Middle school design and educational practice.

Thesis submitted in accordance with the requirements for the Degree of Master of Philosophy in the University of Aston in Birmingham.

Colin Albert Arthur Marsh B.Sc.(Econ.), M.Ed.

March 1984.

The University of Aston in Birmingham

Summary

Middle school design and educational practice.

The thesis attempts to examine and explain the degree of congruance that existed between the theory of progressive middle school education, as exemplified in the design of five identical schools built in one county, and the practice of education that took place in them.

The emergence of the English middle school is traced and an examination made of the curriculum planning that took place for the introduction of middle schools at both national and local level.

A study is made of the growth of the progressive philosophy in this country and the implications it had for school design.

By visits, interviews and the use of a questionnaire the practice of the five schools was found to be almost identical but very much at variance with the educational philosophy that formed the basis for the design of the schools.

This disjuncture is discussed in terms of three factors:-

1. The myth of the progressive revolution in British education.

2. The failure of the design of schools to influence significantly the practice that took place in them. That is a failure in architectural determinism.

3. The lack of commitment shown by the Local Education Authority to a progressive approach for education in the middle years.

Colin Albert Arthur Marsh B.Sc.(Econ.), M.Ed.

Thesis submitted in accordance with the requirements for the Degree of Master of Philosophy in The University of Aston in Birmingham. 1984.

Middle Schools. Architecture. Educational practice.

Contents

Acknowledgments

I would like to record my thanks to the many people who co-operated and helped in the preparation of this study.

In particular I should mention:-

Dr. G. Walford of the Faculty of Management and Policy Science, University of Aston, for his help and guidance whilst supervising this thesis.

The Chief Education Officer of Staffordshire for giving me permission to visit schools.

Past and present officers of the Staffordshire Authority for all their assistance.

The Headteachers and members of staff of the schools visited for their invaluable co-operation.

Chapter 1

The origins of the English middle school

Middle schools first appeared in this country in 1968. By 1973 six hundred and eighty seven had been established and according to Hargreaves and Tickle (1980) this figure had escalated to one thousand six hundred and ninety by 1978. It will be shown that the main reason for their creation was a response to the difficulties that were being experienced by Local Authorities who were grappling with the problems involved in comprehensive reorganization.

The reasons for, and the process by which, comprehensive reorganization took place in this country has been well documented. (See for example Benn and Simon (1972), Fenwick (1976), James (1980), Parkinson (1970), Pedley (1978) and Rubinstein and Simon (1973)) Immediately after the implementation of Hadow type organization in the late twenties and early thirties, criticism, particularly of the selection procedures at 11+, began and this reached a peak in the immediate post-war years. (See Marsh (1972). Commenting on the debate that was taking place concerning a selective or comprehensive school system, Jeffrey (1954) stated:

> "in this matter of organization of secondary education, we are at the parting of the ways. Either we must pursue our present path, perfecting our methods, working in close co-operation with parents, and winning the support of public opinion, or we must turn to new ways and new methods that either avoid altogether, or at least soften, the incidence of selection ... we are faced with the choice of paths each of which has its own peculiar difficulties."

The growth in research findings and in professional opinion against selection at 11+ acted as an incentive for Local Education Authorities to consider schemes of organization which would obviate the need to test and allocate children to different types of schools. The obvious alternative to a selective system was a comprehensive one. Such schemes had been introduced in the immediate post-war years in such places as London, Coventry and

Bristol. These schemes did not involve middle schools but they did raise the crucial question of size.

In the selective system schools had been comparatively small with a population of three hundred being quite normal for a secondary modern school. In such schools the organization was simple and un-complicated but with the introduction of comprehensive schools wide-ranging changes had to be made. In the immediate post war years the projected size for a comprehensive school was very much larger. It was believed that only a small proportion of pupils would stay on after school leaving age to enter the sixth form. Circular 10/65 (paragraph 7) stated that it would require a six or seven form entry school to cater properly for the whole ability range and to produce a viable sixth form. A six form entry school (given thirty pupils per form for five years and a Department of Education and Science recommended sixth form of one hundred and forty) would result in a school of one thousand and forty pupils, this was more than twice the size of most existing schools in the selective system. If the assumption was made that a school requires two hundred pupils in its sixth form to give a good range of A Level and other courses, then with a staying-on rate of one third in the fifth year a lower school of some one thousand six hundred and fifty pupils was necessary, making a total school population of one thousand eight hundred and fifty pupils.

The problems and dangers inherent in such large units were seen at an early stage in the discussions. Miss Ellen Wilkinson, Minister of Education, warned local authorities in 1946 to think carefully of the practical problems involved in the proposed size of multilateral schools and this warning was repeated by Miss Florence Horsborough, Minister of Education, (1952) who saw an

enormous disadvantage in large schools.

An additional and important difficulty facing Local Education Authorities was in procuring the funds to build these large and sophisticated schools. The major pre-occupation for the Ministry of Education since the end of the war had been that of providing "roofs over heads" for a continually expanding school population. In order to cope with this acute problem at a time of economic stringency, it was essential that every existing school was used to its full capacity and that great care had to be taken to avoid any duplication of school places. Local Authorities wishing to eliminate the selection procedure by introducing comprehensive education had therefore to think in terms that fully utilised their existing plant.

Commenting on the problems confronting Local Authorities and the debate concerning secondary education, Pedley (1959) stated:

> "The tripartite and comprehensive giants were opposed in head-on conflict .... Each was too big, too committed, to give way. Ever since 1944, however, a small minority of people had held the view that the drawbacks of selection at 11+ on the one hand, and of large comprehensives on the other, could be resolved - and moreover quickly and economically resolved by using existing small and medium sized schools to provide secondary education in two stages."

The Leicestershire Authority evolved such a plan. Mason (1957) stated that he felt that public opinion was moving so much against selection at 11+ that an alternative had to be found. He stated that the generally accepted size for a viable comprehensive school was very large and could create problems that would outweigh the advantages. He also saw that in an area such as his with its schools already built, the practical difficulties of getting the large size would involve a building programme that was prohibitively expensive. He expressed the opinion that:

"any new system which is to have the advantages of the

comprehensive school in doing away with external selection and at the same time be capable of being fitted into the existing secondary school buildings, must be one in which the division of children within the secondary stage is not as at present vertical but horizontal."

Under the "Leicestershire Scheme" as described by Shaw (1983)

"the secondary moderns were transformed into junior comprehensives providing three year courses. On completion of these courses, children could either remain or move to the senior comprehensive schools which ..... were the old unreconstituted grammar schools under a new name. There was no selection for the senior schools, but parents had to agree to keep their children at the schools for at least two years - to age sixteen."

Writing at a later date Mason pointed out that the original plan was dictated by the circumstances and legal requirements existing at the time.

"The break between 'primary' and 'secondary' education was defined by Act of Parliament and the one fixed point which it would have been impracticable at that time to attempt to alter was transfer ..... at 11+." (Mason 1967)

The introduction of the Leicestershire Scheme was an important development in the evolution of the middle school, as it demonstrated a system that abolished the 11+ by utilising the existing buildings and it also introduced the vital concept of a two-tier organization in secondary education. The scheme revealed to Local Education Authorities the degree of freedom that they had in which to operate in the field of reorganization. Robin Pedley (1958) claimed that:

"the introduction of the Leicestershire Scheme had torn a rent in the mesh of Ministerial Powers that is unlikely to be repaired for some time."

He added that if one Local Education Authority could do it why not others. Once Local Authorities began to think in terms of an end-on organization for secondary education, it was only a small step to begin to question the break at 11+.

Marsh (1980) illustrated how one rural authority was

questioning the break at eleven in the late fifties and was proposing a plan that would make full use of existing plant and provide a wide variety of courses extending to the provision of a county college. This plan was criticised and rejected by the Ministry of Education.

The West Riding of Yorkshire Education Authority (1953) expressed doubts concerning selection procedures at 11+ and as early as 1946 made the decision to establish comprehensive schools. They were concerned about the question of size, and a possible two-tier system with transfer at 11 was considered. Within the following ten years they made the logical move to question 11+ as the age of transfer and in October 1963 they published a pamphlet entitled "The Organization of Education in Certain Areas of the West Riding. Sub-titled 5 - 9, 9 -13, 13 - 18."

The report was written in response to some of the Divisions in the Riding asking for comprehensive education but who could not:

> "have it in large schools for children aged 11 - 18 because there already exists in these areas a number of smaller schools which cannot easily be extended, which are unsuitable as primary schools and which are so sound they will have to continue in use for the foreseeable future."

This quotation from the report illustrates clearly the influence that the existing stock of buildings had on the deliberations taking place in the area. This same problem was recognized in Curzon Street. Miss Wilma Harte, Assistant Under Secretary of State, said that:

> "lacking a Special Building Programme (for Comprehensive Reorganization) the most intractable element is the stock of buildings designed for other purposes. The Local Authorities draw up their own solutions to fit local needs and we give respectability to their ideas."

Bullivant (undated) believed that tiered systems were the

inevitable result of compromising with available accommodation and that middle schools were the most flexible form of organization to meet local needs.

Although the problems of accommodation loomed large the West Riding stressed that there was more than mere sentimentality in the idea of small children attending small schools, youngsters attending middling sized schools and adolescents attending the largest schools. They also envisaged some economies in a middle school where, for instance, the expensive laboratories and workshops needed in a full range secondary school could be replaced by less expensive workshops in which a wide range of activities could take place.

These proposals as published in 1963 were against the existing law, but owing to the strong feelings within the West Riding Authority, it was decided to continue with the planning and to offer the scheme as a challenge to the existing limitations of the law.

> "This law is obviously so peculiar that the scheme is put forward in defiance of it, in order that the Minister may be pressed to consider the issues involved." (West Riding Education Committee 1963).

This challenge to the Government did not occur in isolation. Other Local Authorities had found the legal restriction on the age of transfer irksome. For example, Worcestershire had requested a change in the law in 1959 and the Deputy Education Officer for Huddersfield, Mr. G.H. Gratton Guiness (1963) commended Sir Alec Clegg and his Authority for making the challenge.

In addition to the pressure being brought to bear on the Government by the Local Authorities, writers and commentators such as Armitage (1960), Ford (1961), Pedley (1963) and Ollerenshaw (1964) stated that they saw merit in raising the age of transfer as they did not believe that an accurate assessment of a child's

potential and interests could be made at such an early age.

Sir Alec Clegg's challenge came at the appropriate time as serious consideration was being given to the question of transfer ages and it was at a time when the practical problems involved in comprehensive reorganization required greater flexibility in the legal framework of education. This mounting pressure was having an impact in the Ministry as Sir Edward Boyle (1971) stated:

> "It became perfectly clear (in the Ministry in 1963) that we would have to have some change in the law to allow middle schools."

The 1964 Education Act which allowed transfer at ages other than 11 received the Royal Assent on 31st July 1964. During its passage through Parliament it was made clear that no wholesale introduction of middle schools was envisaged. Baroness Summerskill welcomed the Bill because she said it recognized the pressure from those progressive Local Education Authorities which wanted to experiment and that it would also be of great assistance in comprehensive reorganization by making full use of existing schools. Mr. Hogg said that the whole idea was experimental in character and limited in scope.

Following the passing of the 1964 Act, Circular 12/64 was issued by the Department of Education and Science on 27th August 1964. This document made it quite clear that no wholesale reorganization of the existing educational system was envisaged. The circular stated:

> "The intention is to permit a relatively small number of limited experiments in educational organization."

Shortly after the passing of the 1964 Education Act by the Conservative Government, a Labour Government came to power in October 1964, on a platform that included a promise to introduce comprehensive education throughout the country. In July 1965

Circular 10/65 appeared requesting all Local Education Authorities to prepare and submit plans for reorganizing secondary education in their areas on comprehensive lines. It suggested six possible schemes. The most favoured scheme was the all-through 11 - 18 comprehensive school. The sixth suggested scheme, that is the one permitting middle schools, was regarded as a very limited option.

Circular 10/65 pointed out that each Local Education Authority would have to adopt a form of organization that best suited its own area and it noted that limitations would be placed on the options by the existing stock of buildings.

> "The disposition, character and size of existing schools .... must influence and go far to determine the shape of secondary education." (Department of Education and Science 1965).

The Government and the Department of Education and Science appear to have failed to appreciate the attractiveness and interest that Local Authorities felt for a system which included middle schools. It is extraordinary that in the light of their recognition of the strong influence that the existing stock of buildings would have on plans for reorganization, they failed to see the attractions and distinct possibilities that a middle school system held for many Local Education Authorities.

Circular 10/66 issued on 10th March 1966 made it clear that owing to a balance of payments crisis, money would be extremely limited and reorganization wouldhave to be carried through without the allocation of additional financial resources.

Blyth and Derricott (1977) called for a frank recognition that in any area, a viable plan had to take into account the existing buildings and facilities and the costs that would be involved in any scheme of reorganization. More and more Local Authorities came to see that their only possible course of

action lay in following the sixth option and introducing a form of three tier organization. This realization and the increasing number of proposals for this type of organization placed the Government under increasing pressure.

By the 20th April 1966 when Circular 13/66 was issued it became apparent that the Government's reluctance concerning the introduction of middle schools had dissipated in the face of Local Education Authorities' pressure. Paragraph 4 of Circular 13/66 states:

> "It has become increasingly apparent since the issue of Circular 10/65 that for some authorities the early change over to a comprehensive system in all or part of their areas, would be facilitated by the adoption of an age of transfer other than 11. It is also likely to be the case that in some areas the operation of raising the school leaving age can be carried through more easily if it is accompanied by a change in the age of transfer and a consequent reduction in the age range of the secondary schools which will have to accommodate the extra pupils. The Secretary of State has therefore decided that while the question of whether there should be a national change in the age of transfer, and, if so, what the new age should be, must await the publication of the reports of the Central Advisory Councils for England and Wales and the Government consideration of them, there are urgent practical reasons why a greater degree of flexibility should be allowed now to authorities. He will therefore regard a change in the age of transfer for the time being as a matter for local option, and he is prepared to consider proposals from authorities on this basis." (Department of Education and Science 1966)

This marked the Government's less reserved acceptance of the middle school concept and their willingness to see such schools incorporated into the system. In a period of nine months the Secretary of State had retreated in the face of Local Education Authorities' pressure.

The Plowden Report (Central Advisory Council for Education 1967) expressed the view that it was necessary to establish a national age of transfer because of the Government's policy of creating a mobile labour force. They stated that in their opinion

the arguments infavour of 12 and 13 as possible ages of transfer were evenly balanced and they agreed with Nisbet and Entwistle (1966) that there is no one age of transfer that would be correct for every child. In the end,after sitting in what Harte (1969) called "cross eyed misery", they recommended 12 as the national age of transfer.

By the time the Report appeared several authorities had made their own decisions concerning the age of transfer. Some had in fact gone for the 8 - 12 middle school but many more had gone for the 9 - 13 age grouping. There can be little doubt that the overwhelming factor that led to the creation of middle schools was the acute problem facing Local Authorities in their planning to introduce comprehensive education within very tight and strict budgetary restrictions. As Hargreaves and Warwick (1978) state:

> "Middle schools became necessary as a means of utilising existing buildings and keeping new school construction down to a minimum."

In the light of the evidence given above it is very difficult to agree with John Burrows, Her Majesty's Inspector, formerly Chief Inspector for Primary and Middle Schools, when he asserts that the middle school idea as such:

> "certainly came from a combination of the observations of perceptive primary school teachers and of child psychologists and paediatricians." (Burrows 1978)

He goes on to state that the next step in its creation was the report of the Plowden Committee and it is only later in his book that he concedes that it was the problems associated with comprehensive reorganization that created a situation in which

> "the way was thus suddenly clear for the introduction of middle schools."

The available evidence suggests strongly that much of the credit for the creation of middle schools in this country must

go to Local Authority Administrators who, in the words of Bryan and Hardcastle (1977), had been

> "put in a straight-jacket by Circular 10/65 because they were not given any additional funds or an extended building programme."

Their choice of a three tier organization as a means of introducing comprehensive schools was made on the basis of expediency. However, the appearance of this new type of school requiring a break from the traditional age of transfer, did more than solve an administrative problem. As will be shown, its coming focused attention on the needs and characteristics of children in their middle years of schooling and it provided an opportunity to give special consideration to both the curriculum and environment needed for an appropriate and effective style of education.

Chapter 2

The evolution of the Progressive Movement in English Education

One particular philosophy that was associated with the emerging middle schools was that which might be called progressive. Throughout this century there has not been a clear, precise and succinct definition of the term and the problems this has posed have been compounded by the introduction and general use of other terms, equally vague and often overlapping, encompassing the same range of ideas. The literature contains such terms as "child-centred", "modern", "innovating", "informal", "integrated", "developmental", and "open". The experts have failed to agree on the precise meaning of these terms. Stevens (1980) believed that words such as progressive, child-centred and traditional had all become meaningless labels. Some writers have attempted a clarification. Stephens (1974) speaking of the American scene stated that the main difference between the "progressive" and "open" approach was the more active role of the teacher in the latter approach in clarifying the limits of the child's freedom.

Further complications have been added by the "toing" and "froing" of educational ideas across the Atlantic with an inevitable change of emphasis and meaning. For example, Harrison and Glaubman (1982) in comparing the open-education reform movement in the United States, Great Britain and Israel, stated that:

> "evidence suggests that the degree of correspondence among definitions of open education may have been over estimated."

Cohen and Manion (1981) saw four main reasons for the lack of clarity in the use of the terms mentioned:-

1. The wide variety of practices in different localities and schools where terms are subject to a wide range of definitions and interpretations. Also, with the concepts being multi-dimensional, the components making up its practices are in turn each open to different interpretations.

2. Open educators rarely make explicit the rationale underlying their practices. There seems to be an almost

studied reluctance to define it for fear that it becomes something else; that by expressing open education in the permanency of words, its very virtue, openness, is transformed into its pejorative opposite, closedness.

3. The belief by some that the words are ideologies and these especially emerging ones, tend to be vague.

4. Open education arose as a reaction against the philosophy and practices of traditional education and can therefore only be defined with those in mind.

Both Tunnel (1975) and Crowl (1975) expressed the view that the term "open" as used in education was so vague a notion that it was virtually "valueless in terms of educational practice." The words are used as slogans to convey general ideas or impressions, but slogans, as Scheffler (1960) states:

> "neither claim to define terms in educational discourse nor to facilitate such discourse but act rather as "rallying symbols" of the key ideas and attitudes of educational movements."

He goes on to state that open education is a banner under which all manner of educational activity has found a place from procedural innovations such as integrated day to the radical ideas of the "free scholars." Komisar and McClellen (1961) expressed the view that educational slogans summarise a set of assertions which are associated with the general impact of the slogan.

Further complications and difficulties are caused by the day to day usage of the terms by teachers. They use the terms in an eclectic sense in that they are used to cover whatever the user wishes them to include and as Linder and Purdom (1975) state "there are degrees of openness in any classroom or activity."

For the purpose of this study a "progressive" approach to education will be taken to mean one in which the aim is to give the child a greater degree of freedom and autonomy in his or her learning and one which advocates an alteration in the balance of control over the learning situation. The progressive approach

advocates a degree of transference of responsibility for learning activities from the teacher to the individual child in order that he or she may have sufficient freedom to pursue an active, investigative approach to learning.

In 1911 a book was published with the title "What is and What Might Be." Its author was E.G.A. Holmes who, up until that time, had been the Chief Inspector of the Board of Education. The book appeared at a time when the elementary schools were under severe attack. Since the introduction of the Revised Code in 1862 (the so-called Payment by Results system) criticism had been mounting against the ossifying effects of the system on elementary education.

Holmes stated that the wholesystem was based on the child's blind, passive, literal, unintelligent obedience to his teachers. He deplored the then current teaching methods which left the teacher in total control of the learning situation and doing everything for the child

> "to tell him in precise detail what he is to think, to feel, to say, to wish, to do; to show him in precise detail how he is to do whatever may have to be done .... in fine, to do all that lies in his power to prevent the child from doing anything whatever for himself."

The Revised Code had been introduced as a result of the findings of the Newcastle Commission which hadbeen set up in 1859 and there were two main reasons for its acceptance by those in control of elementary education. Firstly it was administratively convenient and workable. In a letter Lowe wrote he stated:

> "I viewed the 3Rs not only or primarily as the exact amount of instruction that ought to be given but as an amount of knowledge which could be ascertained thoroughly by examination, and upon which we could safely base the Parliamentary grant. It was more a financial than a literary preference. Had there been any other branch of useful knowledge, the possession of which could have been ascertained with equal precision, there was nothing to prevent its admission." (Martin 1893)

The second reason for the acceptance of the Code was that the ruling classes tended to oppose popular education as they felt that it could well lead to discontent and revolution. One M.P. stated in Parliament that in his opinion a little learning made a man ambitious to rise and if he could not do this by fair means then he would by foul. He went on to explain that the working man's ignorance was a balm that soothed his mind into stupidity and repose and excluded any notion of discontent, pride or ambition. W.A.C. Stewart (1968) sums up the philosophy by stating:-

> "It is a truism to say that the Elementary School system of the 19th Century was not intended to have any cultural value, but was predominantly and un-mistakenly utilitarian and social utility was what was useful to teach the children of the working classes, i.e. a smattering of the 3Rs, a little knowledge of the Bible, but above all subordination."

The result of the implementation of this philosophy which produced the Code was that the teachers resorted almost totally to rote learning. W.A.C. Blyth (1965) stated that:-

> "the teachers were too limited in ability and in education, and too insecure both financially and socially to be able to conceive of their task in terms other than those of meticulous and conscientious compliance with routine."

They based their work on a highly authoritarian ethos, placing themselves on a dias, imposed a complicated ritual of respect, forbad talking, fidgetting and time wasting and expected the children in their care to listen and obey instructions implicitly. The reluctance of the children to learn was counted by a system of incentives involving stars, places of prestige, points, privileges, threats, penalties and punishments.

Holmes (1911) and his fellow critics also believed that the system could be attributed to the then current belief in the concept of original sin. He stated that:-

> "We tell the child that he is a criminal, and treat him as such, and then expect him to be perfect; and when our misguided education has began to deprave him, we shake our heads over his congenital depravity, and thank God that we believe in 'original sin'."

In the second half of his book which was sub-titled "The Path of Self Realisation." Holmes painted a picture of what he believed was a far superior form of elementary education. He called this school Utopia and the teacher Egeria. The school he described as his model was in fact at Sompting in Sussex and Egeria was Harriet Johnson. Holmes emphasized that this school was a happy and active place and that the activity was of the child's own choosing, He stated that:-

> "the child does not wait, in the helplessness of passive obedience, for his teacher to tell him what he is to do and how he is to do it. He does not even wait, in the bewilderment of self-distrust, for his teacher to give him a lead. If a new situation arises, he deals with it with promptitude and decision. His solution of the problem may be incorrect, but at any rate it will be a solution. He will have faced a difficulty and grappled with it, instead of having waited inertly for something to turn up. His initiative has evidently been developed pari passu with his intelligence, and the result of this is that he can think things out for himself, that he can devise ways and means, that he can plan."

Holmes's book was widely read and acted as a rallying point for the would-be reformers of elementary education. The ideas he proposed were not however original as many of the basic tenets of what became known as the "progressive" approach can be traced back to the Greek philosophers. Socrates, Plato and Aristotle advocated the need to pay attention to the whole child and supported inquiry and discovery approaches to learning. Rabelais in the 16th Century advocated individual freedom for pupils whilst de-Montaigne suggested individual teaching and practical activities in education. Comenius argued for the fitting of instruction to the needs of the child and stressed the importance of practical experiences and the integration of subjects. Rousseau urged that children should be free to develop naturally and that childhood had to be seen as an important stage in itself as a step towards manhood. Pestalozzi writing in the late 18th and early 19th

Centuries suggested that children needed to experiment with concrete objects before tackling abstract ideas. Herbart saw interest as an essential prelude to learning and Frobel stressed the importance of active learning and the need for children to have freedom in which to make choices.

The popularity of Holmes's book could, in part, be attributed to the man he was, or had been; and also to its presentation. He painted two clear and diametrically opposed pictures of the practice of elementary education and this "black and white" approach has continued to be a feature of the argument and debate surrounding progressive and traditional systems of education. Pioneers of new approaches such as J.H. Simpson, E.O'Neill, Beatrice Ensor, A.S. Neill, Caldwell Cook and N. MacMunn all paid credit to the influence and the stimulation that Holmes had provided. These and other reformers were totally united in their condemnation of the traditional approach but there was a lack of total agreement as to the steps and measures that needed to be taken to put matters right. As stated by Dale (1979) the progressive educators were:-

> "united more by what they were against than by what they were for."

For example, Neill attacked the arrogance of the elementary school in forcing children to comply with the ideas of adults whilst Montessori attacked its denial of freedom. Isaacs was appalled at its disregard for the nature of child development, whilst Cook attacked its "spoon feeding" and Lynch its reliance on the class lesson. John Arrowsmith scornfully accused the elementary school teachers of providing dessicated, minced and peptonised pieces of adult knowledge put in by the spoonful and the dose repeated ad nausum until mental indigestion ensued and

the soured mass was ready to be expelled at the bidding of an examiner.

Various supporters of the progressive approach such as Homer-Lane and Montessori gave practical examples of what could be done to liberate the child, and people such as Neill at Summerhill, Simpson at Redcomb, McMunn at Tiptree Hall and the Russells at Beacon Hill, all ran schools on progressive lines. The latter were all operating outside the state system and could avail themselves of a degree of freedom to initiate developments. Pioneers within the state system were limited.

In 1904 Robert Morant who had piloted through the 1902 Education Act wrote an introduction to the Elementary Code in which he put forward aims for elementary education. In his introduction he spoke of arousing the interests of children, of encouraging their natural activities, of discovering individual children, developing their sense of self-discipline and developing their individual capacities to the full. This document was followed in 1905 by the publication of the Board of Education's Blue Book which was entitled "Suggestions for the consideration of teachers and others engaged in the work of Public Elementary Schools." This document aimed to encourage a spirit of development in elementary schools along progressive lines.

Almost immediately after the First World War Thomas Percy Nunn (1920) produced an influential and definitive expression of the progressive philosophy in his book Education its data and first principles. The purpose of this book was to provide a way of educating children which would lead to a better society. He stated that it was the individual who was the important factor and that "nothing good enters into the human world except in and through the free activities of individuals."

Nunn provided a textbook for the elementary school teacher wishing to introduce a more progressive approach into his work. The principles behind this approach were; no set time-tables, no schemes, reducing teacher dominance, greater freedom for the child, more relaxed and permissive discipline, opposition to class lessons, self-government, playing down competition and the recognition of individual differences. The progressives stressed the need for freedom, individuality and growth and were concerned with the child's interests and in his learning by doing.

Other authors such as Sir John Adams (1922), sometime Professor of Education in the University of London, were also very supportive of the proposed changes. In his book Modern Developments in Educational Practice he was sufficiently confident of the changes taking place to entitle one of his chapters "The knell of class teaching."

The official attitude continued to support the progressive approach. In the 1927 Handbook of Suggestions it is stated that "the starting point must be children as they really are" that "the children must be allowed to progress through school at varying rates suited to their individual capacity and interest" and that "self education must be the key note."

In 1931 the Consultative Committee's report on the Primary School appeared. This was known as the Hadow Report after its Chairman. This document certainly gave sympathetic support to the progressive child centred approach. It advocated a break from the formal curriculum of the elementary school, a relaxation of discipline, a reduction in competition, an increase in time given to art, drama and music and it certainly stressed the necessity to make the child the centre of the educational process. However,

it was its thirtieth recommendation which came to be taken as the summary of the whole report, i.e.

> "the curriculum of the Primary School is to be thought of in terms of activity and experience rather than of knowledge to be acquired and facts stored."

Some teachers came to see "activity and experience" and the acquisition of knowledge as opposed concepts when in fact what was being contrasted were active and inert ways of acquiring knowledge.

The progressive approach was not only receiving the support of official publications but it was also being strongly advocated by those responsible for the training of teachers who based their work on Nunn's book and the 1931 Hadow Report.

The 1937 Handbook of Suggestions contained the official advocacy of the progressive approach. Importance was placed on the recognition and accommodation of individual differences amongst children and it stated that "the aim of education should be to develop to the full the potentialities of every child." The report stated that it saw this being done best by a progressive approach where for example children would not "remain seated and physically inactive for long periods."

By 1939 the progressives had produced a reasonably uniform set of ideas and procedures for the introduction and practice of child centred education in the primary school. As Selleck (1972) states:-

> "though they (the progressives) had not won all to their cause they had captured the allegiance of the opinion-makers" and "by that time a person who was being initiated into the educational culture of the English primary school, who read his textbooks and journals, took part in discussions or listened to the lectures at his teachers' college - such a person found that he was being constantly confronted with the ideas and practices which have been called 'progressive'."

The gradual introduction of comprehensive schools in some

areas removed the need for selection tests and with it the restrictions that the examinations placed on primary schools. Powerful and influential education officers such as A.R. Clegg in the West Riding and J.H. Newsom in Hertfordshire gave encouragement to the teachers in their own areas to move away from the elementary school approach. In the courses that they ran Her Majesty's Inspectors advocated the progressive approach and Local Education Authorities such as Oxfordshire and Leicestershire established a reputation for their progressive ideas. Examples of good progressive practice were well publicised, such as the work of Sybil Marshall in her small Cambridgeshire school. Further support was given by such writers as Atkinson, Catty, Daniel, Ross, Sealy and Gibbon, A further edition of the Handbook of Suggestions in 1959 emphasized again official support for the progressive approach. The Handbook stated for example that:

> "a child ... must live his own individual life. Control within the group, however gentle and affectionate, if continuous, stunts his mental and moral growth, since it precludes the exercise of the very powers on which these depend. He must therefore be allowed considerable freedom to play, to follow occupations of his own, to enjoy the pleasures of imagination and construction, where he can choose what he will do and how he will do it."

Thus during the fifties and sixties the ideas of the progressives became more widely known but what was lacking was a statement of official approval. This came in the form of the Plowden Report which was published in 1967, and which Watson (1981) saw as giving the single greatest impetus to the extension of progressive education. The report was based on theories of the inherent curiosity of children and their desire to learn; on the needs for individualising the teaching learning process; on the value of discovery methods and the need for teachers to adopt a

less controlling role. The report saw each child as a unique individual with his or her own rate of growth and development and with an innate enquiring, discovery-orientated searching nature. Great stress was placed on individualising work and activities. A reduction in class teaching was advocated with grouping only being used as an economy of teaching time. The committee saw education as a process of discovery and enquiry with the teacher unobtrusively guiding, stimulating and encouraging. The impression given by the report was that the approach it advocated was certainly established and that the general movement was towards the progressive approach.

This progressive image of the English primary school gained great popularity abroad, especially in the United States. The most progressive forms of British Primary School practice became a source of inspiration to American educators at a time when American schools were suffering the formalist backlash of the sixties.

Typical of the American writers who made the progressive image of the primary school so popular were Featherstone (1971), Silberman (1970) and Rogers (1970).

At the invitation of the National Association of Elementary School Principals, Sir Alec Clegg wrote a booklet with the title Revolution in the British Primary Schools. This book appeared in 1971 and in an introduction to a reprint of this article in Silberman's reader, Sir Alec is stated to be "a leader of the quiet revolution that has transformed British Primary Education" and Sir Alec himself stated that "the change in English Primary Schools is a momentous one." Another influential Director of Education, Stuart Mason (1960) of Leicestershire, spoke of "the

azone of enthusiasm and tang of enquiry" that pervaded the primary schools.

John Blackie (1967) Chief Inspector of Primary Schools described a primary school very largely in Plowden terms, whilst Razzell (1968) spoke of the "wind of change" blowing strongly through junior schools. Sadler (1974) begins his book by speaking of a teaching revolution and of the drastic and widespread change of approach and attitude that had taken place. Dempster (1973) also claimed that a revolution had taken place and Blyth (1965) stated that the developmental traditions were spreading rapidly.

The impression given by both the official published material and the spoken and written ideas of many well known educationalists was that to a large degree English primary education had adopted a progressive approach.

Chapter 3

Changes in School Architecture

Section 10 of the 1944 Education Act gave to the Secretary of State for Education power to make regulations prescribing standards for schools which were built and maintained by Local Authorities. Historically, as Evans (1979) states:

> "The traditional classroom school had not been fostered by government policy and its evolution has been well documented."

(see Seaborne and Lowe 1977, Seaborne 1971). The first regulations appeared in 1945 and up until 1951 they required that the teaching area of a school be provided in the form of a schedule of rooms of specified sizes. This was a reflection of traditional teaching practices and the result was that only some 40% of the total school area was available for teaching.

Pressure for Change

In the immediate post-war years pressures were increasing to cause a close examination to be made of practices in the design and construction of primary schools at both national and local level. The two main forces that were to bring about changes were economic and philosophical.

1. The Economic Factor Immediately after the Second World War there was an acute shortage of school places as a result of destruction through bombing, the cessation of construction during hostilities, and the rapid rise in school population resulting from a rise in the birth rate and the raising of the school leaving age. The situation was exacerbated by the difficult economic climate that prevailed and Local Authorities were under great pressure to get the maximum value in terms of 'roofs over heads' from the resources available. By applying more stringent regulations, the Ministry between 1949 and 1956, was able to cut the total area per place by approximately 40% whilst maintaining the amount of

teaching space. This saving was achieved by adopting more compact designs with the introduction of dual purpose areas, combining halls and dining areas and merging circulation and teaching spaces. The following figures given in Building Bulletin 23 (Ministry of Education 1964) indicate the success that was achieved in holding down building costs:-

Cost limit per place (Primary School) in 1950 - £170
" " " " " " " 1955 - £154
" " " " " " " 1960 - £164

The bulletin claimed that these striking economies had been achieved without surrendering the physical standards of the school and had in fact resulted in more generous and adaptable teaching spaces.

The emphasis that was placed on the economic factors made it very easy for accusations and claims to be made that the adoption of the compact and then the open plan design of primary schools was purely a cost saving exercise in response to the introduction of cost and place limits in the nineteen fifties. Indeed the author of the Pilkington Research Unit Report (Manning 1967) declares that the changes in design were "clearly prompted by economic pressure." There is certainly some truth in this statement but it is not the whole truth. The overall costs of building schools was held down but by adopting compact and then open-plan designs significant gains, in terms of available teaching area in relation to costs, were achieved. That is the compact or open-plan school, built to the same cost limits as a conventional school, provided a significant increase in available teaching space. Economies in building costs could have been achieved in other ways and indeed were. Hertfordshire for example pioneered the use of standardised factory produced building components.

Other authorities joined them to form the Consortium of Local Authorities Special Programme (C.L.A.S.P.) which utilised new methods of standardisation, mass production and the bulk purchase of components to reduce costs.

2. The Philosophical Factor As outlined in Chapter 2 there had been evolving in this country, particularly in this century, what came to be known as the progressive approach to education. This philosophy rejected the beliefs on which traditional teaching was based, i.e. homogeneity of classes, teaching as a purely didactive activity and passive pupils. The progressives saw learning as an active process of discovery with the child treated as an individual and given considerable autonomy over his or her own education. To accommodate such an approach to education a very different environment was required. As Bennett (1980) concludes:

> "(open plan) schools were designed to mirror the flexibility perceived in contemporary practice, i.e. to provide a match between the built environment and what educators and architects perceived as a significant shift in primary school teaching."

Such schools Pluckrose (1979) believed reflected:

> "a curriculum freed from the barriers imposed by subject teaching which needed a more fluid environment in which to florish."

Brogden (1983) states that open-plan schools evolved to accommodate three organizational strategies, namely:-

1. Family or vertical grouping, i.e. concern with children making progress at individual rather than age group or class rates.

2. Integrated day, i.e. abandonment of rigid timetable, wide variety of simultaneous activities, little or no class teaching.

3. Team teaching, i.e. shared use of all school resources.

It was the coming together of the economic and philosophical

factors in the early fifties that led to the open-plan design. In a somewhat cynical view Hamilton (1977) expressed the opinion that:

> "open plan schools represent a tacit (if not malign) conspiracy between cost conscious administrators, award seeking builders and architects, and progressive (i.e. non-teaching) educationalists."

Without doubt the most powerful and influential group who did most to bring the two factors together and to formulate plans incorporating the two factors was the Development Group set up within the Architects and Buildings Branch at the Ministry in 1948.

The Development Group

This group was made upof architects, quantity surveyors, Her Majesty's Inspectors and administrators. They were in Evans' (1979) terms a

> "highly dedicated and co-operative group of professionals."

Ward (1976) stated that they exercised a strong influence on the work of other architects and he pointed out that:-

> "beneath the velvet glove of persuasion and example .... was the iron fist of the cost yardsticks, the financial limits on the cost per place which the authority might spend."

Their terms of reference were (Ministry of Education 1949) inter alia: to investigate educational requirements, especially developments in teaching techniques, and to link them to architecture; to keep under review, in the light of experience on the ground, the suggestions made by the Ministry about the layout and construction of schools; to make the results of their findings available to Local Authorities and private architects. To achieve the latter the Group launched a series of Building Bulletins in 1949.

The Group adopted, as indeed they had been instructed so to do,

in their brief, a functionalist approach to design, i.e. their designs were based on what they had seen in schools and on what they perceived as the needs of the occupants of the schools. In promoting this functionalist approach, alterations were suggested in the plan form of school buildings such as the change from corridor to compact plans and then from the latter to the so-called open-plan.

An insight into the way members of the Development Group were thinking can be obtained from the literature. David and Mary Medd (1971) who were influential leaders of the group, stated that their designs were based on "direct knowledge of what people wanted to be, and do, in a new building."

Medd (1973) stated that for him education

> "was something different for each person, a voyage of discovery, direct experience and self-realization."

He (Medd 1969) believed that:

> "the variety of provision, the variety of opportunity, the range of challenges that the schools need to offer, kill stone dead the notion of ranks of repeated rooms that still form the popular image of a school."

He saw the designing of schools as a:

> "joint venture, of a fusing of the different skills and intuitions of educators and designers who together were learning to talk to each other in a language which both could understand."

The Medds explained their way of working in the following way:-

> "Wise educators of experience would introduce architects to leading practitioners in selected schools where new ways of learning were developing. It was not the building they went to see and to imitate. It was the teachers and the children - the things they were doing, the materials they were using, the groupings and the comings and goings; the imaginative, ingenious arrangements and possibilities of space and equipment, the home-made bits and pieces; the animals and plants, the displays of children's work alongside that of professional artists and craftsmen. By watching, sketching, analysing and discussing, it was possible gradually to build a foundation of first hand knowledge on which to base new and different school designs."

Pearson (1968) who was one of Her Majesty's Senior Inspectors working with the group stated that he believed there had been a vast change in teacher role and that primary schools had become hives of interconnected activity with children moving about freely to pursue their individual interests. It was his opinion that:

> "a school is designed around thousands of possible learning situations. School is a place where interests are roused and fed; it is the place from which great voyages of discovery about the works of man and the wonders of nature begin. You have only to go into some of our best primary schools to see it happening for yourselves. Our task as educators and architects is to help teachers to impart this great sense of wonder to the environments we create."

In a later statement Pearson (1975) explained that in his opinion the aim was to achieve:

> "a close match between the vastly increased range of educational activities and the facilities needed in terms of spatial provision."

He claimed to have discovered:

> "a desire for less rigidly predetermined spaces reflecting the need for teachers to be able to seize a learning opportunity and to structure a teaching situation around it."

An examination of the Building Bulletins relating to primary schools confirms the functionalist approach claimed by the Group and reveals clearly the acceptance of the progressive methods of education. In Building Bulletin 1 (Ministry 1949) the authors state that:-

> "The basis of school design is .... the needs and activities of growing children and their teachers."

In Building Bulletin 16 (Ministry 1958) they state that as a result of their observations they believedthat teachers:-

> "saw their work developing through a flexible organization, suited to the many different interests and the wide range of abilities of their children ..... They wanted their children to be able to follow through a piece of work in which they were absorbed, instead of having to break off at arbitary intervals.... There were times for class work, for group work and for individual work, but the children

would, for much of the day, be doing a wide variety of things and learning a great deal for themselves."

It was the design by the Group and construction of Finmere School in North Oxfordshire in 1959 and reported in Building Bulletin No.3 (Ministry 1961) that marked in Evans (1979) words the "first implementation of the designs which were to lead to the demise of the classroom," and it was this design in the opinion of Pearson (1972) that "set the course of primary school design for at least a decade." Finmere was planned on the basis of a flexible series of linked working areas which were intended to facilitate a highly individualised and informal approach.

In Building Bulletin 21 (Ministry 1963) the Group stated:-

"there has been a great break with tradition .... teachers have developed methods of teaching designed to encourage the personal qualities of each pupil through experiments in the use of materials and equipment. This has led to a much greater freedom of movement than was formally the custom, resulting in a more flexible and informal arrangement in the design of teaching areas."

In 1966 Building Bulletin 35 was issued (Department of Education and Science 1966) Its title was New Problems in School Design. Middle Schools. Implications of transfer at 12 or 13 years. The aim of this bulletin was clearly to extend the primary school approach into the early secondary school years as had been advocated in the Plowden Report. The Bulletin includes a description of the first purpose built middle school to be opened in this country. Delf Hill Middle School in Bradford had been designed by the Development Group in collaboration with the local authority. (See page 34). It was designed to accommodate four hundred and twenty pupils aged 9 - 13. It had four main 'centres' each of which contained a variety of areas with some equipped for specialized activities and it was envisaged that children would be free to use the facilities within their centre

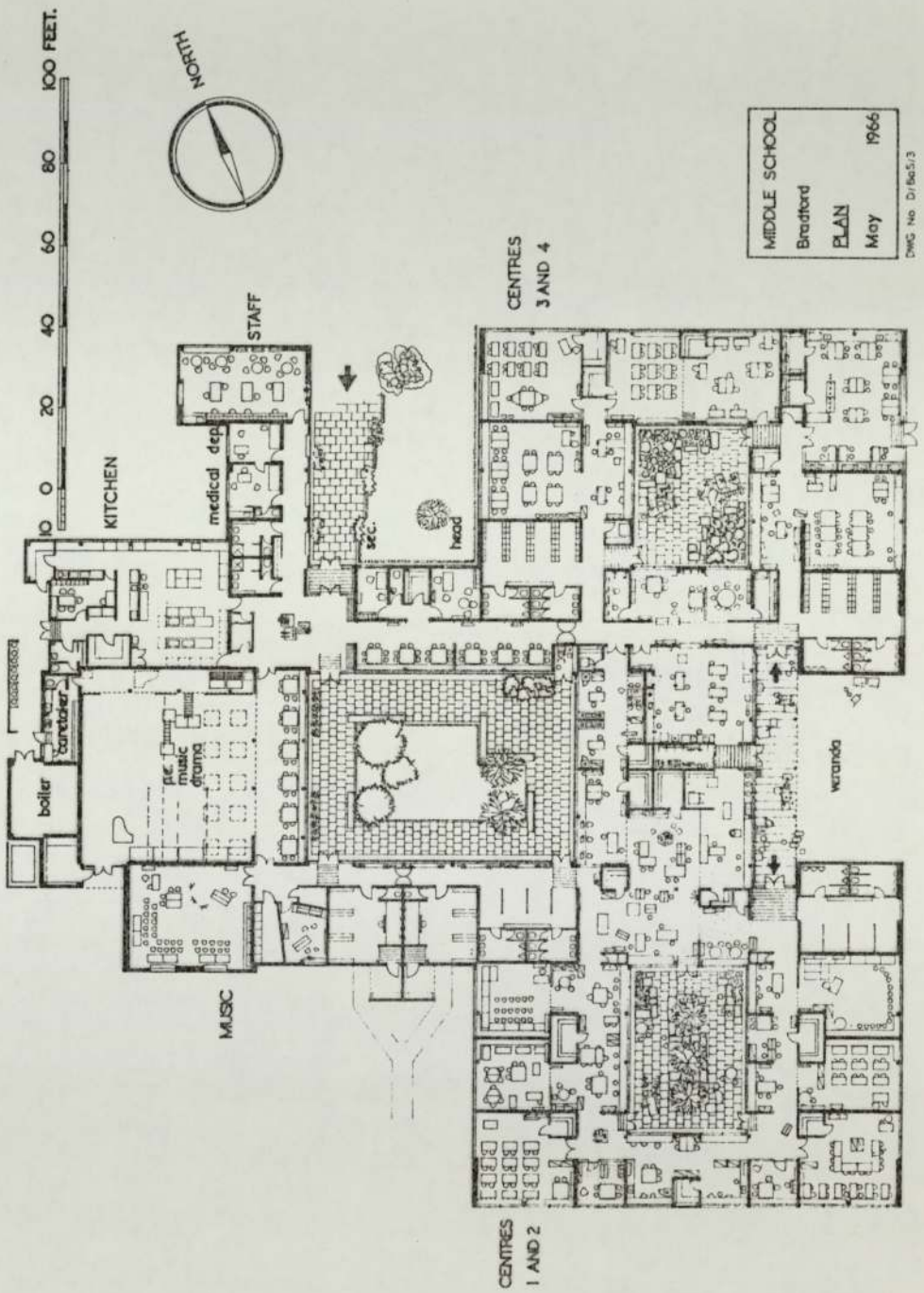

Figure 1 Delf Hill Middle School.

at any time of the day. A studio workshop was provided and a separate music room. The multi-purpose hall was available for physical education, music and drama and dining. This design was clearly a development on the semi-open-plan principles which had become a feature of primary school buildings.

It is significant that in 1967 the Plowden Report was published and was quoted by Anthony (1979) as the "charter" of the Progressives. It was in this same year that the Group produced Building Bulletin 36 (Department of Education and Science 1967) in which they claimed that the progressive approach which they had been observing and advocating over the previous two decades was "the right way of working in primary schools."

However, the Department of Education and Science did not limit their advocacy of open-plan designs based on a functionalist approach in architecture to their Building Bulletins. As early 1957 the Ministry in their Education Pamphlet No.33 (Ministry of Education 1957) stated:-

> "Many teachers now realize that the 'chalk and talk' method whereby lessons are taught from a blackboard to thirty or forty children seated in formal rows of desks is not suitable for all occasions or for all children. More active ways of learning are being followed."

In one of their handbooks (Department of Education and Science 1976) it is stated that:

> "It should be clear that the starting point, as with all designs, is to provide the client with the building he needs."

and as they saw primary education as a much less passive and a much more exploratory and investigative activity they advocated open-plan designs to give greater access to all the areas of a school. (Department of Education and Science Education Survey 16 1972). It was in one of its Reports on Education (Department

of Education and Science 1970) that the Department provided one of its most clear and precise statements as to how they believed that primary schools were operating and they stressed that such a mode of working had great significance for design.

> "children learn at different rates and by different means. Although teachers may have responsibility for a class it is misleading to think in design terms of the class as the teaching unit .... Three characteristics of primary school life challenge the conventional pattern of classroom design. Firstly, children are working in a variety of group sizes; secondly, many different activities may be going on at the same time; and thirdly, children in pursuit of this variety will flow into all parts of the building ... to find a suitable space or seclusion .... These ways of working have been understood and practised by pioneering teachers for a generation or more, but what is new is the extent to which it is now realized that they mean a change in school design."

This brief survey of the literature published by the Department reveals that a very active and energetic campaign was mounted to propagate a particular view of primary education and this view came to be accepted, in the words of Bernstein and Davies (1969), as the "semi-official ideology." Over the years the Department conveyed in the Building Bulletins and in other literature an increasingly detailed, specific and coherent picture of how children and teachers were working in primary schools.

The Department's publications became in Brogdens (1983) words:

> "treatises expounding educational philosophies" which necessitated "buildings, teaching styles and organizational strategies to match those philosophies."

The objective had always been to influence Local Authorities and as McNicholas (1973) stated their influence had been:

> "persuasive, persistent and quite deliberate"

So effective had the influence been on Local Education Authorities that the National Union of Teachers (undated) expressed a concern that:-

"what had started as a carefully controlled experiment in a few areas had exploded into a fashion and a trend before the lessons of the initial experiment had been fully learned." They expressed the fear that "Local Education Authorities and their architectural advisers were rushing into schemes of this kind (open-plan) for the wrong reasons - to be up with the fashion, for economy in building costs, or both." They felt that teachers might "find that s system was being imposed on them with which they might or might not agree, about which they might or might not have adequate knowledge, and for which their training and experience might or might not have prepared them."

It is interesting to note that whilst the Department of Education and Science were confidently advocating and popularising the view that progressive approaches to education were dominating primary schools in England and that these new approaches demanded an architectural response in the form of open-plan schools, the authors of the Gittins Report (Central Advisory Council for Education (Wales) 1967) on Primary Education in Wales took a more cautious line. They asked:-

"Are children on the whole being instructed or are they learning and being trained to learn a great deal for themselves? Is their school day mainly a passive experience, or they actively involved and seeking? Are they being regarded and dealt with mainly as a class, or is scope being given to the full range of individual variation? These are not idle questions. The evidence given to us shows that the design of teaching space depends upon the answers one gives to questions of these kinds."

Chapter 4

National Planning for Middle Schools

Once the 1964 Education Act had been passed and Circulars 10/65 and 13/66 had been published, Local Education Authorities were in a position to adopt, if they so wished, a three-tier system of organization incorporating middle schools. By 1968 forty-five Local Education Authorities out of one hundred and sixty-two had three tier plans accepted and two thirds of these were for 9 - 13 middle schools. (Ellesmore 1968).

The evidence given in Chapter 1 does not suggest that the initiative for introducing middle schools came from the teaching profession. The figures given in Volume 2 of the Plowden Report reveal that the proportion of teachers wanting 9 and 13 as transfer ages was small. (Central Advisory Council for Education 1967). This situation is not surprising as Batley, O'Brian and Parris (1970) state that "many teachers were the victims of their own educational history." This reluctance to change was revealed in the attitude of teachers in Staffordshire and it could lead to accusations such as that made by Pulman (1967) that the initiative for change had come from outside the schools themselves, and that it was "the refugees" from the classroom and the "non-combatants" who were shaping the pattern of education.

In a major reorganization of the education system it is essential that a Local Authority retains the goodwill and co-operation of its teachers. They are the key factor in education as Marland (1975) states:-

> "The more you look at schooling in practice, the more you study research and observation, and the more you consider the real problems of helping the young learn, the more you are forced to the simple conclusion that individual teachers are the most important factor."

The involvement of teachers and the timing of this involvement is a crucial question and requires delicate and sensitive handling

as Birley (1970) states:

> "the stage of consultation is perhaps the trickiest of a very tricky operation. Too soon, and it may be a waste of time; too late, and opposition to a fait accompli may cloud any merits the scheme may have."

This difficult situation is well summarised in the concluding sentences of paragraph 41 of Circular 10/65 (Department of Education and Science 1965) where it is stated:

> "The arrangements (for consultation) must strike a balance between the funamental right and duty of the authority to take decisions and the practical good sense of accepting that teachers have a very real contribution to make from their knowledge of the children and their needs."

Once the decision had been taken by a Local Education Authority to reorganize its system of education on a three-tier basis using 9 - 13 middle schools, the teachers became more intimately involved in the consideration of the implications. The usual practice was for working parties to be set up on which interested teachers could serve. The task facing these working parties, particularly the first ones, was formidable. The 9 - 13 middle school was an entirely new concept in British education and there was a lack of material on which to work. Middle schools existed in other countries such as America, but little or no use appears to have been made of their experience which had extended over half a century. Caroline Benn (1967) expressed surprise that so little notice had been taken of the "working models in the U.S.A." which, in her opinion, were relevant to the planned English schools. Others disagreed. Gillespie (1968) saw the experience of other countries as hardly relevant to the British scene.

Another possible source of information that does not appear to have been consulted or used was the private sector of education that existed in this country with its transfer age of 13.

In the last years of the sixties and the early years of the seventies ideas were put forward concerning the education of children in middle schools. This material was available to the teachers in Staffordshire when they bagan their planning for 9 - 13 middle schools.

There follows a brief review of ideas and suggestions that came from three main sources, namely:-

1. Official publications such as the Plowden Report (Central Advisory Council for Education 1967); Building Bulletin 35 (Department of Education and Science 1966); Launching Middle Schools (Department of Education and Science 1970a) and Towards the Middle School (Department of Education and Science 1970b).

2. The pronouncements of individual educationalists as recorded in publications such as Bulletin No.9 of the Comprehensive Schools Committee (1968); The Middle School (National Union of Teachers 1967); records of the Warwick University Conference (Schools Council 1967); the Walsall Conference (Department of Education and Science 1967); the Missenden Abbey Conference (City of Oxford Education Committee 1967) and the University of Exeter Conference (Exeter University 1968).

3. The first working party and conference reports from some of those Local Education Authorities who had been first in the field of reorganization, for example the West Riding of Yorkshire, Dorset, Worcestershire, Leeds, Merton, Kent and the Isle of Wight.

1. Official Publications

(i) The Plowden Report

Blenkin and Kelly (1981) state that the Plowden Report had a major influence on the development of thinking about education.

Chapter 2 of the report deals with the growth and development

of children and emphasizes the degree of individual differences that exists between children in their middle years. The implications for education were seen by the committee as:-

(a) Individual differences between children of the same age are so great that any class, however homogeneous it seems, must always be treated as a body of children needing individual and different attention.

(b) Until a child is ready to take a particular step forward, it is a waste of time to try and teach him to take it.

(c) Even at the ages with which we are concerned, boys and girls develop at different rates and react in different ways, a fact which needs particular attention because we have co-educational schools. Boys are more vulnerable to adverse environmental circumstances than girls. Both reach maturity earlier than they did.

(d) Though I.Q. scores are a useful rough indication of potential ability, they shouldnot be treated as infallible predictors. Judgments which determine careers should be deferred as long as possible.

(e) Since a child grows up intellectually, emotionally and physically, at different rates, his teachers need to know and take account of his "developmental age" in all three respects. The child's physique, personality, and capacity to learn develop as a result of continuous interaction between his environmental and genetical inheritance. Unlike the genetic factors, the environmental factors are, or ought to be, largely within our control.

Descriptions are given of "good" schools at work and the committee state that:-

> "in these schools, children's own interests direct their attention to many fields of knowledge and the teacher is alert to provide material, books or experience for the development of their ideas."

The Report provides its own summary of the philosophy it was supporting in these words:-

> "A school is not merely a teaching shop, it must transmit values and attitudes. It is a community in which children learn to live first and foremost as children and not as future adults. In family life children learn to live with people of all ages. The school sets out deliberately to devise the right environment for children, to allow them to be themselves and to develop in the way and at the pace

appropriate to them. It tries to equalize opportunities and to compensate for handicaps. It lays special stress on individual discovery, on first hand experience and on opportunities for creative work. It insists that knowledge does not fall into neatly separate compartments and that work and play are not opposite but complementary."

To make its message perfectly clear it also provides a set of danger signs which would indicate that something had gone wrong with a school. These signs were:-

(a) fragmented knowledge
(b) no changes in past decade
(c) creative work very limited
(d) much time spent on teaching
(e) few questions from children
(f) too many exercises
(g) too many rules
(h) frequent punishments
(i) concentration on tests

The committee discussed the practical implications of the approach they were advocating. If there had to be a timetable they saw it being composed of lengthy periods of time which could be easily adjusted by the teacher to suit the needs of the children. They advocated a flexible curriculum which would make good use of the interest and curiosity of the children, one that would minimize the idea that subject matter can be rigidly compartmentalized and one that required the teacher to act in a consultative, guiding and stimulating role rather than didactic one. They also believed that it must provide the child with opportunities for personal discovery as it is the latter that influences the intensity of a child's experience.

The Plowden Report clearly approved and supported progressive theories of learning and demanded freedom, activity and discovery in children's learning.

(ii) Building Bulletin 35. New Problems in School Design Middle Schools

(This bulletin was prepared in order to offer guidance on

some of the school building problems that would be met by Local Education Authorities preparing to introduce middle schools.)

It was felt by the authors of the bulletin that middle schools, whilst learning from the established traditions of primary and secondary schools, would develop a character and mode of work that was distinctly their own. The authors warned that they had to guess as to the likely outcome but that their guesses were based on the best judgments possible at the time. They felt that the schools must not sacrifice the virtues of the primary school approach to education but there would be an infusion of the disciplines characteristic of the secondary school.

When planning the schools the authors envisaged a wide variety of group sizes being in use in a variety of teaching and study situations. They saw a need to cater for both the individual child and for groups larger than the conventional class. It was thought that the year group with largely its own small group of teachers would be the basis on which the school would operate and in order to make a highly flexible and individualized approach possible, they recommended open-plan designs.

(iii) Launching Middle Schools. Education Survey No.8 (1970)

(This publication was based on two surveys made by Her Majesty's Inspectors in 1968 and 1969 of the new middle schools in Divisional Executive No.15 of the West Riding of Yorkshire).

In the comments made on both the modified and purpose built schools, support was given to the provision of year group bases with shared areas for a variety of activities. Favourable comments were made on the attractive appearances of these schools which were "bright, cheerful, colourful and exciting places."

The report did not deal explicitly with the role of the middle school teacher but it was acknowledged that "the ultimate responsibility for its (middle school) success was theirs." (the teachers). The importance of in-service training was stressed. It was envisaged that class teachers would take their own classes for a large proportion of the time and that the children would never have to experience the secondary school system of having different teachers for each subject. Her Majesty's Inspectors noted that secondary school systems of subject teaching had been eliminated in the schools. It was recognized that such a system put a strain on teachers but it was made clear that team teaching enabled staff to overcome the problems of their own limitations.

It was felt that positive developments had taken place with project work and thus a good balance between formal and informal work had been achieved. One note of regret was that in the adapted schools the buildings were necessitating more time-tabling than was felt desirable.

(iv) Towards the Middle School. Education Pamphlet No.57

(This pamphlet was published to give ideas and suggestions as to how middle schools might work. It was stated that it was a tentative summary of the possibilities that had been envisaged at that time.)

Chapter 1 is devoted to a discussion of the characteristics of children in their middle years and the authors state that:-

> "the wide range of differences in boys and girls of 8 to 13 provides the middle school with its challenge and opportunity .... It is .... in the middle years that teachers face the biggest problem in matching new learning to established attainment."

The authors went to some length to stress the individuality of children in the middle years and to point out the problems that a recognition of this fact would present.

They stated that the curriculum of the middle school should provide and organize a wide range of enriching experiences. There would be plenty of opportunities for a wide range of activities in which the children would learn to make choices relevant to their stage of development. The children's learning would be based on their personal experiences and their curiosity would be sustained and exploited in order that their individual interests would provide the starting points for developing their skills and knowledge. Every effort would have to be made to encourage the children to seek for meaning, for pattern and for inter-connections.

If such an approach was to be implemented the authors believed that subject specialist teachers would be inappropriate as such teaching would make it difficult for children to pursue their interests, it would fragment the day and sever the natural connections between aspects of the curriculum. They felt that subject specialists would be likely to concentrate on instruction in an attempt to cover a prescribed syllabus, thus limiting the child's choice and the opportunity to adjust work to varying abilities. They saw undoubted advantages in the class teacher having responsibility for most of the curriculum.

It was thought that a timetable which divided the day into "short predetermined segments of time" was inappropriate and would be a "grave disadvantage." They saw advantages in the use of large blocks of time so that an empirical approach to learning could be used and the children could pursue their interests in depth.

The year group was recommended as the basis for organization and it was envisaged that at times all of the children in a year group would be pursuing their own individual interests under the unobtrusive guidance of the teachers in that year team. Class teaching was seen as inappropriate to the middle school.

The building required to house this type of approach to education would need to be capable of very flexible use. The authors envisaged many different activities going on in an area simultaneously with a constant grouping and regrouping of children. They thought it would be rare for a class of children all to require to be seated at the same time and they suggested more informal seating and working surfaces than that provided by the traditional chair and desk.

2. The views of Individual Educationalists

Many of the early speakers made a point of expressing their views on the nature of the middle school child. W.J.B. Browse (1969) Adviser for Primary Schools, Leicestershire, stated that theperiod from 9 to 13 would be an important stage of transition when there would be a shrugging off of childish things and the first real donning of the adult mantle. In his opinion this would be the stage when the child would move at his own individual rate from Piaget's stage of "concrete operations" to the beginnings of "formal operations", from Dienes "constructive mode" to his "analytic mode" and from Whitehead's "age of romance" to the "age of precision". The individuality of the child was stressed (Dennis (1967), Nisbet and Entwistle (1966)) and it was stated repeatedly that all the planning for middle schools had to acknowledge this fact. (Ross 1968, Clegg 1967 and Duncan 1968)

Burrows (1967) expressed the view that:-

"The whole strength of the English School depends on the detailed knowledge of individual children"

and in recognising that different children have different needs and would respond in different ways and at different times to the experiences provided and stimuli received.

(i) Approaches to education in the middle school

It was strongly argued that the starting points for the education of children in themiddle school would need to be the child's individual interests(Adams 1968) and it would be the child's individual method of learning, his level of understanding as stimulated, provoked and extended by teaching of the best quality, that would determine the approach adopted. (Ross 1968)

Very strong support was given to the view that the methods of teaching established in good primary schools and identified and supported by the Plowden Committee, had to be adopted in the middle school. (Marshall 1968, Markwick 1968, Sproule 1970, Benn 1967, Gillespie 1968, Clegg 1967) with a dedication to the ideal of an individually tailored curriculum providing for each pupil that sequence of learning experiences that would enable him to develop to the full his powers of learning. (Ross 1968). It was felt that every good middle school would accept the task of catering for the individual child's needs and potentialities. (Burrows 1969). It was thought that this could only be achieved through broad enquiry based learning (Clegg 1967) with discovery methods and project work playing a large part in the programme of the school (Sproule 1970). Such an approach would require the child to be given freedom to choose his work from the many activities made available (Browse 1969) and to have open access to

all the facilities of the school. (Clegg 1969).

(ii) Middle School Curriculum

It was appreciated that the range of interests would be wide and would not fit neatly into either subject or timetable compartments. Duncan (1967) stated that:

> "learning should be rooted in enquiry and interest and proceed by discovery."

whilst Burrows (1967) thought that the curriculum should help the child

> "to discover and recognize his own interests, aptitudes and talents."

Clegg (1967) Razzell (1969) and Johnson (1968) argued for an integrated approach to the curriculum as they felt that planning in terms of subjects was inhibiting and would restrict the child in their pursuit of his interests.

(iii) Groupings

Flexibility in grouping children in the middle school was stressed by many speakers. Adams (1968) stated that in his view working groups would seldom consist of the conventional class unit. This view was supported by Burrows (1969) who expressed the opinion that the full class had ceased to be the teaching unit for many purposes and that in many primary schools work was organized on an individual rather than a class or group basis. Clegg (1967), Razzell (1969), Ross (1968) and Ellesmore (1968) all supported this view but the latter saw a place for setting especially in sequential subjects. Duncan (1968) warned of the dangers in setting as she felt it would lead to a loss of corporate identity and a reduction of flexibility in organization. Vertical grouping

was given some support by people such as Browse (1969) who believed it would give continuity and stable relationships.

(iv) Time tabling

Although speakers conceded the need for a timetable to control the use of major facilities such as the hall, there was very strong and uniform opposition to the "tyranny of the bell". The bell controlled period was seen by speakers such as Razzell (1969), Willcock (1969), Browse (1969) and Clegg (1969) as restrictive, artificial and inappropriate and that every effort had to be made to avoid the excessive fragmentation of the day as this would kill the capacity of the child to become interested. Speakers felt that it was the individual child who should control the length of his learning sessions, with the teacher organizing the "rhythmn of the day."

(v) Teachers

Marshall (1968) was emphatic that middle schools would be:

> "staffed by primary school trained teachers who are au fait with all that is best of the changes brought by the creative revolution. In this way the benefits of the new progressive thinking would be applied up to the age of 12 or 13."

However, Razzell (1969), Burrows (1969) and Willcock (1969) all expressed doubts as to the ability of any single teacher to cope with the demands that would be made on him especially at the top of the school, and McMullen (1969) offered a reminder that only 10% of teachers could be classed as good. The solution to the problem was seen in systems of team teaching, with teachers working in groups advising and supporting each other. (Willcock (1969) Ross (1968)).

Teachers were not seen as purveyors of information but as

organizers of structured learning experience (Ross 1969) and providers of recognition of achievement, security, stimulation and guidance. (Clegg (1969).

(vi) Buildings

Many speakers commented on the design of schools for the middle years. The general view was that whilst offering the individual child security it had to be able to offer great flexibility of use. Ross (1968) did not think individual classrooms were appropriate and he believed that the designs should be based on modern primary schools that offered facilities for a wide variety of groupings and would not impose patterns of organization (Adams 1969) but would cater for the experimental, investigative and individualized work that would develop. Speakers such as Clegg (1969) envisaged a variety of work going on simultaneously in each area and speakers such as Markwick (1968) and Browse (1969) saw no need for an area to be capable of seating all the children in a group. Many speakers favoured the open-plan design as offering ideal facilities and the greatest flexibility in use.

In putting forward their ideas for the middle school, these early speakers made frequent references to good junior school practice and the need to make the new middle schools developments and extensions of the best Plowden type schools. Taylor (1969) summarized the characteristics of good junior schools as follows:-

1. they afford many avenues for learning
2. learning begins from the mode of experiencing which comes naturally to the child and is not held within rigid boundaries of time or subject matter
3. the motives which provide the drive for such learning are either intrinsic in the child or are intrinsic in the experience which is open to him
4. active involvement of the learner in learning by doing

3. Reports of Working Parties of Teachers

(i) Dorset

Following discussions with teachers a brief was prepared by officers of the Authority for the architect responsible for designing the first middle school. The brief stated that great care was required in designing a school as it could either hamper or encourage certain patterns of activity and organization. The educational philosophy on which the brief was based was summarized as follows:-

(a) The newer, open-ended approach to educational activity characteristic of the best junior schools will prevail over formalism. Individual enquiry, varied forms of self and corporate expression, learning born of interest, the full use of the whole environment - these will be the keynotes throughout the school. The fragmentation of both matter and time (fixed subject divisions in a rigid timetable) common in many secondary schools, will not obtain here, even at the top of the age-range.

(b) At the same time pupils must be prepared for the more subject patterned approach of the school they will be going to at the age of 13+. Moreover, at least during their last year in the Middle School, they will be ready for and glad of the opportunity to pursue certain studies in greater depth. Provision for some specialised teaching and learning in certain fields, (for example languages, crafts, science) must therefore be made, though this need not, and should not, entail a rigid timetable.

(c) The satisfaction of the social needs of children in this age-range is of paramount importance if true education is to take place. It is assumed that throughout the age-range pupils need the security which they obtain through membership of a small and stable group, and through close contact with one member of staff who is particularly responsible for the group.

(d) But what is said in (c) above must not obscure the complementary truth that especially in the upper part of the school pupils will be making demands and requiring stimulation over a wider range than their own small group or any one teacher can provide. The school must therefore be so organized - and the building must make this possible - that pupils are able to secure the help of various members of staff at different times according to need and interest.

(ii) The West Riding

The document prepared in the West Riding supported the extension of the primary school form of organization for a further two years and it noted the implications that such an approach would have for teachers. The ability of a single teacher to be able to stimulate enthusiasm and interest over the full range of activities at the depth which would be appropriate for older children was questioned, and it was envisaged that a form of team teaching would be required at the top of the school. This would enable the whole year group (one hundred and forty children) and its teachers (six) to be considered as an entity. They would have freedom to decide how to utilize their combined resources, freedom to vary the grouping of the children for different purposes, and they would have available a wide range of facilities.

The main responsibility of the school was seen as the development of each child's personality in all its aspects and to offer the means by which the individual child's full growth and development could be satisfied. The document points out that:-

> "Different children become interested in different aspects of their work at different times and for differing lengths of time."

and the school had to cater for this. The stated aim was to offer each child:-

> "the opportunity of moving into all the major areas of educational experience at levels appropriate to their abilities and within a framework of a secure pattern of teacher-child relationships."

It was considered that a school which had to meet these needs had to be designed to give great flexibility in organization, possibilities for developing group identity and a progressive enrichment of facilities.

(iii) Worcestershire (Droitwich Working Party Report

In Appendix 1 of this report details of the middle school child are given. It is stated that the picture drawn is based on the work of such psychologists as Piaget, Inhelder, Lovell, Peel, Wall and Vernon, where it is stressed that all children pass through similar stages of development but that they do so at their own individual rates. This requires a teacher-learning situation being created which is flexible enough to cater for the individual differences and one that is based on the experiences, interests and environment of the children. The writers stated that it would therefore be logical to have an integrated curriculum based on the "concrete evidence" that children perceive around them.

The Working Party advocated an approach to education in the middle years based on two assumptions:-

(a) Children generally learn best by working at that which interests them and by working at their own pace and at a fashion which provides the maximum possible opportunity for practical experience using materials readily to hand. This unrestricted learning situation can only arise where a teacher or teachers have continuous responsibility for a group of children and where subject barriers are diminished. It flourishes through enquiry and discussion. Class groups under the direction of class teachers in continuous contact with their pupils are organizationally the simplest method of providing such learning opportunities. These groups should be unstreamed and not "set".

(b) There will exist a need for what are termed 'special advisory teachers' within the teaching team in any middle school. Their function will be to guide class teachers in matters which present difficulties to a non-specialist and to teach in a specialist fashion those pupils in the older classes whose study is conducted in such depth and at such a pace as to make specialist guidance desirable.

As they envisaged it the middle school would be based on class teaching with a small measure of specialist teaching. They felt that it would be essential to establish team teaching based

on the year group with the semi-specialist acting as a guide and supporter to his or her colleagues.

The timetable would only be used to ensure an advantageous use of facilities and would leave each year group with the maximum degree of freedom to organize their work as they saw fit.

(iv) Kent

(This unpublished document was made available by the Authority as a record of the thinking of its teachers in planning middle schools.)

The Kent document stated that the basic aim would be to keep alive "the valuable features which have developed in junior schools in recent years." The main feature of this approach was the emphasis that was placed on the "total educational welfare" of the individual child. This would include the maturation of personality and the setting up of desirable attitudes, a readiness to talk of experiences, the formation of social skills and the ability to become absorbed in a wide range of activities.

In order to achieve this situation it was thought necessary to rely on an organization based largely on the class teacher principle rather than on subject specialisms. The need for a flexible approach and organization was seen as essential and this could only be achieved if each teacher covered more than one subject.

(v) Leeds

(An unpublished document prepared by the Authority to record the opinion of its teachers.)

The role of the middle school was seen as providing an opportunity for each pupil to develop at a pace appropriate to

himself, that is providing an intellectual, physical, emotional and social education suited to the needs of the individual child. A consideration of the findings of such people as Inhelder, Lovell, Piaget, Luria, Bernstein and others led the group to place an emphasis on the considerable range of individual differences that exist between children and their rates of development. The group noted that although all children pass through the same stages of development they do so at their own individual rate.

The implication of this for the middle school was seen to be the need for sufficient flexibility in organization and curriculum to "cater for the varying needs of the children consequent upon their varying rates of development." It was felt that the best learning situation would be one where the child could adopt a concrete approach in exploring his real world and where what is taught is relevant to his experience, environment and interests.

The group was opposed to sharp differentiation of subject areas and preferred an integrated curriculum with the child's work cutting across subject barriers by the use of centres of interest and topics.

When considering teaching methods and the role of the teacher the group stated that the emphasis should be on the child rather than the subject; upon the method of learning rather than upon the matter learnt. The wide ability range and the need for children to learn at their own pace would mean that group work and individual programmes would be required. The teacher would have to work from the child's interests; plan their learning situations; ensure that the child builds up an adequate body of knowledge upon which to draw when solving problems; help him to organize the information and ideas acquired and provide

opportunities to learn basic skills and techniques.

It was thought that the timetable should be as flexible as possible to ensure the most advantageous use of facilities and to permit integration of the curriculum. Large blocks of time would have to be available in order that children could "pursue a topic with sustained interests and in depth, with the greatest possible opportunities for practical experience using readily available material and equipment." Such a situation, it was believed, could only be achieved by a group of teachers having a continuous responsibility for a group of unstreamed children. This would require a form of team teaching based on the year group.

The only comment the group made concerning the premises required for such an approach was that it would have to be capable of highly flexible use and able to cater for a variety of frequently changing group sizes.

(vi) Isle of Wight

(A brief unpublished summary prepared by the Authority as a record of the discussions that took place with teachers.)

In considering the needs of middle school children the group stated that the child must be made to feel secure and successful. They must be able to experiment and find out, to pursue their own interests and to do things for themselves. Provision must be made for their natural activity and they must be made to feel that they belong to a community and are valued by it.

The most important aim for the school was seen as "providing for the educational needs of the individual child." Their interests must be fostered and directed purposefully into appropriate areas of study without the restrictions of a timetable. It was felt that the child would be best catered for in a mixed ability group under the supervision of a teacher who would be responsible for most of his work. The child would have freedom to work in a year centre containing a variety of teaching areas and equipped for a wide range of activities.

Each year group would have its own team of teachers who would be "sensitive to the pastoral needs of their children and able to foster and exploit the interests and growing points as they occur."

"The curriculum should be thought of in terms of activity and experience within broad areas of study and the approach should be through stimulation and discovery." It was felt that it would be more important that the child was asking the right questions rather than learning the right answers. The specialist approach with one teacher teaching one subject was thought to be undesirable.

Conclusion

The picture that emerges of middle schools from these brief summaries is that of schools highly committed to the individual child, basing their organization and curriculum on the concept of individualized learning, with children being given freedom to actively pursue their individual interests in an educationally rich and varied but informal situation, guided, supported and encouraged by a small team of teachers that knew them well and who provided a secure base for individual exploration and discovery.

This picture of a progressive approach is supported by Nias (1980) who, in making a survey of the accumulated publications of the decade between 1966 and 1976 saw:-

> "a hopeful, exciting educational world, full of dynamism, innovation and social justice, a world in which conflicting value systems, individual development and common need are joyfully reconciled by the organic processes of exchange and growth."

Chapter 5

The Emergence of 9 - 13 Middle Schools in Staffordshire

Having looked in Chapter 1 at the way in which middle schools emerged in this country, an examination will now be made of the process by which comprehensive reorganization on a three-tier basis, incorporating 9 - 13 middle schools was introduced into certain parts of Staffordshire.

The information on which the following Chapter is based was obtained from four sources. These were:-

1. The minutes of the Staffordshire Education Committee and the minutes of its General Education Sub-Committee.

2. Interviews with present and former officers of the authority. These include the former Chief Education Officer of Staffordshire Mr N.E. Browning and the present Chief Inspector of Schools Mr. M.J. Rogers. (The latter was appointed Assistant Education Officer for East Staffordshire in 1971. He was asked by the Chief Education Officer to lead the thinking within the County on middle schools.) The former Senior Assistant Education Officer responsible for Sites and Buildings (the late Mr. R. Copley) and the County Architect who drew the plans for the schools in the study, were also interviewed. A number of other former, or still serving officers, were also questioned.

3. Discussions were held with a large number of teachers who were involved in the reorganization process either as officers or members of planning groups in areas which did eventually become reorganized on a three-tier basis and also in areas where a two-tier structure was retained.

4. An examination of a range of written material that was produced as a record of meetings of teachers held to discuss reorganization.

During theinterviews and discussions notes were made of the views and opinions expressed, and the quotations in the chapter are from the written notes. Although it is not claimed that the quotations are verbatim, every effort has been made, by checking where possible, that the impression given is correct.

Post War Plans for Comprehensive Reorganization in Staffordshire

An examination of the minutes of the Staffordshire Education Committee throws little light on the process by which the County

of Staffordshire came to adopt a three-tier system of education incorporating 9 - 13 middle schools. Compared with the material and evidence that is available on the process of reorganization in the minutes of other Local Authorities, the evidence available in Staffordshire is sparse. (See Marsh (1980); Sharp (1980) and Hargreaves (1983). One reason that was advanced for this state of affairs by a retired officer of the Authority, was that the process took place "in the good old days when the Chief was really the boss." At the time of the introduction of middle schools the Chief Education Officer was N.E. Browning who was considered by various witnesses (present, and former, officers of the Local Education Authority and retired and practising teachers) as a powerful and influential figure who worked extremely closely with the Chairman of the Education Committee. This close working relationship was confirmed and stressed by Browning during an interview on the 1st October 1979.

The first mention of middle schools that appears in the minutes of the Staffordshire Education Committee is on the 11th July 1968, but this was only in relation to a proposed scale of inter-Authority payments. However, in Appendix C of the same minutes there appears a letter from the Department of Education and Science dated the 18th June 1969 which had been received in reply to the proposals of the Local Authority for comprehensive reorganization. Whilst agreeing that the proposed all-through comprehensive schools were satisfactory for most of the County, the Secretary of State for Education and Science stated that:-

> "In certain of the rural areas, however, particularly those in which there is an existing stock of small secondary schools of fairly recent construction, it would appear that the application of the proposed pattern would pose substantial difficulties."

The difficulties referred to related to the size of the catchment areas required to give viable comprehensive schools in the more rural areas of the County. The Secretary of State asked the Local Authority to consider, in the light of the above difficulties, some alternative form of organization. (There was no mention of middle schools in the letter.)

Browning was the Deputy Director of Education at this time and in his comments on the letter he stated to the Committee that:

> "the population in these rural areas was unlikely to be able to support viable all-through comprehensive schools. At the same time many of the small Primary Schools in these areas had static or diminishing rolls. This seemed to provide the opportunity to consider alternatives such as middle schools as the means of improving both primary and secondary facilities."

The committee agreed that there was room for some variation in their pattern of reorganization, although, up to that time, the Local Authority had based their plans on six-form-entry, all through 11 - 18 comprehensive schools.

Immediately after the 1939-45 war Staffordshire had a Labour controlled county council and was, in Browning's words, "hell bent on instantaneous comprehensivisation." Various plans were submitted to the Ministry of Education but they were referred back. Browning believed that, because London had introduced very large comprehensive schools, the proposals for smaller six-form-entry schools in Staffordshire were not accepted by the Ministry of Education. He produced his own ideas to illustrate to the Ministry that a six-form-entry comprehensive school was viable.

Eventually the Ministry granted approval for comprehensive schools to be established in three urban areas of Staffordshire which did not have Grammar Schools. Three comprehensive schools

were opened in 1953 in Tettenhall, Willenhall and Tividale. These were pilot schemes and according to both Browning and former officers of the Authority they proved to be a great success. Their success led to a drive for the establishment of further Comprehensive Schools between 1957 and 1963.

Reorganization Planning after 1965

On the 16th December 1965 the Chief Education Officer submitted to the General Education Sub-committee an outline scheme of reorganization for all but two of the areas of the County. He pointed out the reference in paragraph 7 of Circular 10/65 to six-form-entry comprehensive schools as viable units, confirming, he claimed, the consistent policy of the Authority over the years to advocate schools of such size. He stressed that the policy would continue to be to provide such schools wherever possible.

When Browning was the Deputy Chief Education Officer one of his responsibilities had been the introduction of comprehensive schools and in the reply of the County to Circular 10/65 he was largely responsible for advocating the adoption of 9 - 13 middle schools in the County. Asked in an interview in October 1979 why he took this line of action he stated the following reasons:-

1. Prior to the outbreak of war he had been on the staff of Bedford School which was an independent 11 - 18 school. He witnessed the school being reorganized with a separate preparatory school on the same campus, leaving the upper school to cater for the 13 - 18 year olds. In his opinion both sections gained greatly from the reorganization as the upper school became a more adult place and the preparatory school was able to concentrate more closely on its pupils. This experience had convinced him that children stood to gain greatly from a later age of transfer and he admitted that it was this experience that exerted a great influence upon him when it came to planning reorganization.

2. Whilst Deputy Chief Education Officer he had been responsible for the 11+ examinations. He believed that

the errors inherent in selection were never properly dealt with and that too many children allocated to Grammar Schools did not make full use of their opportunities. In addition, he did not believe that the failures in the Grammar Schools were ever really dealt with. He felt that by removing selection and giving children a four year period of transition from the primary school approach to the secondary school an important educational advance would be made.

3. There were in the County a good stock of sound, moderate sized buildings and in the difficult financial situation then prevailing it was imperative that any proposed plan made full use of the capacity available.

It is interesting to note that it was his own experience in a public school that encouraged Browning to recommend thirteen as the age of transfer. He stated that he believed it would make possible an improved education for the pupils. Similarly David (1977) found that in "Eastshire" it was the councillors who had been educated at public schools who encouraged the adoption of a later age of transfer as "They wanted to change school rules and regulations, applying new teaching methods common in the public schools."

It has been shown in Chapter 1 that the third reason given by Browning for adopting middle schools, i.e. the stock of existing buildings, was a common and important reason in most authorities who eventually adopted 9 - 13 middle schools.

When asked as to what he believed was the main reason for Browning advocating middle schools, the Chief Inspector stated that without question the prime reason was the strong desire for introducing small comprehensive schools and the need to fully utilize the existing stock of buildings. He saw the former Chief Education Officer as a very able administrator rather than an educationalist.

In 1968 Browning became the Chief Education Officer and in his words he was "placed in a much better position to push for

middle schools." The Chairman of the Education Committee at that time was totally in support of comprehensive schools and 9 - 13 middle schools. Retired, and present, officers have stated in interviews that the pair made a formidable combination as they were united in their views and worked very closely together. Other witnesses also stated that it was this pair who did a great deal of the necessary spade work to get the middle school concept accepted by Governors, Managers, teachers and parents. Browning stated that he found himself in the fortunate position of having extremely helpful members of Her Majesty's Inspectorate to work with and that the middle school idea was well supported by a number of the County Advisory Staff. Advisory Officers, known to be sympathetic to, and supportive of, the middle school idea were given specific responsibilities to gather together as much information as possible relating to middle schools. They attended conferences, visited other authorities, visited training institutions and accumulated published material. One of these officers stated in interview that he had been greatly influenced by the Plowden Report. He said that he had always admired the primary school and its way of working and he felt that the introduction of 9 - 13 middle schools gave an excellent opportunity to extend the informal approaches of the primary school into the area of traditional secondary education.

Browning also stated that it was highly significant that at this particular time Staffordshire was an expanding county and this required additional school buildings, which in turn made an "Educational desirability (middle schools) a practical possibility." He stressed that the prime aim was to achieve the

best continuum of education for children from 5 - 18. He felt that 9 - 13 middle schools would form a key block in this continuum where children could make the transition from the primary style of education to secondary style subject teaching over a four year period. The size of the middle schools was given very careful consideration, just as the size of comprehensive schools had been carefully considered. Although existing schools played a part in determining the size of the middle schools, he believed that children at this stage of their education needed to be surrounded by a sufficient number of their peers to be faced by a challenge. Size was also carefully considered in relation to staffing, where it was felt that a staff of twenty would be a minimum if the schools were to have flexibility and an ability to cover all options. As a result of these considerations the officers of the Authority decided that for the new purpose built middle schools, which form the basis of this study, a pupil population of five hundred and sixty would be designed for.

Liaison with the public

In order to "sell" the middle school idea, meetings were arranged between the Chief Education Officer and his Chairman, and the governors, teachers and parents in those areas where it was planned to introduce middle schools. In these meetings the Chief Education Officer and his colleagues explained the policy of the Authority to introduce six-form-entry comprehensive schools, and how the middle school was planned to provide the best possible continuum of education for the children in that particular area. The findings and recommendations of the Plowden Committee were used to support the idea and references were made

to the system in independent schools with their 13+ age of transfer. Parents were assured that their children would not suffer by the two year delay in transfer to the secondary schools and stress was placed on the plan to incorporate appropriate specialist facilities in the middle schools and to employ specialist teachers. A great deal of time, effort and skill were devoted to these meetings by the Chief Education Officer and his Chairman of the Education Committee. Frequent calls were made on the County Advisory Officers to attend and support the Chief Education Officer. Witnesses have stated that these meetings, almost without exception, went well, with the Chief Education Officer putting forward a convincing and assuring case. However, one senior officer stated in June 1981 that he was "somewhat embarressed" by the extravagant claims made for the middle school on these occasions.

Teachers and the Middle School Idea

It would seem that the evidence indicates that the middle school idea received little or no support from teachers within the County. In the Minutes of the Education Committee (5.6.69) it is recorded that the County Teachers Association (National Union of Teachers) submitted the following statement:-

> "There is no educational justification for an overall county policy of middle schools."

In one area (Cannock) a working party of teachers drew up a list of points and queries for presentation to the Divisional Education Officer. They felt that the whole middle school philosophy was unproven and would disrupt the well established and well proven Junior Mixed and Infant Schools. They expressed doubts as to whether pupils leaving middle schools at 13 would be

able to compete on equal terms with contemporaries from Secondary Schools during the changeover period and they expressed grave doubts as to the ability of middle schools to "stretch" gifted children. They did not feel that quality staff would be attracted to the middle school and they saw a real danger of a bifurcated school developing.

Similar fears were expressed by teachers in the Great Wyrley area, who stated that they could not see how the more able child in the middle school would be adequately extended academically.

The Chairman of the Burntwood Reorganization Co-ordinating Committee stated, in an interview in June 1979, that teachers knew little of what was happening in the way of reorganization in the area. He stressed that there was certainly no demand for middle schools from teachers and as far as he was aware few teachers knew about them or were interested in them. To the best of his recollection teachers in the area were told at about Easter time 1975 that the area would be reorganized on a three-tier basis and that the first middle school would open in 1977. He was certain that the whole idea had been "thought up at Stafford" in response to the "numbers game." He, and he believed other teachers in the area, felt that there had been a gross lack of communication between the teachers and the officers of the Authority. This type of feeling was not unique to teachers in Staffordshire. Marsh (1972) and David (1977) for example, found identical accusations being made by teachers in other counties.

Conclusion

The introduction of middle schools into Staffordshire was the result of a long standing commitment by the Education Committee

to the concept of comparatively small six-form-entry comprehensive schools. The champion of the latter, and consequently the champion of the 9 - 13 middle school, was the Chief Education Officer, Browning. Whilst arguing for the small comprehensive school he argued also for the middle school as the existing stock of buildings determined that the two went together.

In the introduction to the Report of the 1971 Summer School Conference on the Middle School (Staffordshire Education Committee 1971) it is stated that it was the:

> "Continuing interest in the smaller comprehensive school and the impact of the Plowden Report that led the Staffordshire Local Education Authority to a close examination of the continuum of education from 5 - 19. Factors such as these, in a climate when stress was being placed on learning rather than teaching, caused teachers, administrators and committees alike to reconsider the organization and structure of our school system."

Educational reasons for the middle school were advanced but they tended to follow, and not to precede, the consideration of the practical problems involved in reorganization. As Browning stated, middle schools became a "practical possibility" within the overall planning for comprehensive reorganization. Without the vision, plans and drive of Browning, ably supported by his Chairman, for a particular form of comprehensive reorganization, it is difficult to see how 9 - 13 middle schools would ever have appeared in Staffordshire, as no evidence could be found to indicate that there was any desire or pressure for their introduction coming from other sources. It was the Chief Education Officer and his Chairman who provided almost all the drive and motivation to overcome the inertia, doubts and reservations felt by parents, teachers and members of the county advisory service.

Chapter 6

Curriculum Planning for Middle Schools in Staffordshire

Following the administrative decision to introduce 9 - 13 middle schools into a particular area of the county, teacher participation was invited and encouraged by the setting up of Working Parties of teachers in the area involved to discuss the curriculum implications of the new organization.

In addition, officers of the County organized two residential Summer Schools in 1971 and 1972 to encourage teachers from across the County to come together and join in debate and discussion.

There follows a brief examination of three working party reports, including the first to appear in the County, and a brief survey of the reports that were produced by the members of the two Summer Schools.

On the 1st October 1970 the General Education Sub-committee agreed that notices were to be published for the reorganization of education in the Streetly area. Following this decision a meeting between Head Teachers in the Streetly/Pheasey area and County Advisory Officers was held to set up machinery through which teachers in the area could become informed and involved in the reorganization of education. It was anticipated that 9 - 13 middle schools would be operating in the area by September 1973; the first in Staffordshire. As a result of this preliminary meeting it was decided to set up a Steering Committee to consider the educational and professional questions arising from the reorganization. The Steering Committee was to include all Headteachers in the area and an elected member of staff from each school, and its task was to organize working parties on various themes and topics.

Every teacher in the area was invited to join in these activities or to submit ideas and material for consideration.

Some of the study groups were sub-divided to consider various aspects and subject areas. The latter procedure was used for the sake of convenience and was not intended to prejudge the question of integrated or non-integrated studies. A large number of meetings took place during 1971 and 1972 concerning the middle school child, curriculum, organization, staffing and accommodation. In addition, the staff of one junior school carried out a series of exercises and experiments in which children in the 9 - 13 age group were brought together in order to try out various approaches to education. A variety of speakers were invited to address the groups and it is recorded that use was made of such relevant material as Department of Education and Science Pamphlet No.57 "Towards the Middle School." (Department of Education and Science 1970b).

As a result of these meetings and discussions, the views and ideas that emerged were put together to form a Working Party Report. The stated aim of the document was to

> "suggest guide lines to those teachers who will be making the new system work efficiently for the benefit of future generations of children."

It was stressed that the report did not purport to solve all the problems that would be met but it endeavoured to show

> "how practising teachers view the 9 - 13 middle school in the three-tier system."

The Streetly/Pheasey/Little Aston Working Party Report (Staffordshire Education Committee 1973)

(i) The Children

The report began with a three and a half page summary of the nature of the 9 - 13 middle school child and the implications these characteristics had for education. The first sentence stated

"The growth and development patterns of each child are unique."

It went on to point out that the wide range of differences that exist between children in the middle years provide the middle school with its greatest challenge and that the different ways of thinking, learning and feeling in individual children would have to be recognized. J.M. Tanner was quoted as saying that chronological age had little or no educational significance because of the wide range of individual differences and teachers must never forget that children enter, and pass through adolescence at very different times and at very different speeds. The significant differences that exist between boys and girls in rates of development were also noted.

Stress was placed on the need to provide for the wide range of individual differences that will exist by making available a very wide range of activities and experiences. Children would require freedom to explore what was provided and to do so effectively they would need freedom to group and re-group themselves with much more small group activity than was found in the conventional class taught approach. The children would require many opportunities to manipulate concrete materials and to explore and investigate freely a rich and stimulating environment. The use of a rigorously linear course of instruction based on a narrow syllabus and regulated by a timetable was seen as totally inappropriate.

The introductory section was concluded with a quotation from James's book "Young Lives at Stake." (1968)

"The school environment must be sufficiently diversified to allow different children to arrive at different points by different routes and at different times; this is what is involved in caring for individual well being - and it is one way in which development through the knowledge of a child's relative strengths will be made possible."

(ii) The Curriculum

In the preliminary notes to the reports from the subject groups it is stated that "curriculum arrangements must take account of the needs of individual children." It was said that this would require a good deal of integration across the curriculum and a large measure of co-operation between the teachers. It was felt that the latter had to be capable of teaching two or three subjects at least, under the guidance of subject specialists, if real integration of the curriculum was to take place. Opposition was expressed to the influence of High School practices and to the demands of external examinations. Freed of the "stultifying effects" of such forms of assessment it was felt that the middle school would be free to introduce a curriculum based on the needs and characteristics of its children.

Almost all of the subject groups recognized the wide range of individual differences as providing a tremendous challenge to the teachers in the middle school, and stress was placed on the need to provide the widest possible range of learning experiences in the most flexible situations possible in order to give each child the freedom he would require to develop. For example, the introduction to the Dramasection begins with the following quotation from Brian Way's "Development through Drama."

> "Education is concerned with individuals, drama is concerned with the individuality of individuals, with the uniqueness of each human essence."

In the Mathematics section it stated that the child must not be constrained to follow a simple linear development but that he must be encouraged to explore situations which are within his own individual experience and interest and from which he could obtain "profound mathematics." It goes on to say that the child must be

given freedom to investigate and process information in his own way even though this would mean that there would be errors and miscalculations.

The Science group advocated that the child should be free to follow "a completely free ranging study" which would, they believed, involve each child in all the traditional areas of science and from which he would learn to use all the traditional tools and techniques. This approach would be based on a freedom to explore, invent and conduct investigations in areas that interested him.

The Humanities group recommended an integrated approach with an emphasis on active learning and the use of a wide variety of stimulating materials.

In the conclusion to the report it is stated that "no attempt should be made to suggest a rigid and inflexible type of organization for a Middle School." A preference was expressed for the year group type of organization with each group having its own team of teachers. Each teacher would combine general class teaching with an ability to guide and stimulate his colleagues in one specialist area. This it was believed would give the greatest degree of flexibility in organization.

The Streetly Working Party Report which appeared in 1973 was the first report to appear in Staffordshire and as indicated in this summary it was supportive of a progressive child-centred approach to education in the 9 - 13 middle schools.

Uttoxeter Working Party Report (Staffordshire Education Committee 1974)

A year later the Uttoxeter Working Party published its report. Teachers in this area had been meeting together from

early 1972 until the Summer of 1974. This report was different to its Streetly counterpart. In an introductory note it is stated that the report was issued to provide

> "a set of curriculum guidelines which would serve to preserve the quality and integrity of the existing learning situation."

The report did not begin with a discussion of the characteristics of children nor did it give a general philosophy for the middle school. Each subject group provided a report on the area of its concern and went into much greater detail on text books to be used and materials required, for example a pair of wire strippers for the science laboratory. Mentions were made of various beliefs inherent in the child-centred approach. For example in the report of the Communications Group it states:

> "the pattern and duration of their (children's) work can be related as closely as possible to the pattern and duration of the interests and needs of individual children .... rather than the arbitary and often inflexible demands of the timetable."

whilst the Mathematics group speaks of "investigational work based on concrete experiences." However, the general tone of the report was much more formal and subject orientated. The impression given is that more attention was being given to defending entrenched positions than to discussing the educational possibilities inherent in the new organization. For example, the History group reported that "nobody in the group felt qualified to speak with any confidence or authority on the subject." In the Geography group the primary school teachers presented their own philosophy on the teaching of the subject up to the age of 11, whilst the French group stated that all children would learn French from the age of 9 in a non-integrated but definitely timetabled organization. (This recommendation was by a group of eight teachers; five from Grammar schools, two from Secondary Moderns

and one from a Primary School.)

The Communications Study Group noted that a report from the 1971 Summer School suggested that work in the Middle Schools "would not generally be subject based and would not have a large specialist content." In response they posed the following questions:-

1. In what ways can a better education be provided for the child of 9+ without depriving the child of 13+ of the benefits already enjoyed?
2. How much integration of studies should there be?
3. What role, if any, has the "class teacher" in the Middle School?
4. Is there a type of child who needs the security of the "class teacher" relationship in school?
5. If the needs of individual children are different, how should they be "streamed" - "setted."?
6. To what extent should public examinations influence the teaching in a middle school.
7. In view of the complaints from Senior Schools, how important is the teaching of English in the Middle School?

In a note referring to the last question it is stated that:-

"English should not become the ancillary of other subjects in an integrated syllabus, but should be carefully taught as a separate subject."

The Burntwood Working Party Report (Staffordshire Education Committee 1978)

The teachers in the Burntwood area met together from 1974 to 1976. The report that they produced was different to its two predecessors. It did not contain a description of the characteristics and needs of children in the middle years, neither did it give an impression of discord existing between teachers from the primary and secondary schools.

At the back of the report there is a summary of an introductory talk given by the Chairman of the Co-ordinating Committee on professional studies. In it he states that the role of the middle school was to provide a progression from the child-centred methods of the First School to the subject disciplines of the High School.

He stated that he did not necessarily see the curriculum in terms of subjects but rather as concentrating on skills, concepts, ideas, attitudes and values. He thought that the middle school should develop thematic work, projects, centres of interest or subjects in such a way as to produce an acceptable and cohesive curriculum. It does not appear that the members of the various working parties took his remarks to heart as they organized themselves into subject panels and considered in detail the contents of each curriculum area giving detailed lists of activities and equipment. Almost no mention was made of freedom for the child, discovery and activity methods or the integration of subjects. The main concern appeared to be in giving a detailed structured curriculum for each subject that would take the child through school from the age of five to eighteen.

In summary it would seem that although in each area of the County that was reorganized a very similar pattern of preparation was followed involving teachers, the results expressed in the Working Party Reports were different. The Streetly Report gives a detailed picture of the characteristics and needs of the middle school child to form the basis for a progressive approach to the curriculum. Its recommendations are given in broad terms expressing basic principles, leaving the class teachers with the freedom and challenge to devise forms of implementation to suit the needs of the children and their own situation.

The other two reports mentioned appear to lack some of the imagination and vision of the former and to concentrate much more on the detail of the curriculum. They provide a scheme and a structure for the teacher to follow without making the teacher constantly refer to the child and his characteristics and needs.

The 1971 Summer School Report. (Staffordshire Education Committee 1971)

Following the decision of the Education Committee to introduce 9 - 13 middle schools into Staffordshire, the advisory officers decided to organize a middle school element in the 1971 Summer School which was to be held in the Summer vacation.

In order to ensure an overall view of the educational problem presented by the introduction of middle schools, the advisory officers decided that the course would be based on the following four questions:-

1. Who is the middle school child?
2. What should he be taught?
3. How should he be taught?
4. With what kind of resources and in what environment can this be done?

Working Papers were prepared by the organizers of the course and distributed to the eighty-two teachers from primary and secondary schools who had applied to attend. The latter were organized into four groups for the purpose of discussing the working papers and the lectures that they heard. A chairman and a reporter were elected in each group with the responsibility to report back to the whole course in the plenary session and to prepare notes on the views expressed within each group. These reports were then studied at a later date by a group consisting of the four group chairmen, the four reporters and the course organizers. The purpose of this meeting was to compile a report on the conference that would reveal and record the views expressed. The report is therefore a significant document as it records the opinions, held at that time, by members of the advisory staff and eighty-two interested teachers. A brief summary is given of the answers that were agreed upon in response to the four basic questions.

Who is the Middle School Child?

The wide variations that exist in the rates of growth and development amongst children of middle school age was stressed and it was pointed out that developmental age is often of greater significance that chronological age. It was stated that the work of psychologists such as Piaget, Inhelder and Bruner pointed to the need for "active, purposive child-centred learning" with discovery and problem solving methods being used. The middle school child was not seen as one of a batch of "identically endowed creatures" but as an individual infinitely variable from all his peers. Development would be uneven and highly individualistic in all aspects of personality, but for many children it would be a time when they would seek to wean themselves from dependence on adults and attach much greater importance to the peer group. Middle schools were seen as the setting for far reaching personal changes in the lives of its youngsters and it was therefore essential that teachers understood the implications and ramifications of the changes. The section was concluded with the following statement:-

> "The middle school child is an individual person, blossoming and burgeoning with great rapidity and complexity and being bewildered by the natural upheavals within himself. His needs will be for sympathetic handling and guidance as he takes major steps from childhood towards manhood and from dependence towards self-reliance."

What should he be taught?

The report states that if the child is to achieve optimum levels of success he had to have the freedom to develop individually in all ways. His education would need to incorporate the elements of constant involvement in active thought, receptiveness to beauty and humane feelings, economic facts of

life, social responsibility and the nurturing of physical and mental health. Concern was expressed that the middle school currriculum should not be an extension of the primary school curriculum nor a watered down version of the upper school. A total re-thinking was required to see how best the experience, opportunities and stimulation required by the pupils could be provided. It was agreed that a worthwhile curriculum would include the following eight ingredients:-

1. The mother tongue in every form, "language skills," communicative, expressive and recordive skills.
2. A second language.
3. Science with practical and creative experiences.
4. The humanities.
5. Aesthetic experiences, covering all the aesthetic and practical arts.
6. Performance, skills and techniques.
7. Expression and creativity in a variety of forms and media.
8. Communications.

It was also stated that another possible and viable approach could be a wholly integrated thematic approach based upon everyday life, work, thought, experience and occurence aimed at developing the following six pairs of associated skills or techniques.

Observation and Investigation.
Enquiry and interpretation.
Awareness and communication.
Control and expression.
Sensitivity and integrity.
Personality and community.

It was stated that in the hands of able teachers, an exploration of the child's world would be an excellent way of achieving the optimum learning situation if an adequate developmental structure could be achieved.

How should he be taught?

The report states that the curriculum should be child-centred rather than subject-centred. It was envisaged that the

curriculum should be integrated and the child would have freedom to explore those areas in which his interest had been stimulated in order that he could acquire the skills and techniques listed in the previous section. It was also envisaged that the year co-ordinator would organize group teaching within his year. There would not be a rigid timetable and streaming would not be used.

There was support for very flexible organization in which the needs of the children could be fully met. Team-teaching was favoured in order to utilize and integrate as effectively as possible the skills and knowledge of the staff.

With what resources and in what environment should this be done?

It was stated that it was the recognition of the need to place the child centrally in the fabric of the middle school concept which was the significant influence upon the thoughts of the conference concerning the school environment.

It was agreed therefore that the middle school should be of open-plan design wherever possible. The basic teaching unit would be the year group and the year area should offer a comprehensive range of facilities capable of coping with almost all activities. Each year unit should contain provision for all types of practical and display work in art, craft, mathematics, science, cookery and simple biological activities in addition to the adequate provision for academic work. Each year area should possess class bays and resource areas with adequate provision for privacy and quietness. It was felt that each year area had to contain one area that was capable of being totally isolated and blacked out. Adequate storage and display provision was seen

as essential to cope with the wide range of activities envisaged.

It was agreed that a limited number of specialist areas would be required and these would include music and music practice rooms, an audio room, a kiln/craft area and a science/rural science area.

In the final paragraph of the report the need to make a full provision for theindividual development of each child was stressed and that this could best be achieved by a "wholly integrated thematic approach" to the curriculum. The report then concluded by saying:

> "Under such circumstances, and in such an environment, middle schools would become what they were meant to be - child-centred, bright, cheerful, colourful and exciting places!"

The 1972 Summer School (Staffordshire Education Committee 1972)

In the introduction to the report on the 1972 Summer School it is stated that it was a logical successor to the 1971 Conference. Bearing in mind the last words of the 1971 Report it is difficult to understand why it was decided to concentrate on three separate areas of the curriculum, i.e. science, music and environmental studies. Evidence obtained from discussion with teachers suggest that what they wanted was help and guidance in planning and operating an "integrated thematic approach."

The report begins with an introduction written by a senior officer of the authority in which he deals with a whole range of topics relating to the middle school. In his view:

> "The role of the middle school is fundamental, it is not a bridge nor a transitional stage, it is neither a pale shadow cast down from above nor an effete extension upwards from below. It has no restrictive or prescriptive inheritance, no imitable ethos, no previous curriculum to which it can turn for guidance. It has a new, separate and unique identity, it exists as of right because it has both a professional pedigree and a justificatory theoretical

> infra-structure upon which its claim to self-identity stands. The key to its uniqueness, its ethics and its curriculum is to be found in the transitional phase through which its pupils will pass, it is this transition which gives the middle school its unity and uniqueness of character."

He then went on to note eight difficulties and dangers that would face those preparing a middle school curriculum. The dangers as he saw them were:-

1. The disaster of prolonging junior school work for two years.
2. The fatal extension downward of High School examination influences.
3. The loss of subject identity in an iridescent slough of unstructured integrated studies.
4. Loss of rigour and relevance in the mists of idealistic discovery theory.
5. A failure to determine priorities and essential elements.
6. A loss of quality as a result of the pursuit of the myth of equality.
7. The development of inter-school chasms.
8. A loss of vision once the initial fervour had subsided.

Each of the discussion groups prepared a record of their views and ideas and these were put together as collective thoughts on the three areas of the curriculum. These statements were extremely general and somewhat vague. They did not reveal a commitment to the progressive approach that had been proposed a year earlier. The whole exercise appears to have lacked structure and vigour and the result was a random set of ideas for consideration by those preparing to work in the new schools.

Chapter 7

The Design Process in Staffordshire

The former Chief Education Officer, Mr. N. Browning, stated in an interview in 1979 that once the due process of discussion and consultation with governors, teachers and parents had taken place and the Local Education Authority had made the decision to introduce 9 - 13 middle schools, the responsibility for the design and construction of the schools was given to the Senior Assistant Education Officer responsible for sites and buildings, the late Mr. R. Copley.

The situation that prevailed in Staffordshire in the late sixties was somewhat unique, in that the rapidly increasing child population and the process of comprehensive reorganization required the building of seven 9 - 13 middle schools in a short period of time. The design agreed upon was to be used in all seven locations and as Mr. T. Orchard, the County Architect responsible for drawing the plans stated, it was a crash programme which afforded no opportunity for an evaluation of the original design to be made before the construction of the other schools was well under-way. However, after the first two schools had been built a modification had to be made because of Government cuts. This resulted in a modification to the third and fourth year areas as shown on the enclosed plans (see page 120) but th s did not alter the basic character of the schools.

In the early seventies local government reorganization resulted in the first school that was built by Staffordshire going into another authority. As a result of the local government elections within the County in 1974 a change in political complexion resulted in a modification to the reorganization plan in one area, and instead of the building being used as a 9 - 13 middle school it became an annex of an 11 - 18 comprehensive school.

This study is therefore concerned with the remaining five schools, one of which was built to the original design and the other four to the modified plan.

The Senior Assistant Education Officer stated in interview that as the officer responsible for co-ordinating the planning of the new schools, he sought ideas and guidance from teachers, his colleagues in the advisory service, government publications and the experience of other local authorities. As the first school was to be built in the Streetly area it was the teachers working there that he largely used to gain an indication of teacher opinion.

The Teachers' Views

Contrary to the many accusations that are made that teachers are not consulted when schools are being planned (for example National Union of Teachers (Undated))there was a deliberate attempt to consult teachers on this particular plan. Indeed, in the Streetly Working Party Report gratitude was expressed by the teachers to the Authority for the opportunity they were given to participate in the design process, and it is stated that:-

> (the teachers) "made the most of the opportunity which the County Education Authority and County Architects' Department gave them to comment upon and submit ideas about the original plans." (Staffordshire Education Committee 1973)

In the same document it is stated that the views of teachers "influenced considerably" the final plan and that "the building reflects as much as anything in this booklet the broad aims and aspirations .... of those teachers who represented their schools."

Consultations with the Streetly teachers began in December 1970 when the Senior Assistant Education Officer talked to

teachers and showed them the initial sketch plans. Further meetings were held early in 1971. In their Working Party Report the Streetly teachers stated that the design of the school should not pre-determine the way in which the school would function. They made a plea that whilst "current trends" in educational thinking had to be taken into account, physical barriers should not be raised to the development of a variety of internal organizations.

For the younger pupils the teachers assumed that a number of activities would be carried on simultaneously and that this would create a need for a variety of working surfaces to permit flexible class group organizations. They thought that a combination of fixed and free standing working surfaces would be most suitable. Fixed and mobile seating was requested to enable more than one class group at a time to sit in a class base where team or co-operative teaching could be practised. The teachers felt that within the class base, provision would have to be made for practical work in addition to a shared resources area which would have separate bays designed for such activities as quiet study, crafts, clay work, investigations and experiments, cookery and display. A request was made for adequate sound absorbent materials to be used to help reduce noise levels in the open-plan areas.

For the older pupils it was thought that a greater provision of specialist facilities would be required in addition to the home bases. These would be for art and light crafts, domestic crafts, workshop crafts, science, languages, physical education, music and drama, a library and a separate dining area. A special plea was made for adequate storage facilities as it was felt that this

would be essential if children were to pursue an active and individualised, exploratory approach to education.

Teachers were also consulted at the 1971 Madeley Summer School where sketch plans were discussed and exercises undertaken in the arrangement of furniture in an open-plan teaching situation. Teachers who attended this Summer School were questioned about this aspect of the course and stated that it was clear that the officers of the Authority were assuming that the new purpose built schools would be open-plan. In the report on the 1971 Summer School it is stated that:

> "Not everyone was entirely convinced that open-plan schools were the answer but ... eventually agreement was reached that the Middle School should be of open-plan character in self-contained areas."

The report went on to state that:

> "The basic teaching unit, i.e. the year area, would accommodate within one shell a total year group, and should offer a comprehensive range of facilities capable of dealing with the bulk of class activities. It was generally felt that each unit should contain provision for all types of practical and display work in art, craft, mathematics, science, cookery and simple biological activities, in addition to adequate provision for academic work, including a year group library. Thus there should be classbays within rsource areas.
>
> Each year area should possess adequate scope for privacy and quietness with the existence of quiet areas .... and at least one unit in each year group should be capable of being totally isolated, of being blacked out by curtaining and fitted for projection work.
>
> The general concensus of opinion being that specialization to any degree was not warranted in the Middle School, but a certain amount was inevitable, and indeed desirable, it was felt that provision should be made for Music Rooms and Practice Rooms, perhaps an "Audio Room" as opposed to a Language Laboratory, possibly a separate Drama and Dance Room, a Kiln/Craft area and a Science/Rural Science area." (Staffordshire Education Committee 1971)

The Views of Local Education Authority Advisers

No written record appears to exist of the views and opinions

of the advisory officers concerning the plan. Present and former advisory officers were questioned on their views and the part they played in the design process. Two individuals and two groups claimed that they had designed the school, and one went so far as to state that he did it on"the back of an envelope." What emerged from the interviews was a lack of concensus concerning the design. The most common aspect that was stressed was the need for the building to give maximum flexibility in use to cope with future developments in educational organization and practice, and also to allow individual heads to organize the school in a manner they saw appropriate. A strong commitment to open-planning did not emerge. One officer stated that he was keen to see open-plan tried for this age group whilst another thought it was a "bloody fetish." One officer felt that the pressure for open-plan came from the architect, whilst he, a former secondary school head, had to fight very hard to get some specialist provision incorporated into the plan. The Chief Inspector stated that he was very interested in open-plan but he wondered if it would permit teachers to give of their best, in terms of education, to the children. Other specialist advisers stated that they had been hurt and annoyed when they had not been consulted over the provision in the schools for their area of the curriculum.

The Architect's Views

The architect explained in an interview how very difficult it was to understand exactly what people, especially teachers, wanted in a school and the impossibility of pleasing everyone. He stressed that they, the designers, went to considerable lengths to "get it right" as he believed that once a school had been

constructed it exercised considerable control over what went on inside. He said that in his opinion the work of the Development Group of the Department of Education and Science was highly significant in his work and that the design and construction of Delf Hill was very influential in the Staffordshire design. He said that he felt that what he and his colleagues had done was to take the best from the Delf Hill design and adapt it to meet local Staffordshire needs.

The views of the Senior Assistant Education Officer for Sites and Buildings

This officer was described by his colleagues and by teachers as a very powerful, influential person who held strong views on education. He was in a key position to influence the design as he was responsible for providing the architect with a design brief. When interviewed he spoke of his admiration for the work of the Building Branch of the Department of Education and Science and the trouble and lengths that they went to in order to produce sound designs. He stated that he had been very impressed with what he had seen at Delf Hill and thought that it formed an excellent basis for the design of 9 - 13 middle schools in Staffordshire.

From the interviews with his colleagues there can be little doubt that this officer was the key person in influencing the design of the school and that it was his conception of what education for the 9 - 13 year old middle school child in Staffordshire should be, that held greatest sway. Although his own teaching experience had been in the secondary field his belief in a progressive approach was strong and was in part due, in the words of the Chief Inspector, to his Wife who held an advisory

post for Primary Education in another authority. His commitment to a progressive approach and his view that the design was his, were revealed in the accounts of two headteachers who were visited by the officer soon after their schools had opened.

In the first incident the officer remonstrated with the head when he saw that one of the enclosed rooms had been designated as a "Music Workshop". He said "When I designed this school I did not want music shut away. I wanted music to pervade the whole building." On another occasion when speaking to a headteacher who was complaining about the lack, and the siting, of blackboards, the officer retorted "You are running this school wrongly. I never intended a class lesson to be taught in this building."

Delf Hill

This school was planned as a joint project between the City of Bradford and the Architects and Building Branch of the Department of Education and Science. Details of its design are given in Building Bulletin 35 (Department of Education and Science 1966) but as the Architects and Building Paper No.3 points out:

> "All organizational proposals were based on the principle of 'centres' which would be the working bases for groups of teachers and corresponding numbers of children. In these centres there would be a sufficient variety of accommodation and equipment for most of the curriculum; work outside the centres would aim to extend it in depth and range, and as such would be more diversified. This it was thought, would expand the opportunities of the classroom-and-teacher pattern of the primary school and go some way to avoiding the premature differentiation of the curriculum inherent in the common patterns of secondary schools." (Department of Education and Science 1978)

As can be seen from the enclosed plan (see page 34) the building was based on three enclosed courtyards. Year centres one and two were designed for groups of one hundred and five children each, but it was envisaged that only one hundred and

seventy-five children, or less, would be in the two areas at any one time. There were a range of spaces of different sizes some of which, such as the enclosed room on each corner, could be closed off behind doors. In addition, there were two small enclosed 'quiet' rooms and the other areas consisted of bays and open working spaces.

Year centres three and four were also designed for one hundred and five children, but it was assumed that only one hundred and twenty children would be in the two areas at any time. There were six 'rooms' with a large enclosed room on each corner. One of the latter was equipped for science and the other as a language centre. Two 'rooms' could be combined by sliding back partitions.

Linking the two year centre blocks was an open sided reference and reading area and a studio workshop which had interconnecting zones for different kinds of practical work. It was envisaged that older pupils would spend 20% of their time in this area.

To lessen disturbance from noise the music room was separated from the teaching areas. The square hall was equipped for physical education and one side could be opened into the cafeteria dining area.

The Architect's Brief for the Staffordshire Schools

The brief that was prepared by the Senior Assistant Education Officer consisted largely of detailed specifications of floor areas and equipment. However the introduction stated that:-

1. The Middle School should provide a clear link between the First and the High School. It should aim:-

(a) To build upon the child-centred methods practised in the First School.

(b) To provide the opportunity for the development of more specific abilities and for the acquisition of more specialised skills.

2. The building should aim to meet the developing educational needs of the children through the provision of:-

(a) A variety of teaching spaces which will allow for flexibility in organizational terms.

(b) Supportive general and specialist resource facilities.

3. There should be opportunities for:-

(a) Individual research.

(b) Large group work, in spaces which will allow for, or be able to be adjusted for, co-operative teaching and integrated approaches.

(c) Specialist and special treatment, usually of smaller groups.

(d) Class unit teaching (approximately thirty five pupils) - including class assembly, discussion, briefing, evaluation.

(e) Quiet and noisy, clean and messy activities.

4. The environment should be as exciting and stimulating as possible, allowing for broad educational experience uninhibited by the demands of external assessment or examination, and there should be the greatestpossible opportunity for the exhibition and display of work. Variety in such things as the shapes of spaces, the height of ceilings, colour and the use of small bays or nooks and crannies for display, might be considered, as well as some use of curtaining. Circulation areas may be reduced to a minimum if this results in larger teaching areas.

5. The outside areas too should sustain the attractiveness of the environment. The retention of natural features is desirable, and the whole of the school grounds should be regarded as,and eventually developed as, an educational resource. If possible some outside covered workspace should be provided for the first and second year pupils, and where this is not possible, direct access for them, as well as for the older pupils, on to paved surfaces from the main teaching spaces.

Tar paved areas should where possible lead up to to

interesting features like small slopes, bushes, flower beds etc. Some provision should be made for animal and plant resource areas (enclosed, possibly covered) for the children in all age groups.

The Staffordshire Middle School Plan (See page 120)

The plan labelled 1a was the original plan for the Staffordshire middle schools. It reveals that the school was designed around three enclosed courtyards. The First and Second Year areas were largely open-plan. Each had two enclosed spaces. The larger was soundproofed to cater for noisy or quiet activities and the smaller one was intended as a quiet withdrawal tutorial area. The open teaching areas were provided with fixed working surfaces. Between the two areas was a shared area which offered a range of equipment and facilities to cater for craft and science activities.

The Third and Fourth Year Blocks offered similar facilities, each having a large and a small enclosed area.

The Practical Block was open-plan and linked the two main teaching units and provided for a full range of activities. It was envisaged that this area would be placed largely at the disposal of the third and fourth year pupils.

The Library/Resources area was also part of the central block with a study area large enough to accommodate a class group.

There was a large and a small hall; the former equipped for physical education. The small hall or activity area was designed for drama, music, lectures etc.

The dining area was designed for self-service and when not meeting that requirement could be used for group or individual study.

After the first two schools had been built a change in the plan had to be made to meet new building regulations. These modifications only affected the third and fourth year areas as shown on the enclosed plan (labelled 1b). The main changes were the removal of the courtyard and the elimination of the study area adjacent to the library.

As can be seen from the plan this part of the school became more cramped and enclosed and with the elimination of the circulation space around the original courtyard, access to the enclosed rooms on each corner of the modified plan could only be achieved by passing through two open teaching areas. It was also found in practice that the removal of the courtyard led to difficulties with ventilation in warm weather and the more confined design exacerbated the noise problem.

In the architect's brief it is stated that the school should provide "a clear link between the First and High School", that is a link between the child-centred and active approach of the former and the less active approach of the latter. Plan 1b would appear to be a better reflection of this philosophy with its more enclosed design for the Third and Fourth Years. However, no evidence was obtained to indicate that this had been a design factor in the modification. The modified design appears to have been a purely pragmatic solution to a change in the building regulations.

Comment

It is interesting to examine the plan produced by the architect after the process of consultation with teachers and advisory staff had taken place. The teachers in the Streetly

area were confident that they had "influenced considerably" the form of the final plan and expressed their gratitude for the opportunity of doing so (Staffordshire Education Committee 1971). Various members of the advisory staff also expressed the opinion that they had brought an influence to bear, even to the extent of claiming the design as their own, whilst the Senior Assistant Education Officer certainly spoke of the design as his.

However, a comparison of the Staffordshire and Delf Hill plans leaves one with a strong impression that it was the Delf Hill design, and therefore the members of the Design Group of the Architects and Buildings Branch of the Department of Education and Science who were the most powerful influence. The similarities in the two plans are too striking to be attributed to chance or coincidence. The three courtyards, the positioning of the hall and teaching areas, the enclosed rooms on each corner, the practical area in the centre linking the teaching areas, the position of the library and the number and siting of tutorial rooms and store cupboards, all point to the powerful influence of the Department of Education and Science design group with their deep and frequently stated commitment to the progressive approach to education.

It is interesting that the Streetly teachers were given the feeling and belief that they had played a significant part in the design, when in fact their influence appears to have been minimal and limited to minor details. This impression is in accord with Bennett's (1980) conclusion, based on a national survey, in which he states:

> "Even when consultation is offered, there is evidence to suggest that the motives (for consultation) are often political rather than based on a genuine desire to assure constructive involvement."

Looked at in closer detail it would be claimed that the Staffordshire design is more open than the Delf Hill building and that the progressive ideals behind open-planning had been taken a step further. For example, a comparison of the first and second year areas in the two schools reveals that there are less boundary walls in the Staffordshire design and this could perhaps be attributed to the influence of teachers, although, as stated, the teachers participating in the 1971 Summer School were not totally supportive of open-planning.

If, as was obviously the intention, the task of the Design Group of the Architects and Buildings Branch of the Department of Education and Science was to influence Local Education Authorities' Architects in designing schools, then it would appear that in this particular case they had been successful.

Chapter 8

The Schools in Operation

In order to obtain a clear picture of how the five schools were organized and operating, each one was visited and information was obtained from the headteacher, from other members of staff and from a questionnaire.

Information from headteachers

All five schools were intended to be of the basic Mark 1a design (See plans on page 120) However, before schools A, C, D and E could be built changes were made by the Department of Education and Science in the building regulations which necessitated a reduction in teaching area. As stated by the architect in Chapter 7, because the building of these schools was a crash programme, there had not been sufficient time to evaluate the first two schools that the Staffordshire Authority had built, and the required reduction in teaching area and building cost was achieved by modifying the third and fourth year areas in the remaining schools.

The five schools were deemed as secondary by the Authority and designated as Group 7 (except School B which was 8) on the Burnham Scale. The schools had been designed to accommodate five hundred and sixty children, but because of an increase in the numbers on roll above the design figure, schools B D and E were using mobile classrooms which gave them additional enclosed teaching spaces. However in each case these additional classrooms were detached from the main building.

The following table gives the basic details for each of the schools as they were operating in 1981.

Table 8:1 Size and Staffing

Schools	A	B	C	D	E
Number on Roll	520	690	547	610	615
Staff	25	34	25	26	30
Pupil/Teacher Ratio	20.8:1	20.3:1	21.9:1	23.5:1	20.5:1

Each school had based its organization on the Year Group and each group was assigned to an area of the school on the lines indicated in the plan. Each year group was then divided into mixed ability class groups for registration purposes and for a proportion of the teaching time. Table 8:2 indicates the arrangement of classes in each school.

Table 8:2 Class Groupings

Schools	A	B	C	D	E
Year Group Classes					
First	4	5	4	4	6
Second	4	6	4	5	5
Third	4	6	4	4	5
Fourth	5	6	4	4	5
Average Class Size	30.6	30	34.2	35.9	29.3

The figures given above for the average class size are for the registration groups. In each school it was the practice to assign additional staff to combined groups to give smaller teaching groups. For example, the First Year in School A were all timetabled to do mathematics at the same time. An additional member of staff was assigned to the group of four class teachers so that five teaching groups could be organized. The extra group could be a small group of the poorest children, or of the most

able, or it could be a simple division of the total year group by five instead of by four, giving in this example teaching groups of twenty-four instead of thirty. Each of the schools employed this tactic although the subjects involved varied somewhat from school to school. This system was used most often in Mathematics, English, Humanities, Games and Craft. In no school were children permitted to choose the group they were in. The composition of the groupings, of whatever type, were totally controlled by the teaching staff.

This system gave a certain degree of flexibility in the organization of teaching groups but it also resulted in a marked loss of freedom for the Year Co-ordinator to organize the work of his colleagues as he saw appropriate, because, in order to make the fifth member of staff available at the appropriate time, the members of staff and the subject to be taught had to be timetabled. As had been stated, this practice was common to all the schools and resulted in fixed blocks on the timetable.

No school used streaming in its organization but all used setting in addition to mixed ability grouping. Table 8:3 indicates the pattern of setting in each of the five schools.

Table 8:3 Setting (The numbers are the year groups)

Schools	A	B	C	D	E
Mathematics	1,2,3 & 4	2,3 & 4	1,2,3 & 4	2,3 & 4	2,3 & 4
English	4	4			3 & 4
French	4	3 & 4	3 & 4	2,3 & 4	3 & 4
Science		4	3 & 4		

Whenever setting occured there followed a fixed block on the timetable as it was necessary to ensure that the staff, facilities, and children within the set group, were all available at the correct

time. The popularity of this form of organization in the schools and the demands it made was a major cause of the highly structured and compartmentalized timetables.

Vertical grouping was not used in any of the five schools.

Individualization of learning, in the sense of children being given the freedom to choose what, how, when and where they wished to study, was almost non-existent. The only individualization that took place was in a subject such as Humanities where, if a topic was being studied, the child might be given the opportunity to pursue his own particular interest within that topic. However the pursuit of individual interests was restricted to the periods when the subject was timetabled and at the end of the allotted period the child would have to move on to the next timetabled subject.

All five schools operated a curriculum which was divided into eight areas. These were English, Mathematics, Science, French, Craft, Physical Education and Music. The eighth area was given a variety of titles such as Humanities, Environmental Studies, Centres of Interest or Topic. Even within the one school the title given to this area of work varied. For example, this field of study could be called Humanities in years one and two, but could become divided into Geography, History and Religious Education in years three and four.

In each of the schools all the children participated in every aspect of the curriculum. No child was permitted to drop a subject through lack of interest or competence. On the other hand no provision, except in extra curricular activities, was made for the able or interested child to have an increased allocation of time in an appropriate subject.

There was no indication that the subjects of the curriculum were being integrated. It was stated by the headteachers that links and references were made at times between subject areas but generally they operated an eight element curriculum.

Each of the five schools made a provision for the formal and regular assessment of children. Pupil records, in a variety of forms were received by the schools from their contributory schools. A summary of the tests used in each school is given in Table 8:4 below.

Table 8:4 Assessment Procedures

School A N.F.E.R. tests in Mathematics and English given each year plus Raven's non-verbal test. Each child also given a subjective evaluation in each subject by its teacher on a five point scale. For children exhibiting difficulties in learning, the Aston Reading Index and the Bristol Achievement Tests were also used.

School B Each term an English essay was set, assessed and recorded. A writing skills record was also used. A few of the weaker children were tested with the Aston Reading Index.

School C N.F.E.R. Tests in Mathematics, English and Verbal Reasoning were used plus 'home produced' Skill Concept Sheets.

School D 'Home produced' tests in Mathematics and English used each year.

School E N.F.E.R. tests in Mathematics and English used in Years One and Three. N.F.E.R. Verbal Reasoning Tests set by High School in the Fourth Year.

The provision made for the weak and gifted learners was limited largely to the setting, but in all the schools there was some arrangement for the withdrawal of very weak children to give

either individual or small group tuition.

The pastoral care of the children in each school was the immediate responsibility of the registration tutor but problems could be passed on to the Year Co-ordinator, Deputies or Heads according to the severity of the problem.

The term 'team' was used frequently by the headteachers and their colleagues but it had a variety of meanings. To a Fourth Year Co-ordinator it could mean those colleagues who were the Fourth Year registration tutors. It could also mean all those colleagues who contributed to the teaching of Fourth Year children. To a subject co-ordinator it could mean all those colleagues who contributed, to a greater or lesser extent, to the teaching of that particular subject. In the First Year of each school the common practice was to have class teachers who taught a particular class for a large proportion (up to 85%) of the curriculum, and in this sense these were fixed teams. Thus members of staff in these schools found themselves in several 'teams'. For example, a teacher acting as a Third Year registration tutor could spend most of his time teaching mathematics but also make a contribution to boys' games and craft. He could therefore claim to be a member of four teams.

Information from Pin-Point Lesson Questionnaire

A questionnaire was given to every member of staff in each school requesting information as to what they were engaged upon at a precise time on a Wednesday during a 'typical' week. This is referred to as the 'Pin-point lesson' questionnaire. The day and time were chosen after consultation with the headteachers in order to get as representative a picture as possible. Selecting a time in the morning had no special significance as these schools did

not operate as Primary Schools tend to do, that is teaching Mathematics and English in the mornings. An examination of the school timetables revealed that subjects appeared evenly across the week and throughout the day.

The questionnaire (See Appendix 1 Page 161) was designed to give a picture of what an individual teacher was engaged upon at a precise time on a 'typical day' in order that a picture of the schools in operation could be built up.

Table 8:5 Questionnaire response

Schools	A	B	C	D	E
Number of staff	25	34	25	26	30
Sheets returned	23	19	21	24	27
Percentage returned	92%	56%	84%	92%	90%

Each respondent was able to answer questions one and two which indicated that the schools were organized on a structured and compartmentalised timetable. The length of periods was either thirty or thirty-five minutes. The replies indicated that double periods were frequently used in all the schools. Lessons that were frequently taught in double periods were English, Mathematics, Science, Humanities, Craft and Games. Single periods were used for Physical Education, French, Drama, Dance, Library and Music.

The replies to Question three indicated that not a single teacher was working with a group of children drawn from more than one year group. Streamed groups were also absent leaving the teaching groups organized on either a set or a mixed ability basis. Table 8:6 indicates the percentage of teachers who were working with either a mixed ability or set group.

Table 8:6 Groupings

Schools	A	B	C	D	E
Mixed Ability Groups	71%	61%	33%	71%	71%
Set Groups	29%	39%	67%	29%	29%

The identical percentages for Schools A D and E are interesting and indicate a considerable degree of uniformity of practice. The 'low' figure for mixed ability groups in School C is explained partly by the fact that Science was 'set' in both Years Three and Four in this school and also by the fact that three teachers indicated that they were teaching Humanities to a setted group as did a teacher of Music. This contradicted the information given by the Headteacher who stated that neither subject was taught in setted groups.

The fifth question asked teachers to give the title given to their lesson on the timetable. The responses are given in Table 8:7. The answers given have been 'grouped' under the eight curriculum divisions used in each of the schools.

There was no indication that integration of the traditional areas of the curriculum was taking place. The main impression given by the replies was that class lessons were the common practice with, for example, long multiplication being taught to the class in Mathematics, momentum in Science and the Tudors in Humanities. Of the one hundred and five lessons described only five teachers indicated that different activities were taking place within the same lesson and in only one was it said that the children had a free choice in their learning. The latter was a 'library skills' lesson in which each child could pursue its own line of investigation.

Table 8:7 Curriculum elements

Subjects	Mentions	Curriculum Groupings	Totals
Mathematics	25	Mathematics	25
English	16		
Library	5		
Drama	3	English	26
Remedial English	1		
Writing Skills	1		
French	10	French	10
Science	8		
Physics	1	Science	9
Craft	5		
Home Economics	3		
Technology	2	Craft	12
Design	2		
Humanities	6		
Religious Education	3		
History/Geography	1		
Geography	1	Humanities	14
History	1		
Environmental Studies	2		
Physical Education	3		
Dance	1	Physical Education	4
Music	4	Music	4
Educational Visit	2		

The replies given to to Question seven indicated that in many cases the lessons were of a traditional pattern with teacher explanation and direction followed by the pupils writing their own essays, working at their own speed from a set exercise in

mathematics, or writing up an experiment in their own words. The term 'working individually' was in no case intepreted as a child choosing what, where, how or when he would carry out any particular activity.

In fifty-three cases (50%) of the replies to question eight, teachers actually stated that the children had to listen to them whilst only eight replied that the children were permitted to do some work on their own.

The response to Question nine indicated that a considerable proportion of the teachers were working in areas that had been designated as specialist; that is, areas of the school that had been organized for the teaching of a particular subject, and which had therefore to be timetabled.

Table 8:8 Use of specialist areas

Schools	A	B	C	D	E
Teachers working in specialist areas	24%	39%	30%	46%	29%

From the replies to Questions nine and five a check was made to see how far the common belief amongst the headteachers that French and Music should be taught in enclosed rooms, was being implemented. The figures that appear in Table 8:9 indicate that the belief was being acted upon.

Table 8:9 Accommodating French and Music

Schools		A	B	C	D	E
French	Open	0	0	0	0	0
	Closed	2	2	1	3	2
Music	Open	0	0	0	0	0
	Closed	0	0	1	1	2

Of the one hundred and five lessons recorded, audio visual

aids, which included the blackboard, were only used in 26% of the lessons. The tape recorder (five mentions) blackboard (five mentions) and wallcharts (three mentions) were the most popular.

Table 8:10 records the lessons that were being taught in five areas of the curriculum and whether the subject being taught was controlled by a syllabus.

Table 8:10 Use of Syllabus

Schools		A	B	C	D	E
English	Yes	3	6	0	2	5
	No	2	0	0	0	0
Mathematics	Yes	5	0	8	6	6
	No	0	0	0	0	0
French	Yes	2	2	1	1	1
	No	0	0	0	0	1
Science	Yes	2	1	1	2	4
	No	1	0	0	0	0
Humanities	Yes	2	3	5	3	0
	No	0	0	0	0	0

There were thirty-six responses to Question fifteen. In thirty-one of the replies the teachers stated that they had selected the lesson content. In two cases the replies indicated that the teacher and the children had made the decision, whilst in only three lessons out of the one hundred and five recorded in this sample had the children been given the freedom to choose.

The strength of teacher control was also revealed in the replies to Question sixteen. (Table 8:11)

Table 8:11 Arrangement of desks

Schools	A	B	C	D	E	Totals
Desks facing front	7	6	3	9	5	30
Desks grouped	9	10	11	11	16	57
Desks arranged by children	2		3			5

The responses to Question seventeen given in Table 8:12 indicated that the children had reasonable freedom to sit where they wished. However, the comments that were supplied in the questionnaires indicated that it was a controlled and conditional freedom, that is if the child behaved, worked well or had no learning problem, he or she was reasonably free.

Table 8:12 Control of Seating

Schools	A	B	C	D	E
Teacher controlled seating	4	2	5	3	1
Children's choice	4	6	4	9	7
Some direction by teacher	11	9	10	9	13

The amount of freedom given to the children to move about the teaching area during a lesson is indicated in Table 8:13.

Although there are forty-four positive responses compared with thirty-one negative, it has to be pointed out that many teachers qualified their agreement to movement with comments such as "as and when necessary", "to sharpen pencils", or "to get work marked." As with seating it would seem that movement was very largely controlled and conditional.

Table 8:13 Freedom to Move

Schools		A	B	C	D	E
French	Yes	2	1	1	1	
	No		1		2	2
English	Yes	2	3		1	1
	No	3	2		1	4
Mathematics	Yes	3		6	2	4
	No	2		2	4	2
Science	Yes	1	1			3
	No	1		1	1	1
Humanities	Yes	2	1	5	3	
	No		1			
Religious Education	Yes		1			
	No		1			

The replies to Question nineteen given in Table 8:14 indicate the degree of freedom given to children to move out of the area in which the lesson was taking place.

Table 8:14 Control of movement

Schools	A	B	C	D	E
Free to move	0	5	4	4	1
Not free to move	19	13	16	18	23

Even in the minority of cases where the teacher responded positively the response was qualified by such comments as "only to get a book from the library."

Although teachers did control movement and seating arrangements the majority did allow the pupils in their classes to discuss their work, but once again it was a controlled and conditional freedom,

that is, "talking allowed if kept very quiet" or "talking allowed when necessary."

Table 8:15 Control of Talking

Schools	A	B	C	D	E
Lessons in which talking was allowed	84%	78%	81%	62%	64%

Comments

An examination of the information gained from visits to the schools, from the initial interviews with the headteachers and staff and from the 'pin-point lesson' questionnaires, reveals a high degree of similarity in organization and operation in the five schools.

The notable features that were common to the five schools were as follows:-

1. School organization

All the schools based their organization on the year group with classes being organized on a mixed ability or set basis. No use was made of vertical or friendship grouping and in no case was a child given the opportunity to select the group to which he belonged. The groupings were totally controlled by the teaching staff.

2. A highly structured and compartmentalised timetable

Each school operated a forty period week with the length of each lesson ranging from thirty to forty minutes in length. Variations, within these limits, occured in each school. Bells were used to indicate the beginning and end of each period. Each school had an eight period day with four periods in the morning and four in the afternoon. In each of the schools there was a

a break of fifteen to twenty minutes between periods two and three each day but not all the schools had an afternoon break.

Putting two periods together was a common practice in all the schools. Single periods were frequently utilized for French, Music, Physical Education (not games), Religious Education, Library and Drama.

Many staff operated as semi-specialists. That is they spent much of their timetabled teaching time teaching one subject to more than one year group, but they also contributed to other areas of the curriculum. In order to make the appropriate teacher available at the time he or she was required to take a particular class or group in any of the four years, it was necessary to have a very 'tight' timetable. In addition, the use of specialist rooms and areas and the practice of organizing the teaching of French and Music in enclosed rooms, all increased the need for a highly structured timetable.

3. Set pattern of subjects

All five schools allocated their forty periods to eight curriculum areas.

The number of timetabled periods allocated to each subject area varied from school to school. There was also a variation from one year group to another within the same school and the headteachers stated that the allocation also changed from one year to another. Each school tended to allocate something in the order of 50% of the timetabled periods to English and Mathematics in the first year group. With the increase in time that was given to subjects such as French and Science as the child got older, the allocation of periods to English and Mathematics was reduced.

The variations in the allocation of periods to the same

subject in different schools was usually accounted for by the availability of staff. All the headteachers mentioned this as a factor. For example, not all schools taught French in their first year because staff were not available and the emphasis was placed on the older children. With the exception of School E, all the schools were being affected by "falling rolls" and the headteachers saw increasing difficulties in maintaining a satisfactory curriculum balance. For example in one of the schools the need to reduce staff numbers because of a falling number on roll was achieved by not replacing the Co-ordinator of Physical Education when he left the school. The result was a reduction in the periods of Physical Education allocated to certain year groups and a drastic curtailment of extra-curricular activities as no one on the staff had the necessary qualifications to supervise gymnastics within the terms of the Health and Safety Regulations.

4. Lack of integration

As indicated above no school used larger subject groupings such as creative arts. There was little evidence to show planned links existing between subjects such as English and Humanities.

5. Syllabuses and schemes of work

Each school had these documents available for each area of the curriculum and they were being used to guide and control the teaching that was taking place.

6. In-class organization

The picture that emerged was of situations almost totally controlled and directed by teachers. Seating arrangements, the amount of talking allowed, lesson content, movement, even pupil response to the set work, was controlled by the staff. Children were expected to listen to the teachers for most of the time and

it was significant that in all the schools a large number of additional blackboards had been obtained and that in many cases they were used as screens between groups. In each building modifications had been carried out largely to reduce noise levels and to facilitate class teaching.

7. Lack of team teaching

Team teaching in terms of a group of teachers with a variety of skills and knowledge working together with a large group of children and making themselves freely available to act in a consultative role for all the pupils in the group, was not in evidence in any of the schools. In each school the first year pupils were taught largely on a class basis by 'their' class teacher, and in one school staff were nominally assigned to a year group, but even in this case semi-specialists from other 'year teams' had to be brought in to provide sufficient staff to cover subjects. This prevented the year team being given a facilities timetable and then being allowed the freedom to organize the work of the year group as they saw appropriate.

8. No individualization

In no school was there any evidence of the individualization of learning in the sense that freedom was given to the child to select what he learnt, when he learnt, where he learnt and how he learnt. Freedom of choice was rarely given and when it did occur it was within clearly stated limits of time, location and format. Not only was the child denied the freedom to make choices to meet his individual interests and inclinations, but little evidence was provided to reveal that, beyond the organization of setting, any provision was made by the teaching staff to cater for the individual. For example, if a child became engrossed with an

aspect of his work there was no provision for him to pursue that interest within the structure of the timetable.

9. Teacher role

From the information obtained a picture emerges of the teachers in these schools controlling, almost totally, the conduct and learning of the children in their charge. "Teacher talk" was a dominant feature of the lessons and the teachers exercised a very large degree of control over the content, form and product of the lessons. Class control, in terms of a teacher having the ability to keep a class working unobtrusively, was seen as a highly estimable feature of a colleague's work.

10. Pupil role

The research evidence suggests that the pupils in these schools were, in the main, required to listen to their teachers for a considerable proportion of each lesson; carry out the tasks assigned to them in the manner prescribed; keep their talking to a minimum; refrain from moving about the areas, except to meet a specific and acceptable (in the teacher's terms) needs, and to conform to the norms set by the school.

Conclusion

In Chapter 7 it was reported that it was the intention of the Authority to provide a building which offered the maximum degree of flexibility in use and which would allow headteachers freedom to implement a variety of approaches, including a progressive one, to the education of their pupils. A most noticeable feature that emerged from a comparison of the information obtained from each school was the very high degree of similarity that existed between the five schools. Some minor variations did occur but in the main

their organization, curriculum and practice were very similar indeed and did not reveal a progressive approach.

The photographs on pages 121 and 122 give an indication of the environment in which children in these schools were being educated.

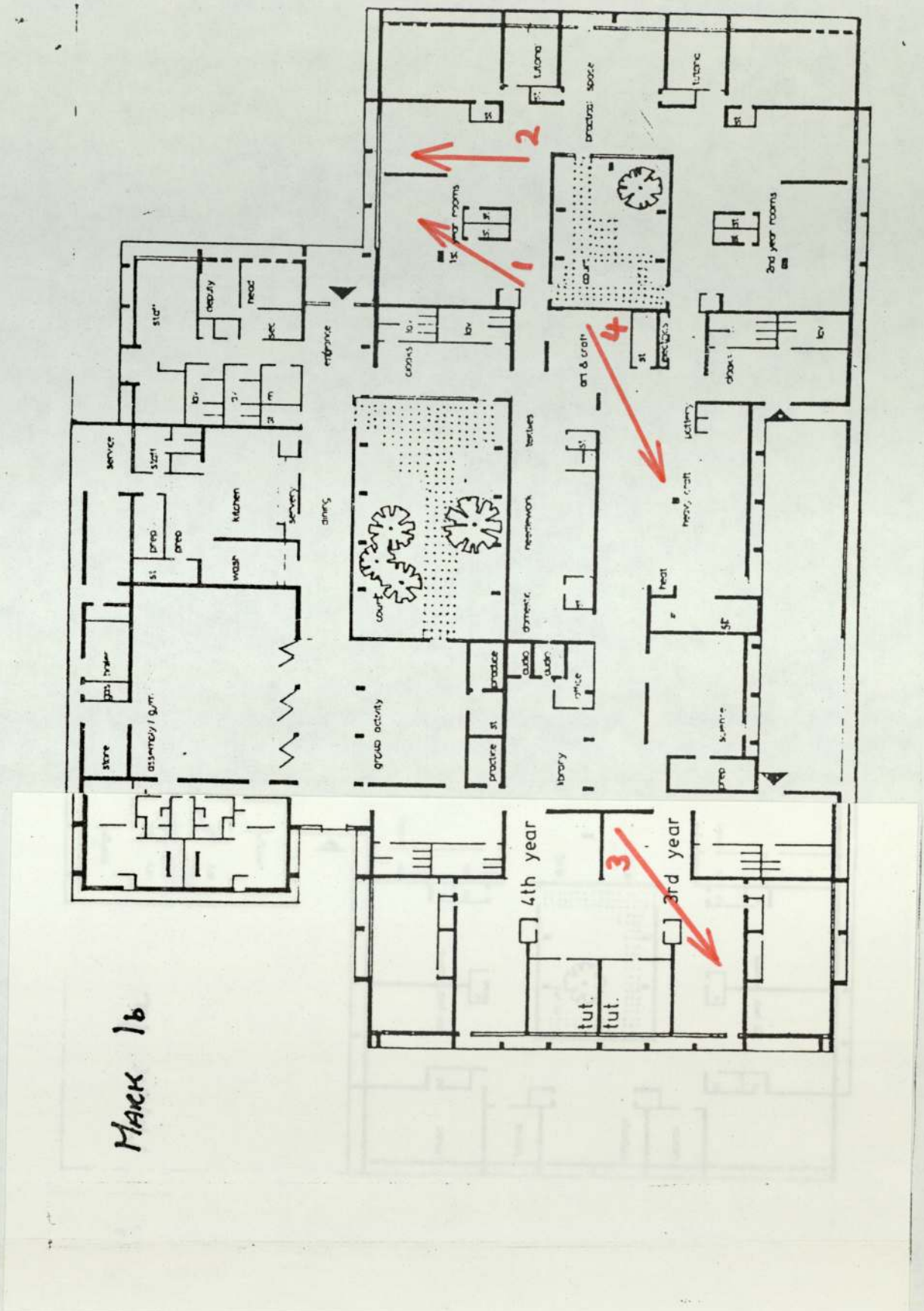

Figure 2 Staffordshire Middle School.

Photograph 1 View into First Year Area

Photograph 2 View into First Year Area

Photograph 3 View across Third Year Area

Photograph 4 View across Craft Area

Chapter 9

Interviews with Headteachers

Four of the headteachers were questioned concerning aspects of the organization and administration of their schools in an attempt to ascertain why the schools were so similar and why they were operating in a way that was at variance with the expressed purpose of the design. The headteachers (one female, three males) came from very different geographical and teaching backgrounds. Previous experience ranged from primary to further education, including teacher training. Two of the appointments were in-county and all the posts had been filled after national advertisements. The schools were situated in similar areas, that is areas that had experienced a considerable amount of both private and council house building for the accommodation of Birmingham overspill, or to provide accommodation that gave easy access to urban centres of employment.

The timetable

When asked why they had a highly structured and compartmentalised timetable, the four headteachers made it very clear that they saw the timetable as the linch-pin for the smooth and efficient operation of their schools. None of them could visualize a school such as their own being able to operate without a school timetable. It was conceded that if teachers were available who had the ability and training to function as class teachers in the primary school mode throughout the four years, then a rather different type of timetable could be used. A timetable for the organized use of specialist facilities would still be required and given to each teacher who would then have freedom to organize the remaining time as they saw appropriate. It was also stated that there would remain a need to fix such times as opening, closing, break and lunch times in order to organize the supervision of the children

up to a standard required by the Authority.

The main reason for the timetables being in the form they were appeared to be directly related to the way in which teachers worked in these schools.

All the headteachers mentioned that the timetable was essential for the smooth and efficient use of specialist facilities within the school. They felt that this aspect was particularly important in those schools where overcrowding had led to the provision of mobile classrooms and where there was, therefore, added pressure placed on the specialist provision which had not been increased. The timetabling of gymnasium, laboratory, activity area, French and Music rooms were seen as essential if every child was to get a fair use of such facilities.

The timetabling was also seen as a means of ensuring that each child received what was considered by the school to be a balanced curriculum. The child was timetabled to receive a certain number of periods for each aspect of the curriculum and this it was felt eliminated any danger of areas of the curriculum being omitted. An example was given of the timetabling of Religious Education as a separate period in order to ensure that it was taught.

It was also stated that the timetabling was a means by which some security could be given to the headteacher, staff and pupils. The view was expressed that knowing the pattern of school life was good for all concerned. It enabled the headteacher to know what was happening in his or her school at any moment of time, it gave the staff a pattern of work that could be anticipated and prepared for, and it was felt that a child was happiest working within a set structure and pattern. It was agreed that by structuring the timetable tightly one removed, to a large extent,

the opportunity for a flexible response to a situation that might arise within the classroom but it was felt that the gain was greater than the loss by adopting this practice.

Questioned as to why each school had adopted an eight period day, forty period week, the headteachers gave a clear impression that it stemmed largely from tradition and previous experience. Dividing the day into eight roughly equal periods gave a single period that was felt to be of the right length for such subjects as French, Physical Education and Music. Double periods fitted neatly into the traditional pattern of the school day, that is assembly to break; break to lunch etc. whilst four period blocks for subjects such as craft and home economics occupied whole mornings or afternoons. The headteachers made it clear that they were very satisfied with the established divisions and were not contemplating any changes.

In each school bells were rung to indicate the start and finish of each period. This practice was seen as essential for the smooth operation of the school. In one school an experiment had been tried with the bell being used to indicate the beginning and end of each double period. This proved unsatisfactory as at the end of single periods the changeover became ragged with children waiting for teachers, or children being late for lessons and this raggedness caused discipline problems and also proved to be a disruptive factor especially in the third and fourth year areas in the Mark 1b type of school.

The role of the teachers

When these schools opened each was in an area that was being reorganized from a two-tier system into a three-tier one. The Authority had made agreements with the teacher unions that teachers in their employment would be retained and that as far

as possible the new middle schools would be staffed by teachers from local schools. In the first instance vacancies in the new schools were advertised in the immediate local area and then on a county basis. Only in rare and exceptional circumstances were posts advertised nationally. It was not possible, therefore, for a headteacher to recruit teachers who had gained experience in progressive methods in open-plan situations, neither was it possible to recruit teachers trained to teach in middle schools or who had gained experience in such schools. Headteachers had, therefore, to make an early decision. Should they insist that their new colleagues adopt a progressive approach despite the lack of initial and in-service training and the lack of experience of working in open-plan situations, or should they organize on the basis of what staff they had been able to recruit?

In one school the headteacher adopted the former in his First Year Group. The staff planned and prepared weekly packages of work for each child, who then decided to a large extent when, where and how they would complete this work. The headteacher stated that by the first half-term the system had become unworkable largely because the staff were unable to cope with the numbers of children and their individual needs. The scheme was modified for the second half-term and then abandoned at the end of the first term.

It should be noted that none of the headteachers believed that it was possible, or indeed desirable, to operate a totally progressive approach with each child being the arbiter of his own learning. They felt that it was essential that they organized an approach that would gain the confidence of their colleagues, the pupils and their parents. Each one decided to organize their

First Year on a class teacher basis and staffed by former primary school colleagues, whilst the upper year groups were organized on more of a subject basis.

The size of the schools and hence the staff numbers did not permit a totally subject specialist approach on secondary lines. The result therefore in each school was an organization based on a semi-specialist approach. In this a member of staff would be required to teach largely one subject but in addition there would be a requirement to make a contribution to at least one other area of the curriculum. Even in those schools where an equal number of primary and secondary trained and experienced teachers were recruited, the headteachers found that colleagues were not prepared to accept a class teacher role in the upper part of the school as they did not feel competent in all areas of the curriculum. There was a strong feeling expressed that the older, and in particular the more able children, required the attention of teachers with specialist expertise. The result of the adoption of this semi-specialist approach was an additional, and major reason, for the highly structured timetables that ensured staff were available at the required times.

The high degree of control that the staff exercised over their classes, given the teaching method, was explained by the headteachers largely in terms of the necessity felt by staff to show thought and consideration for their colleagues. In the open-plan situation a teacher's raised voice or an outburst of class laughter could distract several other groups. Similarly it was felt that movement had to be controlled in order to minimise distraction. The view was also expressed by one of the headteachers that the ability to control a class was held in high esteem by members of the

teaching profession and that colleagues were concerned that their reputation did not suffer in this respect because of the way their classes behaved. The headteachers made it clear that they expected colleagues to control their classes and to keep the disturbance of other groups to a minimum. It was pointed out that parents frequently expressed concern that their children would be, or were being, distracted in the open-plan situation, and it was not unknown for parents to move their children to a school of traditional design if the fear could not be allayed.

The headteachers also expressed the opinion that the open-plan design tended to inhibit experimentation in teaching methods and limited the range of approaches to teaching. If a teacher felt that disruption to other groups could occur from what he proposed to do, then he would be reluctant to implement it.

The curriculum

The main reason for each of the schools having an eight element curriculum appeared to be the influence of tradition. An examination of the reports produced by Working Parties of teachers in each of the areas in which the schools were situated, revealed that they worked on this traditional basis with almost no mention being made of more integrated or different divisions. One head-teacher pointed out that the divisions followed the philosophical reasoning of people such as Peters and Hirst and it was also pointed out that the divisions were in line with those used by the High Schools. The conventional eight divisions were used by the headteachers when they recruited staff initially and in subsequent years. That is a headteacher knowing the eight areas of the curriculum and the number of children and classes to be taught, could easily calculate and therefore recruit staff who were able

to offer the appropriate knowledge and skills.

The headteachers had ensured that for each area of the curriculum a syllabus was available. It was stressed that these had been prepared to act as guides for the staff, not only in giving ideas but also in helping to prevent duplication and repetition of work. As stated above, in each area of reorganization Working Parties of Teachers had prepared reports covering each aspect of the curriculum through all three stages and the syllabus set out in detail what the middle school was expected to cover. The headteachers pointed out that these documents were revised from time to time in the light of the experience gained in the schools and also as a result of liaison meetings held with colleagues from both the contributing and upper schools.

Asked whether a progressive approach, that is, with the child largely pursuing its own interests, had ever been discussed, two headteachers replied that it had been raised but had been rejected out of hand. The views expressed by teachers in the Working Parties had been that there were certain areas of knowledge, certain skills and particular attitudes that had to be covered by the middle schools and that these had to be seen and dealt with in relation to what had gone on before and what would follow in the next stage of the child's education.

Organization

Each of the schools used the year group as a basis for their organization and in each school a teacher held a scale post for being responsible for a group. All the headteachers agreed that this arrangement was administratively convenient and workable. Each year a new year group came into the school and each year a

group left. It was also pointed out that the schools had been designed with this form of organization in mind, although the design did not preclude other forms of organization such as vertical grouping. None of the headteachers could see any major advantages to be gained in vertical grouping and it had not been tried in any of the schools.

Tradition also played some part in the adoption of a year group organization. The headteachers pointed out that where numbers were large enough in the contributory schools, the children were taught in year groups and it was also the organization used in the upper schools.

The main reason given for organizing classes within the year group on a mixed ability basis was to ensure a good social mix. A child's ability, social background, sex and former school were all considered when placing a child in a class. In addition, information and suggestions given by First School colleagues, or previous teachers within the school, were taken into account. It was felt that it was an important task for the middle school to widen a child's horizons and ensuring that he met more colleagues with different backgrounds and abilities was a good way of doing this.

The main reason given for the use of setting was to limit the range of attainment and ability within the teaching group. It was felt that as children moved through the school the range of attainment in subjects such as French and Mathematics widened so markedly that steps had to be taken to limit the range that confronted the teacher. It was also pointed out that by doing this, and thereby forming more homogeneous groups, it enabled the teacher to match both content and method more appropriately to

the class. In each of the schools the incidence of setting had increased over the years the school had been opened.

The reasons given for the rejection of streaming was that it ran counter to the idea of getting a good mix of children in classes. It was also felt, very strongly, that the schools had to avoid a "sink" situation where a group of children of poor ability and attitude spent all of their school time together. Concern was expressed that in the setting situation a hint of this problem emerged with the lowest set in each subject. It had been noted that whilst many teachers enjoyed and preferred teaching "high set" children many fewer expressed a similar enthusiasm for the lowest sets.

Hindrances to implementing a progressive approach

When asked specifically why their school had not implemented a progressive approach the headteachers made the following points:-

1. They did not believe that a truly progressive approach was viable, or desirable. However, the impression was given that they would certainly like to see a movement of their schools into a more progressive approach but that this would be difficult to implement in view of what is stated below.

2. It was felt that there had been a failure in the initial training of staff to give a real understanding or insight into the aims and methods of progressive education. Their colleagues had received lectures on this topic but they had not experienced such approaches either in their college work or in their teaching practice schools. Previous teaching experience had almost invariably been in 'traditional' schools and the bad publicity given to so called 'progressive' approach following the

publication of the Black Papers and the Tyndale Primary School affair had not helped to change the attitude of teachers.

It was felt that the in-service training provision made by the Authority had not been sufficient or effective in bringing about a change of attitude although it was admitted that such a task would be a gigantic and difficult undertaking.

3. The Building. It was felt that the design of the school gave too little flexibility of use. The variety of spaces were fixed and could not respond to varying needs. The openness made staff feel highly sensitive to their colleagues in neighbouring spaces and inhibited experimentation for fear of causing disturbance and distraction to other groups. Noise was a problem in each of the schools. The limited modifications that had taken place in each school to limit disturbance by noise had not solved the problem. The lack of sound absorbent material in the construction of the schools was a major cause of the difficulties experienced by teachers and pupils.

4. All the headteachers believed that a more progressive approach required a better provision of resources both material and human. The individualization of learning would be increased if money was made available for the purchase of equipment that could be used in such an approach, and it was felt that a marked improvement in the pupil teacher ratio was imperative if changes were to be made.

5. A final hindrance to the implementation of a more progressive approach in middle schools was seen by the headteachers to be the apparent lack of commitment by the advisory staff of the Authority to such an approach. The headteachers stated that they had experienced a variety of views and opinions being held by the

advisers and there did not appear to be a concerted view by them as to what should happen in middle schools. They did not believe that the advisory staff had got together to formulate a policy for the middle school and there was not therefore a particular line of guidance or advice being offered. They did not feel that there was any pressure for change being applied by the advisory service either in the day to day running of the schools or on the occasions when new appointments were being made.

Chapter 10

Concluding Observations

The aim of this study was to compare the operation of five 9 - 13 middle schools, accommodated in almost identical buildings, with the theoretical style of operation that was implicit in the design of the buildings. The intention was to establish and examine the degree of congruence that existed between the mode of operation of these schools and a theory of education that was extolled and supported by the Department of Education and Science, Her Majesty's Inspectors and many educationalists and which was exemplified in the open-plan design.

In the preceding chapters the emergence of the English middle school was traced both nationally and at county level and it was suggested that they appeared largely as the result of the powerful influence of Local Authority administrators. The latter were grappling with the problems of comprehensive reorganization within a context of limited financial resources. They saw in the creation of middle schools a solution to a number of pragmatic problems, not least of which in the case of Staffordshire was a strongly felt need to keep down the size of comprehensive schools.

Following the legal and administrative decisions taken to introduce middle schools, planning exercises at both national and local level were undertaken to formulate ideas and suggestions for the organization and functioning of these new schools. An examination of the documents produced, revealed that the newly created schools were being seen as based on a progressive approach. The Department of Education and Science and members of her Majesty's Inspectorate were particularly emphatic in this belief and they were supported by a considerable number of educationalists. The earliest expression of views by teachers in working party reports, often published before the schools opened, were also found to be

supportive, if in a somewhat more muted tone, of a progressive approach.

The emergence of the progressive philosophy in this country was examined, culminating in the findings and recommendations of the Plowden Report. This new style of active discovery learning constituted in McMullen's (1968) words a "radical change" in educational practice and required a response from those architects who were responsible for designing schools. It was the Architects and Building Branch of the Department of Education and Science who played a leading, and highly influential, role in making the changes. The influence of this group was examined and traced to the design of the schools in this study.

The organization and operation of the five schools was ascertained by visits, interviews and the use of a questionnaire. The information obtained indicated a high degree of similarity between the five schools in their way of working, but that this common style was very different to the preferred progressive style of teaching which formed the basis for the design of the schools. This final section seeks to suggest three reasons for this disjuncture.

1. The myth of the Primary School Progressive Revolution

From the literature quoted in Chapter 2 it is very easy to gain the impression that there had been a large scale change in the practice of education in English Primary Schools to a progressive child-centred approach.

Such a mode of operation was strongly advocated by the Plowden Committee. This in turn was supported by many other Government Publications such as the Building Bulletins and the Department of

Education and Science Reports on Education which in report No.66 (D.E.S.1970) stated that the principles of the progressive approach "now dominate primary school practice."

The Plowden Committee had Her Majesty's Inspectors survey some twenty-thousand primary schools and each school was then placed in one of nine categories. Category one was for those schools that were judged to be the "Pacemakers and leaders of educational advance." (Central Advisory Council for Education 1967). These were presumably those schools that were exponents of the child-centred, progressive approach advocated so strongly by the Committee. Into this category Her Majesty's Inspectors placed one hundred and nine schools (.5%) Even if one added those schools placed in the second category, i.e those considered to be "A good school with some outstanding features" the figure only rose to 8%

Presumably those writers quoted in Chapter 2 who wrote in such glowing terms of the revolution in the English Primary School had been guided in their visits to this limited number of schools who were putting progressive theories into practice. This assumption is supported by Blackie (1967) who said that in response to visitors' requests to see progressive schools, Her Majesty's Inspectors "found great difficulty in discovering any." Further support came from a colleague who, before joining the staff of a teacher training institution in America, was head of a much visited school in a county famed for its progressive primary schools. He stated that the reputation of that county rested on the work of no more than half-a-dozen schools.

Writing as early as 1968 Sybil Marshall stated in an article advocating that middle schools must be staffed by progressive

primary school teachers:

> "It will have to be established beyond all reasonable doubt that there has been a revolutionary change in primary school method and that it has been adopted."

Featherstone (1971) also made it quite clear that what he was advocating and illustrating were schools in Plowden's top categories, i.e. no more than 10% of schools and that in his eyes many primary schools were as arid, poverty striken and dull as American schools.

The work done by Moran (1972) indicated that most teachers still exercised a tight control over the activities of children even in the integrated day situation which was considered by the protagonists of progressive education as a highly conducive form of operation. As a result of a survey carried out in 1971 and reported in 1972, Bealing (1972) concluded that if the results were substantiated in follow-up work they would question the widely held beliefs about the primary school progressive revolution and he went on to state that he had obtained much evidence of tight teacher control. These findings are conguent with those of Boydell (1981) who found that in 1970 teacher control was very tight but that by 1977 classrooms were even more static and tightly controlled, with fewer opportunties for children to engage in independent work either individually or in small groups outside the classroom.

Hill (1975) questioned whether many teachers ever really understood what progressive education was about and suggested that the notion was being used as a means of revolt against the boring formalism of traditional schooling. More recent research confirms the pattern. For example, in his work in the North West of the country, Bennett (1976) found that only 9% of his sample of teachers

could be categorised as progressive in the Plowden sense and he reported that 83% of his sample believed that children should be told what to do and how to do it. The Government discussion document "Education in Schools" issued in 1977 stated that only a tiny minority of schools had adopted the progressive approach, whilst Wicking (1974) having spent four months touring six counties and visting forty schools, concluded that:

> "the open approach had not failed and it had not petered out; it had never got off the ground. I only saw one primary school which practised open education."

Her Majesty's Inspectors' Primary Survey of 1978 also supported the belief that there had not been a fundamental shift in either the methods, or context, of teaching in primary schools. When looking at the approaches to teaching they identified three broad categories of teaching method. That labelled as mainly didactic was found in 75% of classes whilst that labelled mainly exploratory was found in only 5% of cases with only 20% using a mixed approach. The ORACLE (1980) observational study in primary schools also found that the teaching was largely didactic in character and that the promotion of enquiry or discovery learning appeared to be almost non-existent.

The evidence indicates that despite the vast amount of publicity given to progressive education and its endorsement by the Department of Education and Science and Her Majesty's Inspectors, few primary schools had adopted the philosophy as a working basis. Wright (1977) warned that when talking of progressive primary schools reference was being made to only a small minority and he went on to state his belief that the Plowden Committee had over estimated the proportion of schools that could be called progressive and he concluded by saying that

"Schools in Britain are traditional schools and that none of the tinkering of the last thirty years has altered this."

Elliot (1979) said that

"In my view, much of what passes for progressive education in our schools is only superficially so, and I believe that more self-evaluation at the implementation level would reveal how far the progressives have to go in translating their ideals into practice."

A similar opinion had been given earlier by Midwinter (1966) who expressed the opinion that

"the so called alternatives in education have often been, when not mythical, superficial. They have flattered to deceive. They may change the facade but not the substance of education.

I find it difficult to find a fundamental change in English education since 1879; only a bewildering set of peripheral fashions presents itself."

Goodlad (1978) agreed and expressed the opinion that most of our schools never stray far from a narrow traditional curriculum.

Simon (1979), Boydell (1981) and Galton (1979) all question the reality of the progressive revolution and Harris (1974) stated that it never was a reality, whilst Richards (1980) in an article demythologizing Primary education stated:

"the primary school revolution has not been tried and found wanting but never tried at all except in a small number of schools."

Dale (1979) identified the sixties as the Golden Age for progressive education but added that it was not the Golden Age of progressive education. He pointed out that it was a period of economic prosperity with increasing resources being allocated to education. The progressive approach was gaining an ideological acceptance in what appeared to be key areas including the political field. The main reason he gave for its lack of success in that period was the entrenched nature of the hidden curriculum and infrastructure of the school. This lack of willingness on the

part of teachers to change their practice was also explained by two other writers in the following ways. Midwinter (1966) believed that:

> "teachers are produced by the system they operate. Perpetual attendance at school during their formative years must leave a solid residue of acceptance. After three short years, students are returned to the place from whence they came and, encouraged by those already snared by the trap of self-perpetuation, they help make the education system the most conservative institution in the United Kingdom."

Pluckrose (1979) expressed the view that:

> "It may well be that we have not developed sufficient skills in teacher training to contemplate an immediate and widespread extention of informal methods" and he goes on to state that "to teach informally with success requires a sophistication that our teaching force does not possess."

The doubts, uncertainties and general reluctance of teachers to adopt a progressive approach in middle schools were expressed as early as 1967 at the Schools Council Warwick Conference. Taylor and Garson (1982) stated that:

> "the optimism and visionary zeal of the speakers was counter-balanced by more jaundiced views from the floor and in discussion groups between practising teachers it was clear that they perceived a world entirely different from that portrayed by the platform rhetoric. In those groups one found hesitancy, doubts, problems and questions."

The changed circumstances of the seventies made it highly unlikely in Dale's (1979) opinion, that the progressive approach would be adopted in the foreseeable future. He saw the changes in the economic and political climate operating against its implementation. The appearance of the Black Papers and the almost unanimously hostile press, placed great pressure on the progressives. They were made the scapegoat for all manner of failures, with the vilification reaching a peak over the Tyndale affair and the so-called damning findings of Bennett's (1976) work. The anti-progressives claimed that this provedthat formal, that is traditional approaches, were more effective than progressive

ones. Writers such as Froome and Boyson frequently launched vehement attacks against the progressives. In an article titled "Falling standards in our schools", Boyson (1976) stated that in order to give children freedom the progressives had

> "urged that schools be run without rules, school uniform, morning assembly, form classes, personal desks or set subjects."

He claimed that such an approach led to a jeering contempt for authority, monarchy, religion and all aspects of Christian liberal democracy and left the children in a spiritual wasteland.

Prime Minister Callaghan's Ruskin College speech made in 1976 was also critical of primary education, and the setting up of the Assessment of Performance Unit was seen by many teachers as a significant step to check on schools and to bring about greater accountability.

These developments placed primary schools under a considerable amount of pressure and they created an atmosphere that was not conducive to development and experiment and the introduction of a progressive approach to education.

The evidence suggests strong support for Wallace's (1977) contention that:

> "the (progressive) rhetoric has proved difficult to translate into practice"

and that the so-called progressive revolution was to a very large degree mythical. This being so it has important significance for this study. It means that at the time of setting up the schools involved in this study there was not a large body of teachers who had practised progressive methods and there was not a pool of experience that could be utilised in setting up the new middle schools. It also meant that the architectural response in the form of open-plan schools, which the National Union of Teachers

(undated) claimed has "exploded into a fashion" was based on the practice of a limited number of teachers, the majority of whom worked with children at the lower end of the compulsory school age range.

2. Architectural design theory

In preceding chapters it has been pointed out that the Architects and Building Branch of the Department of Education and Science were an extremely influential group in determining the design of schools in this country and the members stressed repeatedly that they were aiming to meet the needs of those in the schools. That is they were pursuing a functionalist approach to design. Cooper (1981) stated that architectural functionalism is grounded in the belief that form follows function, that is the architectural form of teaching environments should follow - that is result from - the behaviour of the occupants. The Handbook of Architectural Practice and Management (Royal Institute British Architects 1965) states that:

> "designers need to see how the animate and inanimate contents of a building affect the arrangement of space, fabric and mechanism so that performance specifications can be devised to achieve a unified need."

They claimed that a basic aim in design was matching, to the maximum degree possible, the performance of a building and the people occupying it. However, as Lipman (1976) pointed out, this was easier said than done. He stated that the fulfilment of this ideal had frequently been frustrated largely because of the discrepant nature of the types of knowledge available. He states:

> "technical or technology based information concerning the performance of building components has approached precise definition and clarity of specification; for instance, data on materials such as concrete and on mechanical installations for heating or air-conditioning. On the other hand, and unlike

> the specificity established in the area of 'inanimate' building elements, information about building users performance (or the demands they might make of their built surroundings) has, in the main, remained ambiguous, or been presented in forms unsuited to design usage."

He added that the knowledge required by designers of how people use, or are expected to use, buildings has been "characterized by uncertainty."

In an examination of a similar problem that exists in the field of town planning, Foley (1960) suggested that the difficulties are resolved ideologically. That is an occupational ideology

> "tends to build around seemingly self-evident truths and values and, in turn, to bestow a self-justifying tone to its main propositions and claims of reasoning."

The members of the Design Group of the Architects and Building Branch following their professed functionalist approach, expressed their confidence in determining the needs of those occupying schools by carrying out detailed observations and analysis of activities. As stated previously they followed the advice of "wise educators" and visited "leading practitioners" in "selected schools." They then produced in the Building Bulletins and other publications vignettes of what they claimed was the increasingly prevalent style of teaching. For example, in the first Building Bulletin (Ministry of Education 1949) it states that

> "children are working in a variety of group sizes; secondly, many different activities may be going on at the same time; and thirdly, children in a pursuit of this variety will flow into all parts of the building ... to find a suitable space or seclusion."

In Education Summary No.26 (Department of Education and Science 1972) it is said that children

> "delight in free movement and are active, inquisitive, often boisterous and noisy ... school needs to provide uncrowded space and opportunities for making and doing. They enjoy doing things that will often make them dirty and messy. They sometimes like to be quiet. Therefore the school should provide the right kind of spaces in which small groups of children may rest quietly."

What they were advocating was in the words of Neill and Denham (1982) an approach to learning which involved

> "the active acquisition of information for which the free flow of children to learning resources is necessary."

Clearly there were some schools operating in this way but the evidence suggests strongly that they were in a minority and that the bulk of those that were working in this way were schools for children in the lowest age groups. The suggested designs were therefore based on the needs of a minority of teachers and pupils and because their style of operation was adopted by the Design Group as the "occupational ideology" the needs of the majority of teachers and children were ignored.

The Group claimed, in defence of their recommendations, that they were planning for a trend, a trend that they, and the Plowden Committee, saw, and certainly wanted to see, sweeping up through the educational system. However, the National Union of Teachers (Undated) warned of the dangers of designing buildings to accommodate fashions and Evans (1979) pointed out that the need for very great care being taken in deciding whose advice to take if one was to follow a trend as there could well be a difference of opinion amongst interested parties.

An additional element of doubt is cast on the recommendations of the Design Group by Cooper's (1982) analysis of the publications they produced. He believed that in following their professed functionalist approach in meeting the needs of their clients, they had consistently interpreted the term client to mean children rather than teachers. Their emphasis had been consistently on active, mobile, inquisitive children and the need to provide them with an environment that did not encroach on their freedom. The message appeared to be that if children were given

space and if doors and walls were removed they would become active and free-moving learners.

An alternative concept to architectural functionalism is architectural determinism which Cooper (1981) defines as being based on the idea that function follows form, that is the built environment is the cause and behaviour its effect. He states that determinists believe that the behaviour of both teachers and children follows, and is a result of the architectural form of the learning environment they occupy.

The writer of the editorial in the Architects Journal (1980) was quite certain that open-plan designs were an exercise in determinism and that educationalists and architects attempted a building led revolution in educational practice. The writer believed that the open-plan style was intended as a statement to the teachers that progressive child-centred education had arrived, and that it was quicker to put up the buildings and trust that they would educate the educators rather than wait for personal and professional attitudes to change. The Department of Education and Science (1972) expressed the opinion that the proposed new arrangements of space would require changes in teaching practice whilst Blackie (1974), a former Chief Inspector of Schools, stated that

> "the new kinds of buildings makes the new approaches easier and the old ones more difficult. To that extent it forces the teacher's hand."

Neither architectural functionalism nor architectural determinism appears to be applicable in the context of this study. The schools in question cannot be said to be designed on the basis of a functionalist approach as prior to the publication of Building Bulletin 35 in 1966 which contained the plan for Delf Hill,

which in turn exercised considerable influence on the design being studied, no middle schools existed and it was not therefore possible for a study of their mode of operation to be made. In fact the authors of Building Bulletin 35 admitted that they had to make certain assumptions as a basis for their design. Many statements had been made by educationalists during the planning of the curriculum for middle schools, that they would not be a mere amalgam of existing primary and secondary school practice but that they would create their own particular philosophy and approach. This being so it would seem that a more prudent approach would have been to recommend a less radical change in design.

The findings in this study indicate that if the introduction of open-plan design for 9 - 13 middle schools in Staffordshire was an attempt to use architectural determinism to ensure that progressive methods were used, then the exercise appears to have been a distinct failure. The evidence indicates that the children were not enjoying increased freedom or an active exploratory approach to learning. The evidence questions the assertion made by Evans (1979) that

> "Architects can bring a powerful rhetoric to the aid of implementing ideology."

Hendry and Matheson (1979) suggested that although an open plan setting may give teachers more options for the way in which they work, it does not automatically guarantee that the options are taken up. Bennett and Hyland (1979) agreed that there is no guarantee that open-plan design produces open practice whilst Proshansky and Wolfe (1974) stated emphatically that there can be no such thing as architectural determinism and Richardson (1967) expressed the opinion that

"it is not the surrounding fabric that determines the culture of the school but the people living in it."

Functionalism and determinism are both based on a belief in a simple relationship existing between design and behaviour in which people's actions and behaviour are shaped by forces in their physical environment. That is they react to the situation in which they find themselves. This belief is not satisfactory as it fails to acknowledge that human beings are not simple responding organisms but active individuals who can exercise power and control over the way that they react to any given situation. This reaction andinteraction with their environment is a highly complex process and the results are not predictable.

Lerup (1977) in supporting the inter-actionist's view rather than simple reaction states that:

"Each building is a stage with an assortment of props on, in and with which the dwellers live out their dramas. But the dwellers bring their lives to these stages, their experiences, their bias and temperament and their projects. They see and act towards the building in the light of this internal luggage. In this way meaning is assigned to the stage and its props in a constant interaction between past experience and new, accomplished through constant self-reflection and persistent interpretation. All the while the Physical setting is the anchor of interaction and self-reflection. It is a dialectic between the internal and the external that the meaning of space is momentarily confined."

Harris and Lipman (1980) also pointed out that the relationships between people and the material world are *not* unidirectional, that is people do not simply react to their physical environments but they endow them with meaning and they interpret and change them and that the way in which this is done is not independent of their social relationships. In fact the unequal distribution of social power is a highly significant factor. They believed that architectural determinism, in the main, treats the distribution of social power as non-problematic.

This problem would appear to be highly significant and relevant in considering schools. Schools are inhabited by teachers and children and the distribution and balance of power between the two groups has to be taken into account. Both groups operate under certain constraints and expectations and each has a degree, but probably a very unequal degree, of freedom to interact with the environment. An essential tenet of the progressive philosophy is the granting of greater freedom to the child with a consequent diminution in the power and control of the teacher. If, however, the evidence in this study is correct and there has not been a wholesale take up of the progressive philosophy by teachers, then it can be assumed that the power or freedom to react to the built environment lies very much in the hands of teachers. The evidence reveals that the pattern of building use imposed by the teachers in these schools was very much at variance with the philosophy on which the design was based.

3. Lack of Local Education Authority's Commitment to a Progressive Approach

Plimmer (1974) states that the building of an open-plan school is a statement by a Local Authority that progressive education is to take place.

However, a local authority is composed of elected representatives, administrators, advisers and teachers. The statement implies that all the various groups are acting in unison in pursuit of a commonly held objective. No reference is made to the distribution of power amongst the groups to initiate and influence educational developments.

In Staffordshire no record could be found of elected

representatives expressing a desire for progressive education to be adopted in the new middle schools. The Chief Education Officer stated in interview that once he had succeeded in getting three-tier reorganization accepted he handed over the responsibility for designing and building the new schools to his Senior Assistant Education Officer responsible for sites and buildings. The formers' chief concern had been to get the organization of education within the County changed and he made no reference to a preferred style of working for the new middle schools.

The officer responsible for Sites and Buildings emphasized that he consulted both teachers and colleagues in the advisory service on the question of design. However, as the evidence discussed in Chapter 7 reveals it was he who played the major and dominating role in deciding that the new schools should be of an open-plan design. Once the designs had been transformed into buildings, the influence that this officer had over the actual practice which took place in the schools was limited and restricted to his control over the modifications to the buildings. In respect of the latter he proved to be very reluctant to sanction any changes. Each of the schools immediately experienced problems with noise and requested moderate structural changes to alleviate the problem. These requests were supported by Governors and pastoral advisory officers but extreme difficulty was experienced in getting the requests accepted and it was found that it was only by invoking sections of the Health and Safety at Works Acts that some of the proposed changes were agreed upon.

Interviews with members of the advisory staff did not reveal a consensus of opinion regarding the style of teaching that should

take place in the new middle schools and the consequent design of the buildings. Opinion ranged from expressions of annoyance at the lack of consultation and the feeling that open-plan designs were a fetish, to those who, whilst not strongly advocating open-plan, felt that it would be an interesting experiment and that the design might provide the maximum degree of flexibility to facilitate a variety of educational approaches. The ideas and opinions expressed in interviews suggested that there was certainly not a strong advocacy for a progressive approach amongst the advisory officers. However, it has to be stated that the interviews for this study took place some ten years or so after the original planning had been done at the end of the sixties, which as Dale (1979) said was the "golden age for progressive education." The change in attitude towards progressive education in the intervening ten years could well have affected the opinions expressed.

The decision to build open-plan schools in Staffordshire appears to have been taken largely by one officer and lacked the backing of a unified group of advisory colleagues. The Authority did not appoint, either from their own advisory service or from outside the county, an officer with specific responsibility for the introduction and development of the new middle schools. This lack was regretted by a member of Her Majesty's Inspectorate who stated in interview that he found it very difficult to talk of matters appertaining to middle schools in the county as no one person seemed to be responsible for them. Each school was the responsibility of the Assistant Education Officer and pastoral Advisory Officer for the area in which the school happened to be built.

If the Authority had really wanted a progressive, or for that matter any other approach, they could have ensured that they appointed an officer who supported and had gained experience of the approach they wished to see implemented. This officer could then have exercised considerable influence over certain key areas of decision making, and could also have worked out with colleagues in the advisory service a philosophy and policy for the middle schools in the crucial early days of their establishment. Such a philosophy and policy if supported by the Chief Education Officer and the Education Committee could then have influenced and guided subsequent decisions.

An officer with this specific responsibility was also required to act as the middle school 'champion' - one who could see and appreciate the problems and possibilities arising in the county and one who could represent strongly the needs of middle schools when such subjects as teaching ratios and capitation were being discussed. This lack of a person with specific interests of middle schools at heart, and sufficiently high up in the administration hierarchy to bring an influence to bear on policy making, was keenly felt by the heads of middle schools in the county. As the schools were designated 'secondary' under the Burnham agreement the heads attended the Secondary Headteacher official meetings. Being small in number and with middle schools being comparatively small in actual size, their own peculiar problems and concerns tended to figure insignificantly in the proceedings of these meetings. Many middle school heads felt that it was a waste of time to attend as the majority of matters discussed had no significance or relevance to them and the result was the setting up of what was, at first, an unofficial middle schools headteacher group to make possible the discussion of

problems and the making of representations to the Authority.

An officer with specific middle school responsibility could also have played a key role in the appointment of headteachers to the new schools. In the details sent out to applicants the Authority had stated that the new purpose built schools were designed to accommodate an imaginative, progressive child-centred approach to education. The posts had been advertised nationally and it was the people appointed to the headships who were in Owen's (1970) words of "first importance" and in the best position to influence the approach adopted. As Kogan (1973) stated:-

> "A headteacher almost certainly sets the style of his school."

whilst Medd (1973) stated:-

> "The headteacher is the keystone of any school but even more so in one of open-plan design where teachers, in unfamiliar conditions look to him for guidance, support and reassurance. He should be able to visualize the optimum use of the building and its facilities, to inspire and stimulate co-operation between the teachers and to organize the school for the benefit of all the children."

Not having an officer with specific responsibility for middle schools the appointments to the headships were largely in the hands of the Assistant Education Officer and the Advisory Officer for the area in which the school happened to be built. This situation meant that the officers could be either supporters of open-plan schools and progressive methods or, at the other extreme, of the opinion that open-plan designs were merely a fad or a fetish. There was therefore no guarantee that every effort would be made to appoint a person supportive of, and experienced in, progressive methods. The assumption could be made that it was only supporters of a progressive approach who would apply for the headship of an open-plan school. However, this assumption does not appear to apply as none of the heads interviewed expressed support for such an

approach.

As these were new schools the governing bodies were newly constituted and were on occasions meeting for the first time to appoint the headteacher. Several of the members had no previous experience of school governorship and received little or no briefing on the educational philosophy on which the open-plan design was based.

Even if the Authority had appointed an officer specifically responsible for middle schools who favoured a progressive approach and who, in turn, ensured the appointment of headteachers of the same persuasion, serious problems would have been encountered in appointing progressively minded members of staff. These five schools had been built in areas of three-tier reorganization and in order to get the co-operation of the teachers' unions, agreements had been made concerning the ways in which appointments to the new schools would be made. This was to protect those teachers who would be displaced when the existing primary and secondary schools lost their top two years and their lower two years of pupils respectively. In an agreement between the Authority and the Unions, teachers likely to be displaced by reorganization were being given first opportunity in obtaining posts in the local middle schools. Consequently posts had, initially, to be advertised within the immediate area of reorganization and wherever possible local applicants had to be appointed and they brought their own protected scale points with them. The next step was to advertise within the County and then, and only in exceptional circumstances, were national advertisements placed.

The adoption of this system, which was in the Authority's terms an expression of their loyalty to the teachers in their employment,

meant that there was little chance that a reasonable proportion of teachers with either experience or a commitment to progressive education would be appointed. The county had not achieved a reputation for its progressive schools and there was little in the reports of the Working Parties to indicate that the County contained very many progressively minded teachers.

The bringing together of local primary and secondary teachers to form curriculum working parties was a good exercise in developing a greater understanding amongst teachers working in the different sectors of the service, but it was no guarantee that it would bring about a fundamental reappraisal of education. An examination of the Working Party Reports reveals that there was a greater concern for detailing and sharing out the traditional contents of the various subject areas amongst the three tiers of the new organization rather than a thorough consideration of alternative approaches such as vertical grouping, team teaching and curriculum integration. It would seem that the period when the working parties were carrying out their task would have been a good time for officers in the advisory service to have introduced a range of curriculum possibilities for discussion and consideration and to introduce topics such as 'freedom for the child' to raise the level of discussion above the parochial. The failure of the advisory officers to do this may well have been due to a lack of positive leadership steming from the failure to appoint an officer specifically responsible for middle schools as discussed above. It could also have been a reflection of a lack of conviction in a progressive approach or an inability to devote the necessary time to the task because of other commitments.

In addition to this lack of commitment to the progressive

approach the Local Authority failed to make anything like an adequate in-service provision. As explained above there were only a minority of teachers nationally or within the County who were practising progressive education and there was a great need for a large scale exercise in in-service education to prepare teachers for a change in their way of working.

The Plowden Report (Department of Education and Science 1967) recommended an "Imaginative programme of in-service training" whilst the Department of Education and Science (1972) stated that as a minimum teachers who were to be transferred to open-plan schools should be given the opportunity to visit schools of a similar design to that in which they were going to work. Taylor and Vlastros (1975) stated that

> "Pushing out walls and enlarging areas for instructional purposes does not necessarily guarantee a change in teaching patterns. Unless the teacher is trained to perceive the environment as part of the learning process, a traditional pattern of teaching will remain."

Smith (1974) and Sommer (1969) both emphasized that teachers, especially headteachers, needed to be made fully aware of the potential that a learning environment can provide. The latter states that "innovations in teaching environments without discussing new programme possibilities with the instructional staff" would result in teachers doing exactly what they had done before even though a greater or different range of action was available to them.

Conclusion

The disjuncture that has been found to exist between theory and practice in the schools studied can be attributed in the first instance to those responsible for the design of schools at both national and local level. If, as they claimed, the designers were following a functionalist approach then they grossly over-estimated the incidence of progressive teaching in the schools of this country. The evidence advanced in this study reveals clearly that only a small minority of schools had adopted the progressive theory as a basis for their work and it is difficult to believe that those responsible for design, both nationally and locally, were not fully aware of the fact. One is forced to suspect that the building of open plan schools was an exercise in architectural determinism, abetted by an economic factor, and if this were so then it reveals a serious over-estimation of the influence that a school building can exert over those who teach in it. The evidence reveals that to a very large extent teachers have retained the power and control in schools, and it follows therefore that placing children in an open situation grants them little access to their own power and control if they are not permitted to exploit it.

In this case the Local Authority failed to exercise a strong and consistent commitment to progressive education in its 9 - 13 middle schools. The failure to provide an effective in-service programme to change the attitude and practice of the teachers who were to staff these new schools has resulted in a continuation of what Richards (1979) identified as the 'pragmatic' approach that the teachers had practised in their former schools. This has resulted in the teachers continuing to "initiate most activities

and structuring and sequencing" the work and with the schools placing a very heavy reliance on "teacher organization and control."

Appendix 1
Pin-point lesson questionnaire

Would you please answer the following questions, where appropriate, for the lesson you were engaged in at 11.14 a.m. on Wednesday.

1. At what time did the lesson begin?

2. At what time did the lesson end?

3. From which Year Group(s) were the children drawn?

4. How were the children grouped for this particular lesson? e.g. mixed ability, streamed, setted etc.

5. What was the title given to this lesson on the timetable? e.g. English, Humanities, Free study etc.

6. What was the subject matter being considered? e.g. long division, farming in New Zealand, coil pots, individual study of the Normans etc.

7. Did the children work:-

   as a class

   in groups

   individually

   (If there was a combination of the above it would be very helpful if you could give approximate percentages)

8. What activities were the children engaged in? e.g. listening to you, researching their own topics, doing text book exercises etc.

9. Where did this lesson take place?

   (a) in a general classroom

   (b) in a specialist area/room

   (c) Outdoors

10. Were audio visual aids used?

11. If your answer was yes would you please say which.

12. Were text books used?

13. Was the work being done part of the set school syllabus?

14. If your answer to Question 13 was "yes", did you help to write the syllabus?

15. If your answer to Question 13 was "no", was the lesson content selected by you or by the children?

16. Were the desks arranged by you, or a colleague

    (a) to face the front of the class

    (b) in groups

    (c) as the children decided.

17. Did the children sit:-

    (a) where you placed them

    (b) where they wished

    (c) mostly where they wished but some were directed

18. Were the children allowed to move about the room/area during the lesson?

19. Did you permit any pupils to go out of the lesson to consult another member of staff or to consult reference books?

20. Did you allow the children to discuss their work amongst themselves?

References

Adams, F.J. (1968) "Delf Hill Middle School, Low Moor, Bradford." in Comprehensive Education Bulletin No.9 pp. 12 - 14.

Adams, J. (1922) Modern Developments in Educational Practice University of London Press.

Ahlgren, A and Germann, P.R. (1977) "Notes comments and Perceptions of Open Schooling." American Educational Research Journal Volume 14 No.3 pp 331 - 337.

Anthony, W. (1979) "Progressive Learning Theories: the Evidence." in Bernbaum, G.(Editor) Schooling in Decline. pp. 149 - 181 Macmillan.

Architects Journal (1980) 171. Unsigned editorial "The Educating Style: post or late modern." p.519.

Armitage, J. (1960). Our Children's Education. Pall Mall Press.

Batley, R., O'Brian, O., and Parris, H. (1970). Going Comprehensive. Educational Policy -making in two county boroughs. Routledge and Kegan Paul Limited.

Bealing, D. (1972). "The organization of junior school classrooms." Educational Research Volume 14 pp. 231-5.

Benn, C., (1967) "The Middle School. Which Way." Forum 9 Summer. pp. 98 - 102.

Benn, C. and Simon, B. (1972). Half Way There. Harmondsworth, Penguin.

Bennett, N. (1976). Teaching Styles and Pupil Progress. Open Books.

Bennett, N and Hyland, T. (1979). "Open Plan - Open Education?" British Educational Research Journal Volume 5 No.2 pp. 159 - 166.

Bennett, N., and Andreae, J., Hegarty, P. and Wade, B. (1980) Open Plan Schools. Schools Council Project. N.F.E.R. Publishing Company Limited.

Bernstein, B. and Davies, B. (1969). "Some sociological comments on Plowden" in Peters, R. (Editor) Perspectives on Plowden pp. 55 - 83. Routledge and Kegan Paul Limited.

Birley, D., (1970). The Education Officer and his world. Routledge and Kegan Paul Limited.

Blackie, J. (1967). Inside the Primary School. H.M.S.O.

Blackie, J. (1974). Changing the Primary School. An integrated approach. Macmillan.

Blenkin, G.M. and Kelly, A.V. (1981). The Primary Curriculum. Harper and Row.

Blyth W.A.L. (1965). English Primary Education. Volume II Routledge and Kegan Paul Limited.

Blyth W.A.L. and Derricott, R. (1977). The Social Significance of Middle Schools. B.T. Batsford Limited.

Boyle, E. and Crossland, A. (1971). The Politics of Education Penguin Education Special.

Boyson, R. (1976). "Time to Halt Falling Standards in our Schools." in Readers Digest. October pp. 81 - 86.

Brogden, M. (1983) "Open Plan Primary Schools: Rhetoric and Reality." School Organization Volume 3 No.1 pp. 27 - 41.

Browse, W.J.B. (1969) "Internal Organization of the School." in The Middle Years of Schooling. Schools Council Working Paper No.22 pp. 67 - 70. H.M.S.O.

Bryan, K.A. and Hardcastle, K.W. (1977). "The Growth of Middle Schools: Educational Rhetoric and Economic Reality." Journal of Educational Administration and History. Volume IX No.1 pp. 49 - 55.

Bullivant, A. (Undated). The How and Why of Comprehensive Reorganization. C.A.S.E. and Ashton-under-Lyne A.A.S.E.

Burrows, L.J. (1967). "What's in store for the children?" in The Middle School. A symposium. pp. 10 - 14. Schoolmaster Publishing Company.

Burrows, L.J. (1968). "Integration or Specialisation" Trends in Education. January pp. 16 - 20.

Burrows, J. (1978). The Middle School - High Road or Dead End? The Woburn Press.

Campbell Stewart, W.A. (1979). "Progressive Education - past, present and future." British Journal of Educational Studies Volume XXVII No.2 pp. 103 - 110.

Canter, D. (1970). "Architectural psychology and School Design." Scottish Education Studies. Volume 2 No.2 November 1970 pp. 87 - 94.

Central Advisory Council for Education (England) (1967). Children and their Primary Schools. 2 Volumes. (The Plowden Report)

City of Oxford Education Committee (1967). The Middle School. Report of conference held at Missenden Abbey. October Unpublished.

Clegg, A. (1967). "The Middle School cometh." in The Middle School. National Union of Teachers Symposium. pp. 1 - 9. Schoolmaster Publishing Company.

Cohen, L. and Manion, L. (1981). Perspectives on Classrooms and Schools. Holt Rinehart and Winston.

Comprehensive Schools Committee (1968). The Middle School Bulletin. No.9

Cooper, I (1981) "The Politics of Education and Architectural Design: the instructive example of British primary education." British Educational Research Journal Volume 7 No.2 pp. 125 - 136.

Cooper, I. (1981). "The maintenance of order and use of space in Primary School Buildings." Martin Centre for Architectural and Urban Studies. University of Cambridge.

Cooper, I. (1982). "Design and Use of British primary school buildings: an examination of government-endorsed advice," Design Studies. Volume 3 No.1 January. pp. 37 - 44.

Crowl, T.K. (1975) "Examination and evaluation of the conceptual basis for open classrooms." Education (U.S.A.) 96 Fall pp. 54 - 6.

Dale, R. (1979). "From endorsement to disintegration: progressive education from the golden age to the Green Paper." British Journal of Education Studies. Volume XXVII No.3 pp. 191 - 209

David, M.E. (1977). Reform, Reaction and Resources. The 3 Rs of Educational Planning. N.F.E.R. Publishing Company.

Dempster, J.J.B. (1973). What's happening in Primary Schools? David and Charles.

Dennis, R.J. (1967). "The Contribution of the Primary School to the Middle School." Middle Schools. City of Oxford Education Committee Conference Report.

Department of Education and Science (1965) Circular 10/65. The Organization of Secondary Education. H.M.S.O.

Department of Education and Science (1966) Building Bulletin 35 New Problems in School Design. Middle Schools. Implications for Transfer at 12 or 13 Years. H.M.S.O.

Department of Education and Science (1966) Circular 13/66. School Building Programmes. H.M.S.O.

Department of Education and Science (1967). The Middle School. Report of conference held at Walsall 4 - 8th September. Unpublished.

Department of Education and Science Central Advisory Council for Education (Wales) (1967). Primary Education in Wales (Gittins Report). H.M.S.O.

Department of Education and Science (1967). Building Bulletin 36. Eveline Lowe Primary School. H.M.S.O.

Department of Education and Science (1970a). Launching Middle Schools. Educational Survey No.8 H.M.S.O.

Department of Education and Science (1970b) Towards the Middle School. Education Pamphlet No.57. H.M.S.O.

Department of Education and Science (1970). Report on Education No.66: Trends in school design. H.M.S.O.

Department of Education and Science (1972). Education Survey 16. Open-Plan Primary Schools. H.M.S.O.

Department of Education and Science (1978). Architects and Buildings Branch Paper 3/78. Delf Hill Middle School. An Appraisal. H.M.S.O.

Department of Education and Science (1974). Guidelines on environmental design in educational buildings. H.M.S.O.

Department of Education and Science (1976) Architects and Buildings Branch Handbook. (Internal Publication available on Request.) H.M.S.O.

Duncan, S.M.C. (1967). "The Role of the Middle School." Lectu e given at the City of Oxford Middle School Conference held at Missenden Abbey. Unpublished document.

Duncan, S.M.C. (1968). "Continuity in Education between Primary and Middle School." in Middle Schools. University of Exeter Conference Report.

Eggleston, J. (1977). The Ecology of the School. Methuen.

Ellesmore, G.W. (1968). "The Middle School." Lecture given at Hempstalls School, Stoke on Trent. 21.11.1968.

Elliott, J. (1979). "Accountability, Progressive Education and School-based Evaluation." Education 3 - 13. Volume 7 No.1 Spring 1979.

Evans, K. (1979). "The Physical Form of the School." British Journal of Educational Studies. Volume XXVII No.1 February pp. 29 - 41.

Exeter University (1968). Middle Schools. Report of conference held 1st - 5th April The Institute. Theories in Education No.14.

Featherstone, J. (1971). Schools where children learn. Liveright New York.

Fenwick, I.G.K. (1976). The Comprehensive School, 1944 - 1970: The Politics of Secondary School Reorganization. Methuen

Foley, D.L. (1960). "British town planning: one ideology or three?" British Journal of Sociology Volume II pp. 211 - 231.

Ford, B. (1961). Inaugural Lecture. University of Sheffield.

Galton, M. (1979). "Strategies and Tactics in Junior School Classrooms." British Education Research Journal. Volume 5 No.2 pp. 197 - 210.

Gillespie, C. (1968). "The Middle School." Educational Development 8 No.2 Summer pp. 3 - 6

Goodlad, J.I. (1978). "What schools are for: an American Perspective on the Green Paper." in Trends in Education. Spring Issue 1978.

Gould, R. "The Ecology of Educational Settings." Educational Administration. Volume 4 No.2 pp. 14 - 21.

Gratton Guiness, G.H. (1963). Letter to the Editor. Education October 25th.

Hamilton David (1977) In Search of Structure. Hodder and Stoughton.

Hargreaves, A. and Warwick D. (1978). "Attitudes to Middle Schools." Education 3 - 13 Volume 6 No.1 pp.19 - 23

Hargreaves, A. and Tickle L. (Editors) (1980). "Emerging Issues in Middle Schools." in Middle Schools Origins, Ideology and Practice. pp. 1 - 13. Harper and Row.

Hargreaves, A. (1983). "The Politics of Administrative Convenience" in Ahier, J., and Flude, M. (Editors) Contemporary Education Policy. pp. 23 - 57. Croom Helm.

Harris, D.E. (1974). Open Plan Primary Schools. M.Sc. Thesis Aston. Unpublished.

Harris, H. and Lipman, A. (1980). "Social Symbolism and Space Usage in Daily Life." Sociological Review 28(2) pp. 415 - 428.

Harrison, J. and Glaubman, R. (1982). "Open Education in Three Socities." Comparative Education Review 26 (3) pp. 352 - 373.

Harte, W. (1969). "Behind the Curzon Street Curtain." Times Educational Supplement. May 2nd.

Hendry, L.B. and Matheson, P.A. (1979). "Teachers and Pupils in Open-Plan and Conventional Classrooms." Scottish Educational Review. Volume II No.2 pp. 107 - 117.

Hill, B.V. (1975). "What's 'open' about open education." in Nyberg D. The Philosophy of Open Education. pp. 3 - 13. Routledge and Kegan Paul Limited.

Holmes, E.G.A. (1911). What Is and What Might Be. Constable.

Horsbrøugh, F. (1952). Report of Conservative Conference. Education. October 17th p. 513.

James, C.M. (1968). Young lives at stake. Collins

James, P.H. (1980). The Reorganization of Secondary Education. N.F.E.R.

Jeffrey, G.B. (1954). "The Criteria for Selection." in The Problems of Secondary Education Today. University of London Institute of Education. Studies in Education No.6. Evans Brothers.

Johnson, J. (1968) "Block Study could solve middle school problem." Times Educational Supplement 18th October.

Kay, J. and Medd, D. (1965). "A new approach to Primary School Design." Architects Journal 17.2.65 pp. 397 - 406

Kogan, M. (1973). "English Primary Schools - the interrelationships of Government Structure and Educational Innovation." in Fowler, G., Morris, V. and Ozga, J. (Editors) Decision Making in British Education pp. 140 - 145.

Komisar, B.P. and McClellen, J.E. (1961). "The logic of slogans", in Smith, B.O. and Ennis, R.H. (Editors) Language and Concepts in Education pp. 195 - 213. Rand, McNally and Company.

Lerup, L. (1977) Building the Unfinished. Sage Library of Social Research.

Linder, R. and Purdom, D. (1975). "Four dimensions of openness in classroom activities." Elementary School Journal 16,3 pp. 147 - 150.

Lipman, A. (1976) "Professional ideology: the architectural notion of 'user requirements'." Journal of Architectural Research 5 (2) pp. 12 - 27.

McMullen, I. (1968). "Architects and the new educational technology." Royal Institute of British Architects Journal August 1968 p. 374.

McMullen, I. (1969). "Internal Organization of the School," in The Middle Years of Schooling. Schools Council Working Paper No.22 pp. 71 - 75. H.M.S.O.

McNicholas, J. (1973). Open Plan Primary Schools. Unpublished M.Ed. Thesis. Hull University.

Manning, P. (1967). The Primary School: an environment for education. Department of Building Science University of Liverpool.

Markwick, G.W.W. (1968). "The Organization of the Middle School." Report to Consortium of Education Officers Meeting 17.1.68.

Marland, M. (1975). The Craft of the Classroom. Heinemann Educational Books.

Marsh, C.A.A. (1972). The reorganization of education in the County of Worcestershire with special relation to 9 - 13 middle schools. Unpublished. M.Ed. thesis. University of Birmingham.

Marsh, C.A.A. (1980). "The emergence of nine-thirteen middle schools in Worcestershire," in Hargreaves, A. and Tickle, L. Middle Schools, Origins Ideology and Practice pp. 42 - 50 Harper and Row.

Marshall, S. (1968). "Middle Schools: they must be staffed by progressive primary school teachers." Times Educational Supplement. June 14th.

Martin, A.P. (1893). Life and Letters of Lord Sherbrooke.

Mason, S.C. (1957). The Leicestershire Experiment: A New Venture in the Organization of Secondary Education. Councils and Education Press.

Mason, S. (1960) The Leicestershire Experiment and Plan.

Mason, S.C. (1967). Leicestershire Plan - The Next Step. Four Year High Schools. Unpublished document.

Medd, D. (1969). "Designing for people. Trends in Education. July 1969. pp. 19 - 23.

Medd, D. and Medd M. (1971). "Designing Primary Schools." Froebel Journal 19 pp. 6 - 11.

Medd, D. (1973). "School Design: Responding to Change." Trends in Education 31 July 1973 pp. 26 - 30.

Midwinter, E. (1966). "Non-events in the history of education." Education for Teaching No.71 November.

Ministry of Education (1949). Building Bulletin 1 New Primary Schools. H.M.S.O.

Ministry of Education Pamphlet No.33 (1957). The Story of Post-War School Building. H.M.S.O.

Ministry of Education (1958). Building Bulletin No.16. Development Projects. Amersham. H.M.S.O.

Ministry of Education (1961). Building Bulletin No.3. Village Schools. H.M.S.O.

Ministry of Education (1963). Building Bulletin 21 Remodelling Old Schools. H.M.S.O.

Ministry of Education (1964). Building Bulletin 23 Primary School Plans: A second selection. H.M.S.O.

Moran, T.R. (1972). "The Integrated Day." Educational Research Volume 14 pp. 65 - 69.

National Union of Teachers (1967). The Middle School. Schoolmaster Publishing Company.

National Union of Teachers (Undated) Open Planning. Schoolmaster Publishing Company.

Neill, J. and Denham, E.J.M. (1982). "The Effects of Pre-school Building Design." Educational Research. Volume 24 No.2 pp. 107 - 111.

Nias, J. (1980). "The ideal Middle School: Its Public Image," in Hargreaves, A. and Tickle, L. (Editors) Middle Schools: origins, ideology and practice. pp. 71 - 81. Harper and Row.

Nisbet, J.D. and Entwistle, N.J. (1966). The Age of Transfer to Secondary Education. S.C.R.E. Publication. University of London Press.

Nisbet, J.D. and Entwistle, N.J. (1970). "Transfer from Primary to Secondary Education," in Butcher, H.J. and Pont, H.B. Educational Research in Britain 2 pp. 53 - 63. University of London Press.

Nunn, T.P. (1920). Education: Its data and first principles. Arnold.

Ollerenshaw, K. (1964). "The Right Age of Transfer." Times Educational Supplement May 15th

ORACLE (1980) Observational Research and Classroom Learning Evaluation. An S.S.R.C. founded programme covering the period 1975 to 1980.

Owen, J. (1970). "Educational Innovation: The Human Factor." Journal of Educational Administration and History. Volume II 2 pp. 46 - 53.

Parkinson, M. (1970). The Labour Party and the Organization of Secondary Education 1918 - 1965. Routledge and Kegan Paul Limited.

Pearson, E. (1968). "The School Building: an environment for learning." in Royal Institute British Architects Journal August.

Pearson, E. (1972). Trends in School Design. Macmillan

Pearson, E. (1975). School Building and Educational Change. O.E.C.D. Publication.

Pedley, R. (1958). "Lord Hailsham's Legacy." Journal of Education. Volume 90 No.1062 p.4

Pedley, R. (1963). The Comprehensive School. Pelican Books.

Pedley, R. (1978). The Comprehensive School. Penguin.

Plimmer, F. (1974). "A Survey of some junior team teaching organizations," in Taylor, M.(Ed.) Team Teaching Experiments pp. 105 - 149. N.F.E.R. Publication.

Pluckrose, H. (1979). Children in their Primary Schools. Penguin.

Proshansky, E. and Wolfe, M. (1974). "The physical setting of open education." School Review 82 pp. 557 - 574

Pulman, W.A. (1967). "Some arguments challenged" in The Middle School: a symposium. pp. 38 - 46. The Schoolmaster Publishing Company Limited.

Razzell, A. (1968). Juniors: a postscript to Plowden. Harmondsworth Penguin.

Razzell, A.G. (1969). "The Curriculum of the Middle School," in The Middle Years of Schooling. Schools Council Working Paper No.22 pp. 13 - 17. H.M.S.O.

Royal Institute of British Architects (1965). Handbook of Architectural Practice and Management.

Richards, C. (1979). "Primary Education: Belief, Myth and Practice," in Bloomer, M. and Shaw, K.E. (1979) The Challenge of Educational Change. Pergamon Press.

Richards, C. (1980) "Demythologizing Primary Education." Journal of Curriculum Studies 12:1 pp. 77 - 78

Richardson E (1967). The environment of learning. Heinemann.

Rogers, V.R. (1970). Teaching in the British Primary School Macmillan.

Ross, A. (1969). "Round up on the whole curriculum" in The Middle Years of Schooling. Schools Council Working Paper No.22 pp. 76 - 83. H.M.S.O.

Ross, A. (1968). The Middle School. Comprehensive Education Bulletin No.9 Summer pp. 7 - 10.

Rubinstein, D and Simon, B. (1973). The Evolution of the Comprehensive School 1926 - 1972. Routledge and Kegan Paul Limited.

Sadler, J.E. (1974). Concepts in Primary Education. George Allen and Unwin Limited.

Scheffler, I. (1960). The Language of Education. Charles C. Thomas.

Schools Council (1967) Conference on The Middle Years of Schooling Held at the University of Warwick. Working Paper No.22 H.M.S.O.

Seaborne, M. (1971). Primary School Design. Routledge and Kegan Paul Limited.

Seaborne, M. and Lowe, R. (1977). The English School: its Architecture and Organization Volume II 1870 - 1970. Routledge and Kegan Paul Limited.

Sellick, R.J.W. (1972). English Primary Education and the Progressives 1914 - 1939. Routledge and Kegan Paul Limited.

Sharp, P.R. (1980) "The Origins of Middle Schools in the West Riding of Yorkshire," in Hargreaves, A. and Tickle, L. Middle Schools. Origins Ideology and Practice. pp. 32 - 41. Harper and Row.

Shaw, B. (1983) Comprehensive Schooling. The Impossible Dream? Basil Blackwell.

Silberman, C. (1970). Crisis in the Classroom. The remaking of American Education. Wildwood House.

Simon, B. (1979). "The Primary School Revolution: Myth or Reality." in Education in the Sixties. pp. 15 - 34. History of Education Society.

Smith, P. (1974). The Design of Learning Spaces. National Council for Educational Technology.

Sommer, R. (1969). Personal Space. Prentice Hall.

Sproule, A. (1971). "Taking the Middle School Plunge" in Resources for Education. November.

Staffordshire Education Committee (1971). Report of the Summer School Conference on the Middle School.

Staffordshire Education Committee (1972) Report of the Summer School Conference on Education in the Community - The Child 9 - 13. The Curriculum of the Middle School.

Staffordshire Education Committee (1973). Report of The Streetly/ Pheasey/Little Aston Working Party.

Staffordshire Education Committee (1974). Report of the Uttoxeter Working Party Report on Three-tier Reorganization.

Staffordshire Education Committee (1978). Report of the Working Party on Reorganization in the Burntwood Area.

Stephens, L.S. (1974). The Teacher's Guide to Open Education. Holt, Rinehart and Winston.

Stevens, A. (1980). "Primary Purpose," in The Observer 7.9.80

Stewart, W.A.C. (1968). The Educational Innovators. Macmillan.

Taylor, A.P. and Vlastos, G (1975). School Zone: Learning environments for children. Van Nostrand Reinhold Company.

Taylor, M. and Garson, Y. (1982). Schooling in the Middle Years. Trentham Books.

Taylor, P.H. (1969). "The Plowden Report and the Aims of Education for the Middle Years," in The Middle Years of Schooling. Schools Council Working Paper No.22 pp. 4 - 12. H.M.S.O.

Tunnell, D. (1975). "Open education an expression in search of a definition." in Nyberg D. (Editor) The Philosophy of Open Education pp. 14 - 23. Routledge and Kegan Paul Limited.

Wallace, G.W. (1977). Architectural Constraints on Educational Aims and Organization: with Reference to Middle Schools. M.Sc. thesis Aston.

Ward, C. (1976). British School Buildings. Design and Appraisals 1964 - 74. The Architectural Press Limited.

Watson, K. (1981). "The Growth of Progressive Education in the 20th Century." In Spectrum Volume 14 No.1 p 81.

West Riding Education Committee (1963). The Organisation of Education in certain areas of the West Riding.

Wicking, B. (1974). "An open and shut case." Times Educational Supplement. June 14th

Willcock, J.B. (1969). "Planning Middle Schools." in The Middle Years of Schooling. Schools Council Working Paper No.22 pp. 15 - 25. H.M.S.O.

Wright, N. (1977). Progress in Education. Croom Helm.