1 and 2.

43. J.M.Connell, *The Story of an old Meeting House, Lewes*, (London: Longmans 1916).

44. I. Inkster, 'The Social Context of an Educational Movement,' *Oxford Review of Education,* Vol. 2, No. 3, 1976; R.Watts, 'Education and Cultural Transfer: the Case of Unitarian Women from the late Eighteenth Century to 1860', *History of Education Society Bulletin,* No.55, Spring 1995; also various other articles by R.Watts.

45. Connell op. cit.

46. Chichester Literary Society and Mechanics' Institute Report 1886, quoted in F.W.Steer, *Chichester Literary and Philosophical Society and Mechanics' Institute,* (Chichester: Chichester City Council, 1962).

47 *Hampshire Telegraph and Sussex Chronicle,* 24th Oct., 1825.

48. Ibid., 21st Nov., 1825.

49. Ibid.

50. White's *Directory of Hampshire,* 1859, p. 275-6; Pigot's *National Commercial Directory,* 1830, p.435.

51. *Hampshire Telegraph,* 3rd. Nov., 1828; 9th May, 1836.

52. *Southampton Herald,* 24th Jan., 1825.

53. R. Foster, *The Politics of County Power,* (London: Harvester Wheatsheaf, 1990), p.5.

54. White's *Directory of Hampshire*, 1859, p.276.

55. *Hampshire Telegraph,* 31st Oct., 1825.

56. Ibid., 3rd Nov.,1828.

57. J.W. Hudson, *Adult Education,* (London:Woburn Press, 1969 reprint of 1851 edition).

58. Kelly, (1959), p. 248.

59. *Southampton Herald*, 7th Mar., 1825.

60. *Hampshire Telegraph,* 7th Mar., 1825; 28th Feb., 1825.

61. Ibid., 14th Mar., 1825.

62. Ibid., 16th May, 1825.

63. *Southampton Herald,* 28th Mar., 16th May, 13th June, and 12th Dec., 1825.

64. Abraham Clarke cited as secretary to the Newport M.I. in *Southampton Herald,* 16th May, 1825 and as treasurer, in *Hampshire Telegraph*, 16th May, 1825.

65. *Southampton Herald,* 16th May, 1825.

66. Ibid., 2nd Jan., 1826.

67. Kelly, (1957), p. 249

68. *Hampshire Telegraph,* 2nd April, 1827.

69. Ibid., 20th April, 1829.

70. Nothing found in local newspapers, 1825-9.

71. Kelly, (1957), p. 13.

72. Ibid., pp.127-8.

73. Tylecote op. cit., pp.130, 133 and 157.

74. Ibid., pp.133 and 149.

75. Ibid., p.155.

76. Kelly, (1970), p.128.

77. Hudson op. cit., p. 58.

78. Ibid., p. 57.

79. Kelly, (1970), p.128-9.

80. Kelly, (1957), p. 121.

81. Lewes M.I. Minute Books, various entries; J.Sims, *The Guildford Institutes* (University of London, Institute of Education, unpublished M.A. Dissertation, 1987).

82. Hudson, op.cit., p. 57.

83. J. Meadows, *The Victorian Scientist,* (London: British Library, 2004), p. 59.

84. Chichester M.I. Library Catalogue, 1840.

85. R. Armstrong, *Henry William Crosskey,* (Birmingham, 1895), p.10.

86. Tylecote op. cit., p. 87.

87. Inkster, op. cit., pp. 280-282.

88. *Hampshire Telegraph*, 20th Oct., 1834.

89. G. E. Evans, *Vestiges of Protestant Dissent,* (Liverpool: Gibbons, 1897).

90. Pigot's *Directory of Hampshire*, 1844.

91. Evans, op. cit..

92. Lewes M.I. Scrapbook 1, 1824-54.

93. See Tylecote, op.cit, pp.150-2 for details of Epps.

94. Lewes M.I. Scrapbook 1.

95. *Sussex Agricultural Express*, 24th Nov., 1838.

96. Tylecote op.cit., p.99.

97. Ibid., p.97-98 and 149.

98. Lewes M.I. Scrapbook 1, 14th Feb., 1844. Wood's Ministry from 1844-48 at Lewes is detailed in Evans, op.cit.

99. *The Inquirer*, 9th July, 1842; 23rd Feb, 1850.

100. Lewes M.I. Scrapbook 2. Notices of Unitarian Meeting House, Lewes, January to July, 1844. Notices not always stuck in chronological order.

101. Lewes M.I. Scrapbook 1, Notice for an Evening Tea Soiree, 3rd Mar., 1842, and a Soiree on 7th April, 1854.

102. *Sussex Agricultural Express*, Worthing Institution Report, 13th Oct., 1838.

103. *Hampshire Independent,* 15th Jan., 1836; 5th Feb., 1836; 26th Feb., 1836; 13th Jan., 1838; 23rd Feb., 1839.

104. Ibid., 5th Feb., 1836.

105. Ibid, 26th Feb., 1836.

106. *Hampshire Independent*, 16th Jan., 1836; 23rd Jan., 1836; 7th Dec., 1839.

107. Ibid., 27th Feb., 1836; 16th Mar., 1839.

108. *Hampshire Telegraph,* 24th Feb., 1840.

109. W. Curtis, *A Short History of Alton,* (Alton:1896).

110. Ibid., p. 39 forward.

111. Ibid., especially p.141.

112. Ibid., p.142.

113. Basingstoke M.I. Rules 1841; and G.W. Willis, *Historical Miscellany of Basingstoke*, (Basingstoke: Crosby Press, 1972), p.46.

114. Tylecote, op.cit., pp.134 and 162.

115. Basingstoke M.I. Rules.

116. Basingstoke M.I. 2nd and 3rd Half-yearly Reports, 1841-2.

117. Ibid., 3rd Half-yearly Report.

118. Ibid., the first three Half-yearly Reports, 1841-2.

119. Ibid., 3rd Report.

120. Ibid., all three Reports.

121. Ibid.

122. Basingstoke M.I. Annual Report, 1855.

123. R. Foster, op.cit., p.10.

124. Basingstoke Annual Report, 1855.

125. J. Reader, *Of Schools and Schoolmasters*, (London: Quaker Home Service, 1979).

126. M.R. Watts, *The Dissenters*, (Oxford: Clarendon Press, 1995), p.490.

127. Basingstoke M.I. Annual Report, 1859.

128. Ibid.

129. Charles Baker, 'Mechanics' Institutes and Libraries', in *Central Society of Education*, 1837, (London: Woburn Press Reprint,1968), p.236.

130. Chichester M.I. Rules and Catalogue of Books, 1840.

131. Various reports from *The Sussex Agricultural Express*.

132. Baker, op.cit., p. 236.

133. Fletcher and Son's *Directory of Southampton* 1836, p.xi

134. Baker, op.cit., pp. 245-246.

135. *Sussex Agricultural Express*, Chichester M.I. Report, 14th April, 1839.

136. Chichester M.I. Rules, 1840, p.7.

137. Basingstoke M.I. Annual Report, 1856.

138. Basingstoke Annual Report, 1859.

139. The Second Brighton M.I. Annual Report, 1856.

140. Ibid.

141. Lewes M.I. Minute Book 3, 1832-38, 9th Sept., 1833.

142. Ibid., 11th Feb.,1833.

143. Ibid., 27th Jan., 1834.

144. Ibid., 1st Dec., 1834.

145. Ibid., 9th Sept., 1833.

146. Ibid.

147. Lewes M.I. Minute Book 1845-55, 4th May, 1849.

148. Ibid., 11th Dec.,1848; 10th Dec.1849.

149. Ibid., Oct.16th, 1846; Basingstoke M.I. Annual Reports,1856,1858 and 1859; Brighton M.I. Annual Report, 1856.

150. Lewes M.I. Minute Book, 1845-55, 20th Sept. 1848; Brighton M.I. Annual Report, 1856.

151. Lewes M.I. Minute Book 3, 5th Aug., 1836.

152. Lewes M.I. Minute Book, 1845-55, 13th Nov., 1848.

153. Lewes M.I. Minute Book 3, 5th Aug., 1836.

154. James Hole, *An Essay on the History and Management of Literary, Scientific and Mechanics' Institutions,* (Society of Arts Prize Essay, 1853), p. 28.

155. Tylecote op.cit., p. 87.

156. Lewes M.I. Minute Book, 1845-55, 7th and 26th April, 1848; Brighton M.I. Annual Report, 1857.

157. Basingstoke M.I. Annual Reports, 1865 and 1866; Odiham M.I. Minute Book, 5th May, 1865 and 4th Oct., 1866.

158. See Kelly, (1970), p.123.

Chapter Five

Mechanics' Institutes in Sussex and Hampshire from the 1850s

When writing on the state of the national mechanics' institute movement in the second half of the nineteenth century, Thomas Kelly observed that 'by 1851 the institutes were so numerous, and so varied in name, form, and function, as to almost defy classification, and the confusion is made worse by the even greater variety of other organizations which were in many ways similar in scope and purpose...'[1] The 'other organizations' to which Kelly referred, included literary and mutual improvement societies, church institutes, working men's institutes and even farmers' clubs. After briefly considering Kelly's assessment from the perspective of recent local research, this chapter will then analyse the situation in Sussex and Hampshire, with attention to the ways in which the institutes responded to external stimuli, the needs of their local communities and their influence on the next generation of adult educational agencies.

National trends after 1850

The earliest mechanics' institutes had transformed adult educational opportunities for working men in the science and arts of their trades. As the curriculum of the institutes broadened, they also responded to developments in commercial spheres where competitive meritocracy was ruled by a growing examination culture. Reforms in the civil service and the award of army commissions began to be dependant upon examinations in the 1850s.[2] The mechanics' institutes became beneficiaries of the examination systems of the Society of Arts, the government Science and Art Department and regional associations such as the Hants and Wilts Adult Educational Society and frequently ran classes leading to such goals. Alongside the educational programmes of the institutes, the cultural, leisure and sometimes sporting activities which they adopted in order to adapt to membership needs and to survive in the face of

rival providers, led to a much more community based role for many of the institutions. These changes were most clearly seen in the affiliation of many mechanics' institutes to the Working Men's Institute and Club Union. This Union aimed to provide opportunities for working men to have meeting places where they could relax, converse, find mental self-improvement and recreation while being able to enjoy non-intoxicating refreshments in a club-like atmosphere.[3] Such affiliation often resulted in a modification of name and many mechanics' institutes also surrendered some of their educational role to the new government sponsored Schools of Art and Science.

The Great Exhibition of 1851 had shown the results of the application of science and technology to a nation's industrial output and economy. People of all classes had been able to visit the Exhibition thanks to the railways and special cheap entry tickets. Many mechanics' institutes from all over the country had taken advantage of this and organised excursions to it for their members. A direct response was seen in the many local exhibitions which were held in succeeding years by the institutes themselves, brimming with regional civic and community pride. Sussex and Hampshire were particularly favoured by such trends as discussed later in this chapter.

Nationally, a number of historians of the mechanics' institute movement have furnished evidence of their varied and flourishing activities which were continuing in the 1850s and beyond. J.P. Hemming extended Tylecote's work on the Lancashire and Yorkshire institutes, demonstrating that they responded to the demands of industry and manufacture not only by providing inspiring scientific and technical teaching, but also the necessary instruction in basic literacy and numeracy skills as preparatory foundations for these. Hemming considered that the contribution made by the mechanics' institutes to the teaching of science and technology, constituted their major

legacy. It is therefore no surprise to find that institutes such as Leeds, Manchester and Bradford transformed themselves into trade schools and technical colleges between 1870 and 1890.[4]

In his study of north-eastern mechanics' institutes, Clinton Stockdale found that many entered a period of revival after 1850 by popularising their lecture programmes, increasing their provision of classes in basic numeracy, literacy and vocational subjects such as book-keeping and running classes for the Science and Art Department examinations. Stockdale also highlighted a new way through which these institutions could assert an independence and continuation. Many of them chose to emphasize their recreational role through entertainments such as concerts and games like draughts, dominoes and particularly, billiards. By the end of the century the latter game had 'become endemic within most institutes'. Its attraction as a 'club-type' entertainment arose from the fact that it could be played within the social context of conversation, drinking and inter-club contests. Stockdale argued that billiards became the raison d'etre for the survival of so many north-eastern mechanics' institutes into the twentieth century. Those such as Darlington and Hartlepool M.I.s became largely social clubs, providing for the recreational needs of the working classes, while leaving the state to cater for their educational requirements.[5]

Conversely, Harry Butterworth provided evidence to show how plans to include formal and systematic science education helped to revive the fortunes of the Middlesborough M.I. from a state of near extinction in 1857 to attracting 200 new members. (Such a major contrast of direction in the history of these northern institutes emphasizes once again the unique character of each institution as a product of its individual environment.) In 1861, under the auspices of the Science and Art Department's scheme

of grants and examinations, students from the chemical class gained three Queen's Prizes and ten certificates and the institute came ninth in the success rating list of centres who entered candidates. Annual Reports of the Science and Arts Department recorded the results of the yearly examinations which were taken in May. The Scholarships and Exhibitions which were awarded upon these results were inaugurated from 1868 to help support students with their studies.[6] A School of Art was established at the institute in 1870 with day and evening classes for apprentices and others in maths and mechanical drawing and a greatly enlarged Chemistry School with new laboratories opened in 1878, making the Middlesbrough M.I. a recognised centre of technical and scientific education in the area.[7]

While there has been less research into mechanics' institutes in the south of England, in the second half of the nineteenth-century, reference must be made to three studies. R.A. Thomas's work on the institutes to the north and west of London does not highlight the 1860s and 1870s, but mention is made of Royston and Banbury M.I.s in the 1867-9 period when both seemed to be in a healthy state.[8]

Keryl Moir's study on the Kent mechanics' institutes has particular relevance for the present thesis, due to its proximity to Sussex and comparative similarities as a rural seaside county. Moir revealed much institute activity in Kent in the period 1825 to 1870, with six institutes, approximately a quarter of the number discovered, lasting into the 1870s. The Kent institutes had emerged at various times throughout the period with those at Aylesford and Southborough established in the late 1860s. While many northern institutions had been supported by larger industrialists, the greatest patron of the Kent institutes had been the Navy, which fostered mechanics' institutes in such dockyard towns as Chatham and Dartford, providing both land, and lectures from their

educational staff. As naval activities were scaled down in the 1860s, only the Chatham M.I. survived into the later years and it would seem reasonable to assume that this must have been greatly boosted by having Charles Dickens as its President in the 1850s and 1860s. The Ashford South Eastern Railway M.I. was unique in its location in a company town and benefited from the Railway's decision to ensure that the institute catered for the educational and recreational needs of all the town's residents. Its success enabled the institute to survive into the 1950s in the form of the British Railway Sports and Social Club.[9]

Moir felt that the traditional rural atmosphere of the Kent market towns where the upper classes had been very involved with the activities of the local populace, inspired a natural combination of this spirit with the support that the navy gave to the mechanics' institutes in the dockyard towns. This enabled the mechanics' institutes in Kent to be places where different sections of the community could meet without the sense of social divisions which gave rise to the hierarchy of institutions found in many northern towns. By the 1860s however, national trends which affected the mechanics' institute movement generally, were also evident in Kent. To attract viable audiences, lectures had to be entertaining events and of high professional quality. Penny Readings became very popular and such an evening's entertainment might contain musical and dramatic offerings between the readings. Indeed, the very music and drama classes which had once formed such fundamental parts and attractions of the institutes, had often matured into successful clubs and societies in their own right and abandoned their mother institute to pursue an independent existence. The singing class at the Tunbridge Wells M.I. became a separate Choral Society in 1869 and must have been typical of many severances which contributed to the decline or changed status of the parent institution.

At Guildford in Surrey, an inland county which bordered Sussex and Hampshire, a merger between the original Guildford M.I. and its rival L.S.I. had produced the Guildford Institute in 1843, which continued to promote and extend the state of science, literature and the arts in the town. In 1856, a new Working Men's Institution was established which was largely managed by members of the older Guildford Institute. Both societies continued to exist side by side for nearly 40 years, but with the Guildford W.M.I. providing classes in basic education and promoting scientific and technical education under the auspices of the Science and Art Department. In the latter's examinations of 1878, Guildford's art night class students won the greatest number of prizes nationally. Meanwhile, the older Guildford Institute became the main source of literary and cultural pursuits in the town. In 1892 another merger united the two institutes in new premises in Ward Street and the combined society maintained a leading cultural and educational role until the Second World War. Increasing state control over technical and higher education did not signal the demise of the voluntary sector in Guildford as it had in so many areas of the country. A further development in 1982 arrested the Institute's post-war decline and it became the 'Guildford Institute of the University of Surrey' offering a wide range of educational and recreational activities to the local community. In 2008, the Guildford Institute became independent from the university and returned to its original status as a self-supporting institute.[10]

The above examples highlight the variety of directions which mechanics' institutes could take in order to survive amongst the changing educational scenes of the later nineteenth century. The following sections analyse the developments in Sussex and Hampshire.

Sussex and Hampshire: the 1850s and beyond

By mid-century, many of the general features evident in the 1820s had progressed and changed in the two counties. Their populations had grown considerably in the thirty year period: Sussex, from 233,000 to 336,844 and Hampshire, from 282,897 to 405,370.[11] The railways had revolutionised transport communications between the counties and the metropolis, while intensifying both their internal and mutual interactions. The laying of electric telegraph wires on many railway lines had contributed enormously to the possibilities and speed of information exchange.[12] Manufacturing was only on a small scale in both counties, papermaking being the chief in Sussex, while Hampshire had a large number of men engaged in shipbuilding as detailed below.[13] Agriculture retained its predominance in the economic profile of both with each county developing its commercial specialities by the 1850s. Fishing was a chief business of the Sussex coastal towns and villages, while sea bathing was a great attraction of many places, especially Brighton, Hastings, Worthing and Bognor. Brighton's association with Royalty from George 1V's residency at the Royal Pavilion, raised the importance and popularity of the town with the upper classes, leading to its areas of grand architecture and superior residential accommodation such as the Pavilion itself and the Royal Crescent. Substantial investment in transport, especially the railway, and in entertainment and other amenities followed, to attract and sustain the higher classes during the social 'season'.[14]

Whilst fishing was also of importance in Hampshire, its Agricultural Societies had greatly encouraged efforts in agricultural improvement. Although the average wages of its farm labourers were considered low at 10 shillings per week, many were able to take advantage of 'good cottages and gardens at small rents'. Various *Labourers' Improvement Societies*, supported by local gentry and farmers, encouraged good

working practices and domestic economy amongst the labourers, rewarding such efforts with prizes.[15] An interesting stimulus to farming practices was the cultivation of cabbages for the Navy. This latter institution was also linked to the shipbuilding industry which was so extensive in Portsmouth, Southampton and Cowes and which in turn, stimulated essential iron foundries and engineering works in these areas. By the early 1850s, Southampton had overtaken Portsmouth in commercial importance and in the 1870s, the former town had also become one of the country's major mail-packet and emigration stations.[16]

Throughout the thesis it has been emphasized that while each mechanics' institute was part of the national movement, it was also a unique entity, shaped and nurtured by its surrounding community and environment. This was true of similar societies and other institutes too, which the originals may have inspired. The examples selected in the following section illustrate the influence of local circumstances, tradition and culture on the development of their mechanics' institutions, as well as the policies adopted by national adult educational agencies.

The continuous health of the mechanics' institute movement in Sussex and Hampshire was demonstrated by the survival of 28 such societies into the 1860s, evenly divided between the two counties. Hampshire eventually proved to have the greatest number of longer enduring institutes with 13 remaining into the 1870s, eight continuing to the 1880s and six others lasting into the twentieth century, notably Southampton M.I., (restyled as Polytechnic Institute in 1842) to 1907, Alton M.I. to 1920, Winchester M.I. to 1921, and Basingstoke M.I. to 1923. In contrast, there was a greater and earlier loss of institutions in Sussex with only four surviving to the 1870s. The two oldest Sussex mechanics' institutions both began in 1825: Lewes M.I. survived until 1892 and

Chichester M.I. lived on through its merger with the town's Literary and Philosophical Society until 1923. Thus, in each county, over 50% of the recorded mechanics'-type institutions were still in evidence in the 1860s, compared with only 25% in Kent. 33% of Hampshire's institutes endured into the 1880s but only 16% of the Sussex societies lasted until the 1870s.

The issues of nomenclature, social class of membership and subscriptions at the mechanics' institutes have been discussed in Chapter One, but at the other end of the scale there is some evidence that a mutual improvement society might develop its meagre resources and small membership into becoming a fully fledged mechanics' institute in later years. According to the 1851 Census, Hailsham Mutual Improvement Society had 122 members including six women, all paying fourpence per month and with 80 volumes in the library. It exhibited the typical characteristics of a village self-help society. By 1867 however, it was classified as a mechanics' institute in Kelly's *Directory of Sussex*, but unfortunately no other details are given.[17] At Whitchurch in Hampshire, twelve miles north of Winchester, a mutual improvement society existed in 1851 with 114 male members and fortnightly science lectures.[18] This almost certainly developed into the Whitchurch M.I. which was established in 1855, met at the Town Hall, possessed 'a good library and reading room' and was still in existence in 1878.[19] The two former mutual improvement societies must have been soundly established by 1851 to enable them to have registered their details in the Census. Their change of name to 'Mechanics' Institute' could indicate a more confident and permanent sense of status than many of the more ephemeral mutual improvement societies. It might also stem from a wish to benefit from the advantages of affiliating to a national mechanics' institute movement.

It is notable that most of the mechanics' institutes which were founded in the earliest years in Sussex and Hampshire, continued to the latter years of the century. Those at Newport, Southampton, Portsmouth, Chichester and Lewes all shared common characteristics of being on or near the sea, were in centres of communication and trade and all had Unitarian congregations in their towns. All these towns had well established means of communication with each other and the metropolis.

The Great Exhibition and its effects: The Examination Culture

The Great Exhibition of 1851, organized by Henry Cole of the Society of Arts and Prince Albert, had profound effects for many spheres of British life in the years following, not least on the mechanics' institute movement and adult education. Firstly, it gave great stimulation to technical and scientific education, without which Britain could not hope to compete with the rising industrial states of Prussia and France.

Many of the mechanics' institutes in Sussex and Hampshire had affiliated themselves to the Society of Arts from the 1850s, (see Table 2). For two guineas a year, they were able to receive books, maps, diagrams and apparatus at a reduced cost, benefit from sponsored lectures and defined courses of study and their students could sit examinations set by the Society and gain certificates for successful achievements.[20] The Society hoped that such strategies would enable the institutes to become centres of 'systematic instruction' and their plans for giving certificates to successful examination candidates seemed to have gained approval from many employers nationally.[21] The Chairman of the Society of Arts, Rev. Dr. James Booth, highlighted the significance of obtaining an examination certificate as 'one of the highest and most flattering testimonials which a young man can possess, it certified at once the correctness of his conduct, the extent of his studies, and the proficiency he has made'.[22]

Table 2
Sussex and Hampshire Institutions in Union with the Society of Arts 1851-1856

Basingstoke Mechanics' Institute (H)

Battle Mechanics' Institute (S)

Brighton Mechanics' Institute (S)

Chichester Literary Society & Mechanics' Institute (S)

Eastbourne Literary Society (S)

Fordingbridge Literary, Scientific & Mechanics' Institute (H)

Hailsham Mutual Improvement Society (S)

Hastings Mechanics' Institute (S)

Lewes Mechanics' Institute (S)

Lymington Literary Institute (H)

Portsmouth and Portsea Literary and Philosophical Society (H)

Portsea Watt Institute (H)

Ryde Literary and Scientific Institute (H)

St. Leonard's Mechanics' Institute (S)

Southampton Polytechnic Institute (H)

Winchester and Eton Literary, Scientific and Mechanics' Institute (H)

Whitchurch Mechanics' Institute (H)

H=Hampshire; S=Sussex

Table compiled from a 'List of Institutions in Union with the Society of Arts', by Martyn A. Walker in *The Huddersfield Mechanics' Institution,* WSG Research Paper 1, William Shipley Group for RSA History, 2008, Appendix 1. Additional information included from researches by J. Sims.

In 1856, Lewes M.I. published a notice to the effect that, in union with the Society of Arts, it wished to establish classes in various subjects with the option of members taking the Society's annual examinations and gaining Certificates of Merit. In the same period, Brighton M.I. positively recommended that its members should attend the classes it set up for study towards the Society of Arts examinations, whose 'certificates to the working man, will be as valuable as the degrees acquired by the higher classes at the

universities.'[23] There was considerable inducement for institutions to train and enter candidates, since a First Prize earned £5 for their institute. The Portsea Watt Institute and the Lymington Literary Institute in Hampshire earned £15 and £5 respectively in the later 1850s from such special prizes.[24] Their success in this sphere must have acted as an attraction for new members to the institutions at a time when many such societies were struggling to exist. The subjects offered for examination by the Society included English, arithmetic and other branches of mathematics, history, geography, book-keeping, French and German, together with science and technical subjects which were relevant to local industry. Mechanics and chemistry were applicable to a wide range of manufactures, but animal physiology, botany and agriculture were particularly important for rural areas and predominantly farming counties such as Sussex and Hampshire.[25] The Society of Arts examinations quickly gained in popularity rising from 62 candidates nationally in 1856 to 586 in 1860.[26]

While the Society of Arts pioneered national examinations for students in adult education, the government-sponsored Science and Art Department, which was established in the wake of the Great Exhibition, began holding its own examinations in mainly scientific subjects from 1859 and successful students could gain from £1 to £5 for their teachers. This 'payment by results' method earned teachers of science £8,000 nationally in 1867 and additionally there were scholarship awards for pupils together with grants for equipment for the institutions and Schools of Science. Similar arrangements existed for the Department's classes and Schools of Art. The greater financial resources that were at the disposal of the Science and Art Department compared with those of the Society of Arts, enabled the former to have a large impact on the number of students and the Science and Art classes they sponsored.[27] By 1861 in science alone, the Department had 70 classes with 2,543 pupils.[28] There was an

interesting link between the Society of Arts examination scheme and that of the Science and Art Department in the person of Sir Henry Cole. As a member of the Society of Arts, he was very involved in the extensive discussions which preceded the introduction of their examinations and was then responsible for the development of the Department's examinations. A.D.Garner has indicated how these examination processes critically influenced the history of scientific and technical education in England.[29]

The response of the Sussex and Hampshire mechanics' institutes to the Department of Science and Art examination initiatives seems to have been varied and possibly rather muted compared with some of their northern counterparts. This may have been because separate, government Art and Science Schools were set up in many of the main towns in the two counties. At Basingstoke and Lewes M.I.s, direct mention of the Department has been found. At Basingstoke, as a result of the Institution's own Exhibition of Industry and Art in 1855, a Drawing and Modelling Class, in connexion with the School of Design at Marlborough House was established with 20 members 'who are making satisfactory progress under the able weekly instruction of the Drawing Master, Mr. C. Pyne, a Gentleman highly recommended from Marlborough House.' A separate Drawing Class for Ladies, under the same teacher, was also provided on Friday afternoons. Great pride was evinced by these classes and it was hoped that 'this new and important feature in the advantages afforded by the Institution, will conduce to its permanent prosperity.'[30] A year later however the Institute's Committee regretfully announced the failure of the Drawing Class, 'whereby all hope of Prizes from that source is, for the present, at an end.'[31] This situation must have been amended, for a School of Art connected to the Institute was recorded in White's *Directory of Hampshire, 1859* and by 1861, the Committee was so keen to encourage the young members of the Institute to benefit from its "School of Art" that it offered to pay their

teaching fees for the class. It was obviously still of small appeal for only 'a limited number' profited by this offer and the Committee then queried whether in future the class members should pay at least a portion of their fees.[32] The Committee's assiduous efforts to provide access to the art class tuition echoed the determination of the first managers to organise science classes for the Institution in 1842; [33] on neither occasion did the enthusiasm of the membership seem to match that of the Committee.

Conversely in 1856, the music and discussion classes were 'in active operation, imparting both instruction and amusement to their respective Members.'[34] These two subjects were probably easier and took less effort than the art classes, which would have been more theoretical and were 'intended to teach principles of art and design for the benefit of English manufacturers.'[35] The lack of industrial manufacture in Basingstoke may have fed the apathy that its potential Mechanics' Institution students showed for the art class, compared with their peers in the north.

The available evidence suggests that in many cases, the mechanics' institutes in Hampshire and Sussex were ready to provide classes for the Science and Art Department examinations, but that they eventually handed over the responsibility to designated government-sponsored Schools of Science and Art in purposely built or acquired buildings, as at Basingstoke and Lewes (see below). Such classes and Schools were being established from the late 1850s and all were in towns with an existing strong mechanics' institute background which had cultivated a serious desire and expectation for adult and further education, especially in science and technical subjects. One of the earliest in the two counties was the Brighton School of Science and Art founded at the Royal Pavilion in 1858, later moving to purpose built accommodation erected by public subscription at a cost of £11,000 at the Grand Parade and opened by H.RH. Princess

Louise Marchioness of Lorne.[36] This School was an unusually impressive example of its kind, but was in keeping with the royal patronage that Brighton enjoyed at the time. There appears to have been a predecessor to this school which had links with the Brighton M.I.: in the latter's 1857 Annual Report, mention was made of the invitation to its members which the Sussex and Brighton School of Arts had again issued, to visit their special collection of pictures at the Pavilion.[37]

The curriculum at such Schools can be gauged by that of the Lewes School of Science and Art, founded in 1868, but with a less grand building than its neighbour at Brighton and valued at £2,000. Its subjects of instruction in 1882 included various styles of drawing and painting, geometry, construction, designing and modelling. Scholarships were available and prizes were awarded on the results of the local examination in May.[38] Lewes M.I. had been instrumental in initiating the Department of Science and Art work with an 'Artisan Evening Class of the School of Art' while its new building was 'in course of erection for science and art classes, in connection with the Science and Art Department, South Kensington.' A further connection with the Mechanics' Institution was the secretary of the School of Science and Art, Robert Crosskey.[39] He was a member of the Crosskey Unitarian family who had been stalwart supporters of the Mechanics' Institute since its inception. At Hastings, the Mechanics' Institution, the School of Science and Art, the Hastings boating club and a Music Hall all occupied the same imposing building in the Early French Gothic style with an interior reproduction of the Bayeux tapestry in Venetian mosaic.[40] Civic pride was clearly in evidence here, even if less imposing than the Brighton School of Science and Art along the coast.

By 1878, Hampshire had Schools of Art at Gosport, Southampton, Winchester and a School of Science and Art at Portsmouth and all in areas of strong mechanics' institute

tradition.[41] It is pertinent here to consider briefly the particular developments in adult education which stemmed from such influence in Portsmouth and Southampton in the 1850 to 1880 period, as a response to their shipbuilding, naval and associated industries.

Portsmouth's population had more than doubled in the 1821-51 period, with a fifth of the male populace employed in the Royal Dockyards and a sizeable proportion working in the town's brewing industry.[42] There had always been an awareness of, and an affinity for the need for self-improvement among the more enlightened and skilled working-men in the town, as first shown by the shipwright who wrote to the *Southampton Herald* in 1825 urging the establishment of a 'Dock-yard Mechanics' Association'.[43] The Portsmouth M.I. which was founded shortly afterwards and has been the subject of much discussion in this thesis, was responsible for encouraging similar institutions to emerge in the town over a period of time. Thus the Portsea Watt Institute of 1848 was established by Artisans of the Dockyard for the acquisition of both Literary and Scientific Knowledge, and reflected the changes of the times with provision for female and boy membership at 1/6d and 1/- per quarter respectively, while men's subscriptions were 2/-.[44] This Institute as mentioned above, had achieved highly in the Society of Arts' examinations and highlighted the way that the examination culture could inspire working men to improve themselves if the opportunities were presented to them. In 1856 a Soldiers' Institute was founded with a subscription of a penny per week and 'with all the benefits of a Mechanics' Institute'. In the same year, appeared the Portsea Young Men's Christian Association 'for the spiritual and mental improvement of young men by means of Bible and Conversational Meetings, Lectures, Classes, a Library, etc.' [45] With a Rev. J. Knapp as President, the latter Association was clearly a sign of the Church's determination to ensure some stake in the area's adult educational developments. By the 1870s the original Portsmouth M.I./Athenaeum had

faded but many of the later institutions of adult education were in place: Schools of Science and Art 'in connection with South Kensington' were founded in 1877 and interestingly, a new and grander Soldier's Institute appeared in 1874, also open to sailors and with accommodation for wives and families.[46]

Southampton was one of Hampshire's largest urban centres during the nineteenth century and by 1860 had become the fifth port in the country. Its population had grown from 8,000 to 35,000 during the first half of the century and its industrial and manufacturing capacity was enhanced in the late 1830s to early 1840s period by the new iron shipbuilding foundry, the London to Southampton railway and new docks. The P.& O. and the Royal Mail led the shipbuilding companies in Southampton which all required skilled men for their repairing and servicing.[47] The specialised workforces for the town's various industries and their associated services, gave a strong impetus and demand for adult education and scientific knowledge: from the foundation of the Southampton Literary and Philosophical Institution in 1827, there were continuous developments to promote scientific education for adults in the town. The 'Lit. and Phil.', later known as a 'Literary and Scientific Institution', had a middle-class membership of professional, medical and commercial men of the town. Some of these served as officers of both this society and the Southampton M.I., which was established three years later. Mr. Bullar, President of both Institutions in 1834, was a frequent lecturer to institutions in the surrounding area and his contributions illustrate how useful societies found it to co-operate with each other in order to supply their own educational needs.[48] The Southampton M.I. had its own building, erected by subscription from its foundation in 1830 and the ability of the society to raise such funds at its outset indicates a wealthier section of its membership than existed in many other mechanics' institutes. Thomas Coates' Report ten years later showed Southampton M.I. with a

membership of 400 and with 30 lectures per year, comparing favourably with the medium sized popular institutes of the north and industrial areas. It was certainly one of the leading institutes in the south.[49]

Table 3 **Comparison of Leading Mechanics' Institutions in 1841**

	No. of Members	Lectures p. a.	Vols. in Library
Birmingham M.I.	487	12	2630
Bradford M.I.	483	17	1100
Halifax M.I.	405	9	1948
Stockport M.I.	454	6	1451
Cambridge M.I.	429	10	1500
Southampton M.I.	400	30	1000
Chichester M.I.	350	6	loans of c.120

(Table compiled from details given in T.Coates' *Report 1841*).

While the Southampton L.S.I. seems to have faded by the early 1840s, the Mechanics' Institution went from strength to strength, restyling itself the Southampton Polytechnic Institution in 1842 and by 1851 had 450 members and 1200 volumes in its library.[50] It also had a reading room and small museum. Its lectures, on occasion, attracted up to 800 people. During the 1850s, this necessitated the use of more extensive accommodation at the Victoria Rooms rather than the Institution's own premises in Hanover Buildings.[51] Newspaper accounts from the 1830s testify to the Institution's popularity with instances of lectures so well attended that they were full to capacity and sometimes admittance had to be closed, with disappointed people turned away.[52] The Polytechnic Institution increased further in popularity over the next two decades with a membership of 700 in 1878 and weekly lectures in the Hartley Hall (see below), on literary and scientific subjects.[53]

In assessing the reasons for the success of the Southampton M.I./Polytechnic, the fact that it had its own building from its inception in 1830 gave it a stature which would have attracted a respectable clientele.[54] Its reputation was sufficiently high to secure the patronage of the Duchess of Kent in 1834 which it retained as the Polytechnic to 1857 and beyond.[55] (The Literary and Scientific Institution had never been able to boast such illustrious support.) Other strengths which helped to make the Mechanics' Institution/Polytechnic so successful were its networks of family members which gave it stability and committee officers; it had strong Unitarian connections; classes in various subjects complemented the lecture programmes; it managed to secure speakers from a wide geographical area, adding depth and breadth to its experience compared with that of the Southampton L.S.I.

It is evident that there was a great demand for adult education in Southampton, for besides the popularity of the Polytechnic, an Athenaeum, with all the usual attributes of a mechanics' institute, was established in St. Mary's Parish in 1849 in response to the development of that area. Its subscription was a penny per week and by 1859 it had 600 members. Its Library of 900 volumes, Reading-Room with London and provincial papers and a Debating Class on Saturday evenings must have combined to form a very strong attraction.[56] Whilst the needs of the working/lower middle-classes were being thus catered for in Southampton, the town's historian, A.T.Patterson, using evidence from the local press, argued that the town's elite was pressing for the provision of cultural institutions that mirrored the deceased Literary and Philosophical Society. To satisfy this need, local wine merchant, Henry Robinson Hartley, bequeathed his fortune to the Corporation and in 1862 the Hartley Institution was established for scientific, classical and literary studies. It became Hartley College in the 1890s, and eventually Southampton University in 1952.[57] The Hall at the Hartley Institution provided the

venue for the lectures of the Southampton Polytechnic in the 1870s and thus connections were formed between many of the town's adult education agencies. A School of Art, established in response to the Science and Art Department initiatives in the mid-1850s at the Victoria Rooms, with c.120 pupils, obtained 21 prizes in the annual examinations held by the Department and was financially supported by Lady Byron who was a patron of many educational ventures. This too was later to move to the Hartley Institution.[58] It was also possibly the forerunner of the recently founded Southampton Solent University, 2004, which continues its predecessor's aims by including practical arts and design technology amongst its specialisms.[59] Another School of Art was founded in 1872 at the Philharmonic Hall, further illustrating the keen espousal of scientific and technical education by the local population.[60]

While the two separately established Schools of Art in Southampton testify to the extensive demand for industrial design and technology training, it was the Hartley Institution which led the most advanced response to the town's industrial needs and student aspirations. Besides its vast Library and Museum, it had a Gallery of Fine and Industrial Art, Schools of Art, Science and Engineering and 'large Chemical and Physical Laboratories'. It ran 'evening classes at moderate fees for the industrial population'. The educational work in the Engineering Department was recognised by the Secretary of State for India as 'competent to prepare candidates for the Indian engineering and telegraphic services' with many former students 'holding Indian appointments'. It was not just the upper and middle-class students who succeeded at the Hartley Institution ; 'artizan' students had gained two Exhibitions at the Royal School of Mines and in 1876 one had obtained top placing in the examinations.[61] By the last quarter of the nineteenth-century, the technical and scientific education that was available at the Hartley Institution must have been amongst the finest in the country and

ranked on a par with that provided at the Technical Colleges in the industrial parts of the north such as Bradford. It must have answered the needs of the shipbuilding, railway engineering works and dockyard business of Southampton and its hinterland.

The scientific and technical training available at the various institutions and government-aided Schools of Science and Art in Southampton and Portsmouth by the second half of the century had their origins in the stimulus given to science by the mechanics' institutes and literary and scientific societies in the two towns in the 1820s and 1830s. Similarly inspired developments occurred in Brighton, Lewes and other towns in Sussex and Hampshire, albeit in a modified form in centres of lower populations and fewer industries. Much of the adult educational activity of the 1870s and beyond can be traced back to the pioneering efforts of the early mechanics' institute founders in the respective areas.

This section has discussed the use and effects of examinations in mechanics' institutes and their successor institutions as a response to the Great Exhibition. The national examination systems organized by the Society of Arts and the Department of Science and Art were complemented at a local level by the examinations of regional associations of mechanics' institutions.[62] Hampshire benefited from the work of the Southern Counties Adult Education Society, (also known as the Hants and Wilts Adult Educational Society and discussed in Chapters Two and Six), which offered three levels of examinations and certificates, starting at a lower level than those of the Society of Arts. The Rev. Samuel Best, secretary of the Southern Counties Society, considered that few people in its area were advanced enough in 1856 to take the Society of Arts examinations and thought that many would be 'unable to spare the time' to study for these tests. For these reasons the Southern Counties Society undertook its own system

of qualifications and prizes of £1 and 10 shillings. It was hoped that employers would accept certificates from both the Southern Counties and Society of Arts as 'Testimonials worthy of credit.'[63] The first level of the Southern Counties' examinations was suitable for school leavers with such subjects as Reading, Handwriting, Spelling, Dictation, St. Lukes' Gospel, Arithmetic, English History and Geography and increasingly attracted candidates from a number of schools. By the third level Certificate, Drawing on any subject of Industrial Education had been added. The ages of examinees in 1863 ranged from eleven to thirty-four years of age.[64]

A significant epitaph for this section of the discussion is the exhortation of the Basingstoke M.I. Committee's Report of 1858 to its younger members concerning examinations:

> very great inducements and advantages, are now held out to Members of Mechanics' and other Literary Institutions, by means of the Examinations and Rewards offered by the Universities of Oxford and Cambridge—the Society of Arts—and the Hants and Wilts Adult Educational Society; and the Committee would earnestly impress on the younger Members of the Institution more especially, to avail themselves, (by forming Classes early next Autumn,) of the important advantages, thus placed within their reach, and which, if obtained, will prove an honour and benefit to them through life.[65]

Rational Recreation: Exhibitions and Museums

Exhibitions

The second major effect of the Great Exhibition was the stimulus it gave to rational recreation and the promotion of local mechanics' institute exhibitions. The latter were not new but had first occurred in the 1830s, led by a 'Popular Exhibition' at Manchester M.I. in 1837, with models of machinery, works of useful and fine arts, philosophical instruments and specimens of natural history and British manufactures. It was designed to afford the working classes 'a convenient opportunity of inspecting the present state of our arts and manufactures and to present them with a source of rational and agreeable

relaxation...'[66] Similar events for the middle classes and above had been held by Literary and Scientific Societies since the eighteenth century, but the mechanics' institutes demonstrated that contrary to commonly held views by their social superiors, the working classes could also appreciate the value of such exhibitions. Manchester M.I.'s example was emulated by mechanics' institutes throughout the north and midlands.[67] Like the mechanics' institute buildings, their exhibitions must have been occasions to display a sense of civic pride.

In Sussex and Hampshire, mechanics' institute exhibitions inspired by the Great Exhibition began to be promoted from the mid-1850s, but at Lewes M.I., the idea of combining an evening Tea Soiree, musical performances and recitations, together with an exhibition of art and science and philosophical experiments, was pioneered as early as 1842 at the Institution's own rooms.[68] Another much grander 'Soiree and Exhibition' was held twelve years later at the Corn Exchange, in the presence of the Earl of Chichester and other local notables. This time the documentation was in much greater detail and included music by the Sussex Artillery Company Band.[69]

1854 was also the year which featured the Hampshire mechanics' institutes' first Art and Industry exhibitions at Alton and Basingstoke.[70] The latter exhibition lasted for 15 days and displayed 3297 specimens of Science and Fine Arts 'which, for value, beauty, and extent, was perhaps never before seen in a small Town.' The exhibitors included H.R.H. Prince Albert and most of the local gentry. The event attracted over six thousand visitors from near and far, including some of great influence and raised a profit of over £136 towards the Institution's new building fund. The Institute Committee considered that the Exhibition had 'not only raised the character of the Town and its Mechanics' Institution, but has also, it is hoped, done much in creating and improving amongst its

Members, an elevated taste for the study and cultivation of the Fine Arts.'[71] The sense of civic pride was complemented by an awareness of the educational value of the undertaking. Alton's exhibition was hailed as 'the greatest event which had marked the proceedings of the Institution' and great praise was given to its local supporters for 'the loan of everything most beautiful, costly, or curious, which they possessed.' The Society of Arts had also lent over a hundred photos. The financial success of the exhibition enabled the purchase of premises in Market Street for the Institution.[72]

An Industry and Fine Art Exhibition was held at Portsea in 1861, largely in aid of funds for the Athenaeum and its departments resembled those of the Great Exhibition, but included one on Naval Architecture relating to the naval base and industries of Portsmouth and Southampton. It also had 'Educational Maps and Charts' from the Working Men's Education Union, probably associated with the educational work of the many Working Men's Clubs and Institutes which were being established in the country.[73] The affiliation of some mechanics' institutes in this study to the Working Men's Club and Institute Union from the late 1860s is fully discussed in the next section. Basingstoke M.I. was also confederated with the Hampshire Union of Workmen's Clubs and Institutes from the 1870s and benefited from their financial contributions towards its educational lectures.

Perhaps the greatest compliment to Prince Albert and the organisers of the 1851 Exhibition was acknowledged by the catalogue of a 'Hampshire and Isle of Wight Loan Exhibition of Works of Industry and Science' in 1866 held at Southampton. This attempted 'to accomplish for the County of Hampshire what the great Exhibition of 1851, and the other international gatherings, that have followed it, have done, on a colossal scale, for the world at large.' Its exhibits included many features of Hampshire

agricultural and industrial produce and processes as well as those of national and international interest and was clearly closely conscious of the county's own developments. The whole venture had initially been projected by the Hartley Council and School of Art 'with the view of encouraging inventive skills, excellence of workmanship, and the useful employment of spare time on the part of artisans.' The Exhibition ran from July to October 1866 and attracted over 50,000 visitors.[74]

The impact of all these Exhibitions at the mechanics' institutes and at county venues, made an impression on life at even village level. Rev. Samuel Best of Abbotts Ann, Hampshire and pioneer of the Southern Counties Adult Educational Association, organised a week-long Industrial Exhibition for his village in June 1868 based at the Abbotts Ann schoolroom. The South-Western Railway issued excursion tickets from neighbouring stations and approximately 1600 people attended on the first day. The separate classes of the exhibition received over 1100 entries included those for painting, (with many entries from Andover School of Art), bookbinding, cabinet work, straw and basket-work and metal work.[75]

Charles Kingsley, rector of Eversley and supporter of so many of the mechanics' institutes in Hampshire, summarised the benefits of the exhibitions in a paper entitled 'The Educational Value of Industrial Exhibitions', for the Southern Counties Adult Educational Association annual meeting in 1868: referring to the success of the 1867 exhibition at Yately, Hampshire where "1300 of the labouring poor " had attended, he spoke of the inventive talents it had called upon, the diversion from drinking which it had provided and most essentially, how "it brought all classes together genially and heartily on a matter of common interest".[76] Kingsley's assessment encapsulates the

ideas of community culture which so many of the mechanics' institutes themselves were creating in their neighbourhoods by the 1850s and beyond.

Museums

Discussion in Chapter Two introduced the concept of how mechanics' institute museums helped to emphasize the spirit of civic pride which was becoming an integral part of regional consciousness in the second half of the century and their contribution to community culture. The museums also had connections with the institutes' exhibitions and social occasions when objects and working models of machinery from their collections were often displayed. Here the role of such museums in their communities is assessed, with particular reference to the influence of the Great Exhibition where discernible.

Alan Chadwick has drawn attention to the way in which collections of art, geological specimens, working models and machines could all stimulate the curiosity and spirit of enquiry amongst the working-class population. When a well organised exhibition of such items was open to the public as was the case with the Derby M.I. Exhibition in 1839, there could be 'a successful merging of rational amusement with instruction', especially when experiments and machinery were handled by qualified persons. Moreover, visual displays such as these needed no literary skills to understand them, so could provide learning experiences even for those who were unable to read.[77] On his donation of paintings to the Derby M.I. in 1842, its founder, Joseph Strutt of the wealthy Unitarian cotton mill owning family, hoped that they would aid the students who were 'improving themselves in the Arts of Drawing and Painting.'[78] The latter were important in industrial design and as such were usually to be found in the class provision of most mechanics' institutes.

The Great Exhibition of 1851 not only encouraged science and technical education in England, but through its promotion of the South Kensington Museums, it must have given inspiration for the fostering of local museums, even if their arrangements and categorisation lacked professional sophistication. From 1845, local authorities with over 10,000 inhabitants were empowered by the Libraries, Museums and Gymnasiums Act to levy a halfpenny rate to provide for a public museum but few did so. Although Stephens and Roderick were rather dismissive of mechanics' institute museums as 'collections of obscure trivia'; 'rag-bags of material given by well-wishers', and 'sometimes entertaining, but educationally unimportant',[79] there has been too little research on this area of mechanics' institute activity to make such a generalisation.[80]

This study of Sussex and Hampshire has uncovered examples of real attempts by some institutes to provide a more effective and comprehensive collection of material, while their memberships and local populations could have gained considerable benefit and knowledge from viewing their institute's museum exhibits. Chapter Two highlighted the aims and aspects of civic pride which were already apparent by the 1850s at the museums of the Lewes, Cowes and Chichester Institutions. The Chichester M.I. had amalgamated with the town's Literary and Philosophical Society in 1849-50 to create what became known as the Chichester Literary Society and Mechanics' Institute,[81] and their combined museum had become one which clearly refuted the criticisms levied above. It continued to receive numerous donations of specimens through the 1850s which 'materially added to its value and completeness,' while over 1,300 visitors in 1855 'sufficiently indicates that this department of the Institution continues to attract a large share of public attention.'[82] In 1857, it was recorded that a similar number of visitors, most of whom were non-members of the Institution, paid 3d each in entry fees,

adding a total of over £12 to the funds, amply rewarding the recent rearrangements of the museum by its 'skilful and indefatigable Curator.' The same report witnessed the committee's wish to open the advantages of the museum to 'the operative and working classes', showing a widening awareness of the cultural and educational needs of the whole of the local population.[83] The generous and varied donations to the museum continued and items in 1871-2 included a specimen from a tufted grosbeak, a boomerang and a Sudanese lady's court dress. In 1875 three large cases of birds were presented to the Institution and gas lighting was provided in the museum. Its reputation was probably one of the reasons why the inaugural lecture of the newly formed 'Chichester and West Sussex Natural History and Microscopical Society' was given at the Chichester L.I.& M.I. in 1873. [84]

Many mechanics' institutes had a natural history class and this was a sphere of activity which could benefit considerably from specimens in the museum collections. The Guildford Institute in Surrey took such care and pride in its museum that it gave rise to the town's Natural History Society, which enhanced the standing of the Institute and flourished as a branch of the parent body throughout the century.[85] Alton M.I.'s museum owed its success to William Curtis, founder and President of the Institution for 44 years. He was a keen natural scientist and geologist whose exertions enabled the Alton M.I. to possess 'a museum, which for variety of the objects exhibited, is scarcely equalled by any small provincial town.'[86] On the Institution's removal to its handsome home in the New Assembly Rooms in 1880, the museum received a valuable gift of Curtis's own private collection of natural history, geological and other specimens; after his death a year later, the Alton M.I. membership commemorated Curtis's expertise and 'long labour of love' to which they owed their museum, by naming it the 'Curtis Museum'. It remained an important part of the Institution over succeeding years,

benefiting from reorganisation of its exhibits by the curator and acquiring a gift of an Egyptian mummy in 1889-90. Towards the end of the century a Microscopical and Natural History Society was established, which, like the Chichester society, must have been inspired by and also profited from the existence of such a well-endowed museum. Although the Mechanics' Institute itself faded after the first World War, the Curtis Museum became part of Hampshire County Council Museum Service in the late 1960s and continued its important role in presenting the town's history from the Iron Age to the present.[87]

Developments in Physical Recreation

Besides the increasing opportunities for rational recreation provided by the mechanics' institutes in Sussex and Hampshire, there was also evidence of a willingness to cater for recreation of a physical nature. Clinton Stockdale highlighted the 'club-like' atmosphere created by the inclusion of indoor games such as draughts, dominoes and especially billiards, in the north-eastern institutes.[88] These were also found in some of the mechanics' institutes in this study. Brighton M.I. added an outdoor sport by forming a Cricket Club in 1857 and hoped it would be a means of much diversion and pleasure during the summer.[89] Basingstoke M.I. included a 'New Chess Board and Men' in its 1865 Report, and by 1877 it had acquired a Bagatelle Table. By this time too it had added 'Club' to its name, having joined the Working Men's Club and Institute Union.[90] The 1879 Annual Report recorded the fact that Basingstoke M.I. had also confederated with the Hampshire Union of Workmen's Clubs and Institutes and that this Union had given substantial financial assistance with their season's Lectures and Entertainments.[91] Their association with the Hampshire Union certainly enabled Basingstoke M.I. to broaden its activities, for in 1881 arrangements were made through the Union for its members to have holidays at the seaside at reduced rates and the committee hoped many

would take advantage of the opportunity. The committee also reported on plans for building a Gymnasium in the ground attached to the Institute. They rejoiced in seeing plans for the mental and physical recreation of the members and hoped that 'by a happy blending of attention to recreation and intellectual improvement there may be produced in each and all a "sound mind in a healthy body." ' [92]

Conclusion

This chapter has illustrated the multiple paths of development taken by the mechanics' institutes of Sussex and Hampshire. From their origins as agencies for the instruction of men in science and its associated disciplines, they became centres that provided for a whole breadth of needs for their citizens, male and female. The following chapters analyse key aspects of the institutes' transformation.

Chapter Five Notes

1. T. Kelly, *George Birkbeck*, (Liverpool: Liverpool University Press, 1957), p.258.

2. V. Cromwell, *Revolution or Evolution,* (London: Longman, 1977), p.210.
   J. Lawson and H. Silver, *A Social History of Education in England,* (London: Methuen, 1973), p. 307.

3. T. Kelly, *Adult Education,* (Liverpool: Liverpool University Press, 1970), p.190.

4. J.P.Hemming, 'The Mechanics' Institutes in the Lancashire and YorkshireTextile Districts from 1850', *Journal of Educational Administration and History*, Vol.9, No.1, Jan.1977, pp.18-29.

5. C.Stockdale, 'Mechanics' Institutes in North East England: A Pathway towards Survival', *Durham County Local History Society Bulletin,* 54, May, 1995, especially pp.40-42.

6. H.Butterworth, 'The Science and Art Department Examinations: Origins and Achievements', in *Days of Judgement*, ed. R. Macleod, (Driffield: Nafferton Books), 1982, pp. 37-8.

7. H.Butterworth, 'The Development of Technical Education in Middlesborough, 1844-1903', *Durham Research Review*, Vol.3, No.11, September, 1960.

8. R.A.Thomas, 'The Mechanics' Institutes of the Home Counties c. 1825-70', *Vocational Aspect of Education*, (August 1979),Vol.XXX1, No.79, p 68.

9. K.M.Moir, *Mechanics' Institutes in Kent, 1825-70*, University of London, Institute of Education unpublished M.A. Dissertation 1990, pp.8-9 and 148-161.

10. J.H.Sims, *The Guildford Institutes*, University of London, Institute of Education unpublished M.A. Dissertation, 1987, pp. 20-25.
    The Guildford Institute: Google html version of http://www.guildford-institute.org.uk/index.htm Homepage. Visited 10/30/2009.

11. For Sussex : Google html version of http://www.statistics.gov.uk/census/bicentenary/pdfs/sussex.pdf. Visited 9/19/2009.
    For Hampshire, White's *Directory of Hampshire 1878*, on CD, S&N Genealogy Supplies, Salisbury, 2003, p.19.

12. White's *Directory of Hampshire 1859*, on CD, Archive CD Books, Gloucestershire, 2006, pp. 47.

13. White's *Directory of Hampshire 1859,* op.cit., p.19.

14. Post Office *Directory of Sussex 185*1, on CD, Archive CD Books,

Gloucestershire, 2006, pp. 687-688, and 701.

15. White's *Directory of Hampshire* 1859, op.cit., pp. 51-52.

21. Ibid., and Whites's *Directory of Hampshire*, 1878, p.17.

22. Kelly's *Directory of Sussex*, 1867, p. 2243.

23. 1851 Census, p. 222.

24. White's *Directory of Hampshire,* 1878, p. 621.

25. M. Walker, *Examinations for the 'underprivileged' in Victorian times; the Huddersfield Mechanics' Institution and the Society for the encouragement of Arts, Manufactures and Commerce,* WSG Research Paper 1, (London : William Shipley Group for RSA History, 2008), p.13.
The two guinea annual subscription to the Society of Arts was documented in the Annual Reports of Basingstoke M.I. from 1855, and in the records of the Guildford Institute and other institutions.

21. Walker, op.cit., p.13.

22. Ibid., p.17. Quotation drawn from F.E. Foden, *James Booth*, p.347.

23. Lewes M.I., Notice, September 2nd, *1856.* AMS 6006/7/2/3;
Brighton M.I., Fifth Annual Report, *1856.*

24. Walker, op.cit., p.14, Table 2.

25. Ibid., p.13.

26. Ibid., p.15, Table 3.

27. M.D. Stephens and G.W. Roderick, *Scientific and Technical Education in Early Industrial Britain,* (Nottingham: Nottingham Studies in the History of Adult Education, University of Nottingham, 1981), p.20.

28. S.J. Curtis and M.E.A. Boultwood, *History of English Education since 1800,* (London: University Tutorial Press,1967), p.283.

29. A.D.Garner, 'The Society of Arts and the Mechanics Institutions:
The co-ordination of endeavour towards scientific and technical education 1851-54', *History of Education,* Vol.14, No.4, December 1985.

30. Basingstoke M.I. Annual Report, 1855.

31. Basingstoke M.I. Annual Report, 1856.

32. Basingstoke M.I. Annual Report, 1861; White's *Directory of Hampshire, 1859,* p.490.

33. Basingstoke M.I. Third Half-Yearly Statement, 29th September, 1842.

34. Basingstoke M.I. Annual Report, 1856.

35. Stephens and Roderick op.cit., p.20.

36. Kelly's *Directory of Sussex 1882*, p.1903

37. Brighton M.I. 1857 Report.

38. Kelly's *Directory of Sussex 1882*, pp.2165-66.

39. Post Office *Directory of Sussex 1874*, p.2707; Kelly's *Directory of Sussex* 1882, p. 2168.

40. Kelly's *Directory of Sussex 1882,* p.2105.

41. White's *Directory of Hampshire 1878*, pp.833-4 and 396.

42. R. Foster, *The Politics of County Power,* (London: Harvester Wheatsheaf 1990), p.5.

43. *Southampton Herald,* 24th Jan., 1825.

44. White's *Directory of Hampshire 1859*, p.276.

45. Ibid.

46. White's *Directory of Hampshire 1878*, p.396.

47. Foster, op.cit., pp.4-6; A.Geddes, *Samuel Best and the Hampshire Labourer*, (Andover: Andover Local History Society, 1981), p.39.

48. Fletcher's *Directory of Southampton, 1834*; Fletcher and Sons' *Directory of Southampton, 1836.*

49. T. Coates, *Report*, SDUK, London, 1841, Appendix 3.

50. J.W. Hudson, *Adult Education*, (London: Longman, 1851, Woburn Books Impression, 1969), p. 225.

51. White's *Directory of Hampshire 1859*

52. *Hampshire Independent*, 30th Jan.,1836, and 14th March,1840.

53. White's *Directory of Hampshire 1878*, p.533.

54. Claxton, *Hints to Mechanics*, (London: Taylor and Walton, 1839), List of Institutions.

55. Fletcher and Sons' *Directories of 1834, 1836 and 1845;* Craven's *Hampshire Directory 1857.*

56. White's *Directory of Hampshire 1859*; A.T. Patterson, *Southampton-A Biography,* (London: Macmillan, 1970), pp.53-54.

57. Patterson, op.cit., pp.53-54; S.Sanderson, *Universities in the Nineteenth Century*, (London: Routledge and Kegan Paul, 1975), p.10.

58. White's *Directory of Hampshire 1859*, p.159; White's *Directory of Hampshire 1878*, pp. 531-2.

59. Google version of http://en.wikipedia.org/wiki/Southampton_Solent_University Visited 3/5/2009.

60. White's *Directory of Hampshire 1878*, p.532.

61. Ibid.

62. Geddes, op.cit., p.34.

63. Ibid, p.34 which also quoted from Best's report to *The Hampshire Independent*, 17th May, 1856.

64. Ibid, pp.34-36.

65. Basingstoke M.I. Annual Report, 1858.

66. T. Kusamitsu, 'Mechanics' Institutes and Working Class Culture: Exhibition Movements, 1830-1840s', in *The Steam Intellect Societies*, ed. I. Inkster, (Nottingham: University of Nottingham, 1985), p. 34.

67. Ibid.

68. Lewes M.I. First Scrapbook, Notice of a Tea Soiree, 3rd March, 1842.

69. Ibid, Notice of a Soiree and Exhibition at the Corn Exchange, 7th April, 1854.

70. Geddes, op.cit.,p.39.

71. Basingstoke M.I. Annual Report, 1855.

72. W. Curtis, *A Short History and Description of the Town of Alton,* (Alton: 1896), p.142.

73. Geddes, op.cit.,p.39.

74. Ibid, pp.39-40.

75. Ibid, p.40.

76. Ibid, pp.40-41.

77. A. Chadwick, 'Practical Aids to Nineteenth Century Self-help--the Museums: Private Collections into Public Institutions', M.D.Stephens et.al, eds, *Samuel Smiles and Nineteenth Century Self-help in Education*, (Nottingham: Nottingham Studies in the History of Adult Education,University of Nottingham,1983), Vol. 1, p.52.

78. Ibid., p.51, quoted by Chadwick.

79. Stephens and Roderick, op. cit., p.64.

80. In one of the few available monographs, Chadwick, op. cit., discusses the rationale for providing museum opportunities for the working classes and gives details of the Derby M.I. museum.

81. F.W. Steer, *The Chichester Literary and Philosophical Society and Mechanics' Institute, 1831-1924*, Chichester City Council, (1962), pp.1-5.

82. *Hampshire Telegraph,* 6th October, 1855.

83. Ibid, 17th October, 1857.

84. Steer, op, cit., pp.6-8.

85. Sims, op.cit., pp.78-83.

86. C.W.Hawkins, *The Story of Alton*, Alton Urban District Council, (1973), p.188;

87. Hawkins, op. cit., pp.188-198;

88. Stockdale, op. cit., p. 34 and passim.

89. Brighton M.I., 6th Annual Report, 1857.

90. Basingstoke M.I. Annual Reports, 1865 and 1877.

91. Ibid, 1879 Annual Report.

92. Ibid, 1881 Annual Report.

Chapter Six

Religious Influences and Networks amongst the Mechanics' Institutes of Sussex and Hampshire: 1825-1875

The Victorian era has been characterised as a religious age in England[1] and although discussion of religion and politics were officially excluded from activities in the majority of mechanics' institutes, it was inevitable that members' philosophy and outlook on life would influence their participation at their institute. In particular, the contributions of Unitarians and Quakers in promoting and sustaining individual institutes have been noted by various authors.[2] Their influence was particularly significant for the mechanics' institutes in Sussex and Hampshire. Unitarians were influenced by their religious training to promote education as a vehicle through which ignorance could be abolished and a better civil society realised. Their stress on civic responsibility will be highlighted and related to the concepts of increasing civic consciousness and community culture in the period of this study. Quakers were keen supporters of adult education as shown by their nurture of adult schools from the early 1800s, (see Chapter One). After some initial resistance to the mechanics' institutes as seedbeds of sedition, many Anglicans participated in the movement if only to prevent hegemony by dissenters, especially Unitarians.

Lectures, discussions or books on religion and politics were explicitly prohibited in the majority of mechanics' institutes. Yet the support or opposition given by individuals from particular religious denominations could be crucial to an institute's success or failure. Discourse and correspondence between supporters of adult education encouraged the advancement of the mechanics' institute movement, while evidence suggests that the formal networks of the Unitarian Associations and Quaker Meetings were channels through which much support was activated. Ruth Watts has highlighted

how such networks furthered scientific and educational ideals and supported their development into the nineteenth century.[3] These aspects will be explored in this chapter.

A review of the historiography for the chapter is followed by analysis of the Unitarian, Quaker and Anglican contributions to the mechanics' movement nationally and then specifically to Sussex and Hampshire.

Historiography

As if in respect of the founders' wishes to avoid controversies, contemporary writers on the mechanics' institute movement were concerned to report on the aims, curriculum and spread of the movement, rather than to analyse the religious affiliations of its members. They were generally aware however of those Anglican clergy who voiced disapproval of an educational venture they could not control. J.W.Hudson maintained that such clerics retarded the growth of the movement, especially in the provinces until 1835, after which they retaliated by establishing their own version in the form of Church of England institutions which differed from the mechanics' institutes only in their demand that those who attended should subscribe to Anglican teaching. Conversely, dissenting ministers readily supported the mechanics' institutes. James Hole reported a similar scenario and pointed to the opportunities that opposing clergy missed: 'In failing to identify himself with the Institute he shuts himself out of one of the best channels for reaching the intellects and hearts of his parishioners.' Some eminent Anglican clerics however such as Archbishop Whately and the Bishop of St. Davids, did champion the mechanics' institutes. Coates, in his *Report* for the SDUK, stated his regret that the Church of England institutions fragmented the funds that were available for the support of adult education, but conceded that they did broaden the sphere of patronage for this area of education.[4]

By the mid-1950s, historians were beginning to define more succinctly which religious denominations were particularly supportive to the mechanics' institute movement. Kelly broadly endorsed Hudson's observations but argued that Roman Catholic clergy as well as Anglican clerics could be hostile to mechanics' institute interests. He considered that the political complexion of the movement was Whig, while its religious support came mainly from Nonconformists, with Unitarians figuring prominently in some areas. He cautioned however at prescriptive generalizations and stressed the importance of local circumstances and personalities.[5]

Tylecote found evidence of both Unitarian and Quaker support in her study of mechanics' institutes in Lancashire and Yorkshire. Unitarian influence was extremely strong at the Manchester M.I. where a third of the committee in 1824 were members of neighbouring Unitarian chapels and included some of the leading business men of the town. The Unitarian banker, Benjamin Heywood, extended his philanthropy to found a school, Sunday school and mutual improvement society, to be followed by a more popular type of mechanics' institution at Miles Platting. This Institute had attractions which aimed to rival those of the public house and be, 'a place of resort for the working man after his day's work.'[6] The administrative work of Hudson at the Leeds M.I., Manchester Athenaeum, the Yorkshire Union of Mechanics Institutions and finally as historian of the mechanics' institute movement to 1850, would have matched the expectations of his Unitarian background.[6] Tylecote found fewer instances of Quaker involvement than that of Unitarians at the northern institutes but she mentioned Quaker support for the Bradford M.I. and the lecture given to Manchester M.I. by the Quaker reformer, J.J.Gurney.[8]

P. Hemmingway, who continued Tylecote's work for the period after 1850, found that the northern institutes still attracted Nonconformist clerical support and from 'the Unitarians in particular.'[9] The research of W.B.Stephens in Warrington however, justified Kelly's plea for consideration of local circumstances and showed that Warrington M.I. was promoted by 'Church and Chapel' alike. Moreover, in contrast to Leeds, Sheffield and Bury where antagonism existed between the clergy who ran the Church institutes and the managers of the mechanics' institutes, in Warrington there was no such rivalry and leading members of the Warrington M.I. were also vice presidents of the Church Institute. While sharing many aspects of the national movement, Warrington M.I. exemplified the fact that each institute was also a unique creation of its local community.[10]

Further south, R.A.Thomas's study of mechanics' institutes in the Home Counties north and west of London, found a situation akin to that of Warrington. Although there were isolated instances of Anglican clerical opposition in localities such as Hitchin and Hemel Hempstead, Thomas uncovered a spirit of co-operation between Church of England and Dissenting clergy and even 'substantial participation' from the former. He stressed however, a distinction between the main body of the Established Church as a social entity upholding conservative values and the ruling order, and some of its individual clergymen 'who were often much more liberal'. This conclusion echoes the opinion of James Hole over a century earlier. Thomas further suggested that in villages and towns where Church and vicar commanded the dominant social influence, a supportive cleric could do much to promote the interest of the local mechanics' institution. Many Nonconformist ministers were also actively engaged in the work of the institutes in Thomas's area, with particular support from Quakers rather than the Unitarian hegemony found in other parts of the country.[11]

Twentieth century historians of the movement have thus modified contemporary perceptions of general Anglican antipathy and emphasized more local variations in the religious and social sectors which supported the institutes. Although writing mainly from a Yorkshire perspective, J.F.C. Harrison concluded that the initial opposition to mechanics' institutes by Anglican clergy who saw them as nurseries of proletarian sedition and unrest in the 1820s and 1830s, gave way to recognition and even active leadership by some local incumbents, especially in rural areas by the 1840s. The potential role of the mechanics' institutes as agents of respectable popular enlightenment and controlled social reform appealed to many Church leaders as avenues through which they could assert orthodox influences.[12] These sentiments also gave rise to the foundation of Church institutes, which it was hoped would help to reclaim sections of the population 'who are unhappily lost to the Church and to religion.'[13]

Despite the best intentions of the pioneers to exclude religious issues and controversy from the mechanics' institutes, it was inevitable that in a period when religion assumed such significance in the life of many people, its influence would pervade even the most secular of institutions.[14] The various shades of religious support which have been identified nationally in the mechanics' institute movement are also mirrored in this study.

The Unitarian Contribution

Unitarians were a tiny minority religious group in the nineteenth century with only 50,000 members by 1851, but their influence was out of all proportion to their numbers.[15] They held radical religious views evolved from both Protestant dissent and the rationalist ideas of the eighteenth-century Enlightenment. They were shunned by many Anglicans and other Nonconformists alike for their unorthodox beliefs, especially

their rejection of the doctrine of original sin and their denial of the Trinity. The latter made Unitarianism officially illegal until 1813 and though it flourished both before and after this date, critics gave it a reputation for fostering sedition and infidelity. While Unitarians were not bound to a set religious creed, they endeavoured to understand religion and the creation through the application of reason, science and knowledge. Thus all forms of education were of paramount importance to a religion 'that essentially equated sin with ignorance and believed in the ultimate perfection of the human race.'[16] Unitarians were clearly evident in the leadership of all the reform movements of the period, but especially so in educational ventures.

Modern historians of the Unitarian movement have broadened existing knowledge of their involvement in adult education and the mechanics' institute sphere.[17] The majority of Unitarians came from the more liberal middle ranks of society and produced many of the commercial, civic and intellectual leaders of the late eighteenth to nineteenth centuries. Barred from graduation at the English universities, Unitarians sought higher education at Scottish or European universities or attended Dissenting Academies such as those at Warrington, Manchester and Hackney in England. Their intellectual breadth and freedom attracted some of the most distinguished tutors and scholars of the time.[18] Their "modern" curriculum of science, history, literature, language and commercial subjects augmented the sterile classical traditions of the ancient universities and gave scholars both a more practical understanding of life and a spirit of inquiry which enabled them to prosper as the new intelligentsia in the religious and secular spheres of society. Through their new liberal education, Unitarians sought to loosen the shackles of traditional aristocratic and establishment powers in church and state which hindered the aspirations of the middle classes to realise their political, economic and moral leadership potential in society. It was the Dissenting Academies which nurtured and

fostered the growth of Unitarianism and its leaders such as Joseph Priestley, Thomas Belsham and John Aiken of the late eighteenth century onwards and promoted a new scientific philosophy of education which was central to the success and influence of the Unitarians in nineteenth-century society.[19]

John Seed and Ruth Watts have shown how Unitarian ministers and laymen were instrumental in founding and sustaining cultural institutions such as Literary and Philosophical Societies, Natural History and Antiquarian Societies which all helped to forge a new liberal middle-class ethos, strongly supported by Unitarian owned newspapers and journals.[20] The *Monthly Repository* was especially important in disseminating liberal educational and social ideas to even isolated Unitarian readers nationwide.[21]

Since they were convinced that education was the means to attain a just society in which heightened knowledge would replace ignorance and sin, Unitarians were determined to create a new and improved world open to all classes. Many Unitarians were therefore instrumental in establishing mechanics' institutes for the skilled working classes, with scientific instruction to enable working men to understand thoroughly their trade, skills and machinery. The passionate devotion to science which made many Unitarians leading members of their local philosophical societies also enabled them to be at the forefront in providing lectures for the newer mechanics' institutes, especially if they were instrumental in their foundation.

Some historians of science such as Inkster and Kargon have argued that the middle-class proponents of science used it as a vehicle to gain upward social mobility, status and power in their communities through such activities as lecturing and support for the

local mechanics' institute. They further suggested that once the desired social position had been achieved, these supporters withdrew from the institutes, which subsequently declined as a result. Inkster's analyses of the Derby and Sheffield M. I.s revealed large numbers of Unitarians who gave scientific support and although their religious beliefs pushed them to the margins of respectable society, their superior scientific knowledge elevated their reputation and prestige in the locality.[22] Ruth Watts has maintained that Unitarians did not generally withdraw their support from institutions once they had acquired a respected social standing, but on the contrary, they continued to permeate the 'educational substructure' in order to promote civic, educational, commercial and industrial reforms which in turn, often made these men public figures in the professional and political spheres.[23] Unitarians valued education for its own sake as well as its intrinsic ability to combat ignorance and prejudice, while helping to promote improved social conditions. The altruistic motives of Unitarian educational endeavours have already been underlined by Watts,[24] but this aspect of their work needs further emphasis and an understanding that such men and women could be 'deeply moved and powerfully motivated by religious imperatives not embraced in the orthodoxies of the bigger battalions.'[25] Consequently, motivation to gain social acceptance and status as Inkster has suggested, was only applicable to some of the Unitarian figures who supported the mechanics' institute movement.

One further crucial observation that Professor Watts has made, highlights the individualistic nature of Unitarian action and leadership.[26] A sect with such small numbers, despised by many for their "blasphemous" views, yet so influential in social and public affairs, could only have had such an impact through the efforts of strongly committed members. They were often charismatic personalities whose education and philosophy of life imbued them with the qualities of leadership which could survive

mass prejudice and yet overturn entrenched traditions of the establishment. In towns served by one or more vibrant and larger congregations such as Manchester, it was possible to find groups of Unitarians acting together in their mechanics' institute and similar educational endeavours. In less populated rural centres, a smaller, single Unitarian chapel might only produce one or two individuals to pioneer adult educational societies, but their significance was usually measured by the foundation, or continuation of a local institute. Men such as Henry Browne of Lewes, Abraham Clarke at Newport and the Rev. John Fullagar of Chichester were all indefatigable founders and long-term supporters of their local mechanics' institute. One of the chief aims of this chapter is to assess how influential such Unitarians were in furthering the interests of the Mechanics' Institute Movement in Sussex and Hampshire.

Unitarians at the Sussex and Hampshire Mechanics' Institutes.

While some individual Unitarians were key figures in the development of their mechanic's institution, there is clear evidence to suggest a strong correlation between the Unitarian Associations and those of the regional mechanics' institute networks, both formal and informal. This was especially evident in Sussex.

In 1820, the Sussex Unitarian Association held its first anniversary meeting at Lewes and was attended by the Rev. T.W. Horsfield, minister of the town's Westgate Meeting House, Dr. Morrell of Brighton, Rev. W. Stephens from the Isle of Wight and Rev. W.J. Fox of London.[27] Thus from its earliest days, the Association had forged links between the metropolis and the counties of Sussex and Hampshire. Horsfield was a zealous, energetic and public spirited minister who gave many winter courses of doctrinal lectures in the town, ran a successful boarding school and was instrumental in establishing the Lewes M.I. in 1825. He became one of its first vice-presidents and

gave scientific lectures to its members, but was more widely known for his *Histories* of Lewes and Sussex.[28] W. J. Fox had ministered at Chichester from 1812-17 before moving to London and in 1820 married the daughter of a Chichester barrister, so continuing a close relationship with the area. He was a Unitarian of advanced radical views and attracted a group of like-minded social and educational reformers to his South Place Chapel at Finsbury. Many of these contributed to *The Monthly Repository,* a Unitarian journal which Fox edited and bought in 1831, transforming it into a more secular publication concerned largely with social and political reform. He devoted much time to journalism and public speaking on issues of reform [29] and was included in Coates' S.D.U.K. *Report's* list of lecturers to mechanics' institutes in 1841.[30] Two of Fox's literary associates and close Unitarian friends, the musician sisters Eliza and Sarah Flower, had also gained experience on the institute circuit while assisting a Mr. Purday in his musical lecture at the Guildford M.I. in 1838.[31] Many of Fox's *Monthly Repository Circle* were from the fringes of the middle and working classes and dedicated to improving conditions for their own kind.[32] Their progressive views made it almost certain that many of them sympathised with the ideals of the Mechanics' Institute Movement and were active participants and promoters of their work.

At the dinner which concluded the 1820 meeting of the Sussex Unitarian Association, one of the addresses was given by a Mr. Ashdowne, probably Robert Ashdowne who became minister of the Horsham Unitarian Church from 1831 to 1858 and lectured to the Horsham M.I. on Electricity in 1845.[33]

By 1828, the secretary to the Sussex Unitarian Association was Henry Browne, another stalwart founder and long-serving member of the Lewes M.I. The notice for an 1828 general meeting of the Unitarian Association was put in the Lewes M.I. scrapbook

amidst other notices relating to proposals for parliamentary reform in the locality, as well as announcements concerning events at the Institute itself. It is significant that the scrapbooks continued to contain notices from the 1840s featuring Unitarian lectures by visiting ministers, including one from Guildford and another from London. Some of these notices were printed by Henry Browne on his own home printing press. The lectures were given at the Westgate Unitarian Meeting House. Browne's business associate and Unitarian colleague, William Crosskey, was another long-serving member of the Lewes M.I. The influence of Rev. Horsfield, Henry Browne and William Crosskey would have drawn other Unitarians from the chapel to support the Lewes M.I., thereby cementing the relationship between the two societies.[34]

Henry Browne also became secretary to the Sussex Association of Mechanics' Institutes in 1840-41 which was inspired by Thomas Coates' suggestion and incorporated institutions at Chichester, Hastings, Horsham, Rye, and Worthing.[35] These towns all had Unitarian congregations, or in the case of Worthing, close access to the Brighton meeting house. If their ministers or delegates were active in, or sympathetic to the local mechanics' institute, the relationship between Unitarian and institute networks would have been reinforced.

Unitarian links certainly persisted, for J.E. Fullagar, who attended the Twenty-first Anniversary celebrations of the Lewes M.I. in 1846 was undoubtedly the Unitarian minister at Chichester and pioneer leader of the Chichester M.I.[36] The latter's success was largely due to the exertions of Fullagar and in its first decade (1825-35), it earned such a favourable reputation that it gained a tribute in Horsfield's *History of Sussex* (1835), with the acknowledgement that it had been 'supported, in a great measure, by the interesting and instructive lectures delivered by the Rev. J. Fullagar and others.'[35]

Chichester M.I. had also received a glowing critique from the Central Society of Education and the *Mechanics' Magazine*.[38]

Like many Nonconformist and Unitarian ministers, Fullagar ran a school as well as his Unitatian Chapel at Baffins Lane, Chichester, in order to supplement his income. This school must have acted as a catalyst for, and intensified the Unitarian networks in the area, for one of its pupils was Henry William Crosskey (1826-1893), whose family were staunch supporters of the Lewes M.I. and included William Crosskey, associate of Henry Browne. Henry William Crosskey was to become the famous Unitarian minister of Birmingham and the National Education League colleague of Joseph Chamberlain in the late 1860's. He attributed his desire to enter the Unitarian ministry to Fullagar's influence and passion for the faith. He was 'both a keen politician and a keen theologian' whose enjoyment in life was contagious.[39]

Whilst he was 'greatly respected' by Henry William Crosskey and no doubt other Unitarians, Rev. Fullagar must have found some aspects of life difficult in the predominantly Anglican city of Chichester. He promoted the interests of Unitarianism 'in spite of the ostracism and neglect he had to endure.'[40] In 1838, the *Sussex Agricultural Express* referred to a pamphlet by an anonymous author which was especially addressed to the Rev. J. Fullagar and which 'denies the right of Unitarians claimed for them by Mr. Fullagar to be called Christians.'[41] Despite such adversity, Fullagar continued to both minister to his Congregation and to support the Chichester M.I. through the 1830s and 40s and was still in his ministerial post in 1851.[42] From the frequent reports in the *Sussex Agricultural Express* concerning Fullagar's involvement with the Chichester M.I. and public affairs such as the issues of Climbing Boys and Postal Reform, he emerged as a man imbued with the Unitarian spirit of civic duty, a

strong belief in promoting humane and just causes and above all, typified the Unitarian passion for education and the mechanics' institute movement. His career and relationships illustrated many ways in which Unitarian influences permeated secular and public interests, especially the networks which surrounded the mechanics' institutes.

Unitarian run schools such as Fullagar's, served to disseminate Unitarian beliefs and attitudes and fostered life-long networks between their young scholars in a similar way to those created by the older Dissenting Academies.[43] As Professor Watts has shown, the familial and religious links which Unitarian schools promoted, spanned great distances and produced renowned pioneers in science, industry, education, the professions, in public and political life.[44] In Sussex for instance, Robert Ashdowne's school in Horsham stimulated the boys' interest in science and electricity,[45] while his lecture on the latter subject to the Horsham M.I. in 1845, was illustrated with 'very beautiful experiments.'[46] In Brighton, the two Unitarian ministers from 1818 to the 1860s, Dr. Morrell and John Malleson, successively ran a school at Hove which nurtured future leaders in their field such as I.K. Brunel, Peter Taylor, M.P., Thomas and Henry Solly and the barrister and social reformer, William Shaen.[47] Kathryn Gleadle has highlighted Shaen's involvement with the Whittington Club in London in the 1840s and its role in promoting adult education, particularly for women. He was also actively involved with Chartism and its educational work.[48] Henry Solly was also associated with Chartism as a young Unitarian Parson in the 1840s and went on to found the Working Men's Club and Institute Union in 1862.[49] The networks springing from these contacts linked other significant figures mentioned earlier, and were extended further by the marriage of John Malleson's son Frank to Elizabeth Whitehead in 1857. Through her contacts with Peter Taylor's family, Elizabeth knew the Flower sisters and W.J. Fox and had run an elementary school in London with Barbara Leigh

Smith. Frank and Elizabeth Malleson's marriage was conducted by his father in Mr. Martineau's chapel in Little Portland Street, London, which would have provided another opportunity for bringing many of the most active and prominent Unitarian families into close contact with each other.[50]

As well as strengthening links between Unitarian families themselves, a school such as the one at Hove could extend Unitarian ideas to a broad section of non-Unitarian liberal thinkers. Watts has shown that these schools often attracted considerable numbers of boys who were not from Unitarian families, but who must have carried with them the principles they had imbibed from their education, into the wider community.[51] Local boys educated at Malleson's school, were likely to have been very supportive of the second Brighton M.I. which was so successful in the 1850s, even though John Malleson himself does not appear amongst its records. Thus the permeation of Unitarian passion for education amongst a local community must have created an auspicious reception for many a mechanics' institute.

The Brighton Unitarian Church was in fact one of the largest Unitarian congregations in the Sussex and Hampshire area and, like the Portsmouth Chapel, commanded a following of 250 or more members.[52] In the case of Brighton, with its growing popularity as a seaside resort, visiting Unitarian families must have attended church services and furthered the network of contacts in the Unitarian circles.

In Hampshire, the Rev. Edmund Kell, (1800-1874), minister at Newport Unitarian chapel (Isle of Wight) during the 1820 to 1850 period, became a powerful influence locally and nationally in Unitarian circles. He ran a gentleman's boarding and day school at Newport [53] and was a staunch supporter of the Unitarian Anti-Slavery

movement, voicing strong feelings on the subject at the Southern Unitarian Society meeting at Wareham, Dorset in 1851 and in various communications to *The Inquirer*.[54] He was still contributing personally to the British and Foreign Anti-Slavery Society as late as 1868.[55] Such reform concerns brought Kell regularly into contact with a wide fraternity of Unitarian ministers and laymen and it is not surprising to find his name mentioned in a variety of contexts. While still minister at Newport, he founded the Unitarian congregation at Southampton in 1846,[56] and is recorded as visiting St. Thomas Chapel, Ringwood on Christmas Day 1849.[57] His energy and charisma attracted people to his services at Newport with 149 attending morning service on Census Sunday, 81 in the evening and 89 children in the afternoon Sunday School.[58]

Inspite of a very busy life, Kell still managed to find time to lecture at the Newport M.I. and Athenaeum as it was known in the 1850s.[59] It is almost certain that he gave lectures to similar institutions in the locality and with his wide interests in antiques, archaeology, education and social reform, he must have commanded a broad repertoire of material on which to draw.[60] Originally from Birmingham, Kell's lifestyle and actions would have influenced a large number of people, especially through his wide-ranging Unitarian networks. The Unitarian records which he kept at the Newport Chapel revealed meticulous attention to detail, especially with regard to births. It is significant that from 1844, the Chapel Minutes became briefer and by 1850, declined to a few lines for each meeting. This coincided with the period when Kell was involved with establishing the Unitarian congregation at Southampton. The last entry in the Newport Unitarian Minute Book was for August 1852.[61] The rigorous care which was revealed in the Newport Chapel records were central to Edmund Kell's working habits throughout his life and enabled him to achieve so much. He died in 1874, aged 74.[62]

There was a close connexion between the Newport M.I. and the Unitarian Chapel from the Institute's earliest days. Two leading founder members of the Mechanics' Institute in 1825 were Abraham Clarke and Thomas Cooke,[63] both also active members of the Unitarian congregation.[64] They were both tanners by occupation,[65] but probably of substantial means, as both men were also members of other prestigious organizations in the town. Clarke was the curator of the Isle of Wight Philosophical Society in 1825,[66] while Cooke was secretary to the Isle of Wight Reading Institution in 1830,[67] possibly the same society renamed. In common with so many Unitarians, they were very active in local civic affairs and imbued with a strong civic culture. Cooke was an alderman and Clarke a councillor for Newport Town Council as well as sitting on its finance committee.[68] They were both keen supporters of the Anti-Slavery movement, in common with Rev. Kell and spoke in favour of petitioning Parliament on this issue at a public meeting in Newport in 1826.[69] It is significant that the Lewes M.I., with its influential Unitarian membership, had a notice of the Female Anti-Slavery Society meeting stuck in its scrapbook.[70] (see also Chapter Seven on Women.)

At Portsmouth, the strong Unitarian symbiosis supported the long-lived Mechanics' Institute (1825-70) and the older Literary and Philosophical Society. Rev. Henry Hawkes, minister of the High Street Unitarian Chapel in the town, was a popular speaker at the mechanics' institute, lecturing on English Composition in November 1834 and on Pneumatics in March 1836.[71] Hawkes was later to become President of the Portsmouth M.I. and was secretary to the Literary and Philosophical Society in 1844.[72] Unitarian influence in the latter Society was further demonstrated by the membership of Rev. Thomas W. Foster of St. Thomas Street Unitarian Chapel, who gave a lecture on Numismatics in February, 1836.[73]

Unitarian networks linked the mechanics' institutes at Portsmouth and Southampton. In 1834, the latter's Vice President, Rev. Michael Maurice gave a lecture to the Portsmouth M.I. on General Education based upon data from Parliamentary Reports and emphasized the benefits of education for the poor. It was hailed as 'the most interesting lecture we have listened to for sometime.'[74] Maurice had also close connexions with the Unitarian fraternity at Newport and the Unitarian Missionary Association.[75]

Apart from the Romsey Congregation, all the known Unitarian chapels in Hampshire were in the south of the county and all had either a mechanics' type institution or a mutual improvement society in their vicinity. As in other areas of the country, many Unitarians would have given their support to these voluntary, adult educational societies. No Unitarian membership or influence has been discerned at the successful mechanics' institutes in the centre and north of Hampshire at Winchester, Basingstoke, Alton and Odiham. These appeared to have been nurtured by a combination of other Nonconformist and Anglican supporters. However, whilst no official Unitarian Chapels have been recorded in the area of Hampshire north of Romsey, the existence of isolated Unitarian families or individuals cannot be discounted.

In an age when they were still ostracised by many Anglicans and Orthodox Dissenters, unconnected Unitarians probably preferred to worship at a local Nonconformist church which had a broad toleration of beliefs. If such a chapel leant towards Unitarian ideas, it could be reluctant to declare it publicly. John Vickers has pointed out that while nationally, Anglican and Dissenting provision of sittings was approximately equal, in the south of England, Dissent fell well behind in this respect. Many rural parishes still had no Nonconformist chapel by 1851, 'though in some there were small groups meeting in private houses'.[76] Such was probably the case in Southampton in the first

half of the nineteenth century. An isolated mention of a new Unitarian Chapel had been recorded in 1814 by the *Hampshire Chronicle,* but the town's historian, A.Temple Patterson, thought this to have been more likely just 'a small but regular gathering of Unitarians in a private house.' Such a group was certainly meeting according to Patterson, in the mid-1840s, in a member's house, now the Tudor House Museum. By the 1850s they had bought and converted a Wesleyan Chapel which reopened for Unitarian worship under Rev. Kell in 1854.[77]

Minorities of Unitarians may well have constituted such groups in central and northern Hampshire, especially if visited occasionally by ministers such as Rev. Kell or a missionary preacher such as Robert Aspland [78] or Richard Wright.[79] Finally, even if unable to associate in worship regularly with other Unitarians, isolated families could keep in touch through Unitarian journals such as *The Inquirer* and *The Monthly Repository*. The latter was especially important for this role as its editor, Robert Aspland, was aware of its value to isolated Unitarian readers such as Mary Hughes of Hanwood, Shropshire.[80] Familial and friendship networks linked far flung Unitarians, especially where a woman had married out of the faith. Where no Unitarian chapel or substitute sympathetic church existed, single Unitarian families probably travelled some distance for even irregular worship of their faith.

The Unitarian congregations of Sussex were more evenly spread than in Hampshire.[81] All the Sussex chapels were within travelling distance of a mechanics' institute. The Meeting House at Battle was also used for the town's Mechanics' Institute, thereby strengthening the relationship between the two organisations.[82] An important issue raised by John Vickers with regards to the Religious Census of 1851 was that many Baptist returns did not specify to which branch of the movement they belonged.[83] If

some of them were 'General Baptist' chapels, they could well have been Unitarian in belief and later changed their title to reflect this. The General Baptists officially joined the Unitarians in 1916 and in 1929 became part of the New General Assembly of Unitarian and Free Christian Churches. Undefined Baptist chapels in the first half of the nineteenth century could account for the official absence of Unitarian congregations in north and central Hampshire.[84] Similarly, the officially titled 'Hanover Presbyterian' or 'English Presbyterian' church in Brighton, with Alan J. Ross as its minister, was actually Unitarian in faith.[85] Rev. Ross was a staunch supporter of the second Brighton M.I. in the 1850s and a friend of Lady Byron who gave valuable patronage to the Institute.[86] (See also Chapter Seven on Women).

Quakers and other Denominations

It is more difficult to establish the role played by Quakers in adult education compared with Unitarians in this sphere, for Quaker contributions were given in a quieter, unassuming manner, in keeping with their mode of worship and daily life. As R. K. Webb has observed, they were very conscious of their reputation as a 'peculiar people' with differences in dress, speech and behaviour, which divided them from the rest of society while remaining reluctant to become involved in political and public affairs.[87] Unitarians by contrast were urged to undertake civic duties and were more vociferous and obvious in their prominence in social and educational endeavours. Nevertheless, there is ample evidence of both in this area of study and nationally, of growing and most effective participation by Quakers in the mechanics' institute movement and similar educational ventures.

R. A. Thomas found that Quakers were particularly active in several institutes in his north and west Home Counties, describing them as 'appealing because of their self-help

philosophy' and suggests that in common with other faiths, the Friends regarded these institutions as 'sources of potential converts'.[88] Several Quaker schools in this area provided adult education and the Quaker biscuit firm of Huntley and Palmer at Reading ran Mutual Improvement Societies for their workers with classes in basic subjects and provided libraries and reading rooms.[89]

Quakers were likely to have been involved in the many mutual improvement societies which existed in Hampshire at Christchurch, Southampton, South Stoneham, Whitchurch and Andover. They were certainly responsible for the success and longevity of the Alton M.I. founded in 1837 by the Quaker, Dr. William Curtis, and nurtured by other members of his family as well. William Curtis became and remained President of the Institute for 44 years and gave regular courses of lectures to the members, particularly on the Natural Sciences.[90] Such respect was felt by members of the Institution for Curtis, that in 1857 a subscription fund was proposed:

> in order to present to Mr. William Curtis, a Testimonial of the high regard in which he is held in the Town and Neighbourhood, and particularly for his great and long continued exertion in the establishment and subsequent advancement of the Alton Mechanics Institution.[91]

Camilla Leach has recently highlighted the importance that Quakers accorded to scientific knowledge and training, especially in the education of children and young people.[92] Not only was science regarded as a means to understanding the world as created by God, but scientific and technical processes were integral to the industrial and commercial enterprises which many Quaker families had developed.

It is significant that the description of Quarterly Subscribers in the Alton M.I. Rules included 'Labourers, Mechanics and Apprentices'. Quakers were renowned for the care they gave to their workers' moral and physical welfare and the specification of

'Labourers' and 'Apprentices' stood in contrast to many other mechanics' institute rules. The very reasonable amount of one shilling and sixpence Quarterly Subscription indicated an awareness of apprentices' low earnings.[93] Its continuing commitment to science and the care of its membership, enabled Alton M. I. to enjoy an exceptionally long life until well into the twentieth century and was known from 1909 until 1920 as the 'Curtis Museum and Institute'.[94]

Basingstoke M.I. also experienced an extended life from 1841 into the 1920s. No Unitarian influence has been found, but there was a Quaker Meeting House in the town and in 1855, lectures on scientific subjects were given by lecturers from Queenwood College, East Tytherley, near Romsey.[95] (See also Chapter Four). There is evidence of Quaker membership from the very beginning of the Institute's existence [96] and its very thorough, detailed minutes of the first manuscript records 1841-2 were continued in the Annual Reports of 1855 onwards. Details of membership numbers, library volumes, and accounts were all reminiscent of the business-like methods of Quaker industry and their religious administration.[97]

Another Quaker Meeting existed at Fordingbridge, near Ringwood, and would almost certainly have been supportive of the Fordingbridge L.S.I. Its low subscription of one shilling and sixpence for ordinary members and one shilling for Juniors implied an ethos of mutual improvement and self-help, with probable subsidies from the Quaker community.[98] The fact that this society included 21 females amongst its 80 members further suggests Quaker influence with their known encouragement for girls' and women's education.[99]

Where both Quaker and Unitarian Meetings existed in the same area, it was not unusual to find both elements involved in the management of the local mechanics' institute, often throughout its history. At the Guildford Institute in Surrey, such a partnership successfully steered the Institution through many years.[100] A parallel situation existed at Lewes M.I. where Henry Browne, Unitarian, and Burwood Godlee, Quaker, were key figures for nearly half a century from its establishment in 1825; interestingly, for many years, the management team also included a Weslyan, John Dudeney.[101] Colin Brent, historian of Lewes, has shown that Nonconformity was 'a powerful force' in Victorian Lewes, with vigorous congregations of Independents, Presbyterians, Quakers, Wesleyan Methodists and Unitarians, all of whom formed 'the backbone of local liberalism and of its cultural focus, the Mechanics' Institute.'[102] Only the High Calvinist congregation at Jireh, strongly Conservative and anti-Catholic, was lukewarm towards the Institute.

Despite the reported opposition of some Anglican clergy nationally to the mechanics' institute movement, this research on Sussex and Hampshire has revealed a picture of cooperation rather than religious antipathy and this echoes the findings of R. A. Thomas and W. B. Stephens in their local studies.[103] There were many identifiable instances of consensus and rapport between Anglicans and other denominations in the management of their local mechanics' institute. The Eastbourne Literary Institute had a Wesleyan Methodist as Secretary in 1852 and the Anglican Rev. Pierpoint as President.[104] The first president of the Portsmouth M.I., Daniel Howard, was an attorney by profession, of Anglican persuasion and yet very supportive of the mechanics' institute cause, having written to Brougham in 1826 to suggest the formation of a central organisation in London to supply institutes with lecturers.[105] Howard's introductory address to the Portsmouth M.I. membership in 1825, and his strong advocation of science for the working classes must have struck sympathetic chords amongst any Unitarian or Quaker

members in the audience.[106] The fact that he was succeeded by the Unitarian Rev. Hawkes, would imply that there was a tolerant Anglican and Nonconformist ethos at the Institute.

There is considerable evidence that many Anglican clergy were active in promoting their local mechanics' institute in various locations across the two counties in question. The Worthing Institute in Sussex frequently selected an Anglican Rev. Davison as its president and in 1859, the Rev. E. K. Elliot, rector of Broadwater, was a trustee.[107] Even as early as 1825, when hostility from some Church of England clergy was at its most vociferous, the first Brighton M.I. (1825-28) received support from its local Anglican fraternity, including Rev. Wagner whose brother, George Wagner, had founded the Brighton Literary Society in 1812.[108]

Church of England influence was very strong in mid and north Hampshire. The Hon. and Rev. Samuel Best of Abbot's Ann, Andover and later pioneer of the Hants and Wilts Adult Education Society, (see Chapter Two and below), was instrumental in the foundation of the Andover M.I. in March 1840. His Presidential opening Address was similar to that of Lefroy at the Basingstoke M.I., (detailed below), in its long flowery style but had an interesting observation that religion and politics were excluded from subjects of study at Andover M.I. because they were 'too important for hasty or superficial consideration.'[109] The usual reason given was that they were too controversial and likely to cause dissension amongst members.

Basingstoke M.I. enjoyed the patronage of local Anglican clergy from its inception. Reverends James Blatch, Bigg Wither and William Workman from local parishes, all gave financial and, or material donations in the first two years, while Blatch was one of

only two benefactors to donate ten pounds in the first half year.[110] By 1855 Reverends Blatch and Wither had become life members of the Institution and the latter gentleman had further been elected as a Vice-President.[111]

As with the majority of mechanics' institutes, Basingstoke M.I. rules prohibited 'all controversies on religion', but its first President, Christopher Edward Lefroy, contravened this with his opening address in March, 1841. As the son of a Church of England vicar, Lefroy was ardent in his Anglican beliefs and took every opportunity in his speech to emphasise the virtues and moral discipline of Christianity. He deplored the exclusion of religious instructions at the 'New London University', (University College) and glorified the good counter factor in the immediate establishment of the rival (Anglican) King's College [112] University College had been founded largely through Nonconformist interests and was dubbed 'the godless institution of Gower Street' by its Establishment critics.[113]

Lefroy continued as President of the Basingstoke M.I. to 1855 and Anglican influence dominated the lecture programme that year with eight of the thirteen occasions hosting talks by Anglican clerics including a canon of Winchester Cathedral and a Rev. C. Walters who was also President of Winchester M.I. A balance of interests was maintained however by the three Quaker lecturers from Queenwood College.[114] Even after the death of Lefroy in 1856-7, a strong Church of England presence continued at the Basingstoke M.I. in both the management and the lecture programmes.[115] Its influence was strengthened by the Hants and Wilts Adult Education Society (see also Chapter Two,) which met at the Basingstoke M.I. and was dominated by Anglican clerics, some of whom lectured frequently to the Mechanics' Institute.[116] Known also as The Southern Counties' Adult Education Society, it was established in 1853 by the

Rev. Samuel Best, Rector of Abbotts Ann in Andover, and included Prince Albert as its Patron, with Lord Palmerston and the Bishop of Winchester and Salisbury as Vice-Presidents. The ethos of the Society seemed to be aimed at the spiritual and moral improvement of the working classes which mirrored contemporary attitudes held by many of the Anglican hierarchy. One of the papers read to the Society's Conference in 1861 was by Rev. R. Fitzgerald of Winslade (near Basingstoke) and entitled 'The Taste for Reading in the Humbler Classes'; another paper by Rev. Mudie promoted the idea of 'self-supporting Boarding Schools for the Industrious Classes' to give the 'fullest scope for easy and cheerful religious instruction' and for the inculcation of habits of morality, obedience, industry and courteous propriety.[117]

A number of the mechanics' institutes in Hampshire were affiliated to the Hants and Wilts Society, which with its Anglican hegemony would have been able to influence management and curriculum decisions at member institutions. It provided an opportunity for the Church of England to exert its social control and as Harrison suggested, to regain "lost" sections of the population.[118] The absence of Unitarian influence in the centre and north of Hampshire gave the Anglican fraternity more freedom to promote their ascendancy in the networks which supported adult education.

Odiham M.I., like the Basingstoke Institute, was dominated by Anglican clerical influence, but no evidence of its affiliation to the Hants and Wilts Society has been found. It benefited from the contact it had with Rev. Charles Kingsley of Eversley, Winchfield, and author of *The Water Babies*.[119] Kingsley was a member of the Christian Socialist circle and gave active help to F. D. Maurice in the London Working Men's College. Adult education was a sphere in which such socially minded men hoped to enable the self-improvement of working men. Kingsley ran a night school for

thirty men at his Eversley rectory in 1848 and gave lectures to the institutes at Basingstoke and Aldershot, as well as Odiham M.I. in the 1850s and 1860s.[120] Anglicans who were also Christian Socialists like Charles Kingsley brought another and broader dimension of philanthropy into their educational work. They wished to bridge the social gulf between the working and middle classes by uniting them in following the higher spiritual ideals of Christianity. This contrasted with the paternalistic and sometimes patronising attitude of certain clergy such as those quoted from the Hants and Wilts Society.

While there was clearly a willingness amongst many Church of England ministers and laity to cooperate with Dissenters in managing and supporting the mechanics' institute movement in Sussex and Hampshire, the Established Church exerted its influence more directly by founding its own libraries, Institutes and Reading Rooms in several towns and villages. They often had lower subscription rates than the local mechanics' institute in an attempt to attract more members, but where Unitarianism was strong, they rarely succeeded as rivals.

At Portsmouth, the renamed Athenaeum and M.I. had membership of 400 and a yearly subscription of eight shillings in 1851. The Church of England Young Men's Society had just over 100 members with an annual subscription of five shillings.[121] At Newport, an Anglican inspired Literary and Scientific Institution was founded in 1847 with the obvious intention of countering the dominance of the Unitarian-led Athenaeum and M.I. The Newport L.S.I. stated that its members must be 'of good moral character and professing Protestant Trinitarian principles.' The committee men all had to be members of the Church of England and Holy Scriptures were to be the 'standard and guide' of the Institution in order to avoid religious controversy and political discussion. The

President, Rev. E.D. Scott and one Vice-President, Rev. J. Maude, were both Anglican clerics.[122] The subscriptions of the two institutions were identical but the Newport M.I. and Athenaeum had 236 members while that of the Literary and Scientific Institution only totalled 151 in number. The latter only lasted four years while the Unitarian-led Mechanics Institute endured for four decades.[123]

Apart from the extreme examples of Anglican superiority and elitism as exemplified by the Newport L.S.I. and the ostracism shown by both the Established Church and other dissenting sects to Unitarians in some areas, the experience of the mechanics' institute movement in Sussex and Hampshire was generally one of tolerant cooperation amongst the managers and members of the institutes, whatever their religious persuasions. It mirrored the same concordant milieu which W. B. Stephens and R. A. Thomas found in their areas of study.[124]

An outstanding model of religious collaboration was manifested by the Niton M.I. on the Isle of Wight. The village Institution was founded in 1854, a period of much greater acceptance and harmonious relationship between the various Christian faiths. It aimed 'to promote the mental improvement of the working people of the village and neighbourhood, to diffuse among them useful knowledge, and to provide them with rational and profitable amusement for their leisure hours'. The secretary was a Rev.J.Hockin, of no specified denomination, but likely to have been Church of England in this small parish community. In 1859, the Institute gave a present to another clerical supporter, Rev. G.A.Cockburn, in appreciations of his 'valuable aid' during his residence in the parish. In his letter of thanks, Cockburn referred to the 'deep solid understratum of religious feeling' of the Institute, 'our common gospel faith' and that despite outward differences in religious forms of worship, all concurred in recognition

of the holy union in Christ Jesus.' Most importantly he stated: 'Let us be Churchmen, or Methodists, or Baptists, or Independents, according as our light and conscience lead us.'[125] The tone of the letter is indicative of a very broad and tolerant Church of England minister, with all but the Unitarian and perhaps Quaker sects included in its understanding of a Christian outlook. There was still, however, a strand of patronising paternalism, reminiscent of voices within the Hants and Wilts Adult Education Society. Cockburn considered that the Niton M.I.'s gift to him 'shows how ready are the working classes to respond to any efforts, however humble, made for their rational amusement and intellectual culture.'[126] (No records of either Hockin or Cockburn have been found to date in either the 1851 Religious Census or local Directories of the period and so it has not been possible to confirm their respective denominations.)

Niton also had a Baptist Chapel with 200 sittings by 1859, [127] although this was not mentioned in the 1851 Religious Census. Some Baptist congregations became Unitarian in the course of the nineteenth century and it is feasible that a nucleus of the Niton Baptists existed at the start of the village Mechanics' Institute and may have harboured Unitarian sympathies. In any case, Baptist influence would have contributed to the acquiescent consensual religious atmosphere at the Mechanics' Institute.

The Niton M.I. demonstrated the best practices of religious toleration and cooperation that could be expected within an adult educational organisation in mid-nineteenth century England. What is significant, however, is that the ascendancy of the Established Church of England and its integral paternalistic attitude towards the lower classes was implicit in this spirit of collaboration.

Conclusion

In keeping with the desired absence of religious discord at the institutes, a secular ethos appeared to have prevailed within the non-denominational societies in the area of study. It was only in those institutions so obviously established or dominated by Church of England clergy that any reference to a particular religious creed was made. However, in communities permeated by religious values as the nineteenth century was, it was difficult to ignore religious motivation in any institution. The central issue for the main denominations was collaboration or confrontation. The usual response in Sussex and Hampshire consisted mainly of cooperation, although there were examples of challenge and resistance. The size of towns and settlements were significant factors in the way in which communities operated. The limited populations and scattered villages or rural areas led to a concentration of resources rather than their dispersal. The reasons why various religious and social groups collaborated differed, often depending on particular circumstances.

With the mechanics' institutes, the Church of England and the other denominations each had their own agendas. To Anglicans, the institutes posed a possible threat to the authority of the Established Church. They could respond in three ways. In areas like Newport where Unitarianism or nonconformity was very strong, Anglicans could respond to Nonconformist educational initiatives with their own rural institutions. Where there was little dissenting strength, Church of England ministers and laity would seek a presence in any adult educational initiative and cooperate with other religious sects as at Niton. Where they were possibly fearful of Nonconformist influence, Anglicans would try to dominate a mechanics' institute as at Basingstoke or even grasp the initiative as Rev. Best did at Andover. Anglican influence in the mechanics'

institute sphere seemed stronger in Hampshire than in Sussex because of clerics such as Best and the Anglican dominated Hants and Wilts Adult Education Society.

Unitarian involvement in the mechanics' institute movement was driven by their determination in the battle against ignorance and superstition. They utilised science, education and rational enlightenment in their attempts to combat this and to create a better society.

Quakers were emerging from their "quiet" period and beginning to look at marginal peoples in their campaigns against slavery and to improve prison conditions. They considered adult education to be very important for improving people's living conditions rather than the Unitarians' broader aim of social reform. Other Nonconformist denominations were often motivated to promote adult education initiatives to bring sobriety, seriousness and literacy into society. They could display opposition to popular rural culture such as fairs because of drinking and rowdyism which disrupted social order. They saw mechanics' institutes as an alternative path to sobriety and respect.

The above analysis highlights a whole spectrum of religious motives to explain people's support for the mechanics' institute movement. There were some men who stood out as charismatic leaders in the mechanics' institutes in Sussex and Hampshire, who were inspired by their social, civic and religious philosophies to promote the cause of adult education so successfully.

Chapter Six Notes

1. J.F.C. Harrison, *Learning and Living*, (London: Routledge & Kegan Paul, 1961), p.155; M.A. Smith, 'Religion', in *A Companion to Nineteenth Century Britain*, ed. C. Williams, (Oxford: Blackwell, 2007), p.337.

2. See for example: T. Kelly, *George Birkbeck*, (Liverpool: Liverpool University Press, 1957); *Adult Education*, (Liverpool: Liverpool University Press, 1970); M. Tylecote, *Mechanics' Institutes of Lancashire and Yorkshire before 1851,* (Manchester: Manchester University Press, 1957). W.B. Stephens, *Adult Education: Warrington, 1800 – 1900*, (Exeter: University of Exeter, 1980); R.A Thomas, 'Mechanics' Institutes of the Home Counties, c. 1825-75; Parts I and II, The *Vocational Aspect of Education*, (August and December, 1979).

3. R. Watts 'Education and Cultural Transfer: the Case of Unitarian Women from the Late Eighteenth Century to 1860', *History of Education Society Bulletin,* No 55, 1995.

4. J. Hudson, *Adult Education*, (London: Woburn Reprint of First Edition of 1851, 1969), pp. 201-202; J. Hole, *An Essay on the History and Management of Literary, Scientific and Mechanics' Institutions*, (Society of Arts Prize Essay, 1853), p. 92-3. T. Coates, *Report on Literary Scientific and Mechanics' Institution* (London: SDUK, 1841), p. 15 and quoted in T.Kelly, *George Birkbeck*, op. cit., p.253.

5. T. Kelly, op. cit., P. 217-18; *History of Adult Education* op. cit., p.123.

6. M. Tylecote, op. cit., pp. 79 and 129-30.

7. Ibid, p.64 note and passim; T.Kelly, *George Birkbeck*, op. cit., p. 257 note.

8. M. Tylecote, op. cit., pp.151 and 226.

9. J.P. Hemming, 'The Mechanics' Institutes in the Lancashire and Yorkshire Textile Districts from 1850', *Journal of Educational Administration and History,* Vol. 9, No.1, January, 1977, p. 27.

10. Stephens, op. cit., pp. 47-51.

11. Thomas, op. cit, pp. 104-107.

12. J.F.C. Harrison, *Learning and Living*, (London: Routledge and Kegan Paul, 1961), pp. 177-180.

13. Ibid, p. 180.

14. M.A. Smith, 'Religion', *A Companion to Nineteenth-century Britain,* ed. by C.Williams, (Oxford: Blackwell Publishing, 2007), p.337.

15. R.K. Webb, 'Quakers and Unitarians', in *Nineteenth Century English Religious Traditions*, ed. D.G. Paz, (Connecticut and London: Greenwood Press, 1995), p. 100; R. Watts, *Gender, Power and the Unitarians in England*, (London: Longman, 1998), p.4.

16. Webb op. cit., p. 110

17. R. Watts op. cit., ; also, 'Revolution and Reaction: "Unitarian academics 1780 – 1800', *History of Education*, Vol 20, No.4, December 1991; and 'Some radical educational networks of the late eighteenth century', *History of Education*, Vol. 27, No., 1, March 1998; J. Seed, 'Theologies of Power' in *Class, Power and Social Structure in British nineteenth century towns*, Ed. R.J. Morris, (Leicester: Leicester University Press, 1986).

18. M. Mercer, 'Dissenting academies and the education of the laity, 1750 – 1850', *History of Education*, Vol 30, No. 1, 2001, p. 44.

19. R. Watts, 'Revolution and Reaction' op. cit. and *Gender, Power and the Unitarians*, op. cit.

20. J. Seed, op. cit., p. 110-111; R. Watts, '*Gender, Power and the Unitarians*'; 'Radical Eighteenth Century Networks'; and 'Education and Cultural Transfer', History of Education Bulletin, No. 55, Spring 1995, p. 12-13.

21. R. Watts, *Gender, Power and the Unitarians*, op. cit., p. 76.

22. I. Inkster, 'The Social Context of an Educational Movement', *Oxford Review of Education*, Vol 2, No. 3, 1976, p.284, p. 287-299; 'Science and the Mechanics' Institutes', *Annals of Science*, 32, 1975, especially p. 467-471; R.H. Kargon, *Science in Victorian Manchester*, (London: John Hopkins University Press, 1977), p. 148-152.

23. R. Watts, op. cit., 'Education and Cultural Transfer', p. 13.

24. R. Watts, *The Unitarian Contribution to Education in England from the late Eighteenth Century to 1853*, Leicester University Ph.D. Thesis, 1987, pp. 396, 406-8 and 412. Also Watts, *Gender, Power and the Unitarians*, op. cit., passim.

25. Webb, op. cit., p. 115; he includes Unitarians and Quakers in this statement.

26. Watts, 'Education and Cultural Transfer', op. cit., p. 14.

27. J.M. Connell, *The Story of an old Meeting House, Lewes*, (London: Longmans, 1916), p. 93-7.

28. A. Tynan, 'Lewes Mechanics' Institution', *Rewley House Papers*, Vol 3, No. 4, 1955-56, (Oxford University Delegacy for Extra-Mural Studies)

29. Baylen and Gossman (eds), 'W.J. Fox' in *Biographical Dictionary of Modern British Radicals*, Vol 2, 1830 – 70, (Brighton: Harvester Press, 1985), pp. 209-211.

30. T. Coates, *Report*, op cit., 1841.

31. J. Sims, *The Guildford Institutes*, London University, Institute of Education, unpublished M.A. Dissertation, 1987, p. 46.

32. M. Parnaby, *William Johnson Fox and the Monthly Repository Circle of 1832-6*, (Unpublished Ph.D. Thesis, Australian National University, 1979).

33. Connell, op. cit.; *Sussex Agricultural Express,* 11th Jan., 1845.

34. Lewes M.I., *Scrapbooks,* Vols. I & 2.

35. Coates, *Report,* op. cit., p. 95.

36. Lewes M.I., Report of the Proceedings at the 21st Anniversary, Oct 13th, 1846.

37. T. W. Horsfield, *The History Antiquities and Topography of Sussex*, Vol. 2, p.20, (1825). Also mentioned in F. Steer, *The Chichester Literary and Philosophical Society and Mechanics' Institute*, (Chichester: Chichester City Council, 1962).

38. See Education Chapter.

39. R.C. Armstrong, *Henry William Crosskey,* (Birmingham: 1895).

40. Ibid.

41. *Sussex Agricultural Express*, 13th Jan. 1838.

42. J.A. Vickers, *The Religious Census of Sussex, 1851*, Sussex Record Society, Vol 75, (Lewes:1985).
43. R. Watts, 'Some Radical Educational Networks', *History of Education,* 1998, Vol. 27, No. 1, p. 1-14.

44. R. Watts, *Gender, Power and the Unitarians*, passim.

45. Ibid. pp. 132-5.

46. *Sussex Agricultural Express*, 11th January, 1845.

47. H.. McLachlan, *The Unitarian Movement in the Religious Life of England*, (London: George Allen & Unwin, 1934), p. 129 and passim.; R. Watts, *Gender, Power and the Unitarians*, p. 134.

48. K. Gleadle, *The Early Feminists,* (Basingstoke: Macmillan,1995), Ch.5.

49. Kelly, *Adult Education*, op.cit., pp.189-192.

50. E. Malleson, *Elizabeth Malleson*, 1828 – 1916, (An Autobiography for Private Circulation, 1926).

51. R. Watts, *Gender, Power and the Unitarians*, p. 130.

52. J.A. Vickers, *The Religious Census of Sussex*; *The Religious Census of Hampshire*, op.cit.

53. Pigot's *Commercial Directory*, 1830, p. 197.

54. D.C. Stange, *British Unitarians against American Slavery*, 1833-65, passim.

55. *Southern History*, Vol 9, 1987.

56. G and J Hague, *The Unitarian Heritage*, (Sheffield: possibly self-published G. Hague, 1986).

57. *The Inquirer*, Sat Jan 5th, 1850 Vol, No. 392.

58. J. Vickers, *Religious Census of Hampshire 1857,* (Winchester: Hampshire Record Series, Hampshire County Council, 1993), p. 36.

59. Rev. E. Kell, *The Founders of our Time*', 3 lecturers delivered at the Athenaeum, Newport, (*Hampshire Independent*, Dec 18th 1852, Jan 1st, 1853 and Mar. 26th, 1853). Quoted in R.V. Turley, *Hampshire and Isle of Wight Bibliographies*, (Southampton: Southampton University Library, 1975).

60. Rev. J. Silvester Davies, *History of Southampton*, (1st ed. 1883, 2nd ed., Exeter: Hampshire Books, Wheaton Publishers, 1989), p. 433; and Hague, op. cit., p. 112.

61. Unitarian Records of Newport, (Newport Record Office), Unitarian Chapel, with particular reference to the Register Book of Births. Also Minute Book, 1802-1852.

62. Silvester Davies, op. cit., p. 433.

63. *Southampton Herald,* 28th Feb and 7th March, 1825.

64. Newport Unitarian Chapel, Minute Book, 1802-1852. March 14th, 1802; Feb. 7th, 1836; April 24th, 1837; Sept. 26th, 1847.

65. Ibid, Mar. 14th, 1802.

66. *Southampton Herald*, Feb, 14th, 1825; Mar. 7th, 1825.

67. Pigot's *Commercial Directory* 1830, p. 200.

68.Vectis *Directory of the Isle of Wight* 1839, p. 21

69. *Southampton Herald*, Feb, 20th , 1826.

70. Lewes M.I, Scrapbook, 1824 – 1854.

71. *Hampshire Telegraph,* Nov. 10th, 1834; May 9th, 1836.

72. Pigot's *Directory of Hampshire*, 1844; White's *Directory of Hampshire*, 1859, p. 294

73. *Hampshire Independent*, 27th Feb., 1836.

74. *Hampshire Telegraph*, 20th Oct , 1834.

75. *Hampshire Telegraph*, Sept. 21st, 1829.

76. Vickers, op. cit., (*Hampshire 1851*), p. xvii.

77. A.Temple Patterson, *A History of Southampton*, (Southampton: Southampton University Press, 1971), Vol. 2, p. 73.

78. Robert Aspland had been minister at Newport in the early nineteenth century, until moving to Hackney in 1805. He edited the 'Monthly Repository' from 1806 and tried to encourage missionary zeal amongst like-minded Unitarian colleagues. See R. Watts *Gender, Power and the Unitarians*, pp. 74-6 and 105; also J. Seed, op. cit., p. 116.

79. R. Watts, *Gender, Power and the Unitarians,* pp.74 and 105.

80. R. Watts, Ibid, p. 76.

81. See Table 1.

82. Vicker's, *Religious Census of Sussex*; 'Freethinking Christian Meeting House', Battle, p. 25. This was one of a small group of "Free-Thinking Christians" which were affiliated to Unitarianism and permeated a group of churches in Kent and Sussex., see Hague, *The Unitarian Heritage*, op. cit. p.52.

83. J.A. Vickers, *Religious Census of Hampshire*, op. cit. p xx.

84. R.K. Webb, op. cit, p. 105.

85. J.A. Vickers, *Religious Census of Sussex*, op. cit. p. 101 and 210.

86. Second Brighton M.I. (1851 – 59), Annual Reports.

87. R.K. Webb, op. cit., p. 85.

88. R. A. Thomas, op. cit., Part Two, p. 105.

89. Ibid, Part one, p. 67.

90. W. Curtis, Junior, *A Short History and Description of the Town of Alton*, (1896), p. 139-147. Location of volume is at Basingstoke Public Library.

91. Alton M.I., Subscription List and Testimonial Find for William Curtis, 1857.

92. C. Leach, 'Religion and Rationality: Quaker Women and Science Education 1790 – 1850', *History of Education*, Vol. 35, No.1, Jan 2006, pp. 69-90.

93. Alton M.I. Rules, 1855.

94. Kelly, *George Birkbeck*, op. cit, p. 308.

95. Basingstoke M.I., Lecture List, Annual Report, 1855.

96. D. Burns Windsor, *Friends in Business*, (London: Muller,1980); R.A. Thomas, op.cit., p. 67; Basingstoke M.I.. First Half Year Statement, 1841. In 1850, George Palmer of the Quaker Huntley and Palmers Biscuit Firm in Reading, married Elizabeth, daughter of a Quaker druggist, Mr Meteyard, in Basingstoke. This was almost certainly Robert Meatyard, Chemist of Winchester Street, Basingstoke, who was the Agent for Huntley and Palmers Biscuits in the town. A Mr. Meatyeard gave a two guinea donation to the Basingstoke M.I.. in its first six months. Spellings of names in this period were variable.

97. Basingstoke M.I. First three Half-Yearly Statements, 1841-2; Annual Printed Reports from 1855.

98. J. Vickers, *Religious Census of Hampshire*, op. cit. p. 245; *Parliamentary Census of Education*, 1851.

99. C. Leach, op. cit.; *Parliamentary Census of Education*, 1851.

100. J. Sims, op. cit.: the successful partnership of John Cooke, Unitarian and Edward Waller Martin, Quaker.

101. Lewes M.I. Archives.

102. C. Brent, *Victorian Lewes*, (London: Phillimore, 1980).

103. R.A. Thomas op. cit.; W.B. Stephens op. cit.

104. J. Vickers, *The Religious Census of Sussex,* op. cit., p. 31.

105. Kelly, *George Birkbeck*, op. cit., p. 248, quoted Howard's communication to Brougham. A Daniel Howard, attorney, appears in the Portsea section of Pigot's 1830 *Directory of Hampshire.* Enquiries of the Portsmouth Museums and Records Service produced the information that 'Daniel Howard, President of the Mechanics Institute, also served as an Alderman and Mayor.' His dates were c.1763-1850 and he received an Anglican burial. His eight children had Anglican baptisms. (Letter to J. Sims, 17th April, 2007). From the way he led the Portsmouth M.I., J. Sims wondered whether Daniel Howard was a Unitarian. She made the above enquiries to test this hypothesis. It seems more likely that Howard was of Anglican faith.

106. *Hampshire Telegraph,* 31st Oct.., 1825.

107. French and Sons' *Directory of Worthing,* 1859, p. 39.

108. J. Vickers, *Religious Census of Sussex*, op. cit. Brighton M.I. Rules, 1825. C. Musgrave, *Life in Brighton,*(London: Faber, 1970).

109. Andover M.I. Lecture by Rev. S Best, President, 30th March, 1840. Copy at Winchester Record Office.

110. Basingstoke M.I., first three half-yearly statements; J. Vickers, op. cit., *Census of Hampshire.*

111. Basingstoke M.I. 1855 Annual Report.

112. Basingstoke M.I., Rules, 1841; Presidential Address, March 25th, 1841.

113. N. Harte, *The University of London 1836-1986,* (London: Althone Press, 1986).

114. Basingstoke M.I. Annual Report, 1855.

115. Basingstoke M.I. Annual Reports to 1863.

116. Ibid.

117. B. Field, 'The Southern Counties Adult Education Society', *Studies in Adult Education*, Vol 12, 1980, pp. 101-108.

118. J.F.C. Harrison, *Learning and Living*, op. cit., pp. 177-180.

119. Odiham M.I Minute Book, 5th Oct. 1864 and 5th Sept., 1865.

120. Basingstoke M.I. Reports, 1858 and 1859; *Surrey and Hants News*, Reports on the Aldershot Institute, 29th Oct, 1864 and Odiham M.I. 15th Oct, 1864.

121. *The 1851 Education Census*: Literary and Scientific Institutions, p. 221.

122. Newport Literary and Scientific Institute Prospectus, 1857; J.Vickers, *Hampshire Religious Census*, op. cit.

123. T. Kelly, *George Birkbeck*, op. cit., p. 309.

124. See earlier discussion in this chapter.

125. Letter to Niton M.I. from Rev. G.A. Cockburn, 1859, contained in Niton M.I. Fifth Annual Report.

126. Ibid.

127. White's *Directory of Hampshire*, 1859.

Chapter Seven

Women: the Forgotten Minority at the Mechanics' Institutes in Sussex and Hampshire 1825 -1875

The title of this chapter would seem strangely anachronistic to the men who founded the early mechanics' institutes for the education of male mechanics in the arts and sciences which they practised. By the late 1830s however, a female presence had become a reality at the majority of such institutions. This chapter explores how, why and when women gained access to these male citadels of adult education in Sussex and Hampshire and argues that their entry was often earlier than hitherto acknowledged.

It also challenges the realities of the contemporary 'separate spheres' rhetoric and how this related to the mechanics' institute movement. Several issues are raised. Discussion centres around whether the institutes were seen as viable 'spaces' into which those women who would not conform, could move and exercise their independent voices and influence. The roles and activities which women developed in the mechanics' institutes are analysed as preparation for their fostering of the women's movement from the 1850s and their long struggle for female suffrage. Consideration is given to the ways in which other movements such as Chartism, Owenism and different religious attitudes affected women's progress within the mechanics' institute sphere.

Towards the end of the period covered in this research, the initial reluctance to accept women had changed to reflect a climate of more willing encouragement. The chapter debates whether female membership had become a stark necessity for the continuation of most institutes' existence and whether the movement would have survived for so long without the vital contributions that women had brought to it. It asks if women's participation in the mechanics' institutes had changed public attitudes to female

education and even helped to modify the most extreme attitudes in the 'public and private spheres' debate. While all these issues have a broader national perspective, they are examined to check for any particular regional aspects emerging with regard to the position of women. Other scholars have hinted at these matters but their broader development will be more fully explored in this chapter.

Feminist historians are constantly working to make women 'more visible' and therefore have to use all the hidden clues, which they learn to search for, recognise and upon which they exercise reasoned historical judgement about women's positions. Some of the inferences in this chapter must be speculative and based on what is currently known of women's position at the time.

Developments and Debates in Women's History

The French Revolution and its brief period of popular activism by women, made gender issues central to the cultural counter-revolutionary doctrines of the ruling and middling classes. They assigned separate social spheres for men and women: the public sphere of politics and business for men, while women's delicacy and spirituality was best suited to the private world of home and family. The separate spheres' ideology was promulgated by the Church of England, Evangelical philanthropic agencies and through religious teaching which all empowered a proliferation of discourses on femininity during the nineteenth century. These emphasized the impropriety of women's presence in public spaces and led to the absence of female activity in much of the written history of the period.[1]

In the last three decades, the work of feminist historians has done much to revise this and make women more visible in the nineteenth century. A vast array of new methodologies have been developed to discover and reinstate women in the historical

record. Amongst these are the reinvestigation of sources, use of new types of evidence, biographical and prosopographical approaches, linguistic and sociological enquiries and new structural frameworks to reveal the networks that linked like-minded women in the period.[2]All these approaches have begun to clarify the ways in which women negotiated their way around the rhetorical obstacles which impeded the realisation of their potential as rational human beings.

Women's Invisibility in the Mechanics' Institute Literature

Nineteenth-century writers on the mechanics' institutes had very little to say on the subject of women, but their data and statistics reveal more. Thomas Coates' *Report* for the SDUK did devote a section to female membership at the institutes, giving particular mention of the Mile End Philosophical Institute in London which had a music class for females in the 1830s, tutored by a woman and unusually superintended by a committee of ladies.[3] His main emphasis however was to inform wives of the moral and intellectual benefits that their husbands would acquire by attending an institution and that this would in turn endear such places to their womenfolk. The list of lecturers is significant for including two ladies, a Mrs. Noyes who spoke on 'The Wind' and Mrs Ware, a music lecturer.[4] Both lived in London. These women predated the few female lecturers of the 1840s such as Clara Balfour and Mrs. Cowden Clarke and therefore must be considered significant figures in 1839, when the list was compiled.

Charles Baker's *Report* for the Central Society of Education in 1837 revealed nothing of women's participation at mechanics' institutions other than their appearance as a minority of members at both the Manchester and Liverpool M.I.s, 0.1% and 0.3% respectively.[5] The Census of 1851 distinguished between the occupations of scholars in adult evening schools and revealed the numbers in a few particular female trades such as dressmakers, washerwomen and seamstresses. The lack of differentiation in gender

of domestic servants, agricultural labourers and factory hands, deprives researchers of useful data to compare with the former, purely female occupations. However, the statistics given for each mechanics' institute, include details of female and male membership numbers and are of great value.[6]

Earlier twentieth century historians of the mechanics' institute movement gave limited consideration to women's membership and contribution. June Purvis, the leading modern historian of nineteenth-century working-class women's education, has criticized Mabel Tylecote and J.F.C. Harrison[7] for giving scant attention to women at the institutes, and yet the details that Tylecote does give on women's participation, has profound significance for analysing the roles of women at the institutes. They were needed in vocal music classes and their importance was emphasized in particular at the Manchester M.I., when a year after the establishment of a dancing class for men only in 1848-9, a female class was founded and the two classes were dancing together by 1850. This underlined both the increasing awareness of women's quest for inclusion in the advantages of an institute's activities and also the fact that women were a necessity as dancing partners for the men. Such a re-reading of the data through a gender lens suggests both a progressive acceptance of women at the institute and the generally widening opportunities for women that were occurring by mid-century. Tylecote highlighted the considerable provision of classes for women at the Lancashire and Yorkshire institutes and the existence of two female only institutions at Keighley and Huddersfield.[8] Her work is valuable in giving a synopsis of provision for women in the north of the country and provides a comparison for what has been found within the mechanics' institute movement in Sussex and Hampshire.

Thomas Kelly (1957) writing at the same time as Tylecote, gave details of women's membership at the London M.I.[9] It certainly served as an example to other institutions,

including those of Sussex and Hampshire. As with the nineteenth-century texts on mechanics' institutes, even the few details given on women's education in later treatises can infer a range of information if the background to the topic is understood.

W.B. Stephens' study of adult education in Warrington 1800-1900 emphasized the fact that most institutes did provide classes for women and included female membership, although it was almost always a fraction of the male mumbers.[10] Similar findings were made by R.A. Thomas in his 1979 study of *Mechanics' Institutes in the Home Counties,* where women accounted for 6% of membership and came largely from the middle classes, but were not always accorded equal status with men.[11]

Purvis has raised a number of key issues which embrace not only the question of women's education in the nineteenth century, but their position in society in general. She has argued the need to make women's education more visible in history by going beyond the stereotype roles of the 'separate spheres' ideology and analysing the evidence of women's own experiences in family life, paid work and the wider issues of gender and power relationships. Such a plea has particular relevance to this research. In *Hard Lessons*, Purvis was largely concerned with women's roles as students and subscribers to the mechanics' institutes. This study of the institutes in Sussex and Hampshire considers the broader aspects of women's influence in more detail: as lecturers or their assistants (such as female singers illustrating a discourse on music), and in the many diverse roles that females played in the social sphere of institute activities.

More recent work by feminist historians has begun to delve further into the actualities of women's daily lives in the nineteenth century and to challenge some of the sweeping assumptions contained in the 'public and private spheres' rhetoric that has pervaded so

much historical writing. Susan Kingsley Kent for instance, has shown that numbers of middle-class women continued to work in the late 1700s, often within the family business, although this was not always publicly acknowledged.[12] As such businesses expanded in the nineteenth century, most married women would have assumed more domesticated roles within the family,[13] but many may well have re-entered the public sphere through charitable activities or support of social reform movements such as the Anti-Slavery Society.[14] Some middle-class spinsters and widows earned their living by teaching[15] and a minority did so by itinerant lecturing.[16] The dominant discourses of the nineteenth century regarding women advocated a purely domestic role for working-class wives, while some Chartist and trade union rhetoric demanded a family wage for the male breadwinner. Economic circumstances however, dictated that the great majority of working-class wives took some form of employment to contribute to their families' subsistence. Single females had of necessity to support themselves. One has only to look at nineteenth-century directories to find women listed as shopkeepers, school owners and other business proprietresses in their own right.[17]

These social and cultural practices governed the opportunities and types of educational experience that women encountered. Ruth Watts has shown how information and inference on the ideals and practice in women's education in its widest sense, can be found in contemporary novels and writings from the eighteenth century onwards, particularly in those by women authors.[18] For example, the Unitarian, Anna Barbauld, (nee Aiken), 1743-1825, stressed that women could acquire valuable knowledge by conversing with a father or brother and following their recommendations in reading, while another writer, Catherine Hutton, 1756-1846, took great pride in her housewifery skills, the domestic aspect of female education.[19]

As has been discussed earlier in this thesis, the Unitarians, though small in number, had a great influence in political, civic, educational and other reform movements. They promoted more egalitarian attitudes towards the education of girls and produced a wide range of well educated Unitarian women, many of whom achieved eminence either as writers such as Lucy Aiken and Harriet Martineau, or teachers such as Anna Barbould (above) and Eliza and Sarah Lawrence sisters at their schools in Birmingham and Liverpool in the early nineteenth century. The next generation of Unitarian women produced Bessie Parkes, Barbara Bodichon and others who were among the pioneers of the Women's Movement from the 1850s.[20] Not only did these women influence their readers and pupils, but through the education of their own children and their familial and social networks, they fostered the spread of a reforming philosophy which encouraged a more receptive audience for progressive ideas that were to change so many facets of Victorian life. These women were certainly not the invisible, inaudible and submerged companions of their menfolk as contained in the 'private sphere' historiography. Furthermore, there were many female individuals and groups who were vocal and active in their respective environments, seeking to promote changes and reforms in people's lives. The Lewes Female Anti-Slavery Association would have been one of such groups and can be considered an example of women's institutional building of the type suggested by Linda Eisenmann.[21] The fact that their committee notice was stuck in the Lewes M.I. scrapbook would further suggest links between the two societies.[22]

The Owenite movement included large numbers of women who attended its meetings and lectures around the country. Some of these became regular lecturers themselves at both Owenite meetings and other venues including mechanics' institutes and wrote tracts which were read by an even wider audience. Anna Wheeler and Fanny Wright came from well-to-do families, while others such as Eliza Macauley and Frances

Morrison were of working-class origin, but strong advocates of Owenite views on women's strengths and rights.[23] Eliza Macauley lectured at Owenite venues, chapels and mechanics' institutes in London and Surrey.[24] In correspondence to the Guildford M.I. in 1835, she revealed the extent of male prejudice she had encountered in her desperate struggles to earn a living by lecturing: three mechanics' institutes in the London area had taken between two and five years to deliberate whether or not to enagage her. She explained that in the case of the five year wait, 'even Lord Brougham is contending in my favour against the narrow minded prejudice of a self important man, who is weak enough to desire that no illumination should emanate, save only from the Intellect of Man.'[25] At Guildford at least, she was engaged after only slight hesitation, to give two lectures and her success contributed to a more willing acceptance of women as full members of the institute on the same terms as men. The long list of lecture titles she offered were mainly of literary and historical subjects, illustrating careful selection of acceptable topics for a female speaker to deliver. Barbara Taylor suggested that there were many Eliza Macauleys surviving on the periphery of professional and literary society, while more eminent Owenite speakers such as Emma Martin, could attract audiences of up to 3,000 when she lectured on Marriage and Divorce.[26]

The most recent historiography on the activities of women has highlighted the ambivalent but often powerful roles which they wielded in public affairs through their family and community relationships, by campaigning in pressure group politics such as the Anti-Slavery, Anti-Corn Law and Anti-Sati movements, through attending chapel and lecture meetings, organizing bazaars and managing political salons.[27] Following the lead of Amanda Vickery, many feminist historians are now stressing what women "could do" in the face of the pervasive rhetoric of the 'separate spheres' ideology, which aimed to define what women "could not do" in the nineteenth century.[28] On-

going research is increasingly revealing just how proficient women became in their ability to subvert the language of 'separate spheres' to 'justify an enormous range of institutional activities and public endeavours'.[29]

The Incidence of Women and Provision for them at the Mechanics' Institutes

The work of Kelly, Tylecote and Purvis suggests that some women first appeared in the audiences at institute lectures from 1830, followed in a few instances by partial membership, which might allow access to the library and less often to the reading room.[30] There was often considerable opposition from some sections of the male membership as at the London M. I. in 1830 [31] and in other examples which will be illuminated later in this chapter. The letter by 'Aurum' to the editor of the *Mechanics' Magazine* in 1827, highlights the acute sentiments of the men who resented female intrusion into their male-only territory. (See below.) Not only did the presence of women at the anatomy lectures severely transgress the boundaries of the social spheres rhetoric, but it threatened the male sense of exclusive right to such scientific knowledge.

Letter to the Mechanics' Magazine Vol. 7, 8th May, 1827
Female Attendance at Anatomical Lectures **p. 296**

Sir,

Nothing could exceed my surprise, and that (from what I heard) of my fellow-members generally, at the continued attendance of females at the delivery of Dr. Birbeck's Lectures on Anatomy, at the Mechanics' Institution. Females attending anatomical descriptions, to say the least, it is grossly indelicate. The number of *ladies* is certainly small, but at the second lecture it was greater than at the first; judging from which, I suppose, that in proportion as the doctor proceeds to explain the secrets of our conformation, the attendance of females will increase; this I wish to prevent, by giving them a hint (with your kind permission) of what are the sentiments, upon, their *decent* procedure, of "the sex which they were born to please." Not merely would I prevent an *increased* attendance, but I would wish altogether to prevent the attendance of those who have had a taste of the sweets of Anatomy, and banish the eyesore of their presence from our walls…I hope a "broad hint" will suffice to prevent its recurrence. However, if that should prove ineffectual, my next application would be to the good sense and feeling of the Committee, positively to deny them admission; in which case they would have only to thank themselves for the degradation. -- AURUM

Contemporary discourses stressed the delicate nature of the female sex and the unsuitability of certain subjects for their attention. 'Aurum's' letter is also significant for evidence that women were actually attending lectures at the institute before 1830. It poses a question as to whether this practice was entertained at institutions elsewhere in the country, so early in their history. Some public lectures, especially those on medicine and midwifery, had been open to women from the late eighteenth century, as were those at some Literary and Philosophical Societies.[32] It is probable that women were admitted to lectures at some mechanics' institutions too, but that this went unpublicised in the face of the ascendant 'separate spheres' ideology. It is arguable that there was always a minority female presence at some mechanics' institutes from the 1820s and that *silence* on this matter cannot assume their absence.

By the 1840s, most of those institutions which permitted some form of womens' membership, had also established classes of instruction in various subjects, although

these were often single sex. This in turn usually led to gender-influenced curricula, with emphasis on the domestic subjects for women and sometimes a *limited* general education in comparison with men's provision. Social class differentiation between women members in larger Institutes in the north of England might also lead to working-class women being offered just basic literacy and numeracy and domestic subjects, compared to the science subjects which broadened the curricula of middle-class female students and that of the men. Scientific knowledge was commonly considered 'male' knowledge or of interest just to the leisured middle-class ladies.[33]

It is surprising, given the general opposition of men to the admittance of women at the mechanics' institutes, that more women-only institutions were not established. Only two such institutes at Huddersfield and Bradford appear to have flourished and even these were under male control.[34] There were numerous schools for girls, but the dearth of women-only mechanics' institutions must underline the perceived notion that further education was unnecessary for the female population.

The Situation in Sussex and Hampshire

Although the documentation remains uneven, there are some firm conclusions and even plausible assumptions that can be made with regard to women's status at the institutions in the two counties in this study. There is no evidence of female-only institutes in Sussex and Hampshire and provision for women varied from institute to institute. The first mechanics' institutions in 1825 at Brighton, Chichester, Lewes, Portsmouth and Newport on the Isle of Wight, made no mention of women in their first few years, but as suggested earlier, such a presence may have been ignored. Moreover, as the 'separate spheres' ideology was increasingly challenged by strong and independently-minded

women from the 1830s, the mechanics' institutes were forced to find their own solutions to this question.

In Hampshire particularly, there appeared to be a sympathetic climate of opinion which favoured women's presence at both public lectures and those at its mechanics' institutes. They often attended the latter in large numbers in the 1830s. In January 1836, an astronomy lecture at Winchester M.I. attracted a substantial company of visitors, 'a great portion of which were ladies.'[35] A respectful lecturer on the 'Construction of the Human Frame' at Romsey Literary Institution in the same year, illustrated it by 'detached parts of the skeleton only, that he might not awaken the fears of the female part of the audience.'[36]

It is also clear that women lecturers were not unknown in the area, for in February 1836, the *Hampshire Independent* spotlighted a 'lady lecturess' who delivered the third of a series of discourses on the 'Philosophy of the Mind'. 'She throughout evinced what we were first impressed with—a high intellectual mind. She departs hence under distinguished patronage, to lecture in the metropolis. This talented lady is, we understand, a descendant of that renowned warrior, Admiral Sir George Rooke.'[37] This press coverage is significant not only for its positive attitude to women's intellectual capacity, but also for its reference to the lady's distinguished male relative and her 'patronage', which would almost certainly have been male. Here was an acknowledgement of official contemporary social etiquette which demanded some form of male sponsorship of a female's public appearance. Furthermore, the report underlines the fact that some women did appear on public platforms in the 1830s. Such newspaper coverage was invaluable as it both illustrated and helped to shape local attitudes towards women and their status in the region.

Another reference to women at the Southampton M.I. at the end of the decade indicated that they were indeed very visible and welcome at many institutions:

> During the whole of this session [1838-9] the lecture room has been crowded to excess by the members and their friends; and the preponderance of ladies on most evenings, and particularly on last Wednesday [a lecture on the Philosophy of the Human Mind], goes far to prove that the sex most distinguished for beauty, are so fond as the less favoured sex, of every pursuit tending to improve and exhalt the human understanding. [38]

Less evidence and documentation of women's presence at mechanics' institutes in Sussex has been found for the 1830s, but there is sufficient data to indicate that a similar situation existed to that in Hampshire. 'A numerous assemblage of ladies and gentlemen' listened to the last of a course of lectures at Petworth L.S.I. in 1839.[39] A chemistry lecture with experiments at Rye L.S.I. attracted a numerous audience including 'several ladies' in October 1839 and six months later the subject of 'Volcanoes and Earthquakes' drew 'a large party of ladies' to the institution.[40] Female attendance at Chichester M.I. lectures was authenticated by the 1840 Rules, allowing each member to bring two ladies to gratuitous lectures.[41]

There is therefore much reported evidence that from the mid-1830s, women were attending mechanics' institute lectures in considerable and increasing numbers, both nationally and in Sussex and Hampshire. It would be interesting if historians were to investigate how far there was a minority, but hidden, female presence at such lectures in the 1820s, which gradually gained official recognition and acceptance over the next decade. The 1830s were a decisive period in the long struggle for women to gain first acceptance and then partial equality with men at the institutes. The few pioneer women lecturers such as Eliza Macauley and Emma Martin, paved the way for Mrs. Clara Balfour, Fanny Kemble and other similar colleagues lecturing in the 1840s and beyond.

Even in the latter years of the mechanics' institute movement however, there were always more male than female speakers.

The Terms upon which Women were accepted by the Mechanics' Institutes

It is clear from evidence that has been found, that women were generally accepted at the Sussex and Hampshire institutes by the end of the 1830s. Lewes M.I. has the most comprehensive archive material available and probably illustrates a combination of approval, encouragement, resignation and hostility to female entry that was typical at most mechanics' institutes. 1833 was an auspicious year for women at the institution. In January, the committee decided that each member of the institution could bring a lady to every lecture.[42] Two weeks later, a quarterly meeting at the Public Temple with fifty members present, decided to add a new rule to the Laws of the institution to the effect that 'females' could use the Library and attend the lectures for two shillings per quarter.[43] This significant step was cemented when 500 copies of the new Rules were printed shortly afterwards.[44]A further encouraging gesture was the announcement on all lecture posters from October 1833 offering lady visitors a year's transferable ticket to the lectures only, compared with four shillings for male visitors.[45]

These measures must have promoted considerable interest from the female population in Lewes, for by early 1834, the Institute committee was facing a strong reaction from some of its male members. Probably a few unsuitable or underage girls had gained admission, for a resolution was put forward that each female applicant for a subscription to the Library and lectures must be nominated by two adult members of the institute who would 'recommend her as a fit and proper person to become a subscriber.' There was even a proposal by letter that members should be asked privately to assent or dissent to the admission of females as subscribers, but this latter motion was quickly quashed by the committee as being the wrong method for taking members opinions.[46]

This was not the end of the matter however, for the aggrieved male sector tried again three months later to deny female entry to the Library and lectures. Fortunately for the women concerned, the committee remained firm and they were allowed to keep their privileges.[47] From November 1834, committee minutes recorded the admittance of female subscribers on a regular basis.[48] With the addition of one or two ladies per month to this partial membership, the numbers of female subscribers must have been sufficient for women to mark their presence at the institution. Their membership status however, remained inferior to the men, even towards the end of the institute's life. By 1879 it had become the 'Lewes Institute and Club' and its Laws recorded that ladies could become members to the Club or Library, but were not entitled to vote at meetings or serve on the committee.[49]

Several questions arise as to the incidence of women's membership at Lewes M.I. Why were they allowed to join in 1833? Was the institution following the precedent of the London M.I. which officially admitted women in 1830, or was it due to the presence of a female Anti-Slavery Association in the town, whose committee meeting notice of 1830 was stuck in the Lewes M.I. Scrapbook in the midst of the institution lecture details? [50] Clare Midgley has argued that through their experiences as Anti-Slavery organisers, women campaigners gained 'the skills, self-confidence, connections, sense of collective identity and commitment to public and political activism which were essential to the development of organised feminism.'[51] With the passing of the 1833 Abolition of Slavery Act, the initial purpose of the Anti-Slavery Association had been achieved, but the acquired confidence, acumen and intellectual appetite of the women members had been whetted and heightened. They were ready for a new challenge and the town's mechanic's institute, with its library and stimulating lecture programme, must have seemed an inviting prospect. The Unitarians and Quakers amongst the Lewes

M.I. membership would almost certainly have encouraged the acceptance of women at the Institute, for both faiths gave support to the Anti-slavery cause and female education. Many female applicants could have been the wives, sisters or daughters of such members. Perhaps the self-assurance of some of the first female Anti-Slavery subscribers to the Institution threatened the composure of the resistant male members and led to the reactions recorded above.

While women had come to stay in 1833, the Lewes M.I.'s official attitude seemed to vacillate from welcome, to reluctant acquiescence. The double invitation to women in 1834 was openly encouraging: they could have partial membership with access to the Library and lectures for two shillings per quarter, or entrance to just the lectures at two shillings for the whole season, which was half the male rate.[52] Similarly, a notice for 'taking tea' with members and friends in 1842 stated that 'the attendance of ladies is particularly requested.'[53] Imagine the rebuff that such ladies must have felt four years later, when it was recorded after the twenty-first anniversary celebrations that, 'the attendance of ladies was very numerous, far more so, we regret to say, - ungallant as it may appear- than that of the mechanics: the class for whose especial behoof the institution was first founded.'[54]A feasible interpretation suggests itself. Lewes M.I. wanted the social assets and attraction of ladies' presence at soirees and other public occasions and happily accepted their help in the domestic sphere of providing tea, social comforts or as female voices in the music class. But despite Unitarian and Quaker influence, the Institution had been established for *male* mechanics, and women were tolerated as a necessity of the times.

In complete contrast, ladies were particularly encouraged as members and auditors at the second Brighton M.I. in the 1850s, (as is shown in the Music chapter). They could become members on the exactly the same terms as men,[55] and in 1856, Mrs. Fanny

Kemble's Shakespearian lectures were highly acclaimed for packing the lecture room out and being a great attraction for the Institution. There was a thriving elocution class run by one of the Vice-Presidents, Rev. A.J. Ross, and this must have included women and its members would certainly have supported Mrs. Kemble's evenings. There had been a huge increase of members in the 1855-6 season from 392 to 871, of whom 200 were women.[56] This was an exceptionally high percentage of female membership and raises the question as to why? It might have been that the elocution class had a very charismatic and gifted teacher in the Rev. Ross, for he devoted 'so much of his valuable time' to the class which was 'so ably conducted.' This and the fact that it met at Lady Byron's house in 'a large and handsome room' at No. 6, Pavilion Buildings, would have given it an aura of some grandeur and great attraction, especially for literate ladies in the town. Another enticement could have been the fact that Lady Byron donated £5 as book prizes for the four most proficient members of the class in their examination. It is highly likely that many of its members were female and that they helped to increase both the high percentage of women members at the Brighton M.I. and the doubling of the membership itself in this record year.[57]

Lady Byron herself was a Unitarian philanthropist, who after her brief marriage to Lord Byron (1815-16), became a pioneering supporter of progressive education, especially for females, and the lower classes.[58] She would have promoted women's interests at the Institution and encouraged the engagement of Fanny Kemble and other ladies who were included in the professional musical entertainments.[59] In such an atmosphere, new and prospective women members must have felt very much at home.[60]

While a strong Unitarian presence amongst the membership of a mechanic's institution might have fostered the acceptance of women members, it cannot explain the lack of

uniformity on this question between such institutions. Lewes M.I. which was founded by the Unitarian minister T.W. Horsfield and retained both Unitarian and Quaker elements, only ever gave women partial and inferior membership to that of the men. Chichester M.I. was similarly founded and guided by the town's Unitarian minister, Rev. J. Fullagar, and although ladies were allowed to attend lectures by 1840 as guests of members, we do not know how soon they were accorded independent membership or about its quality.

The 1851 Census provides an interesting comparison of membership details in Sussex, with Chichester M.I. leading in the percentage of women at the institutes. Its 12% female membership was more than twice the average of the Sussex institutions, while Lewes M.I. maintained 4.7% of women amongst its subscribers.[61] The Chichester M.I. had undoubtedly increased its share of female members through amalgamation with the town's Literary and Philosophical Institution in 1849.[62] Significantly, nearly all the Sussex institutes which had women members recorded in the 1851 Census, were situated in towns where there was a Unitarian Chapel and often also a Quaker Meeting House. Another critical factor could be that smaller towns with a Unitarian and/or Quaker presence were more heavily influenced than towns with a larger population.

The percentage of female membership was generally higher in Hampshire than in Sussex in 1851, with an average of 9% at its institutes and an astonishing 26% at Fordingbridge L.S.I. and M.I., with 23% at Shanklin on the Isle of Wight. The former might be explained by the fact that there was a Quaker Meeting House in the town and a Unitarian Chapel at Ringwood some 5 miles south and their combined presence may well have encouraged female participation in the Institution's activities. The Isle of Wight had Unitarian and Quaker Meetings at Newport but their influence presumably

spread to the other mechanics' institutes and similar societies on the Island. West Cowes M.I. gave no details of membership and Alton M.I. in mainland Hampshire appeared to have no women members according to the Census, but this is misleading as the President of the latter, William Curtis, was a Quaker and the Rules of its Library c.1855, mention a day-time opening for 'the convenience of Ladies and County Members'.[63] They were possibly given partial membership to the lectures and Library.

The low 3% of women membership at Basingstoke M.I as stated in the 1851 Census, requires further investigation, especially as it had doubled five years later and from its inception in 1841 it had been patronised by three ladies who gave between £1 and £5 cash donations.[64] There was no defined Unitarian Chapel in the vicinity, but support for women at the Institute could have come from the local Quaker Meeting. A fourth female subscriber of £1 per annum joined the Institute in 1842 [65] and of these, Mrs. Wright and Mrs. Horne were of gentry status.[66] It is not clear what form of membership these first ladies were accorded but in March 1842 it was decided to open the Library for one night a week, specifically for the issue of books to female subscribers of two shillings per quarter which would also entitle them to attend the lectures.[67] By September 1842, eight female subscribers of two shillings each had joined the Institution.[68] Depending on the continuation of the four lady annual subscribers, the Basingstoke M.I. could boast between eight and twelve female members out of a total membership of 163 to 173 in the first eighteen months of its existence.[69] While the overall membership remained constant in 1851, the number of females had halved. No reason was offered for this change and there is a gap in the Reports from 1842 to 1855, so it is difficult to understand this unusual drop in women's membership at this period. However, 1855 itself must have been a catalyst year for increasing female membership, as a very successful Exhibition of Industry and Art was held which resulted in weekly

Drawing classes, one of which was specifically for ladies. Most of the ten female members of the institute that year were probably also students in the Drawing class.[70] Although the female class failed to survive into the next season, there had been a further increase to fifteen women members of the institute, being 6% of the 238 total membership.[71]

From 1855 there were great efforts to attract women to the Basingstoke M.I. They must have been drawn by the thriving music and discussion classes, the latter of which provided evening entertainments at the institution. A further incentive was provided by Mrs. Balfour's lecture on 'Remarkable Women Of the Present Century' and Fanny Kemble's reading of 'Romeo and Juliet'.[72] Female support for the institute was certainly shown in 1856-7 when 'Ladies and Members' acted as gratuitous teachers to working-class adults of the town.[73.] By 1859 the number of female subscribers had risen to 22 or 7.7% of the 284 members and the committee's report paid tribute to their efforts: 'Female subscribers have also availed themselves to a greater extent than heretofore of the advantages offered by the Institution, and it is hoped, that it will continue to receive the increasing active support and undoubted influence of the ladies of the town and neighbourhood.' The year's lecture programme testified to the intentions of the committee with two lectures by Mrs. Balfour on 'The Seasons' and 'George Stevenson' and two evenings of music by popular female singers.[74]

The welcoming atmosphere for women must have continued, for by 1877 they made up 12% of the 331 membership and the commitment to female interests was strengthened by the engagement of Miss Florence Fenwick Miller to lecture on 'The Woman Movement'.[75] This lady had just been elected to the London School Board, was a medically trained suffrage lecturer, a journalist and a writer. A year later she spoke at the Chichester Institute on 'Women Warriors', just four months after the trial of Charles

Bradlaugh and Annie Besant for publishing a book on birth control. Florence had written to newspapers on the Annie Besant's behalf and had thereby associated herself closely with her cause. Annie was also a member of the London School Board and this institution would have provided networking opportunities for those women who shared similar opinions on modern feminine issues. They could continue to debate and further achievements of the Langham Place group, a powerful circle of feminist women determined to reform the inferior position of females in the 1850s. Their success in the matrimonial, legal and educational spheres of women's lives enabled following generations to expand the struggle to achieve full political equality with men and the right to control their own destiny with regard to motherhood.[76] Although the latter two aims took years to secure, Miss Miller and her colleagues were not afraid to voice unorthodox views for the 1870s and 'defined the "new woman" of the late nineteenth century as someone who wanted to earn a living, take a degree, exercise the franchise and serve her generation by working in public affairs.'[77] Miss Miller herself married and gave birth twice while she served on the London School Board (1876-82), but chose a husband who supported her efforts to combine a successful career, public office and motherhood.[78]

It could be wondered why the Basingstoke M.I. included Miss Miller in their lecture programme. They must have been aware of her advanced feminist views and presumably there were sympathisers amongst the membership. Purvis suggests that their members and audience were mainly middle class.[79] It is also likely that they held liberal political views.[80] Basingstoke M.I. was one of the longest enduring institutes, surviving until 1922. Perhaps its strong female membership and broader outlook had enabled the committee to steer and modify the purposes of the institution to serve the educational and leisure needs of the town's population so successfully, thereby

contributing to a spirit of community culture. It is likely that eventually women gained equality of membership with men at Basingstoke M.I. and were not always restricted to use of the library and attendance at lectures and classes. Without recourse to any of the later Rules of the Institution, which have not survived, it is impossible to know what voting rights men and women had, or their eligibility to serve on the management committee.

A Broadening Acceptance of Women

During the 1840s and 1850s there was a progressively more welcoming ethos for women within the mechanics' institute movement. The institutes were becoming 'spaces' where women could speak publicly without losing respect or social dignity and where their presence in lecture audiences was beginning to be taken for granted. The gradual acceptance of female lecturers in the south of England, began in the mid-1830s with Eliza Macauley, Mrs. Ware and Mrs. Noyes being the officially recorded pioneers.[81] With the advent of a woman lecturer there would be a strong precedent for granting some form of membership to females at the institute, even if it was only access to lectures and library. Once such a foothold had been achieved it was only a matter of time before class provision would be furnished for them, although this might be of a limited type compared with classes arranged for men.

Mrs. Clara Balfour, (1808-1878), was one of the most successful and popular women lecturers of the 1840s and 50s. Born in Hampshire of unmarried parents, her early life included a period with her father, a cattle dealer and butcher, on the Isle of Wight, until his death in 1818. She then returned to her mother who took her to live in London. Although times were hard, Clara was sent to boarding school for a short time until the age of thirteen and was thereby able to supplement the little education she had acquired

while with her father. She developed an early love of reading and books which was to provide a valuable background to her later career.[82] At the age of almost sixteen, Clara married James Balfour, a man nearly twice her age, but her ability to earn sufficient to keep the family in the early years was crucial, owing to her husband's drinking and inability to stay in a job. These experiences must have made Clara very sympathetic to women's problems and explains her espousal of the Temperance cause.

She became a leading member of the Temperance movement and was supported in this by her husband, James Balfour, who one must assume, had stopped drinking. Her respectable middle-class status gave her an undoubted advantage when giving lectures in public. She began her lecturing career at the Greenwich Literary Institute in 1841 and three years later was engaged by the Guildford M.I. to speak for two evenings on 'The Moral and Intellectual Influence of Women on Society', at two guineas per lecture plus travelling expenses. The Guildford audiences must have received Mrs. Balfour with sympathetic approbation and affection, for she made almost yearly appearances at the institute up to the later 1850s.[83] She was a favoured lecturer throughout Surrey at this time, mainly on women's themes such as their education, influence on society, famous women of the past and on literature. At Reigate M.I., the President praised her as 'an amiable and accomplished woman.'[84] Probably she was one of the female influences at Reigate which promoted an acceptance of women and a wish expressed in 1860, that the number of lady members should be increased.[85]

Clara Balfour was also in great demand at the Kent mechanics' institutes, attracting audiences of up to 750 persons and was hailed as 'the great novelty of the season' at Maidstone M.I. in 1851.[86] Her lectures never failed 'to gain enthusiastic applause from intelligent audiences...her hearers are charmed by her simplicity of style and by her recital of her tasteful selections,' wrote one admiring reporter of the Kentish *South*

Eastern Gazette.[87] The networking relationships between mechanics' institutes did not stop at county boundaries and therefore the practices of the Kent and Surrey institutions have great relevance for their counterparts in Sussex and Hampshire.

Mrs. Balfour's performances seemed to guarantee large audiences and were a source of revenue for the institutions. As she lived in London, it is not surprising that she appeared at so many of the southern institutes as well as lecturing frequently in the northern counties. In Sussex, Lewes M.I. invited her to give two lectures on 'The Moral and Intellectual Influence of Women' in September 1847, when she was also engaged by the Brighton Athenaeum.[88] While the latter institution had been founded in 1846 primarily for the mental and moral improvement of young men in connection with the Early Closing Movement, (a campaign which aimed to reduce the long hours of work for shop assistants in particular), the Athenaeum clearly welcomed the participation of women, for its first annual report recommended that 'every facility should be given for the formation of other Ladies' Classes, the one for German...having proved very satisfactory.'[89] This has considerable import for the history of the women's movement especially when compared with the attitudes of the mechanics' institutes twenty years previously, and even with the contemporary view of the Lewes M.I. at its twenty-first anniversary celebrations, regretting the greater number of women than men.

No other records of Mrs. Balfour have been found at Sussex or Hampshire institutes besides those of Lewes and Basingstoke, but it may be that documentation has not survived. Purvis regards Clara Balfour as the 'key female lecturer on topics about women in the mechanics' institute movement', accounting for her popularity by not only her good lecturing technique, but also because she was a Christian and Temperance

speaker and promoted the type of middle-class ideas that were thought fit for working-class women such as prudence, happy domesticity and self-improvement.[90]

Her great, great granddaughter, Janet Cunliffe-Jones, has highlighted many significant aspects of Clara Balfour's achievements. Her success as a lecturer and frequent engagements at the same venues, especially mechanics' institutes, illustrate that even in the mid-nineteenth-century period, it was possible for a tenacious and circumspect woman to create a respectful career as a public speaker. The subject matter of her talks centred on the value and influence of education for women and the praise she received for the delivery of her lectures from often large audiences, confirmed the fact that many people happily accepted the role of a female lecturer. Moreover, from the financially secure institutions she was able to command fees commensurate with those of successful men speakers.[91]

There may have been a Unitarian connection between Mrs. Balfour and the mechanics institute movement, for it was the Unitarian minister, the Rev. S. Wood of London, who communicated with Mrs. Balfour on behalf of the Lewes M.I. in 1847.[92] He had given several lectures at the Westgate Unitarian Meeting House in Lewes during the 1843-4 period and notices of these, printed by Henry Browne, were stuck in the Lewes M.I. scrapbook.[93] Browne was himself a staunch Unitarian and secretary of the Sussex Unitarian Association in the 1820s.[94] He was a vital pillar of the Lewes M.I. management team and was the secretary to the Sussex Association of Mechanics' Institutes in the late 1830s.[95]

Besides Mrs. Clara Balfour and Mrs. Fanny Kemble, the two very successful lady lecturers of the 1840s-50s, the mechanics' institutes played host to numerous musical

entertainers who appeared with their female assistants, and to women entertainers in their own right such as Mrs. Grosvenor with 'Melodies of Ireland and Scotland' at Brighton M.I.[96] and Miss Lizzie Stuart [97] and Miss Julia Bleadon [98] at Basingstoke M.I. Women's participation in institute activities now pervaded nearly all spheres with the exception of management roles. Even here however there is some evidence of female gain: at Winchester M.I. in 1878, a woman "attendant" was named at the end of a list of management officers and at Iford M.I. near Christchurch, a Mrs. Emily House was listed as "manager".[99] While these women probably had the role of caretaker, such a position would more likely have been given to a man in previous decades.

By the 1870s then, women's position at the majority of mechanics' institutes in this study, if not nationally, had changed from non-inclusion in the 1820s, to a very active and visible participation. Women appeared as lecturers, entertainers, musical artists at concerts, auditors at lectures and as visitors and guests to soirees and anniversary celebrations. They must also have contributed in many unreported roles in the domestic area providing sandwiches and tea at social occasions, painting scenery, making costumes and applying makeup behind the scenes for productions by the drama and elocution classes, or singing in the choral classes and at their institute concerts. However, while women's presence was not always commented on, it was often inferred. A report of the annual soiree at Horsham M.I. in 1848, praised the scene in the lecture room which 'was very beautifully and tastefully decorated with flowers, evergreens etc, interspersed with transparencies with appropriate sentiments and mottoes, beautifully encircled in wreaths of flowers etc, which did great credit to the tastes of the persons who executed them in the latter part of the evening.'[100] The 'executors' were almost certainly female.

By the 1850s, the mechanics' institutes had become 'spaces' into which the strong, independent and determined women pioneers had ventured, struggling with the opposing male forces and generally achieving a compromise which allowed restricted entry to the all-male citadels. Once there however, they could pave the way to securing a more acquiescent acceptance of female participation in the institute activities and even in rare instances, equality of membership with their male colleagues as at Brighton M.I. The institutes may have become, like the Owenite Halls of Science, 'spaces' for the whole family, especially on social occasions such as soirees, exhibitions, entertainments and excursions. Owenite influences from the co-operative societies and Owenite communities with their greater equality for women, probably benefited women's interests in those mechanics' institutes located near to any Owenite stronghold. It was probably no coincidence that the second Brighton M.I.(1851-c.60s), developed its pro-female ethos partly because Dr. William King, the Co-operator, lived in the town and patronised both the first (1825-8) and the second Brighton M.I.s.[101] Basingstoke M.I.'s encouragement of women may have owed its warmth to the fact that an Owenite community had existed at Queenwood, East Tytherley, some miles from the town and that Queenwood College provided the Institute with lecturers.[102] The contribution of Unitarians to the acceptance of women by the mechanics' institutes has been suggested throughout this chapter and is discussed further in Chapter Six. Gleadle has highlighted the support which the radical Unitarians in particular gave to the 'woman question' in the Mechanics'Institutes.[103]

Conclusion

The greatest achievement of the women who participated in the mechanics' institute movement was that they had succeeded in entering institutions which had been established exclusively for the education and benefit of male mechanics and in

persuading the managements of these institutes that women were capable of utilising their educational advantages as well. Moreover, women proved that their intellectual abilities could enable them to lecture at the institutes to both male and female audiences as well as partake of the institute activities as students and library users. However, the gains with regard to women's membership at the institutes were not always wholly successful, for they were rarely granted equality with male membership rights. Brighton and Guildford M.I.s in the south may have been two of the very few institutions which acceded this right to women.

Through their membership of the institutes, women demonstrated their desire and need for adult education and the inadequacies of the 'separate spheres' ideology which would have confined them to their 'hearth and homes'. They were able to hear both professional and informed amateur lecturers on a whole range of academic and leisure-interest topics as well as subjects of contemporary, national importance. Female lecturers and entertainers served as role models and provided incentives for women auditors to raise their own levels of education and knowledge. The institutes had become gendered 'spaces' by the 1830s, allowing the mixing of the sexes in culturally controlled public situations and through which women gradually negotiated accommodations within the dominant social discourses of their time. The mechanics institute movement was also one of the stepping stones by which women could equip themselves to take advantage of new opportunities in further and higher education; they now even had access to university courses through Bedford College, Girton College etc. mechanics' institutes had helped to raise the profile of women's education generally. The influence of Unitarians in the acceptance of women at the mechanics' institutes was important and there is some evidence that Owenite ideas also had an impact on the attitude of mechanics' institutes towards women's membership.

While gender differentiation was evident in the class provision that Purvis has described at some northern institutes, there seemed to be little evidence of this at the Sussex and Hampshire institutions. Only Basingstoke M.I. recorded a separate class for women and this drawing class failed after a year. Although not a mechanics' institution as such, the more middle-class, white-collar Brighton Athenaeum of 1846 fostered similar developments with its intention to run separate ladies' classes following the success of its female German class.[104] The subject matter of the lectures given by women at the institutes in Sussex and Hampshire seem to have been solely on literary, historical and moral themes. This was a significant example of how they carefully negotiated their entry into the institutes, utilising the socially accepted concepts of female domestic virtue. Only Florence Fenwick Miller appeared to transcend this fashion with her lectures on 'The Woman Movement' and 'Women Warriors' at Basingstoke and Chichester Institutes respectively. They doubtless encouraged the image of the new women of the later nineteenth century. Given the popularity of science amongst women, it seems strange that there were no ventures into this subject by female lecturers at the institutes. Perhaps it retained its 'male' image as a lecture topic.

As the mechanics' institute era entered a new phase in the 1860s and 1870s, many of the surviving institutions re-named themselves and joined the 'Working-men's Institute and Club Union' to provide more of a recreational atmosphere for the membership. Women's position and provision in these newly characterised institutes did not seem to change radically, but probably followed the female equivalent of the men's pursuits. Other initiatives in the second half of the nineteenth-century may have provided inspiration for such specifically female provision. Gleadle for instance has drawn attention to the existence of the Whittington Clubs, first established in 1846, to furnish a

home-like environment for working people and especially for women, to pursue rational recreation, amusement and self-improvement.[105]

Notes for Chapter 7

1. E. Yeo, *Radical Femininity,* (Manchester: Manchester University Press, 1998,) p.1-3.

2. See for example: R. Watts, 'Gendering the story: change in the history of education', *History of Education*,Vol.34, no.3, May 2005; *Women in Science*, (London: Routledge, 2007). J. Martin, 'Reflections on writing a biographical account of a woman educator activist', *History of Education*, vol.30, no. 2, March 2001; also 'Entering the public arena: the female members of the London School Board, *1870-1904, History of Education*, Vol.22, No.3, September 1993; J. Martin and J. Goodman, *Women and Education 1800-1980*, (Basingstoke: Palgrave Macmillan, 2004). L. Eisenmann, 'Creating a framework for interpreting US womens' educational history', *History of Education,* Vol. 30 No.5, September 2001. P. Cunningham, ' Innovators, networks and structures: towards a prosopography of progressivism,' *History of Education*, Vol. 30, no.5, September 2001; E. Yeo, op. cit., various authors' essays.

3. T. Coates, *Report of the State of Literary, Scientific, and Mechanics' Institutions 1841,*(London: SDUK), p.40-41.

4. Ibid., p.110 and 112.

5. C. Baker, 'Mechanics' Institutions and Libraries', *Central Society of Education, First Publication 1837*, (London: Reprinted by Woburn Press, 1968), p.228-9.

6. Census of Great Britain 1851, Vol.XC, Parliamentary Papers.

7. J. Purvis, *Hard Lessons,* (Cambridge: Polity Press1989), Introduction, p.1.

8. M. Tylecote, *Mechanics' Institutes of Lancashire and Yorkshire before 1851,* (Manchester: Manchester University Press, 1957), p.159 and 263.

9. T. Kelly, *George Birkbeck,* (Liverpool: Liverpool University Press, 1957)

10. W.B. Stephens, *Adult Education and Society: Warrington 1800-1900*, (Exeter: University of Exeter 1980).

11. R.A. Thomas, 'Mechanics' Institutes of the Home Counties', *Vocational Aspect of Education*, Vol.31, No.79, Part 1, August, 1979.

12. S. Kingsley Kent, *Gender and Power in Britain,* (London: Routledge,1999), p.70.

13. J. Rendall, *Women in an Industrialising Society,* (Oxford : Blackwell, 1990), p. 54.

14. S. Kingsley Kent, op. cit., p.108 and 186.

15. J. Rendall, op. cit., p.51.

16. B. Taylor, *Eve and the New Jerusalem,* (London: Virago1991), pp. 57-82 and 232-234; J. Sims, *The Guildford Institutes,* University of London, Institute of Education, unpublished M.A. Dissertation 1987, pp. 88-90.

17. This was pointed out to me in discussion with Dr. Jacqueline Bower, a lecturer and researcher on nineteenth century Kent.

18. R. Watts, 'Making Women Visible in the History of Education,' *History of Education Society Bulletin,* No.59, Spring 1997, p. 42.

19. Ibid, p.40.

20. R.Watts, 'Education and Cultural Transfer: the case of Unitarian Women from the late Eighteenth Century to 1860', *History of Education Society Bulletin* ,No.55, Spring 1995; also R. Watts, *Gender, Power and the Unitarians in England,* (London: Longman1998).

21. L. Eisenmann op.cit.

22. Lewes M.I. Scrapbook 1: Notice of a committee meeting of The Lewes Female Anti Slavery Association, c. 1830.

23. B.Taylor, op. cit.

24. Ibid.

25. Guildford Mechanics' Institute, Correspondence Book, Letter No 37, Oct.16th, 1835.

26. B. Taylor, op. cit., p.140

27. K. Gleadle and S. Richardson,(eds.), *Women in British Politics, 1760-1860* , (Basingstoke: Macmillan, 2000).

28. See for instance A. Vickery, (ed.), *Women, Privilege, and Power,* (California: Stanford University Press, 2001), essays by K. Gleadle and P. Mandler in particular.
Also, A.Vickery, 'Golden Age to Separate Spheres? , *Historical Journal* 36, 2, (1993), pp. 383-414

29. A. Vickery, *Women, Privilege and Power, op. cit.,* p.52.

30. T. Kelly, op. cit., p.126; M. Tylecote, op. cit., p.264; J. Purvis op. cit., p.103.

31. J. Purvis, op. cit., p.103.

32. R.Watts, *Gender, Power and the Unitarians,* op. cit., p.66.
K. Gleadle, 'British Women and Radical Politics', in A.Vickery, *Women,*

Privilege and Power, op. cit., p.131-2: two ladies attended a scientific lecture series at the Leicester Literary and Philosophical Society.

33. J. Purvis, op. cit., chapters 5 and 6.

34. Ibid.

35. *Hampshire Independent*, 15th Jan., 1836.

36. Ibid., 5th-6th Feb. 1836.

37. Ibid., 27th Feb., 1836.

38. Ibid., 9th Mar., 1839.

39. *Sussex Agricultural Express,* 9th Nov., 1839

40. Ibid., 19th Oct., 1839 and 7th Mar., 1840.

41. 1840 Rules of the Chichester M.I.

42. Lewes M.I. Minute Book 1832-8, 28th Jan., 1833.

43. Ibid., 11th Feb., 1833.

44. Ibid., 1st April, 1833.

45. Lewes M.I. Scrapbook 1, 1824-54: 1833 Posters for lectures.

46. Lewes M.I. Minute Book, 1832-8, 14th Feb.,1834.

47. Ibid., 12th May, 1834.

48. Ibid., 19th Nov., 1834; 26th Jan., 23rd Feb. and 4th May, 1835.

49. Lewes Institute and Club, Revised Laws 1879.

50. Lewes M.I. Scrapbook 1.

51. C. Midgley, *Women Against Slavery*, (London: Routledge,1992), p.155.

52. Lewes M.I. Scrapbook 1, 1834.

53. Ibid., 1842 Notice.

54. Report of the Proceedings at the Twenty-First Anniversary of the Lewes M.I., 13th Oct., 1846.

55. Brighton M.I. Rules, 1851 and the 5th Annual Report, 1856.

56. Brighton M.I., 5th Annual Report, 1856.

57. Ibid.

58. R. Watts, *Gender, Power and the Unitarians*, op. cit., pp. 113-4, 156, and 176. Also R. Watts, 'Rational Religion and Feminism: the Challenge of Unitarianism in the Nineteenth Century' in Sue Morgan, ed., *Women, Religion and Feminism in Britain, 1760-1900,* (Basingstoke: Palgrave Macmillan, 2002), pp.44-7; K. Gleadle, *Radical Unitarians*, op. cit., p.140; Jennifer Uglow, *Macmillan Dictionary of Women's Biography*, (London: Papermac, 1999), p.101.

59. Brighton M.I. Annual Reports, 1856 and 1857.

60. Ibid.

61. 1851 Census

62. F. Steer, 'The Chichester Literary and Philosophical Society and Mechanics' Institute 1831-1924', *Chichester Papers No.29*, (Chichester: Chichester City Council, 1962.

63. Alton M.I. Byelaws of the Library.

64. Basingstoke M.I., First half-yearly Statement, 30th Sept., 1841.

65. Ibid., Third half-yearly Statement, 29th Sept., 1842.

66. Pigot's *Directory of Basingstoke* 1844, p.10.

67. Basingstoke M.I., Second half-yearly Statement, 24th Mar., 1842.

68. Ibid., Third half-yearly Statement, 29th Sept., 1842.

69. Ibid.

70. Basingstoke M.I., Annual Report, 1855.

71. Basingstoke Annual Report, 1859.

72. Ibid.

73. Basingstoke M.I. Annual Report, 1857.

74. Basingstoke M.I. Annual Report, 1859.

75. Basingstoke M.I. Annual Report, 1877.

76. J. Purvis, op. cit., P.55; J. Martin, 'Entering the Public Arena: the Female Members of the London School Board, 1870-1904', *History of Education*, Vol.22, No.3, Sept.1993, pp. 225-240.

77. J. Purvis, op. cit., p.155.

78. J. Martin, op. cit., p.235.

79. J. Purvis, op. cit., p.155.

80. The reference to their political views is my idea and not that of June Purvis.

81. Eliza Macauley lectured at Guildford M.I. and other London Institutes in the mid-1830s; see J. Sims op. cit.; Mrs. Noyes and Mrs. Ware, both of London, were mentioned in Thomas Coates' list of lecturers compiled by 1839 for his *Report,* op., cit.

82. J. Cunliffe-Jones, *The Perilous Art of Lecturing*, a paper given to The Second Mechanics' Institutes Worldwide International Conference, September 2009, at the Bath Royal Literary and Scientific Institution. The speaker was the great, great granddaughter of Mrs. Balfour.

83. DNB for Clara Lucas Balfour; J. Sims op.cit.

84. J. J. Robinson, *Adult Education and the Imperative to Control*, University of Surrey unpublished Ph.D. Thesis, 1985, p. 323.

85. R.F.D. Palgrave, *Illustrated Handbook to Reigate*, John Rowe, (Dorking 1860), reprinted by, (Dorking: Kohler and Coombes, 1973).

86. K. Doern, ' Clara Lucas Balfour', *Oxford DNB,* (Oxford: Oxford University 'Press 2004).

87. K. Moir, *A Study of Mechanics' Institutes in Kent 1825-1870*, University of London, Institute of Education unpublished M.A. Dissertation, 1990, p.114.

88. Lewes M.I. Minute Book 1845-55, 25th Aug., 1847.

89. Brighton Athenaeum and Young Men's Literary Union, First Annual Report, Jan., 1847.

90. J. Purvis op. cit., p. 153-4.

91. J. Cunliffe-Jones, op. cit.

92 Lewes M.I. Minute Book 1845-55, 25th Aug., 1847.

93. Lewes M.I. Scrapbook 1824-54, Unitarian Notices, 1843-44.

94. Ibid., a Notice dated 1828.

95. T. Coates op. cit., p. 95.

96. Brighton M.I. Annual Reports and Lecture Lists 1855-7.

97. Basingstoke M.I. Annual Report 1858.

98. Ibid., Annual Reports, 1859 and 1860.

99. White's *Directory of Hampshire 1878*, p. 655 for Winchester M.I. and p. 370 for Iford M.I.

100. *Sussex Agricultural Express*, 4th Nov., 1848.

101. Dr. William King was a V.P. of the first Brighton M.I. (1825-8) and lectured and ran a Philosophy and Maths class there. In 1856 he ran a class on 'The Human Frame' at the second Brighton M.I. He was also a confidante of Lady Byron.

102. Basingstoke M.I. Annual Reports, 1855 and 1859.

103. Gleadle, *Radical Unitarians* op.cit., p.142-147.

104. Brighton Athenaeum, first Annual Report, 1847, Brighton Pamphlets, Vol.6.

105. Gleadle, *Radical Unitarians*, op.cit., Chapter 5.

Chapter Eight

Music as an Institution Builder and Cultural Focus at the Mechanics' Institutes in Sussex and Hampshire 1825-1875

The purpose of this chapter is two-fold. Firstly it is to examine the role of music within the mechanics' institute movement in Sussex and Hampshire and secondly, to contribute to the ongoing revisionist historiography which seeks to challenge and redress the traditional belief that England was 'the land without music' in the nineteenth century.[1] Music has never been seen as a central theme of the mechanics institute curriculum and has thus only been given brief consideration as part of the wider sphere of leisure and culture activities by historians of the movement.[2] Yet almost every institution developed some form of musical class or society during its lifetime, many from as early as the mid-1830s. These activities were often to prove vital assets in raising funds for the institutes through concerts and entertainments, in fostering positive public relationships in their localities and incidentally contributing to the collective culture of their neighbourhood. It will be argued that music was a major force through which many of the mechanics' institutes cemented their role as a community centre in their locality.

The significance of music as an influential factor in the development of nineteenth century social history has recently been stressed by Dave Russell in his *Popular Music in England, 1840-1914*. He has suggested that music has the potential 'to shape and structure the society that creates it' rather than merely operating within a pre-existing social and economic superstructure.[3] If Russell's argument is accepted, then it is important to investigate how music contributed to the changing character and roles of the mechanics' institutes and conversely, what they tell us for instance about the development of music both nationally and locally during the nineteenth century.

Three prominent historians of the mechanics institute movement have indicated that music did assume some significance in certain institutions. Thomas Kelly (1970) drew attention to the cheap concerts at the institutes, the existence of institute choral societies and the support for practical music-making given by some employers such as the Strutts at the Derby M.I. Mabel Tylecote gave a more in-depth treatment of music at some of the northern institutes which stressed distinct practices and possibilities for institutional music-making, particularly those at the Manchester, Huddersfield, and Stalybridge M.I.s.[4] Although much more restricted in detail, W.B. Stephen's research on adult education in Warrington is of significance for its exposure of the interaction and mutual help given between the Warrington Musical Society and the town's Mechanics' Institute. The former invited the Mechanics' Institute students to attend its vocal and instrumental classes which no doubt bolstered the Musical Society's numbers, whilst in turn it provided concerts at the Institute to boost the latter's finances.[5]

The possible links and networks between local music societies and mechanics' institutions was illustrated by the working-class autodidact Thomas Cooper's vivid account of his involvement as a student, committee member and teacher at the Lincoln M.I. and the subsequent establishment of the Lincoln Choral Society which met at Cooper's own school-room in the city. Although he gave no direct evidence of its connection with the Mechanics Institute, his own associations with it and the choral society's highly successful concerts which were supported by local clergy, nobility, gentry and M.P.s as well as the best musicians in the area, all suggested that members of the Mechanics Institute would also be drawn into the vibrant network of music-making. The *Messiah* and other oratorios of Handel 'were performed with an enthusiasm that had never before been witnessed in Lincoln'.[6]

The historiography of music generally in nineteenth century England has changed dramatically in recent years to reveal a climate of native music-making and creativity which was a far cry from the 'Land without Music' or 'Dark Age' notions that abounded amongst contemporary music commentators. Nicholas Temperley has shown that it was the English themselves who demeaned their national worth as musicians and composers, rather than foreign critics in the 1800s and he postulated that it was the exaggerated worship and respect for European musicians by the English social elite which caused native performers and composers to lose confidence in their own creative abilities.[7] English musicians often felt compelled to adopt foreign titles such as *Signor* or *Madame* with European surnames to attract audiences. This fact is of particular importance to the present research as many talented British musicians may have hidden behind some of the impressive-sounding foreign names in the mechanics' institute concert and lecture lists. While foreign composers, soloists, opera companies and instrumental ensembles certainly toured England, the majority of working musicians resident here would have been British.

Bernarr Rainbow's pioneering research into the history of music education in the early nineteenth century contributed greatly to historians' increasing awareness of the musical activities of the general population, especially of the Tonic solfa movement which generated enthusiasm for choral singing amongst thousands of ordinary citizens and achieved mass performances of works like the *Messiah,* nationwide.[8] Dave Russell's work has revealed with startling clarity that England was indeed 'an extraordinarily musical place' in Victorian times, with music as much in evidence in the home, the street, the park and public house as in the concert or music hall. In fact there was rarely a communal or civic event that was not dignified by music.[9] The recent Ashgate series,

Music in Nineteenth Century Britain edited by Bennet Zon, has further highlighted the significance of music and musical culture within the social history developments of the period and how this culture was reconciled within the moral, social and utilitarian milieu of the age.[10]

The National Music Scene from the early 1800s

Before attempting an analysis of music at the mechanics' institutes, it is necessary to explore the musical scenario amongst all sections of the population. From the late eighteenth century, concerts had become part of the social culture of the aristocracy, gentry and middle classes, with London as the centre of national musical life. In the provinces too, concerts were linked to the social calendar of towns' seasonal events such as assizes, race meetings and assemblies, while music festivals were held in northern towns such as Leeds, Birmingham and Manchester. The increasingly varied concert repertoire included opera, instrumental music and choral singing of works by Purcell, Corelli, Haydn and especially the oratorios of Handel. Churches hosted choral and organ recitals while chamber music concerts took place in homes of the well-to-do.

From the 1840s, People's Concerts with cheaper tickets were also organized by town corporations or voluntary bodies such as the Leeds Rational Recreation Society and many provincial towns became important regional music centres. Concerts intended for the middle and upper classes were often organized as subscription affairs with a limited number of season tickets for a substantial annual fee. In Manchester in the 1850s, membership of the Gentlemen's Concert series cost five guineas and had a waiting list of over 300 potential subscribers including the city's wealthiest subscribers and business families such as the Gregs and Peels. Organized local concert series were often short-lived in the first half of the nineteenth century owing to less formal

organizational arrangements than were to be found later in the century. Star soloists such as Paganini could attract huge audiences but these were not always sustained by lesser known artists. In contrast to the polite, expensive and exclusive musical events for the social elite, the people's concerts with cheap tickets for single performances were accessible to a far wider section of the public. This practice was incorporated into the Halle concerts in Manchester from the late 1850s with cheap tickets for one shilling at each concert or a season ticket for a pound. Similar schemes were adopted a decade later at Crystal Palace and by mid-century the music festivals in Birmingham and Leeds were seeking 'the support of all classes' for performances of sacred and classical music.[11]

There were thus many opportunities for large sections of the population to hear good and varied music provided for them. But there was also much thriving music-making for ordinary people who wanted to participate themselves. Russell stressed that the working classes were co-partners rather than mere recipients in cultural production.[12] There was also expansion and diversification of all types of musical activity during the century with large numbers of new choral societies emerging, wind and brass band developments, concertina bands, handbell ringers and in the last decades particularly, the establishment of amateur orchestras. The mechanics' institutes were often the source and inspiration for many of these local ventures.[13]

From being a luxury item in 1840, the piano had by 1910 become commonplace in many working-class homes.[14] Music-making amongst the working-classes however did not depend on the piano, as an account of Sunday evening music in weavers' cottages in a Yorkshire village indicated in the 1840s-50s period. In many homes a 'good concert' could be heard with members of the family and neighbours singing and playing fiddles,

flutes and various other instruments. Many of the younger people wished not just to play by ear, but to increase their repertoire and to read music themselves and some could play several instruments.[15]

While the north and midlands have been credited with having strong musical traditions in the nineteenth century, recent research into Sussex musical life has revealed a rich field of activity, especially with instrumental bands which included flutes, violins, cellos and clarinets. Vic Gammon suggested that these local musicians came mainly from the skilled working classes such as village tradesmen and journeymen whose self-employment gave them some control over their working hours. Agricultural labourers were a minority amongst the rural bandsmen, probably owing to the cost of an instrument and their reduced hours of leisure.[16] The bands performed sacred and secular music with pride and some skill, but in popular style which emphasized volume and ornamentation.[17] Dave Russell has depicted the changes which were forced on many village bands and choirs from mid-century as part of the 'improving' movement within the Church of England, to create more formerly trained choirs and instrumental accompaniments for services. Whilst some of the village folk traditions were suppressed in the south, the Oxford revival helped to improve choral technique and brought forth a new breed of organists and choir masters who fostered the choral movement in the later decades of the century. Popular instrumental skills and native talent were likely to have been diminished by the formalising techniques required by the new church arrangements, but Russell suggests that much of the personnel and abilities of the old musicians must have been transferred to the numerous village bands which featured in the rural south at community occasions and dances.[18] These strong musical traditions help to explain why music flourished at the mechanics' institutes and attracted large numbers of adherents in the south.

Vocal music especially featured in the social activities of all classes, but Dr Russell had cautioned against the assumption that choral societies, especially in the north, were predominantly working class. Even later twentieth century historians have tended to reiterate Victorian misconceptions, but ongoing research is uncovering a far more complex scenario.[19] Cities and large towns sometimes generated more exclusively genteel choral societies such as the Bristol Royal Orphans Glee Society and probably the Gentlemen's Glee Club in Manchester,[20] but there was much regional variation and too little is known about the social composition of the choirs to make a definitive valuation at the present time. While data is available for some Yorkshire choral societies in the 1890s which reveal a mix of middle and skilled working-class membership and an increasing number of women amongst the singers, Russell suggests that in Yorkshire particularly, at mid-century, the majority of support came from weavers, artisans and shopkeepers. The social basis thus appeared to have broadened as the century proceeded.[21]

As with all social activities in the nineteenth century, local societies depended upon the regional social milieu and contemporary attitudes towards choral music-making. The south of the country lacked the large-scale employment units of mill and factory that abounded in the north and which so often fostered a works' band or choral society, but there were sufficient stimuli to initiate a number of musical ventures and choirs, many of which originated at or were hosted and nurtured by their local mechanics institute. Their association was of mutual benefit for the music society had a convenient rehearsal and performance venue while the institute increased its attractiveness with musical entertainments in its lecture and social events calendar which boosted both its funds and membership numbers. Most importantly the musical additions would enhance its public

relations with the local media and those of the respectable classes who viewed music favourably for its 'improving' qualities.

From the 1840s, choral singing received fresh impetus from the introduction of the tonic solfa system in schools by Dr Kay-Shuttleworth with support from the Education Department. He had experienced the success of whole-class singing methods in continental schools and considered the singing of national songs to be 'an important means of forming an industrious, brave, loyal and religious working class'.[22] John Hullah was appointed to establish the teaching of Tonic solfa in schools and he first inaugurated Singing Schools for instructing school-teachers in the method at Exeter Hall, London in 1841. These were attended by 400 teachers, with the result that an estimated 50,000 working-class children in London alone were taught to sing well from notation, to beat time and the basic skills of choral singing in large groups.[23] Their teachers reported that 'the cultivation of vocal music in elementary schools tends to refine the manners of the children, to develop their affections and to elevate their thoughts' whilst improving the discipline.[24] Before long these singing methods had spread to the provincial towns and countryside, contributing greatly to popular music-making and must have reinforced the already strong musical traditions of especially the northern industrial towns. In 1843 the Lancashire and Cheshire Workmen's Singing Classes at Manchester's new Free Trade Hall attracted up to 1500 participants.[25] The orderliness of such events and the well disciplined adult choirs with their largely sacred repertoire were approved of by those concerned with moral standards in this period.[26]

Joseph Mainzer, one of the three main pioneers of the 1840s Tonic solfa movement, stressed the twin themes of temperance and class co-operation: the workers would 'forsake the pothouse and the gin-palace for the singing-school and so become raised in

the scale of civilisation'.[27] Mainzer's claims and efforts attracted interest from employers and reformers alike, who supported his classes for their workers. His influence covered a huge area from London to the West Country and the north. In Leeds, Charles Wicksteed, a Unitarian minister and president of both the Leeds M.I. and the Literary and Philosophical Society, organized a letter in March 1843, signed by the local social élite, to entice Mainzer to give singing lectures at the Mechanics Institute and East Parade Chapel. By July, a Yorkshire Working Men's Singing Association had been founded as a result of this work.[28]

Another pioneer of the Tonic solfa movement, John Curwen and his disciples ran singing classes for thousands in Temperance Halls, Sunday Schools and mechanics' institutes and helped to foster schemes of rational recreation in which music had an integral role.[29] Such projects embraced the people's concerts of the 1840s and 1850s which spread to towns throughout England and Scotland and were well fostered by reforming societies. Thus the Leeds Rational Recreation Society organized concerts from 1852-59 as a rival attraction to the city's casino.[30]

The Tonic solfa system and the people's concerts were largely measures originating from above to impose order amongst the lower classes and inculcate reformed standards of behaviour. The question must be raised as to how far Tonic solfa had helped to crush local folksong traditions in the way that the Oxford movement had heralded the decline of traditional church music-making. Until mid-nineteenth-century, church choirs and musicians, especially in the south, had often come from villagers with little training and lacking the choral traditions of the north of the country. Vic Gammon highlighted the existence of village bands (with flutes, violins, cellos and clarionets) and choirs in Sussex which skilfully performed both sacred and secular music, but with nasal tone

and the emphasis on volume in customary popular taste. In her *English County Songs* (1893), Lucy Broadwood (1858-1929), bemoaned the fact that: 'It is perhaps natural, after all, that young people brought up on the Tonic Sol-fa system, with all that it involves in the way of fatuous part-songs and non-alcoholic revelries, should turn up their noses at the long-winded ballads or roystering ale-house songs beloved of their grandparents'. Lucy (probably of the Broadwood piano-making family of Newdigate in Surrey) was instrumental in founding the English Folksong Society and worked hard to save English folk song from oblivion. She completed a collection of *Sussex Songs* (1889) and was especially active in Sussex and Surrey.[31] Her work reinforces the impression given by Vic Gammon's researches that Sussex had indeed a thriving musical environment in the nineteenth century.[32]

The disciplined behaviour of the mass choral meetings and adult choirs contrasted starkly with the popular working-class singing saloons of the 1830s-50s which preceded the later Music Halls. The saloons were usually situated in or associated with public houses or gin palaces and although denounced by many reformers for their stress on the 'evil drink', they both provided for and stimulated the musical wishes of the populace. The diverse entertainments provided by the saloons included singing, dancing, story-telling, acts from travelling shows and popular theatre. The participation of onlookers, especially in the songs, was of paramount importance with enthusiastically sung or roared choruses. By the 1830s these had been included in printed books of songs which were laid out on the tables for use by the drinkers. While the chorus singing and entertainment could be boisterous and irreverent, many of the singing saloons, as Bailey has illustrated, were well run and not the social disgrace that their critics painted.[33]

In 1842, the journalist-historian, Cooke-Taylor visited public-house concert rooms in Manchester and concluded: 'I have never been in a more orderly and better behaved company'. Ten years later a spokesman for an association to reform public houses in Manchester confirmed that there was very little drunkenness among saloon audiences.[34] The most successful saloons were able to boast good quality organs or pianos, while popular hymns and the 'Hallelujah Chorus' were to be heard amongst the favourites on a Sunday night. The latter examples of music seemed to be signs of an improving nature to the more tolerant middle-class observers, while the critics heard only the strains of vulgarity and corruption. The singing saloons had become an established and popular institution and from the 1840s the tavern concerts enabled a network of professional saloon entertainers in London to collaborate in forming their own benevolent society.[35]

Whatever views one holds of the quality of music-making amongst the population, there was ample evidence that all classes enjoyed and participated in some form of music and responded eagerly when new musical opportunities presented themselves. In such a positive atmosphere, musical activities were able to assume a prominent role in the mechanics institute movement. Such factors as the increasing availability of cheap sheet music from the 1840s, the improvements in piano manufacture with its consequent lower prices, the production of relatively inexpensive concertinas, greater availability of other instruments and their accessories through an expanding second-hand market and an increased number of music dealers, contributed to the interest.

The spread of the railways was a further stimulus to become interested and participate in musical activities. As the century proceeded these favourable conditions were reinforced by a growing number of music teachers, both professional and part-time

amateurs, who augmented their incomes by giving cheap music lessons to interested clients in the locality.[36] The more prosperous working-class families seeking to emulate middle-class values, probably saw musical ability and accomplishment as a desirable means of embracing their status. More likely, however, is the conclusion that social interaction, novel experience and aesthetic enjoyment afforded by music classes and activities at the mechanics' institutes attracted the majority of participants, particularly those who had already tasted the fruits of music at school, church or Sunday School.

The Emergence of Music at the Mechanics' Institutes

There was little evidence of musical activities at the early mechanics' institutes before 1830 as their preoccupation with the mechanical sciences gave little consideration to the liberal arts or relaxation. As modifications in the curriculum gradually took shape, music began to emerge in some form at most institutions. One of the best documented, in this respect, was the Manchester M.I. where a vocal music class was started by request in 1834, followed by others at various times, including instrumental classes with particular sessions for flutes and violins.[37] The vocal class gave regular concerts, raising funds for the Institution and performed at official functions such as Lord Brougham's visit in July 1835. The music classes continued to contribute to the expanding concert programme that the Institute developed over the next 15 years. It prided itself on the fact that it had 'been among the first to originate musical entertainments of a high order, at a cost of admission which enables all to enjoy them'. During the 1840s the annual number of concerts ranged from 24 to 36, attracting audiences of up to 900.[38]

In keeping with the improving and moralising spirit of the times, the Institute's middle-class directors, many of them leading Unitarians of the town,[39] aimed:

> to afford rational amusement to the members,....to familiarise the popular taste with compositions of a superior kind, and thus to create a disrelish for

> those numerous entertainments, wherein music has been used as a lure to the most objectionable associations and indulgences.[40]

The low admission charges of threepence to one shilling and sometimes free entry to members, combined with the fees of guest performers, created an increasingly heavy financial burden to the Institution in the later 1840s. The net costs in 1848 were nearly £200 and the following year a loss of £80 was sustained. The high costs were felt to be somewhat ameliorated by 'the degree of public favour' and enhanced 'appreciation of the many privileges of the Institution' which had been gained. In fact the very success of the concerts which led to hundreds of would be attenders and their revenue being turned away in 1848 for lack of accommodation, helped to hasten their demise. There was also competition from the cheap musical performances at the Free Trade Hall.[41]

Few details of the concert programmes at the Manchester M.I. were given other than the performers' names, but oratorios, especially the *Messiah* were greatly appreciated by audiences. High standards of performance must have been the norm at the Institution to warrant the expenditure of £200 in 1846 on 'a fine and powerful organ' which was 'of essential service in the production of the Oratorios'. Musical activities were further enriched by the acquisition of two grand pianos, one presented by Lady Heywood and the other purchased by the directors.[42]

The high profile given to music at the Manchester M.I. must have been influenced by the rich cultural and musical traditions of the city but it is clear from the surviving evidence that music played a vital role in the activities of most mechanics' institutes from the 1830s. Whilst little specific research on this subject has been undertaken to date, sufficient details in minutes, concert and soiree programmes, newspaper reports, published monographs on individual Institutes and more general histories of the Institutes such as those by Tylecote and Kelly, indicate that the support for music shown

by the Manchester M.I. management was not unusual in the mechanics institute movement nationally.

Contemporaries were clearly aware of the significance of music at the mechanics' institutes. Thomas Coates in his SDUK *Report* of 1841 stated that 'music is now pretty generally introduced into them and evening meetings of the members and their families are becoming more frequent'. He mentioned music classes at institutes such as York and Newcastle and listed the names of lecturers willing to speak on musical themes.[43] An instrumental class in music was started at the Miles Platting M.I. near Manchester in 1839 and probably contributed to the concerts and tea parties with music and dancing which featured in its 1840 Report. The virtues of musical education were further promoted by an address 'on the advantages to be expected from adding instruction in music to the sciences taught at the Institution' which heralded a series of lecture-recitals at the Leeds M.I. in 1849.[44]

Where an institute originated from or depended upon middle-class patronage, its musical atmosphere was often enhanced by their cultural influence. The Unitarian banker, Benjamin Heywood, was the leading patron of the Manchester M.I. and paid a warm tribute to its music instructor, Mr. Ward in his 1843 Report. Heywood's wife had donated the grand piano to the Institute and Heywood himself had founded the Miles Platting M.I. mentioned above.[45] The Strutt family, Derbyshire mill owners, were also Unitarians and very musical and keenly supported adult education. William Strutt founded the Derby M.I. while John Strutt started a choir and orchestra at his Belper Mill. He had initially selected 40 work people to form an instrumental band and choir which trained during working hours. After the bitter experience of seeing his players poached by other mills or leave to become music teachers themselves, Strutt introduced

the requirement that orchestral players had to agree to work for a minimum of seven years at Belper. Brass bands in particular had become a source of pride and prestige in the workplace by the mid-1830s and the enticing away of good players to rival bands had become common, as had the advertising of industrial jobs which were restricted to players of instruments in short supply at certain mills. Henry Raynor has suggested that it was simpler to train workmen to be brass players than string instrumentalists because of the shorter time span needed to master brass technique and the fact that using their hands for heavy manual work would make them less suitable for good string playing. [46]

Like the Strutts, the textile entrepreneur and Unitarian, Samuel Greg, both supported and lectured at the Manchester M.I. and proudly encouraged the musical prowess of the workers at his model factory village of Bollington which possessed a glee class, another for sacred music, a band and various other instrumental players. Mention has already been made of the Greg's connection with the Manchester Gentlemen's Concert Society.[47]

Unitarianism was linked with music at the northern mechanics' institutes but similar associations existed elsewhere. The Guildford M.I. in Surrey hosted a music lecture in 1838 by Mr. Purday of London who was assisted by two ladies named 'The Misses Flower'.[48] The latter were almost certainly Eliza and Sarah Flower, daughters of the Unitarian publisher Benjamin Flower. Eliza became a well-known song-writer and Sarah sang as a contralto.[49] The Flower family were intimate friends of W.J. Fox and his radical Unitarian circle at South Place Chapel, Finsbury.[50] The chapel's services were distinguished for their musical content[51] and Fox himself wrote articles on music for his journal, *The Monthly Repository* which also published some of Eliza Flower's songs.[52] Many talented writers, artists and musicians were visitors to the South Place

circle[53] and it is probable that it nurtured musical and cultural contacts between Unitarians, lecturers and mechanics' institutes throughout the southeast. The Flower sisters most certainly would have spoken of their experiences at the Guildford M.I. and similar venues where they had accompanied Mr. Purday. Charles Cowden Clarke, a well-known literary lecturer to the mechanics' institutes was also a frequent visitor to the South Place meetings and a great music lover who had married into the music publishing firm of Novello in 1828. His wife Mary sometimes lectured with him at the mechanics' institutes.[54]

Music at the Mechanics' Institutes in the South

There were many similarities between the musical activities at the southern institutes and those at mechanics' institutes elsewhere in the country and these were reflected particularly in the music lecture titles and concert or entertainment repertoire. The rural setting for the Sussex and Hampshire Institutes would have posed transport and logistical problems that the more densely populated cities of Manchester, Leeds and Birmingham had little experience of, but many southern mechanics' institutes were influenced by practices and advice from the London M.I. This had its first musical entertainment in 1829 which was a concert of sacred music. Music classes were introduced from 1830 which 'rapidly became very popular'. [55] By 1835 a private class for the study and practice of music had been established and paid for by its 90 members.[56] With such large numbers a band or an orchestra, as well as a choral section would have been possible.

Music held a strong interest for many of the London M.I.'s membership. Some of the founding members had belonged to a mutual improvement society at Lunn's Coffee House in Clerkenwell which devoted one evening per week to music.[57] George too

must have had considerable musical expertise to have been able to lecture on the theory of music at the Institution in the 1831-7 period. It is significant that of the 1144 members in 1836, three were music masters, two made musical instruments and seven were pianoforte makers.[58] There was thus a useful professional musical presence to emphasize a desire for the subject in the Institute's curriculum. Some of these men may well have acquired employment through recommendation by the London M. I. as with its suggestion of Mr. Purday as a music lecturer to the Guildford M.I. in 1838.[59]

Musical Activities at the Mechanics' Institutes in Sussex and Hampshire

The earliest mention of music at the Sussex and Hampshire mechanics' institutes was a music class as one of five subject classes at the Southampton M.I. in 1836.[60] Three years later in December 1839, it gave a concert which the local press hailed enthusiastically: 'Great praise is certainly due to the members of the musical society connected with this institution, for the rich treat they provided for the members and their friends. The unbounded applause they received in the course of the concert fully proved that the performances gave great satisfaction.'[61] Just before Christmas 1839, members of the music class entertained at a public tea held by the Institution in aid of its funds.[62] The prowess of the Institute's musicians was complemented in March 1840 by a 'most interesting' lecture on Instrumental Music by Mr. P. Klitz, describing the nature and development of instruments from ancient to modern times with 'several beautiful quintett illustrations' from Haydn and Mozart with 'a splendid duet for the flute and piano-forte'. These were received with great applause, the room was 'crowded to excess' and many people had to be turned away.[63] There was no mention of the piano being used as a sole instrument to represent the scoring of the quintet so one must assume that string players performed these works. It is extremely doubtful that professional players were engaged, for their fees would have been too expensive for a

mechanics institute, but such repertoire would demand a high standard of amateur playing and also indicated that good local talent did exist, perhaps even amongst the Southampton M.I. membership itself.

The reference above to the Southampton M.I. music class as a 'musical society' connected with the Institution, is significant as it suggests that while still associated with its 'parent' body, it had developed an independence which would enable it to accept external engagements and also to survive as a separate entity should the Southampton M.I. ever fail. A similar autonomy seemed to have been attained by the music classes at the Manchester M.I.[64] and the London M.I.[65]

In Sussex a comparable situation arose at the Worthing Institution in January 1839 when some of its members formed a Harmonic Society.[66] By early February the Worthing Harmonic Society had fully established itself at the Institution, meeting every Tuesday evening with the object of affording 'entertainment to the admirers of music in the town'. It planned to give vocal and instrumental performances and although it had not attained 'any great efficiency' after only one month, 'it anticipated that 'the available and promising ability' of its members should lead it, with the necessary work, to become 'a source of good to the town'. It would sustain 'a social bond' amongst its members and enable them to acquire proficiency as amateur musicians and vocalists.[67] Although it had a grander title, the Harmonic Society had the characteristics of many of the music classes at other mechanics institutions, but it probably envisaged a more self-determined and ambitious role. The society's engagements in the autumn were enterprising and cleverly designed to combine with other musicians so that the members were not stretched beyond their musical limits. The Worthing Harmonic Society combined with its Arundel namesake and the Esplanade Band in September 1839 to

give a concert at the Worthing Institution in aid of the band's funds. The programme included six overtures, songs and a 'fantasia brilliante' on the piano.[68] A month later the Institution hosted another concert which incorporated its Harmonic Society together with musicians who had been playing at the Marine Library.[69] No further mention of the Worthing Harmonic Society has been found but it had achieved an auspicious start in its first year. No further references to musical activities at the Worthing Institution have been revealed for the 1840s but its lecture programmes featured 'an occasional musical entertainment' in the later 1850s and these may well have included performances by the Institution's own musicians.[70]

The term 'Harmonic Society' appears to have been a popular title for amateur music-making groups in Sussex from the late 1830s. Besides these at Worthing and Arundel, there was a Harmonic Society at Hastings and St. Leonards with a membership of gentlemen and tradesmen.[71] Its first meeting was held at the Royal Oak Public House in January 1838 and so did not appear to have any connection with the town's Mechanics' Institute.[72] A Chichester Harmonic Society was active in 1839 and its January meeting at the Dolphin Hotel took the form of a concert with some 200 of the principal inhabitants of the town present. The glee-singers, some professional gentlemen and amateurs made the evening a success[73] and this probably catered for those seeking more popular forms of musical entertainment in the town, whilst sacred music would have been performed at Chichester Cathedral. Unusually for a city the size of Chichester, its Mechanics Institute left no record of any musical activity in the 1830s and early 1840s but a report of its Tea Party in December 1848 noted that a concert with tunes from the Scotch Fusiller Guards band and songs from three gentlemen concluded the event.[74] The *Central Society of Education Report* of 1837 had noted that classes were unsuccessful at Chichester M.I.[75] and this fact, together with the other musical outlets in

the town[76] could well account for the absence of music at the Mechanics Institute. Even in the later years of the century when the combined Chichester Literary and Philosophical Society and Mechanics Institute was said to be in a 'very prosperous and satisfactory condition', music only featured in one evening out of 14 sessions in the 1874-5 lecture programme.[77]

Another Sussex Mechanics Institute which like the Worthing Institution manifested an interest in music from the 1830s, was the Lewes M.I. Its first music lecture was given by a Mr. Kitchener in 1836, followed by a second in 1840 from a Mr. Bithell.[78] These must have fostered local interest for in 1842, vocal and instrumental music were included with an exhibition, experiments and recitations at the Institute's Tea and Social Evening.[79] By 1844 a music class was in existence[80] and although it seemed to have closed by 1848 when a new class under Mr. Boxall was formed, the subject proved so popular that it began meeting for a second evening each week.[81] A year later it gave a concert in the Lecture Room with tickets at sixpence for Institute members and one shilling for others.[82] Perhaps the success of music generally at the Lewes M.I. led the committee to decline an offer of a lecture on 'The Art of Singing' in 1847.[83]

Emphasis must have rested on vocal music at the Lewes M.I. for there was no mention of an instrumental class or orchestra, but by 1865 there were still two flourishing 'vocal music' classes conducted by Mr. J. Larwill, comprising an advanced class for members only at one shilling and sixpence per quarter with a more elementary class to teach the tonic solfa system. The latter admitted members free, with outsiders paying two shillings per quarter.[84]

The Institution was probably aiming to build a proficient choir from these classes which would elevate and enrich the soirees and other social functions, without financial cost to the committee. Musical activities and performance groups were powerful attractions and advertising agencies for mechanics' institutes and this must have prompted the desire expressed in a notice advertising Penny Readings for the Working Classes in 1864 at the Lewes M.I.: 'It is wished to combine amusement with instruction, therefore a great range of subjects are admissible, and assistance in vocal or Instrumental Music would also be much esteemed'.[85]

As well as using its own member musicians for social entertainments, Lewes M.I. attracted audiences by employing well-known professionals from the locality and beyond. 'Talented artists' were engaged for the 1854 Soiree and Exhibition at the Corn Exchange including Mr. and Mrs. Cooper who performed frequently at Brighton M.I., the Niebour sisters on the piano and concertino and the Band of the Sussex Artillery Company.[86] A 'Grand Concert' to raise funds to repair the Lewes M.I. building was held soon afterwards with some of the same artists and Miss Julia Bleadon. She also appeared at Basingstoke M.I. in 1859 and 1860 with the Messrs. Nicolson, to give a musical entertainment of 'operatic sketches'. As a group from London, their fees must have been expensive, so that any institution engaging them would need to be sure of their potential to attract audiences.[87] The incidence of such artists at more than one institution suggests that by the 1850s, a network of travelling professional musicians had been built up similar to those formed by lecturers to the institutes. Some musicians may have been attached to the Benevolent Society of Saloon Entertainers or even have formed a similar society for more serious musical performers.

The artists themselves were important as communicators and advertising links between the institutes at which they appeared. Their performances must have encouraged contacts and correspondence between many of the mechanics' institutes. As well as its links with neighbouring Lewes, Brighton M.I. may well have had connections with Basingstoke M.I. through their mutual hosting of Mr. Carpenter and his musical programme 'The Road, the River and the Rail' in 1856-7. Similar communications may have been built up between Brighton M.I. and that of Sheppey and Sheerness, as both were visited by the vocalists Mr. and the Misses Edney.[88]

Music was certainly given great prominence at Brighton M.I. in the 1850s. Over one third of their lectures and entertainments between 1855 and 1857 were of a musical nature and with only one of such 20 events being given gratuitously, the committee must have been convinced of a healthy musical appetite on the part of its supporters. The Brighton management confidently advised that 'all Institutions, if they wish to prosper, should in a great measure, be guided, in their selection of Lectures and Musical Entertainments, by public taste…', and they ascribed the success of their own Institute to this principle.[89]

Brighton M.I. had its own band which performed at entertainments in its Reading Room and probably at its fetes and soirees which proved to be popular in the town. The band regrettably broke up in 1856 and although no reason was given for this, it had been a source of delight to the Institute membership.[90] The transient nature of the musical initiatives at the mechanics' institutes demonstrated how dependent these voluntary groups were on the availability of suitable instructors or leaders, the loyalty of their players and the continued support of their institution. Fortunately the Brighton M.I. also had two classes in vocal music and the cream of these probably formed the

Brighton Vocal Union which performed with the Institute band in 1855-6.[91] As with the Manchester M.I., the Brighton M.I. committee gave music great support. They purchased a grand piano, music stool, stand and case and a 'scarlet drugget' to improve the appearance of the platform at concerts. These were a huge success as 'the room has been densely crowded, and on some occasions, your Committee regret that hundreds have been unable to gain admittance'.[92] The donation of a 'Music Board' to the Institution in 1857 further indicated the appreciation if its musical activities.[93]

In Hampshire musical interest was strongly cultivated at the Basingstoke M.I. from the 1850s when the music and discussion classes imparted both 'instruction and amusement' to their respective memberships.[94] There was complementary musical content in the lecture programmes with one or two musical entertainments each season. Vocal performances were popular with some artists such as Miss Julia Bleadon and her 'operatic sketches' and Miss Lizzy Stuart and her 'Scottish Songs' reappearing in successive years. [95] It is probable that interest in music was first fostered amongst Basingstoke children in the late 1830s by the efforts of John Curwen, who as a young Congregational minister in Basingstoke in 1838 led a singing class of two hundred children.[96] He was later to become a leading pioneer of the tonic solfa system. Some of his young vocalists in Basingstoke probably grew into adults who supported the musical activities at their Mechanics Institute. As with the Southampton M.I. in the 1830s-40s, local talent was certainly evident in Basingstoke. In 1864, Mr. Paton, a resident of the town, gave a series of 'Dramatic Readings' from Shakespeare to the Institute, 'illustrated by appropriate Vocal and Instrumental Music by several Lady and Gentlemen Amateurs'.[97] A tradition of adding 'Penny Readings' to the yearly entertainments at Basingstoke M.I. began in this period and would almost certainly have included music in some form as well as literary content, as it did in many mechanics'

institutes and similar institutions nationally.[98] There must have been a steady increase in the demand for musical entertainment at the Basingstoke M.I. from the mid-1860s for by 1877 music featured in nearly half the events of the annual lecture programme. The 1876-77 season included performances by the English Glee Unions and the Royal Hand Bell Ringers.[99]

A successful band existed at the Basingstoke M.I. in the 1870s which gave 'good proof in its public performances of regular and persevering practice'. The committee took great pride in purchasing instruments for the band which were 'the sole property of the Institute', 'are nearly all new' and worth over £80.[100] Their pleasure and satisfaction echoed that of the management at Manchester M.I. in 1846 on their purchase of the organ which served the oratorio performances so magnificently.[101] The band at Basingstoke was still maintaining its 'efficiency and popularity' in the early 1880s and its instruments were in good order.[102]

Whilst music became more evident nationally in popular entertainment and leisure activities, some mechanics' institutes were slower to adopt this trend. At Alton M.I., over 50 years elapsed before a 'sight-singing' class and an 'Orchestral Society' were established in the early 1890s.[103] A concert by the English Glee and Opera Company had opened the Institute's 1864 lecture season[104] and in 1880 a musical entertainment and promenade concert featured in the lecture programmes at the new Assembly room. The later inauguration of its own practical music-making at the institute may have been due to its Quaker foundation and presence amongst the membership. The historian James Walvin has highlighted the disapproval of strict Quakers towards music with its perceived frivolous and time-consuming associations.[105]

Where music had made an impact in the earlier years of a long enduring institution, it tended to intensify its presence as the century progressed. Like Basingstoke M.I., its counterpart in Lewes continued to host music lectures in the 1870s, with an average of one or two per year, twice the number that occurred in the 1830s-40s period.[106]

The Stimulation and Significance of Musical Activities at the Mechanics' Institutes

The success of an institute's musical ventures depended largely on the enthusiasm of the management, membership and local community. The employment of a good teacher, leader or conductor was also a necessary requirement. The fact that students were often willing to pay extra for music tuition as at the London and Manchester M.I.s acknowledged the importance they accorded the subject and its teachers.[107] The music students at Manchester paid between half-a-crown and five shillings per quarter for their tuition[108] which was higher than those at the Lewes M.I., but the northern classes may have included more expensive oratorio scores as part of their subscriptions. At Odiham M.I. in Hampshire, regular mention was made throughout the 1860s of the pleasure and assistance that the music classes had provided for the soirees and other occasions. Respectful references related to Mr. Powell's skills as a teacher as at the 1862 concert when the class 'gave evidence that during the past year they had attended with diligence, and care to the instruction of their teacher'.[109]

The above Mr. Powell was probably the H. M. Powell and music seller of London Street, Basingstoke, who provided its Mechanics Institute with a piano for musical occasions in the 1860s and served on its committee 1864-6. His presence and influence would certainly have advanced musical interest at the Institute and he may well have run music classes there too. It is possible that the family interest in the Basingstoke M.I. continued, for a Mr. Powell sat on the Basingstoke M.I. committee in 1877.[110] The

support of a local music seller with his immediate access to sheet music and instruments would have been invaluable to an Institute's members. His knowledge of artists and events in the music world would be useful to institute committees and his business could act as a centre to diffuse musical ideas and contacts, and to promote networking between neighbouring institutions, visiting artists and the metropolis. Here also was the opportunity for promotion of an institution's existence and respectability through advertisement of its activities, while the music seller's business would in turn benefit from an increased clientele and publicity. In the case of Basingstoke which had developed as a railway and communications centre by the 1850s, it is possible that travellers would have browsed in the music shop on the main London Road[111] and the railway enabled local inhabitants to attend concerts in neighbouring towns, while audiences from some distance could travel to Basingstoke events.

Foremost amongst the benefits that music could bring to a mechanics institution were its social assets as was stressed by the Brighton M.I. in its 1865 Report describing entertainments by the Institute Band, the Brighton Vocal Union and the Elocution Class:

> they not only gave general satisfaction, but served a much higher purpose, the establishment of that social and kindly feeling among the Members which the happy influence of the female character never fails to produce. ...there cannot be too many of these social gatherings among the Members, as the good they do is incalculable.[112]

Musical activities must be by their nature, social, especially when involving performances to audiences and combined with elocution or drama groups to give varied programmes. Female participation was usually necessary to produce full choirs and take women's roles in drama productions. Many more must have been involved in making costumes, providing tea and other comforts for the institutes' productions and soirees. Such informal participation and the increase of female performers at the institutes by the 1850s and 1860s, led to their gradual acceptance as part of institutional

life, and it no longer excited the surprise or opposition of the early years in the movement's history.

Inevitably such productions must have become family events as children would have been brought as audiences while older siblings may have helped out with stage production, scenery or giving out programmes. This family ethos which the mechanics' institutes were able to promote especially from the later 1830s, was often complemented by musical family acts such as the Niebour sisters at Lewes M.I. and the Edney family in Brighton in the 1850s.[113]

Appearances at various institutions helped the careers of many visiting musicians, especially where a Union of Institutes had been formed such as those in Yorkshire, Kent, Sussex, Hampshire and Wiltshire which circulated information about successful (or inferior) performers to their member societies.[114] Dave Russell has emphasized the significance of mechanics' institutes performances in the success story of Alfred Halstead, who rose from being a carter by trade to a professional alto in the Huddersfield Choral Society.[115] It is highly likely that future research will produce evidence of similar benefits to members of the institutes in Sussex and Hampshire.

It is however, abundantly clear that music played a fundamental role in the existence of nearly all mechanics' institutes, whether as an occasional entertainment, or more regularly through the presence of classes and musical instruction. Apart from the more easily discerned benefits of musical activities which have been discussed above, there were also more intrinsic and unifying effects on an institution which are harder to define. These are best encapsulated in a description of the annual soiree at the Horsham M.I. in November 1848:

> The company was entertained with a great variety of glees, songs, duets, recitations etc, etc, which, to judge from the happy and smiling faces exhibited by those present, and the hearty applause with which they were received, gave no little satisfaction, more especially as the persons who entertained the company were all members of the Institution.[116]

Conclusion

The experience of varied musical activities at the mechanics' institutes in Sussex and Hampshire confirms a trend that was growing in strength in the whole movement throughout the country. While there were many features which were common to institutes nationally, there was evidence of regional developments as with the prevalence of Sussex 'Harmonic Societies'. This chapter again demonstrates interaction between localities and the centre. Sussex and Hampshire benefited from networks in the mechanics institute movement which spread out from the London M.I.

The increasing presence of musical activities signified the widening horizon of the mechanics' institutes. They were extending their range of attractions, drawing in from a wider community including women and young adults and establishing their presence through concerts and soirees, which were reported in the local press. In a very significant way a mechanics' institute could thus contribute to its neighbourhood's sense of civic pride and in turn, strengthen its position as a centre of local community culture and learning.

Mechanics' institutes provided audiences for musicians and their musical activities almost certainly encouraged the sale of sheet music and instruments, thereby stimulating the growth of local amateur music-making. In turn, music built up membership, provided much needed funds for the institutions and established a sense of community between the institutes and the localities themselves: above all musical

activities at the institutes contributed to the spirit of civic and community pride of which they were often the centre.

Chapter Eight Notes

1. It was a commonly held notion, here and abroad in the nineteenth century that England was musically inferior compared with her European neighbours. See for example: D. Russell, *Popular Music in England*, (Manchester: Manchester University Press, 1997), p.1; D. Hyde, *New Found Voices*, (Canterbury, Kent: Tritone, 1991), p. 11; B. Zon, ed., *Nineteenth-Century British Music Studies*, (Aldershot: Ashgate, 1999), p.vii.

2. T. Kelly, *A History of Adult Education*, (Liverpool: Liverpool University Press, 1970), pp. 131-133; M. Tylecote, *The Mechanics' Institutes of Lancashire and Yorkshire before 1851*, (Manchester: Manchester University. Press, 1957), various entries under Mechanics' Institutes: Instruction, Subjects of, music; W.B. Stephens, *Adult Education and Society in an Industrial Society: Warrington 1800-1900*, (Exeter: University of Exeter, 1980), pp. 64, 67, 69.

3. Russell, op. cit., p. 3.

4. Kelly, op. cit.; Tylecote, op. cit.

5. Stephens, op. cit.

6. T. Cooper, *The Life of Thomas Cooper* (1872), (reprinted Leicester: Leicester University Press, 1971), pp. 103-111; quote p. 109.

7. N. Temperley, 'Xenophobia in British Musical History', *Nineteenth-Century British Music Studies*, ed. B. Zon op. cit., pp. 4-18.

8. B. Rainbow, *The Land Without Music*, (London: Novello,1967).

9. Russell, op. cit., 1.

10. Zon, op. cit.

11. S. Gunn, *The Public Culture of the Victorian Middle Class*, (Manchester: Manchester University Press, 2000), pp.135-140.

12. Russell, op. cit, 1st Edition, 1987, xiii.

13. D. Golby, *Instrumental Teaching in Nineteenth-Century Britain*, (Aldershot: Ashgate, 2004), p. 254.

14. Russell, op. cit, 2nd edition, p. 5.

15. Ibid., p.180.

16. Ibid., p.187. This information is based on work by K. H. MacDermott and Vic Gammon.

17. Ibid.,

18. Ibid., p.188.

19. Ibid., p. 249.

20. Ibid., pp. 249-250. Russell is here suggesting that the Bristol Society was a genteel choral society. That the Manchester Club was, is my suggestion.

21. Ibid., p. 250.

22. P. Bailey, *Leisure and Class in Victorian England*, (London: Methuen, 1987), p. 58.

23. Rainbow, op. cit., pp. 125-6.

24. Rainbow, p.126.

25. Stephens, op. cit., p. 34.

26. Bailey, op. cit., p. 58.

27. Russell, op. cit., p. 30.

28. Ibid.

29. Ibid., pp. 31-32.

30. Ibid.

31. Hyde, op. cit., p. 113.

32. Vic Gammon, 'Babylonian Performances', *Popular Culture and Class Conflict*, ed. E. and S. Yeo, (Sussex: Harvester, 1981.), pp. 62-84.

33. Bailey, op. cit., pp. 40-66.

34. Ibid., pp. 44-45.

35. Ibid., pp. 42-3 and 45-46.

36. Russell, op. cit., Chapter 8.

37. Tylecote, op. cit., p.159.

38. Ibid., pp.176-177.

39. Ibid., p.130.

40. Ibid., p. 177.

41. Ibid., p. 177.

42. Ibid., p.178.

43. T. Coates, 'Report', (1841), quoted in E. D. Mackerness, *A Social History of Music*, (London: Routledge and Kegan Paul, 1964), p.149.

44. Mackerness, op. cit., p. 149.

45. Tylecote, op. cit., p.130.

46. Russell, op. cit., 26-27; Kelly, op. cit., p. 131; H. Raynor, *Music and Society since 1815*, (London: Barrie and Jenkins, 1976)

47. Tylecote op. cit., p. 152; Russell, op. cit., p. 27; Gunn op. cit., p. 137.

48. J. Sims, *The Guildford Institutes 1834-56*, (Institute of Education, University of London, unpublished M A Dissertation 1987).

49. Hyde, op. cit., p. 63-64.

50. F. Mineka, *The Dissidence of Dissent*, (University of North Carolina, 1944), pp. 189-197.

51. M. R. Watts, *The Dissenters*, Vol. 2 (Oxford: Clarendon Press, 1995), p.91.
52. Mineka, op. cit., p. 340.

53. K. Gleadle, *The Early Feminists*, (Basingstoke: Macmillan, 1995), pp. 37-8.
54. M. Hurd, *Vincent Novello and Company*, (London: Granada, 1981), various entries.

55. T. Kelly, *George Birkbeck*, (Liverpool: Liverpool University Press, 1957), pp. 120 and 126.
56. Ibid., p.132.

57. J. Hudson, *History of Adult Education*, (1851), (London: Woburn Press Reprint, 1969), p. 49.

58. Kelly, (1957), op. cit., pp. 133-4; 136.

59. J. Sims, op. cit.

60. *Directory of Southampton*, Fletcher and Sons (1836), xi.

61. *Hampshire Independent*, 7th Dec, 1839.

62. *Hampshire Telegraph*, 9th Dec., 1839.

63. *Hampshire Independent*, 14th Mar., 1840.

64. Tylecote, op. cit., pp. 159, 176, and note 1 on p.178.

65. Kelly (1957), op. cit., p. 132

66. *Sussex Agricultural Express*, 19th Jan , 1839.

67. Ibid., 2nd Feb, 1839.

68. Ibid., 14th Sept., 1839.

69. Ibid., 19th Oct., 1839.

70. *Directory of Worthing*, (French and Sons, 1859), pp. 37-39.

71. *Sussex Agricultural Express*, 16th Feb., 1839.

72. Ibid., 13th Jan., 1838.

73. Ibid., 26th Jan., 1839.

74. Ibid., 16th Dec., 1848.

75. C. Baker, 'Mechanics Institutions and Libraries', *Central Society of Education*, (London: 1st publication 1837; Woburn Press Reprint, 1968), p. 236.

76. *Sussex Agricultural Express,* 24th Feb., 1838.

77. F. W. Steer, *The Chichester Literary and Philosophical Society and Mechanics Institute*, (Chichester: Chichester City Council, 1962), p.7.

78. Lewes M.I. Scrapbook; 28th Mar., 1836; 25th May, 1840.

79. Ibid., 3rd Mar., 1842.

80. Lewes M.I. Minute Book, 15th Oct., 1845.

81. Ibid., 20th Sept., 1848, and11th Dec., 1848.

82. Ibid., 10th Dec., 1849.

83. Ibid., 5th Feb., 1847.

84. Lewes M.I. Quarterly Meeting, Notice of classes, 19th April, 1865.

85. Lewes M.I. Notice: 'Penny Readings for the Working Classes', Oct. 1864.

86. Lewes M.I. Scrapbook, 7th April, 1854; Brighton M.I. Annual Reports, 1855-7.

87. Lewes M.I. Scrapbook, undated notice of 'Grand Concert' but amongst items dated 1855-56.

88. Brighton M.I. Annual Reports, 1856-7; Basingstoke M.I. Annual Report 1856; Maidstone Journal, 28th Mar., 1857.

89. Brighton M.I. Annual Report, 1856.

90. Ibid.

91. Brighton M.I. Annual Report, 1857.

92. Ibid.

93. Ibid.

94. Basingstoke M.I. Annual Reports, 1856 and 1858-1861.

95. Basingstoke M.I. Annual Reports1858-61

96. Rainbow, op. cit., p.140-141.

97. Basingstoke M.I. Annual Report, 1865.

98. Basingstoke M.I. Annual Report, 1865-7.

99. Basingstoke M.I. Annual Report, 1877.

100. Ibid.

101. Tylecote, op. cit., 178.

102. Basingstoke M. I. Annual Report, 1881.

103. W. Curtis, *A Short History of Alton*, (Alton, 1896), p.146.

104. *Surrey and Hants News*, 22nd Oct., 1864.

105. J. Walvin, *The Quakers*, (London: John Murray, 1997).

106. A. Tynan, 'Lewes Mechanics' Institution', *Rewley House Papers*, Vol. 3, No. 4., 1955-6, (Oxford: Oxford University Extra Mural Studies) p.19.

107. Tylecote, op. cit., p.164; Kelly (1957), op. cit.

108. Tylecote, Ibid.

109. Odiham M.I. Minute Book, AGM Report, 3rd Oct., 1862.

110. Basingstoke M.I. Annual Reports

111. Post Office *Directory for Basingstoke*, 1867.

112. Brighton M.I. Annual Report, 1856.

113. Ibid., 1856 and 1857.

114. Kelly, (1957), pp. 250-51, 260.

115. Russell, op. cit., p.172.

116. *Sussex Agricultural Express*, 4th Nov., 1848.

Chapter Nine

Conclusion

It is doubtful if the pioneers of the mechanics' institutes in the 1820s could have envisaged the rich and profound influence that these institutions would have had on the development of adult education in the nineteenth century, or their significance for community culture in the localities. The evidence presented in this study suggests that there was a very thriving and lively mechanics' institute movement in Sussex and Hampshire from 1825 onwards. Its findings help to fill a gap in the current academic knowledge base concerning the extent and depth of the movement in southern England.

Although the area of the research was basically rural, it had centres of local industry led by Southampton and Portsmouth where there was considerable demand from their mechanics and skilled workers for instruction in the scientific and technological arts of their trades such as naval construction and maintenance. Market towns such as Lewes exhibited needs for scientific knowledge as applied to agriculture and its service industries and there was evidence of the institutes in this investigation responding to the educational needs of their areas' industry and agriculture. In these respects Sussex and Hampshire presented a microcosm of the scientific and technology requirements of the larger industrial conurbations in the north.

The analysis of the extent and diffusion of the mechanics' institute movement in Sussex and Hampshire emphasised the role of certain agencies in this process: a fact that has not always been highlighted in other work on the institutes. It has been suggested that religious networks such as those of the Unitarians, were a route through which knowledge of mechanics' institute activities could be conveyed. This appeared to be particularly true of the Sussex and South Hampshire Unitarian Associations. Unitarian

influence can be traced in many aspects of this study and was significant in its contribution to the developments at Lewes, Chichester, Portsmouth, Newport and Southampton Mechanics' Institutes.

The evidence in this research suggested that despite the prohibition of religious discussion at the mechanics' institutes, the influence of members' religious affiliations was considerable. The central issue for the main denominations was collaboration or challenge within the mechanics' institute sphere. The usual response in Sussex and Hampshire appeared to be cooperation of religious interests, but there were some elements of resistance. Districts where Unitarians were present usually saw their strong involvement and frequent leadership of the institutes. Quakers often gave quiet but less prominent support unless they were the founders of an institute as at Alton. Unexpectedly firm support came from the Anglican Church in Hampshire as seen through its hegemony of the Hants and Wilts Adult Educational Association, with a tightly-knit band of Church of England parsons who supported their local institutions. Further research is needed in this field to establish whether such collective support from the Anglican clergy had become general in southern England in the second half of the nineteenth century, rather than their encouragement as individuals.

The affiliation of many Hampshire institutes to the Hants and Wilts Adult Education Society gave the county an advantage over Sussex in that its institutes were able to derive advice and support from a local network as well as the central focal points of the London M.I. and the Society of Arts. The achievements of the Hants and Wilts Society in terms of benefits for their member institutes mirrored those of the Yorkshire Unions of institutes, but on a smaller scale. By contrast, the earlier union of institutes in Sussex and Kent appeared to be of very limited duration. One of the advantages of unions of

institutes was their ability to recommend tried and trusted lecturers to their member institutions. This in turn probably created informal networks of the lecturers themselves over a regional field. Such a tendency was particularly marked amongst the musical lecturing and entertaining fraternity at the institutes in this study. The research has demonstrated the importance of personal and institutional networks.

Newspaper coverage was supportive and even protective of the mechanics' institutes in Sussex and Hampshire, proving itself vital to the success of the movement. Much evidence was found in this study to indicate that mechanics' institutes both augmented and themselves became a symbol of civic and community pride in their neighbourhoods and often cultivated both attachment and loyalty from the local population. One of the strongest examples of this was the Worthing Institute in Sussex. By contrast, the failure of the Aldershot public to support their Institute's building fund's needs could be testimony to the fact that the town had only existed for a few years, lacked a cultural heritage and that its mainly garrison community was an ever changing population of army personnel.

The research on the management of the institutes contributed evidence to support Shoji Katoh's hypothesis that most did indeed 'devise innovative plans' to overcome difficulties. Their diverse strategies in solving financial and other organisational problems emphasized the particular qualities and ingenuity of each institution's administration team, but also revealed the attention paid to national advice and proven practices. Thus many institutes employed subcommittees to administer different departments of their organization: to raise building funds, arrange social occasions and to seek press publicity to advertise their existence. Unique resourcefulness was often shown in these achievements. Different styles of management were apparent ranging

from the sometimes authoritarian at Lewes M.I. to the rather relaxed attitudes at Odiham. Such contrasts would explain the relevant success or otherwise which featured in an institute's fortunes. It is suggested that Unitarian or Quaker presence amongst an institute's management tended to promote more thorough record keeping and efficient administrative practices in its organisation. The experience for members serving on their institution's committee could give them training in the necessary skills for successful business management or local administrative and political participation, while the self-confidence accrued thereby, might inspire an individual to more ambitious vocational employment and upward social mobility. Above all, a well-run institute could attract and serve its local population as a cultural and intellectual centre for the community and disseminate desirable administrative practices over a larger area through affiliation to local unions of institutes and national networks like the Society of Arts.

In terms of educational activities, the mechanics' institutes in this study largely followed national trends in curricular matters and social spheres but with some deviations. Although the initial aims of the institutes were to promote science and the mechanical arts, these tended to broaden over time to include more literary and general subjects. A number of institutes in Sussex and Hampshire maintained a substantial core of serious science lectures and classes for many years, in response to membership demands. This interest fostered the displays of scientific apparatus and experiments at institute social functions and related to the importance accorded to some of their museums. It also contributed to the success of the many institute exhibitions of science, industry and art in the wake of the Great Exhibition of 1851, paving the way for institute classes in preparation for the examinations of the Society of Arts and the Government Science and Art Department.

In most of the Sussex and Hampshire towns where there was a strong tradition of mechanics' institute educational activity, government-sponsored Schools of Science and Art were established. Some of these began as classes within the mechanics' institutes in response to the initiatives of prizes and grants awarded by the two examination bodies. One interpretation of these developments is that the scientific education provided by the mechanics' institutes had cultivated an interest in science in the local populations, which in turn inspired succeeding generations of students at the counties' Science and Arts Schools.

One of the most significant themes of the thesis is that concerning women's position at the mechanics' institutes and their achievements in gradually gaining entry to educational spaces intended originally for men only. While they rarely obtained equality of membership with men, they were usually allowed use of the library, attendance at lectures and sometimes participation in the institute classes. The mechanics' institutes had become gendered spaces by the 1830s and some women lecturers began to feature regularly in their lecture programmes. The female lecturers, together with musical and literary entertainers at the institutes, provided incentives for other women to raise their own educational ambitions and pursue new opportunities for careers that were opening up for them in the later nineteenth century. In employment terms the institutes had also begun to provide opportunities for women to become caretakers of their premises in at least two instances. Above all, the research has revealed spaces and methods which women were utilising to advance their social, educational and employment status and which could have relevance for other spheres of women's history.

The role of music at the mechanics' institutes has assumed a position of importance in the thesis and not least for the way it enabled women's entry to them as auditors,

students and performers. Institute choral classes were perhaps the strongest example of such empowerment and fed into musical entertainments which raised vital funds for the institutes. Such musical activities could also attract new members. The close ties that institute music-making could foster with the local community, its use to enhance civic occasions, together with its inspirational spirit in encouraging amateur vocal, instrumental learning and performance, all contributed to the development of institutes as cultural centres of their neighbourhood.

A further major response to the Great Exhibition was in the expansion of rational recreation in the second half of the nineteenth-century. The impact on the mechanics' institutes in Sussex and Hampshire was seen in the holding of their own exhibitions and the adoption of physical forms of recreation such as cricket, billiards and board games. There was some complementary relaxation of lecture programmes in those mechanics' institutes that continued into the 1860s and 1870s, with many introducing Penny Readings and affiliating themselves to the Working Men's Club and Institute Union to provide more of a recreational 'Club' atmosphere.

With regard to the social class of clientele at the mechanics' institutes, the general picture in Sussex and Hampshire, as with the institutes of R.A. Thomas's study of the North West Home Counties, was one of a greater social mix in membership than those in the north. This fact could have contributed to the longevity and success of such institutes as those at Basingstoke, Southampton, Lewes and Chichester. The research has indicated evidence that mirrored many changes and developments in Victorian society: the thirst for and provision of knowledge; the possibility that individual institutions, like other voluntary bodies of the time, became a meeting ground for the reconciliation of the social and religious tensions of the Victorian era; and also the fact

that the mechanics' institute movement encouraged an increasing acceptance of the importance and inclusion of the working classes in British society.

The present research has indicated a number of areas which require further investigation to clarify questions raised by this study. Consultation of a larger number of contemporary newspapers in greater depth and for a longer time span would probably yield valuable additional evidence of mechanics' institute activity. The two counties under study have been beneficial for comparative assessment but the large geographical area has restricted the attention which could have been given to individual institutes. The rich archival sources of Lewes and Basingstoke Mechanics' Institutes for instance could give rise to important local case studies. There is a need to research the role of Anglican support for mechanics' institutes in Sussex and compare this with the findings in Hampshire. These and other aspects of the research could prove fruitful avenues of inquiry for other scholars.The themes of this thesis will form the basis of a similar study by the author in the neighbouring county of Surrey, where for example links to Unitarian networks and adult education at Reigate, Godalming and Guildford have already suggested themselves.

The success and need for mechanics' institutes in Sussex and Hampshire was evidenced by the foundation of new institutions of this type and name as late as the 1850s and 1860s in the two counties. While mechanics' institutes were originally established to provide instruction in science and technical education, the majority in this study evolved into centres of culture and learning in their locality, contributing to and enhancing the growing sense of civil society and community that was developing during the nineteenth century. Moreover, it is suggested that by encouraging and cultivating a

desire for learning, the mechanics' institutes had a significant influence on the broad development of adult education and its associated institutions in their areas.

BIBLIOGRAPHY

Archival Sources

Hampshire Record Office, Winchester

Alton M.I.		Rules of the Reading Room, Ref. Q/16/4/1
	-	Rules of the Institution, 1855. Ref. Q/16/4/1
	-	Subscription List and testimonial fund for William Curtis, with account, 1857, Ref. IM60/41
Andover M.I.		Opening Lecture by President, Rev. S. Best, 30th March, 1840, in bound vol.on open shelves.
Basingstoke M.I.	-	First three half-yearly statements, Sept 1841 to Sept 1842. Ref. 8M62/213 V
Basingstoke M.I.	-	Annual Reports 1855 – 1867, 1877, 1879 and 1881. Ref. 8M62/213
Basingstoke M.I. and Club	-	Correspondence relating to M.I. Building Alterations in 1910. Ref. 8M62/214
	-	Insurance policies and correspondence, various items, 1869 – 1899. Ref. 8M62/214
Basingstoke M.I. and Club	-	Various papers, receipts and bank books relating to the early 1900s.
		82nd Annual Report, 1922. Ref. 8M62/213 and 8M62/23
		Letter from Wyndham Portal on his retirement from the Presidency 1872. Ref. 19AO2/1/18
		Science Lectures for the People 1897. Ref.19AO2/1/16
Odiham M.I.	-	Minute Book, Oct 1860 – March 1875, Ref. 20 M82/1
Odiham Literary Institute and Club	-	Minute Book, 1875-96. Ref. 75AO 5
Winchester M.I.	-	Prospectus from the early 1900s, date is unclear – 191?
	-	Pamphlet detailing sale of building by auction, 18th April 1921. Ref. 48M84W/305

Newport Record Office, Isle of Wight.

Newport Unitarian Chapel Register Books, Ref. NC/U/11/A; & NC/U/11/B; Minute Book and Accounts, 1802-1852, Ref. NC/U/3

Newport Literary and Scientific Institute Prospectus 1847.

Niton M.I. Fifth Annual Report 1859.

Brighton Public Library

First Brighton M.I.	Subscription Book 1825 – 27. Ref SB 806 – M46
First Brighton M.I. - (1825 – 1828) -	*Opening of M.I., 1825
-	*First Quarter's Report, 1825
-	*Substance of a lecture, 1825, by Richardson.
-	*William King's letter on M.I.s, 1825
-	*Rules of 1825 and 1826
Second Brighton M.I. (1851 – 1860)	*Rules of 1851 – 55.
	*Annual Reports 1856 – 57
	(All * documents are located in Brighton Pamphlets, Vol. 6, Ref. SBO40 BRI)

East Sussex Record Office, Lewes

Lewes M.I .	Minute Book 1825, Ref. AMS 6006 1/1;
	Minute Book 1826-1829, Ref. AMS 6006 1/2
	Minute Book 1832-38, Ref. AMS 6006 1/4
	Minute Book 1845-55, Ref. AMS 6006 1/6
	Report of Meeting at Star Inn to establish M.I. 2nd Nov., 1825. Ref. AMS 6006/4/1
	Address to M.I. 5th Dec., 1825. Ref. AMS 6006/7/1/1
	Scrapbooks of Lectures etc. 1830-1875, 2 Vols., Ref. AMS 6006/7/3/5/1-2
	Meeting Papers 1850 – 1879, Ref. AMS 6006/2/1, 6006/2/2 and 6006/2/3
	Report of the 21st Anniversary of the M.I., 13th Oct, 1846. Ref. AMS 6006/4/4
	Notice of Penny Readings, Ref. AMS 6006/7/2/6

West Sussex Record Office, Chichester

Chichester M.I. -	Rules with Catalogue of Books and Apparatus, 1840. Ref.QDS/6/WI

Nineteenth Century Newspapers and Journals

Brighton Gazette 1825-1828
Hampshire Chronicle 1840
Hampshire Independent 1836-1841
Hampshire Telegraph 1825-1852
Southampton Herald 1825-1826
Sussex Agricultural Express 1837-1861
Surrey and Hants News 1864

The Inquirer 1842 and 1850 (Unitarian Journal)
The Mechanics' Magazine 1823-1852

Parliamentary Papers

Census of Great Britain 1851, (Parliamentary Papers, Vol. XC).

Nineteenth Century Directories

Craven's *Directory of Hampshire* 1857, (Institute of Historical Research, hereafter IHR).
Fletcher's *Directories of Southampton* 1834, 1836, 1839, 1843 and 1845, (Local Studies, Southampton Central Library).
Folthorp's *Directories of Brighton* 1856, 1859 and 1866. (IHR).
French and Sons' *Directory of Worthing* 1859, (IHR).
Hunts' *Directory of Portsmouth* 1852, (Portsmouth Library).
Kelly's *Directory of Hampshire* 1885.**
Kelly's *Directory of Sussex* 1882.**
Pigot's *Directories of Hampshire* 1823 and 1844.*
Pigot's *Directories of Sussex* 1823 and1839.*
Pigot and Sons' *National Commercial Directory* 1830, (Newport and Portsmouth Libraries and Cambridge University Library).
Post Office *Directories of Sussex* 1851 and 1874.**
Slaters' *Directory of Hampshire* 1852-3, (Portsmouth Library).
Robson's *Southampton Directory* 1839, (Local Studies, Southampton Central Library).
Vectis *Directory of the Isle of Wight* 1839, (Newport Record Office).
White's *Directories of Hampshire* 1859 and 1878.*
(* items are available on CDs published by S&N Genealogy Supplies;
(** items are available on CDs published by Archive CD Books)

Nineteenth Century Books and Pamphlets

Arch, J., *From Ploughtail to Parliament – An Autobiography*, (Cresset Library, Century Hutchinson, 1897-8, reprinted London, 1986).

Armstrong, R.A., *Henry William Crosskey*, (Birmingham, 1895).

Baigent, F.J. and Millard, J.E., *A History of Basingstoke*, (Basingstoke: C.J. Jacob, 1889).

Baker, C., 'Mechanics' Institutions and Libraries', *Central Society of Education*, 1837, (London: reprinted by Woburn Press, 1968).

Brougham, H., *Practical Observations upon the Education of the People, Addressed to the Working Classes and Their Employers*, (London: 1825).

Claxton, T., *Hints to Mechanics on Self Education and Mutual Instruction*, (London: Taylor and Walton, 1839).

Coates, T., *A Report on the State of Literary, Scientific and Mechanics' Institutions in England*, (London: SDUK, 1841).

Cooper, T., *Life of Thomas Cooper*, (first edition 1872), the Victorian Library, Leicester: Leicester University Press, 1971).

Curtis, W., *A Short History and Description of the Town of Alton: In the County of Southampton*, (Winchester: Warren and Son, 1896).

Davies, J.S., *A History of Southampton*, (1883, second edition, Hampshire Books, 1989).

Evans, G. E., *Vestiges of Protestant Dissent*, (Liverpool: Gibbons, 1897).

Hole, J., *An Essay on the History and Management of Literary, Scientific and Mechanics' Institutes*, (London: Longman, Green and Roberts, 1853; new impression, Frank Cass,1970).

Horsfield, T.W., *The History and Antiquities of Lewes,* 2 Vols., (Lewes:1824-1827); *The History, Antiquities and Topography of the County of Sussex*, (Lewes:1835).

Hudson, J.W., *The History of Adult Education,* 1851, (London: Woburn Press, new impression, 1969).

Palgrave, R.D.F., *Illustrated Handbook to Reigate*, (Dorking: John Rowe, 1860; reprinted Dorking: Kohler and Coombes, 1973).

Pole, T., *A History of the Origin and Progress of Adult Schools*, (London: Woburn Press 1814, third edition, 1969).

Wyse, T., 'On the Lyceum System in America, with a consideration of its Applicability to Mechanics' Institutions in this Country', *Central Society of Education,* 1838, (London: reprinted by Woburn Press, 1968).

Post 1900 Books and Pamphlets

Armstrong, J.R., *A History of Sussex*, (London: Phillimore, 1995).

August, A., *The British Working Class, 1832-1940*, (Harlow: Pearson Longman, 2007).

Bailey, P., *Leisure and Class in Victorian England*, (London: Methuen, 1987).

Baylen and Gossman, eds., *Biographical Dictionary of Modern British Radicals*, Vol. 2, 1830-70, (Brighton: Harvester Press, 1985).

Best, G., *Mid-Victorian Britain*, (London: Fontana/Collins, 1979).

Bolam, C.G. ed., *The English Presbyterians*, (London: George Allen and Unwin, 1968).

Brent, C., *Georgian Lewes*, (Lewes: Colin Brent Books, 1993).

Brent, C., and Rector, W., *Victorian Lewes*, (Phillimore: 1980).

Briggs, A., *Victorian Cities*, (Harmondsworth, Middlesex: Penguin Books, 1968).

Burke, P. ed., *New Perspectives on Historical Writing*, (Cambridge: Polity Press, 2001).

Butterworth, H., *The Science and Art Department Examinations: Origins and Achievements. Days of Judgement*, ed. R. Macleod, (Driffield: Nafferton Books, 1982).

Cairns, B., *Lewes in old Picture Postcards*, (Zaltbommel, Netherlands: European Library, 1988).

Cantor, G., 'Friends of Science? The Role of Science in Quaker Periodicals', *Culture and Science in the Nineteenth-Century Media*, ed. L. Henson et. al., (Aldershot: Ashgate 2004).

Chadwick, A., 'The Museums', *Samuel Smiles and Nineteenth Century Self-Help*, Ed. Stephens and Roderick, (Nottingham: Nottingham Studies in Adult Education, University of Nottingham, 1983).

Chadwick, A., et. al., *Victorian Learning and Leisure, 1, Mechanics' Institutes,* section D2, (Nottingham: University of Nottingham, SCUTREA, Dept. of Adult Education, 1984).

Clifton-Taylor, A., *Lewes*, (Suffolk: Alastair Press, 1981).

Clarke, J., *The Price of Progress: Cobbett's England 1780-1836,* (St. Albans: Grenada Publishing, 1977).

Coleman, B.I., *The Church of England in the Mid-Nineteenth Century*, (London: Historical Association, 1980).

Connell, J.M., *Lewes – Its Religious History*, (Lewes: Baxter, 1931).

Connell, J.M., *The Story of an old Meeting House, Lewes*, (London: Longmans, 1916).

Cox, G., *A History of Music in England 1872 – 1928*, (Aldershot: Scolar Press, 1993).

Cromwell, V., *Revolution or Evolution,* (London: Longman, 1977).

Crouch, M., *The Heritage of Sussex*, (London: Macdonald, 1969).

Dale, A., *Fashionable Brighton 1820 – 1860*, 2nd ed., (Newcastle-upon-Tyne: Oriel Press, 1967).

Davidoff, L., and Hall, C., *Family Fortunes*, (London: Hutchison, 1987).

Durr, A., 'William King of Brighton', *New Views of Co-operation*, Ed. S. Yeo, (New York: Routledge, 1988).

Dyson, A.E. and Lovelock, J. Ed, *Education and Democracy*, (London: Routledge and Kegan Paul, 1975).

Eastwood, D., *Government and Community in the English Provinces, 1700-1870*, (Basingstoke: Macmillan, 1997).

Ehrlich, C., *The Music Profession in Britain since the Eighteenth Century,* (Oxford: Clarendon Press,1985).

Evans, E.J., *The Forging of the Modern State*, (London: Longman Group, 1983).

Farrant, S., *Georgian Brighton*, (Brighton: Centre for Continuing Education, University of Sussex, 1990).

Fieldhouse, R., *A History of Modern British Adult Education*, (Leicester: NIACE, 1996).

Foster, R., *The Politics of County Power*, (London: Harvester Wheatsheaf, 1990).

Fraser, D., *Power and Authority in the Victorian City*, (Oxford: Basil Blackwell, 1979).

Gardener, P., 'The Working Classroom' in L.M. Smith, ed., *The Age of Revolution,* (London: Macmillan Education, 1987).

Geddes, A., *Samuel Best and the Hampshire Labourer*, (Andover: Andover Local History Society, 1981).

Gleadle, K., *The Early Feminists*, (London: Macmillan, 1995).

Gleadle, K., 'British Women and Radical Politics in the late Nonconformist Enlightenment, c.1780-1830', in *Women, Privilege and Power*, ed. Vickery, A., (Stanford: Stanford University Press, 2001).

Golby, D., *Instrumental Teaching in Nineteenth-Century Britain*, (Aldershot: Ashgate, 2004).

Goring, J., *Burn Holy Fire: Religion in Lewes since the Reformation*, (Cambridge: Lutterworth Press, 2003).

Graham, B., *Nineteenth Century Self-Help in Education – Mutual Improvement Societies*, (Nottingham: Nottingham Studies in the History of Adult Education, University of Nottingham, 1983).

Gunn, S., *The Public Culture of the Victorian Middle Class*, (Manchester: Manchester University Press, 2000).

Hague, G. and J., *The Unitarian Heritage*, (Sheffield, 1986).

Hall, C., et. al., *Defining the Victorian Nation*, (Cambridge: Cambridge University Press, 2000).

Harrison, J, F.C., *Social Reform in Victorian Leeds: The Work of James Hole 1820 – 1895*, (Leeds: Thoresby Society, 1954).

Harrison J.F.C., *Learning and Living, 1790-1960,* (London: Routledge and Kegan Paul, 1961).

Harrison J.F.C., *Early Victorian Britain*, (London: Fontana/Collins, 1979).
Harte, N., *The University of London 1836-1986*, (London: Althone Press, 1986).

Hawker, A., *The Story of Basingstoke*, (Local Heritage Books, 1984).

Hawkins, C., *The Story of Alton*, (Alton: Alton Urban District Council, 1973).

Helmstadter, R.J., and Lightman. B. eds., *Victorian Faith in Crisis*, (California: Stamford University Press, 1990).

Hill, R., *Underdog Brighton*, (Brighton: Iconoclast Press, 1991).

Holman, G., *Some Lewes Men of Note*, (Lewes: Lewes Record Office edition, 1927).

Holt, R.V., *The Unitarian Contribution to Social Progress in England*, (London: Lindsey Press, 1952).

Hoppen, T.K., *The Mid-Victorian Generation*, (Oxford: Clarendon Press, 1998).

Houghton, C. F., *In Search of a Minister: A Profile History of Meadrow Unitarian Chapel, Godalming*, (Godalming: a Unitarian Chapel pamphlet, c. 1983).

Hunt, T., *Building Jerusalem: The Rise and Fall of the Victorian City*, (London: Weidenfeld and Nicolson, 2004).

Hurd, M., *Vincent Novello and Company*, (London: Granada, 1981).

Hyde, D., *New Found Voices: Women in Nineteenth Century English Music*, (Ash, Kent: Tritone Publications, 1984).

Inglis, K.S. *Churches and the Working Classes in Victorian England*, (London: Routledge and Kegan Paul, 1963).

Inkster, I., ed., *The Steam Intellect Societies*, (Nottingham: Nottingham Studies in Adult Education, University of Nottingham, 1985).

Isichei, E., *Victorian Quakers*, (Oxford: Oxford University Press, 1970).

Jordanova, L., *History in Practice*, (London: Hodder Arnold, Second edition, 2006).

Joyce, P., *Work, Society and Politics*, (New Brunswick, New Jersey: Rutgers University Press, 1984).

Kargon, R.H., *Science in Victorian Manchester*, (Baltimore and London: John Hopkins University Press, 1977).

Kelly, T., *George Birkbeck*, (Liverpool: Liverpool University Press, 1957).

Kelly, T., *A History of Adult Education in Great Britain*, (Liverpool: Liverpool University Press, 1970).

Kelly, T., *A History of Public Libraries in Great Britain*, (London: The Library Association, 1977).

Kingsley Kent, S., *Gender and Power in Britain, 1640-1990*, (London: Routledge, 1999).

Kitch, M.J., ed., *Studies in Sussex Church History,* (University of Sussex: Leopard's Head Press, 1981).

Kusamitsu, T., 'Mechanics' Institutes and Working Class Culture', *The Steam Intellect Societies*, ed. Inkster, I., (Nottingham: Nottingham Studies in Adult Education, University of Nottingham, 1985).

Lawson, J. and Silver, H., *A Social History of Education*, (London: Methuen, 1973).

Lea, J.T., *The History and Development of the Mechanics' Institutions*, (Lancashire: Research into Librarianship Pamphlet No.2, 1986).

Little, M., *The Salisbury Mechanics' Institute 1833-41*, (Wiltshire: Wiltshire Monographs No.2, 1982).

Lowerson, J., *A Short History of Sussex*, (Dawson and Son, 1980).

Lowerson, J., *Victorian Sussex*, (BBC Publication, 1972).

Mackerness, E.D., *A Social History of English Music*, (London: Routledge and Kegan Paul, 1964).

Maclure, J.S., *Educational Documents 1816 to the Present Day*, (London: Methuen, 1973).

Malchow, H.L., *Gentlemen Capitalists*, (Stanford, California: Stanford University Press, 1992).

Malleson, E., *Elizabeth Malleson 1828 – 1916*, (Autobiography for Private Circulation, 1926).

McLachlan, H., *The Unitarian Movement in the Religious Life of England*, (London: George Allen & Unwin, 1934).

McLachlan, H., *Records of a Family 1800 – 1933*, (Manchester: Manchester University Press, 1935).

Martin, J. and Goodman, J., *Women and Education 1800-1980*, (Basingstoke: Palgrave Macmillan, 2004).

Meadows, J., *The Victorian Scientist*, (London: British Library, 2004).

Mercer, T.W., ed., *Dr. William King and the Co-operator 1828-1830*, (Manchester: The Co-operative Union Ltd., 1922).

Midgley, C., *Women against Slavery*, (London: Routledge, 1992).

Mineka, F.E., *The Dissidence of Dissent*, (North Carolina: University of North Carolina Press, 1944).

Mingay, G.E., *The Transformation of Britain 1830 – 1939*, (London: Paladin, 1987).

Mingay, G.E., *Rural Life in Victorian England*, (Stroud, Gloucestershire: Sutton Publishing, 1990).

Mitchell, J, and Oakley, A., eds., *The Rights and Wrongs of Women*, (London: Penguin Books, 1976).

Morgan, S., ed., *Women, Religion and Feminism in Britain, 1750-1900*, (Basingstoke: Palgrave Macmillan, 2002).

Morris, R. J., ed., *Class, Power and Social Structure in British Nineteenth-century Towns*, (Leicester: Leicester University Press, 1986).

Musgrave, C., *Life in Brighton*, (London: Faber, 1970).

Neale, K., ed., *Victorian Horsham*, (London: Phillimore, 1975).

Nettel, R., *Music in the Five Towns 1840-1914*, (London: Oxford University Press, 1944).

Oxford *Dictionary of National Biography*, (Oxford: Oxford University Press, 2004).

Patterson, A.T., *Southampton – A Biography*, (London: Macmillan, 1970).

Patterson, A.T., *Portsmouth – A History*, (Moonraker Press, 1970).

Paz, D.G., Ed., *Nineteenth Century English Religious Traditions*, (Westport, Connecticut and London: Greenwood Press, 1995).

Pearsall, R., *Victorian Popular Music*, (Newton Abbot: David and Charles, 1973).

Perkin, J., *Victorian Women*, (London: John Murray, 1993).

Purvis, J., *Hard Lessons*, (Cambridge: Polity Press, 1989).

Rainbow, B., *The Land Without Music*, (Sevenoaks, Kent: Novello, 1967).

Ratcliffe, S.K., *The Story of South Place*, (London: Watts & Co, 1955).

Reader, J., *Of Schools and Schoolmasters*, (London: Quaker Home Service, 1979).

Reeder, D.A., ed., *Educating our Masters*, (Leicester: Leicester University Press, 1980).

Reid, A.J., *Social Classes and Social Relations in Britain, 1850 – 1914*, (London: Macmillan Education, 1992).

Rendall, J., *Women in an Industrialising Society,* (Oxford: Historical Association Studies, Blackwell Publishers, 1990).

Roderick, G.W. and Stephens, M.D., *Education and Industry in the Nineteenth Century*, (London: Longman, 1978).

Rose, J., *The Intellectual Life of the British Working Classes*, (New Haven and London: Yale University Press, 2002).

Royle, E., *Radical Politics 1790-1900*, (London: Longman Group, 1971).

Royle, E., *Modern Britain, A Social History*, (London: Edward Arnold, 1987).

Rule, J., *The Labouring Classes in Early Industrial England 1750-1850*, (Harlow, Essex: Longman, 1986).

Russell, D., *Popular Music in England 1840-1914*, (Manchester: Manchester University Press, 1987).

Ruston, A., *Monthly Repository 1806-1832; Index to and synopsis of the Obituaries,* extracted and edited by A. Ruston, (Oxhey, Hertfordshire: Alan Ruston, 1985).

Sanderson, M., *Education, Economic Change and Society in England 1780 – 1870,* (London: Macmillan Press, 1983).

Seed, J., 'Theologies of Power: Unitarianism and the Social Relations of Religious Discourse, 1800-50, in Morris, ed., *Class, Power and Social Structure,* (Leicester: Leicester University Press, 1986).

Shiach, M., *Discourse in Popular Culture,* (Cambridge: Polity Press, 1989).

Simon, B., *The Two Nations and The Educational Structure 1780 – 1870,* (London: Lawrence and Wishart, 1974).

Shoemaker, R., *Gender in English Society, 1650-1850,* (Harlow: Pearson Longman, 1998).

Slowey, M. and Watson, D. eds., *Higher Education and the Lifecourse,* (Maidenhead: SRHE and Open University Press, 2003).

Smiles, S., *Self-Help,* (1859), ed., Sinnema, P., (Oxford: Oxford University Press, 2002).

Smith, B, ed., *Truth, Liberty, Religion: Essays Celebrating Two Hundred Years of Manchester College,* (Oxford: Harris Manchester College, 1986).

Smith, D., *Conflict and Compromise,* (London: Routledge and Kegan Paul, 1982).

Smith, L., *The Unitarians: A Short History,* (Arnside, Cumbria: Lensden Publishing, 2006).

Smith, V., ed., *The Town Book of Lewes 1702 -1837,* Vol. 69; *The Town Book of Lewes, 1837-1901, Vol. 70,* (Lewes: Sussex Record Society, 1976).

Steer, F.W., *The Chichester Literary and Philosophical Society and Mechanics' Institute, 1831 – 1924,* (Chichester: Chichester City Council, 1962).

Stephens. M.D. and Roderick G.W., eds., *Scientific and Technical Education in Early Industrial Britain,* (Nottingham: Nottingham Studies in the History of Adult Education, University of Nottingham, 1981).

Stephens. W.B., *Adult Education and Society in an Industrial Town,* (Exeter: University of Exeter, 1980).

Stokes, E., *The Making of Basingstoke,* ed., Applin, B. and A., (Basingstoke: Basingstoke Archaeological and Historical Society, 2008).

Taylor, B., *Eve and the New Jerusalem,* (London: Virago Press, 1991).

Thompson, D., *The Chartists*, (Aldershot, Hampshire: Wildwood House, 1984).

Thompson, D.K.G., *British Women in the Nineteenth Century*, (London: Historical Association, 1989).

Thompson, F.M.L., *The Rise of Respectable Society*, (London: Fontana Press, 1988).

Turner, B.C., *Winchester*, (Southampton: Paul Cake, 1980).

Tylecote, M., *The Mechanics' Institutes of Lancashire and Yorkshire before 1851*, (Manchester: University of Manchester, 1957).

Uglow, J., *Elizabeth Gaskell*, (London: Faber and Faber, 1993).

Uglow, J., *The Macmillan Dictionary of Women's Biography*, (London: PaperMac, Macmillan, 1999).

Vickers, J. A., *The Religious Census of Hampshire 1851*, (Winchester: Hampshire County Council, 1993); *The Religious Census of Sussex 1851*, (Lewes, Sussex: Sussex Record Society, Vol., 75, 1989).

Vickery, A., *The Gentleman's Daughter*, (New Haven and London: Yale University Press, 1998).
Vickery, A., ed., *Women, Privilege and Power*, (Stanford, California: Stanford University Press, 2001).

Vidler. A. R., *The Church in an Age of Revolution*, (Harmondsworth, Middlesex: Penguin Books, 1978).

Vincent, D., *Bread, Knowledge and Freedom*, (London: Methuen, 1981).

Walvin, J., *The Quakers*, (London: John Murray, 1997).

Walvin, J., *Victorian Values,* (Granada Television, 1987).

Walker, M., *Examinations for the 'underprivileged' in Victorian times; the Huddersfield Mechanics' Institution and the Society for the encouragement of Arts, Manufactures and Commerce,* WSG Research Paper 1, (London: William Shipley Group for RSA History, 2008).

Watson, D., *Civic and Community Engagement*, (Maidenhead: Open University Press, 2007).

Watts, M.R., *The Dissenters*, Vol. 2, (Oxford: Clarendon Press, 1995).

Watts, M.R., *The Chapel and the Nation*, (London: Historical Association, 1996).

Watts, R., *Gender Power and the Unitarians in England, 1760 – 1860*, (Harlow, Essex: Addison Wesley Longman, 1998).

Watts, R., *Women in Science*, (Abingdon: Routledge, 2007).

Webb, J., ed., *Hampshire Studies*, (Portsmouth: Portsmouth City Records Office, 1981).

Webb, R.K., 'Quakers and Unitarians', in *Nineteenth Century English Religious Traditions*, ed. D.G. Paz, (Conneticut and London: Greenwood Press, 1995).

White, H. P., *A Regional History of the Railways of Great Britain, Vol. Two, Southern England*, (London: Phoenix, 1961).

Williams, C., ed., *A Companion to Nineteenth Century Britain*, (Oxford: Blackwell, 2007).

Williams, R., *Culture and Society 1780-1950*, (Harmondsworth: Penguin, 1961); *Keywords*, (Glasgow: Fontana, 1976).

Willis, G.W., *A Historical Miscellany of Basingstoke*, (Basingstoke: Crosby Press, 1972).

Windrum, A., *Horsham*, (London: Phillimore, 1978).

Windsor, D.B., *The Quaker Enterprise*, (London: Muller, 1980).

Wright, D.G., *Popular Radicalism*, (London: Longman, 1988).

Yeo, E., 'Culture and Constraint in Working Class Movements', *Popular Culture and Class Conflict*, ed. E. and S.Yeo, (Brighton: Harvester Press, 1981); Yeo, E., ed., *Radical Femininity*, (Manchester: Manchester University Press, 1998).

Zon,. B., ed., *Nineteenth Century British Music Studies*, *Vol.1*., (Aldershot, Hampshire: Ashgate Publishing, 1999).

Articles

Allen, K. and Mackinnon A., "Allowed and expected to be educated, and intelligent": the education of Quaker girls in nineteenth century England', *History of Education*, Vol. 27, No.4, Dec, 1998.

Brent, C.E., 'Voting Patterns at Lewes Borough in 1865 – 8: The Impact of the Second Reform Act', *Southern History*, Vol., 1980.

Butterworth, H., 'The Development of Technical Education in Middlesbrough, 1844 – 1903', *Durham Research Review*, Vol. 3, No. 11, Sept, 1960.

Butterworth, H., 'The Society and the Development of Science and Art', *Journal of the Royal Society of Arts*, March, April and May editions, 1985.

Chadwick, A.F., The Derby Mechanics' Institute 1825 – 1880', *Vocational Aspect of Education*, Vol. XXVII, No. 68, Autumn, 1975.

Cox, G., 'Towards a usable past for music educators', *History of Education*, Vol. 28, No. 4, Dec, 1999.

Cunningham, P., ' Innovators, networks and structures: towards a prosopography of progressivism,' *History of Education*, Vol. 30, no.5, September 2001.

Drodge, S., 'Co-operative Society Libraries and Education in the Nineteenth Century', *Studies in the Education of Adults*, Vol. 20, No.1, 1988.

Durr, A., 'Co-operation in Early Nineteenth Century Brighton', *Sussex History*, Vol.2, No.6, 1983.

Dyck, I., 'Towards the "Cottage Charter": The Expressive Culture of Farm Workers in Nineteenth Century England', *Rural History*, Vol. 1, No. 1, April, 1990.

Etherington, J.E., 'The Lewes Bonfire Riots of 1847', *Sussex History*, Vol 1., No. 6, Autumn, 1978.

Eisenmann, L. 'Creating a framework for interpreting US womens' educational history', *History of Education,* Vol. 30, No.5, September 2001.

Field, B., 'The Southern Counties Adult Education Society – some Nineteenth Century Views on Workers Education', *Studies in Adult Education*, Vol. 12, 1980.

Gallant, M.P., 'Against the odds: Anne Jemina Clough and women's education in England', *History of Education*, Vol. 26, No. 2, June, 1997.

Garner, A.D., 'The Society of Arts and the Mechanics' Institutes', *History of Education*, Vol. 14, No.4, 1985.

Goodman, J., ' A Question of Management Style: women school governors, 1800-1862,' *Gender and Education*, Vol. 9, No. 2., (1997).

Green, A., Technical education and state formation in nineteenth century England and France', *History of Education*, Vol. 24, No.2, June, 1995.

Hemming, J.P., 'The Mechanics' Institutes in the Lancashire and Yorkshire Textile Districts from 1850', *Journal of Educational Administration and History*, Vol. 1X, No.1, Jan, 1977.

Hinde, P.R.A., Davies, H.R., and Kirkby. D.M., 'Hampshire Village Populations in the Nineteenth Century', *Southern History*, Vol. 15, 1993.

Inkster, I., 'Science and the Mechanics' Institutes, 1820 – 1850: the Case of Sheffield', *Annals of Science*, Vol. 32, 1975.

Inkster. I., 'The Social Context of an Educational Movement: A Revisionist Approach to the English Mechanics' Institutes 1820 – 1850', *Oxford Review of Education*, Vol.2, No. 3, 1976.

Inkster. I., 'Science and Society in the Metropolis', *Annals of Science*, Vol. 34, No. 1, an., 1977.

Jones, D., Women and Chartism', *History*, Vol 222, Feb, 1983.

Katoh, S., 'Mechanics' Institutes in Great Britain to the 1850s', *Journal of Educational Administration and History*, Vol. XX1, No. 2, July, 1989.

Keane, P., 'Individualism and Efficiency in the Mechanics' Institutes', *Studies in Adult Education*, Vol.6, 1974.

Keane, P., 'The State, Laissez-Faire and the Education of Adults in Britain', *International Journal of Lifelong Education*', Vol. 7, 1988.

Kelly, T., 'Light, more Light! On the History of Adult Education', *Studies in Adult Education*, Vol. 2, 1970.

Laurent, J.,'Science, Society and Politics in late Nineteenth Century England: A Further Look at Mechanics' Institutes', *Social Studies of Science*, Vol. 14, 1984.

Leach, C., 'Advice for Parents and Books for Children: Quaker Women and Educational Texts for the Home, 1798-1850', in *History of Education Society Bulletin*, No. 69, May 2002.

Leach, C., 'Religion and Rationality: Quaker Women and Science Education 1790-1850', in *History of Education*, Vol. 35, No.1, Jan. 2006.

Martin, J., 'Entering the public arena: the female members of the London School Board, 1870 – 1904', *History of Education*, Vol. 22, No.3, Sept. 1993.

Martin, J., 'Reflections on writing a biographical account of a woman educator activist', *History of Education*, Vol.30, no. 2, March 2001.

Percy, K., 'The Prehistory of Evening Institute', *Studies in Adult Education*, Vol. 2, 1970.

Pratt, D.H., 'Empirical Education and Quaker prowess in chemically orientated businesses during the Industrial Revolution', *Journal of Educational Administration and History*, Vol. 12, No. 2, July, 1980.

Royle, E., 'Mechanics' Institutes and the Working Classes, 1840 – 1860'. *Historical Journal*, Vol. 14, No.2, 1971.

Shackleton, J.R.,'Jane Marcet and Harriet Martineau: Pioneers of Economics Education', *History of Education*, Vol. 19, No. 4, Dec, 1990.

Stinchcombe, O., Researching Village Reading Rooms', *The Local Historian*, Nov, 1990.

Stockdale, C., 'Mechanics' Institutes in North East England: a pathway towards survival', *Durham County Local History Society Bulletin*, No. 54, May, 1995.

Thomas, R.A., The Mechanics' Institutes of the Home Counties 1825 – 1870', *Vocational Aspect of Education*, Vol. XXX1, Nos. 79 – 80, 1979.

Tynan, A., 'Lewes Mechanics' Institution', *Rewley House Papers*, Vol. 3, No.4, Oxford University, 1955 – 6.

Watson, M.I., 'The Origins of the Mechanics' Institutes of North Lancashire', *Journal of Educational Administration and History*, Vol. XIX, No. 2, July, 1987.

Watson, M.I., 'Mutual Improvement Societies in Nineteenth Century Lancashire', *Journal of Educational Administration and History*, Vol. XXI, No. 2, July, 1989.

Watts, R., 'Revolution and Reaction: "Unitarian" academics, 1780-1800, *History of Education*, Vol. 20, No.4, Dec, 1991.

Watts, R., 'Education and Cultural Transfer: the Case of Unitarian Women from the late Eighteenth Century to 1860', *History of Education Society Bulletin,* No. 55, Spring, 1995.

Watts, R., 'Making Women Visible in the History of Education: the late Eighteenth Century experience', *History of Education Society Bulletin*, No. 59, Spring, 1997.

Watts, R., 'Some radical educational networks of the late Eighteenth century and their influence', *History of Education*, Vol. 27, No.1, March, 1998.

White, M., 'Agricultural Societies in colonial Western Australia 1831 – 70', *History of Education*, Vol, 29, No.1, Jan, 2000.

Woodin, T., 'Working-class Education and Social Change in Nineteenth-and Twentieth-century Britain', *History of Education*, Vol.36, No. 4-5, July-September 2007.

Dissertations and Theses

Moir, K.M., *Mechanics' Institutes in Kent 1825 – 1870,* (University of London, Institute of Education unpublished M.A. Dissertion, 1990).

Sims, J.H., *The Development, Activities and Structure of a Southern Mechanics' Institute: A Case Study of the Guildford Institutes 1834 – 1856*, (University of London, Institute of Education unpublished M.A. Dissertation, 1987).

Robinson, J.J., *Adult Education and the Imperative to Control*, (University of Surrey unpublished Ph.D. Thesis, 1985).

Watson, M.I., *Adult Education in North Lancashire in the Second Quarter of the Nineteenth Century*, (University of London, Institute of Education unpublished Ph.D Thesis, 1988).

Watts, R., *The Unitarian Contribution to Education in England from the late Eighteenth Century to 1853*, (University of Leicester unpublished PhD Thesis, 1987).

Conference Papers

Cunliffe-Jones, J., *The Perilous Act of Lecturing: Clara Lucas Balfour 1808-1878, Prolific Travelling Lecturer*. Paper given at the 'Mechanics Worldwide Conference, September 2009, (Bath Royal Literary and Scientific Institution).

Websites

http://en.wikipedia.org/wiki/Aldershot (accessed on 4th August, 2010).

http://www.guildford-institute.org.uk/index.htm Homepage (accessed 30th October 2009).

http://www.statistics.gov.uk/census/bicentenary/pdfs/sussex.pdf (accessed 19th September, 2009).

http://en.wikipedia.org/wiki/Southampton Solent University (accessed 3rd May, 2009).

Appendix 1

MECHANICS' AND LITERARY INSTITUTIONS IN ENGLAND. 231

Place.	Title of Institute.	Subscription.	Membrs	Vols. in Library.	Annual Issues.	Pupls in Classes.	Newsrm Lectrs, &c.	Secretary.
Hampshire								
Basingstoke	M I	2/ q	219	1200	5000	50	N 10	F W Bushell
Fordingbridge	L S M I	1/6 q	72	168	200	..	8	C. Chubb
Lymington	Lit. I	2/6 q	50	..	..	..	..	
Newport	Athenæum	2/ q	110	800	2000	..	N 12	— Pascoe
Portsmouth	L Phil. I	21/	100	..	..	..	..	H. Hobbs
„ „	Athen.	10/6, 8/	270	1500	9000	20	N 24	H. Lewis
Romsey	L & S I	42/, 30/	30	..	..	..	..	W. Dayman
Ryde	L & S I	2/ q	200	..	..	..	10	— Clements
Southampton	Polytech. I	2/ q	450	1200	8500	..	N 30	W. Wakeford
Winchester	M I	3/ q	384	2575	12300	84	N 20	R. Hayles
Sussex								
Battle	M I	1/6 q	50	330	400	..	N 10	A. Slatter
Brighton	Athen.	21/ 10/6	732	3500	18000	150	N 30	A. Cobbett
Chichester	L S & M I	2/ 1/2	382	2400	4500	..	N 10	S. Parsens
„ „	L & Phil. S	21/	80	500	100	..	N	N. Tyack
Hastings	L & S I	25/	60	1600	..	..	M	J. Phillips
„ „	M I	2/q	150	1000	1500	50	M 15	J. Banks
Horsham	L & S I	3/ 2/6 2/ q	52	200	300	..	N	H. Chatfield
„ „	M I	..	50	..	..	..	..	— Harris
Lewes	M I	2/ 1/6 q	270	2850	5000	16	NM 10	D. Griffiths
Worthing	I	..	100	500	1000	..	10	

Reproduced from tables in *The History of Adult Education*, by J.W. Hudson, 1851, pp. 225 & 231

Appendix 2a

DIVISION II.—SOUTH-EASTERN COUNTIES. HAMPSHIRE.

Locality, and Description of Institution.	Number of Members. Character. Proprietary.	Annual.	Quarterly.	Others.	Total.	Sex. Males.	Females.	Amount of Subscription.	No. of Volumes in the Library.	Lectures. Frequency.	Usual Subjects.
96. Portsea Island.											
"Watt" Institute, Landport.	..	10	150	42	202	202	..	2s. per qr. -	550	Once or twice a month.	Chemistry, Natural Philosophy, Astronomy, Biographical, and Scientific.
Portsea Athenæum and M. I.	..	400	..	..	406	250	20	8s. per an. -	1300	Weekly, during winter.	Literary and Scientific.
Portsmouth and Portsea L. and Philosophical Society - - -	..	..	..	..	131	127	4	10s. and 6s. per an	..	..	..
Portsmouth, Portsea, and Gosport Church of England Young Men's Society.	..	72	..	30	102	102	..	5s. per an. -	100	Monthly during winter.	Conversational and Bible meetings are also held, as well lectures given.
97. Alverstoke.											
Gosport L. and S. I. -	..	10	..	111	121	121	..	10s. per an. and 6d. per month.	None.	Occasionally -	Literary and Scientific subjects.
98. Fareham.											
Fareham L. I. - -	..	30	..	..	35	45	5	30s. per an. -	500	Occasionally -	Scientific.
99. Isle of Wight.											
West Cowes M. I. -	..	..	..	..	..	..	..	8s. per an. -	1000	Fortnightly, during winter.	..
Newport Athenæum and M. I.	..	36	200	..	236	216	20	8s., and Youths an. Ladies 5s., per an	1400	Weekly, during winter.	Arts, Literature, and Science.
Newport L. and S. I. -	..	26	125	..	151	134	17	5s., and Youths 3s. per an.	722	Weekly, during winter.	Philosophical, Literary, Scientific, &c.
Shanklin M. I. - -	..	6	50	..	56	43	13	..	190	Once in two months.	Miscellaneous.
Isle of Wight Philosophical and S. Society.	..	78	..	..	78	78	..	21s. per an. -	100	Fortnightly -	Science generally.
Ryde L. and S. I. -	..	..	..	..	140	140	..	1s. 6d. and 2s. per qr.	783	Weekly, during winter.	..
Ventnor and Bonchurch L. and S. I.	..	22	110	..	132	132	0	1l. per an., others 1s. 6d. per qr.	594	Fortnightly -	Various.
100. Lymington.											
Lymington L. I. - -	..	33	193	..	226	190	36	2s. 6s. and Youths and Ladies 1s. 6d. per qr.	520	Weekly during winter.	Literary and Scientific subjects.
101. Christchurch.											
Christchurch Mutual Improvement Society -	..	207	..	..	207	..	..	5s. per an. -	2100	Fortnightly, autumn, winter, and spring.	..
103. Fordingbridge.											
Fordingbridge L. S. and M. I.	..	54	26	..	80	59	21	Hon. Mem. 10s. per an.; others 1s. 6d.; Juniors 1s. per an.	169	Fortnightly -	Literature, Natural History, Music, &c.
105. Southampton.											
Southampton Polytechnic Institution.	..	25	498	28	551	497	54	2s. per qr. -	1200	Weekly, during winter.	Literary and Scientific subjects.
Southampton Association	..	14	79	..	93	93	..	1d. per week -	224	Monthly -	Religious or Scientific.
Southampton Mutual Improvement Society.	..	..	..	..	150	138	12	1d. per week -	330	Weekly -	Upon all subjects.
106. South Stoneham.											
Itchin Mutual Improvement Society.	..	..	..	..	43	33	10	..	40	Weekly, in winter.	History, Geography Astronomy, &c.
Bitterne Mutual Improvement Society.	..	6	..	60	66	53	13	1d. per week -	120	Weekly -	Instructive subjects.
107. Romsey.											
Romsey, L. S. - -	24	32	..	8	64	59	5	2l. 2s.; 30s.; 21s.; 15s. and 10s. 6d. per qr.	1000	None.	..
109. Winchester.											
Winchester Museum and Public Library.	..	..	..	..	..	..	..	..	110	None.	..
Church of England Library and Reading Room.	..	..	50	..	50	45	5	2s. 6d. per qr. -	605	..	..
Winchester M. I. -	..	1	..	388	389	361	28	1s. per month; Juniors and Ladies 6d.	2575	Weekly for half the year.	..
114. Alton.											
Alton M. I. - -	..	37	69	..	106	106	..	1s. 6d. per qr. -	873	Occasionally -	Natural Philosophy, Botany, Poetry, &c.
115. Hartley Wintney.											
Odiham M. I. - -	..	40	40	..	80	73	7	..	400	Every third week, during winter.	..
116. Basingstoke.											
Basingstoke M. I. -	..	46	84	28	163	158	5	..	1180	Fortnightly, do.	Principally Scientific subjects.
117. Whitchurch.											
Mutual Improvement Society.	..	..	..	..	114	114	..	..	..	Fortnightly -	On Science and Philosophy generally.
118. Andover.											
Andover Young Men's Mutual Improvement Society.	10	..	40	..	50	50	..	2s. 6d. per qr. -	100	Twice a week	Mechanics and Science.

Appendix 2b

DIVISION II.—SOUTH-EASTERN COUNTIES. SUSSEX.

Locality, and Description of Institution.	Number of Members. Character. Proprietary.	Annual.	Quarterly.	Others.	Total.	Sex. Males.	Females.	Amount of Subscription.	No. of Volumes in the Library.	Lectures. Frequency.	Usual Subjects.
76. HASTINGS.											
Hastings M. I.	..	..	350	..	350	335	15	8s. per an.	1200	Weekly, in winter.	Various.
Hastings L. and S. I.	21	46	..	24	91	91	..	15s. per an.	2500	Occasionally.	..
St. Leonard's M. I.	..	..	243	9	252	244	8	2s. and 1s. 6d. per an.	690	Weekly, during winter.	Various.
77. BATTLE.											
Battle M. I.	..	7	47	3	57	54	3	6s. per an.	426	Very seldom.	..
78. EASTBOURNE.											
Eastbourne L. I.	..	79	..	..	79	66	13	10s. per an.	1000	Fortnightly in winter.	Literary and Scientific subjects.
79. HAILSHAM.											
Hailsham Mutual Improvement Society.	..	122	..	..	122	116	6	4d. per mo.	50	Monthly in winter.	Natural Philosophy and History.
84. LEWES.											
Lewes M. I.	..	40	218	17	275	262	13	..	2700	Fifteen in winter.	Various.
85. BRIGHTON.											
Brighton Royal L. and S. I.	66	255	100	1	422	367	55	25s. per an.; 12s. per qr.	7000	Forty in the year.	Literature, Art, and Science.
Brighton Athenæum and Young Men's Literary Union.	..	650	..	..	650	..	..	10s. 6d., and 21s. per an.; 6s. and 12s. per qr.; 4s. per mo.	3315	Two courses annually.	General subjects.
Brighton M. I.	..	52	190	11	253	240	13	6s. per an.; 1s. 6d. per qr.	800	Weekly during winter.	Miscellaneous.
86. STEYNING.											
Steyning M. I.	..	..	33	..	33	33	..	2s. and 1s. 6d. per qr.	..	Five annually	..
Henfield Useful Knowledge Institution	..	62	..	..	62	53	9	10s. and 5s. per an.	213	Occasionally.	..
87. HORSHAM.											
orsham L. and S. I.	..	37	7	2	46	40	6	10s.; Ladies 7s. 6d.; Juniors 5s. per an.	250	None.	..
Horsham M I.	..	..	40	..	40	39	1	1s. 6d. per qr.	260	Occasionally -	Generally Scientific.
88. PETWORTH.											
Petworth L. and S. I.	..	68	..	1	69	65	4	8s. per an.	120	Fortnightly, from Sept. to May.	Scientific subjects. Religion and Politics strictly forbidden.
90. WORTHING.											
Worthing Institution	..	18	200	..	218	167	51	21s., 12s. and 6s. per an.	1100	Weekly, during winter.	Chiefly Literary.
Littlehampton M. I.	..	..	34	..	34	34	..	1s. 6d. per qr.	150	Frequently in winter.	Scientific.
92. CHICHESTER.											
Chichester L. S. and M. I.	..	107	184	91	382	335	47	..	2400	Fortnightly, in winter.	Literary or Scientific.
The People's Institute, Bognor.	..	3	93	..	96	55	41	Patrons 21s. per an.; Hon. Mem. 10s.; others 2s. per an.	420	Fortnightly, during winter.	Literary, Scientific, and other subjects.
98. MIDHURST.											
Midhurst L. and S. I.	..	83	..	..	83	83	..	1l., 10s., and 5s. per an.	100	Occasionally -	Astronomy, &c.

Reproduced from *The Parliamentary Census of 1851*, pp. 220-222