Post-war school building with special reference to the problems faced by the Hampshire local education authority

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Post-War School Building with Special Reference to the Problems faced by the Hampshire Local Education Authority.

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Ch.I. Introduction

The statutory duty of Local Authorities to provide suitable and sufficient schools for their areas is laid down in unequivocal fashion in Sections 8 and 9 of the Education Act, 1944. In particular, the Act states[1] "..... the schools available for an area shall not be deemed to be sufficient unless they are sufficient in number, character and equipment to afford for all pupils opportunities for education offering such variety of instruction and training as may be desirable in view of their different ages, abilities and aptitudes, and of the different periods for which they may be expected to remain at school, including practical instruction and training appropriate to their respective needs."

The various kinds of schools which are desirable to afford opportunity for the different ages, abilities and aptitudes of pupils are laid down elsewhere in the Act[2] and the Minister was required to issue regulations governing the physical standards appropriate to each kind of school.[3]

The applause which the Act received from press, political parties and public alike had the effect of concealing the immense burden placed upon the Local Authorities, and it was widely assumed by laymen that the words of the Act would call the ideal educational system into being almost overnight. To-day, eighteen years after the Butler Act reached the Statute Book, it would not be disputed that many of its provisions concerning both the physical conditions in schools and the type and standard of education available to the pupils have not been fully implemented.

1 Section 8 (1) Education Act 1944
2 Section 7 " " "
3 Section 10 " " "

Lowndes blames this situation on the consequences of the war:- ".... although in the realm of ideas the effect of the war had been to advance by fifteen years the popular demand for a public system of education genuinely capable of serving a classless democracy, in the realm of hard facts it had retarded by at least twenty years the possibility of the substantial realisation of any such ideal."[1] The factors which have retarded the physical improvement of the educational system will be investigated in later chapters. At this stage it is more important to assess the size of school building problem faced by the government and the local authorities in the post-war years. The Act itself placed the following additional burden squarely on the Authorities' shoulders:-

1) the need to accommodate the growth in the school population owing to the raising of the school leaving age from 14 to 15 in 1947.[2] This in effect increased the school population by roughly one eleventh and the problem of simply accommodating these additional pupils in the schools was the first priority in the early post-war years.

2) the need to provide separate schools for primary and secondary pupils.[3] Although the more progressive Authorities had started programmes of reorganisation after the publishing of the Hadow Report, these had not been carried very far and indeed the process of reorganisation is still not complete.

3) the educational theories and ideals on which the 1944 Act was based and the Minister's Building Regulations and Bulletins which put them into practice meant that the vast majority of schools in the country were at once sub-standard. Thus an enormous programme of

1 G.A.N. Lowndes: The English Educational System, 1960. P 157
2 Section 35 Education Act 1944
3 Section 8 (2a) Education Act 1944

modernisation of pre-war schools was made necessary, a programme, let it be admitted, which has as yet barely started.

4) the need to develop an efficient School Meals Service.[1] The School Milk and Meals Service had largely developed during the war and its perpetuation set the Authorities the task of planning and building kitchens and dining spaces at every new school and every established school where one was not already provided. Although this burden was not a financial one, since the Minister reimburses fully all authorised expenditure on the School Meals Service, the problem of planning and building kitchens and more particularly dining spaces is one that continues to test L.E.A. officers to this day.

5) the need to provide Further Education facilities as a logical extension of full-time primary and secondary education.[2] Technical Colleges, Evening Institutes and the like were well known before 1944, but the Act envisaged a system much more comprehensive than existed before the second world war. The Further Education Building programme has placed a strain on Authorities which is likely to become greater as time goes on - particularly if the provisions of the Act regarding County Colleges are ever implemented.[3]

These then were the main additional burdens placed on Local Education Authorities over and above those already stipulated by Acts of Parliament prior to 1944. But even more important than these factors were the problems which Authorities would have had to face had the 1944 Act never come into force. These factors are

1 Section 49 Education Act 1944
2 Section 41
3 Section 43

briefly as follows:-

1) the need to repair or rebuild schools destroyed or damaged by enemy action. Over 5,000 or about one in every five or six schools were damaged during the war.[1] The schools had to be repaired or replaced just at a time when Local Education Authorities were concentrating every effort on providing new school places for the increased school population.

2) the need to accommodate the increased school population owing to the 'bulge' in the birthrate between 1942 - 1948. There were in fact fewer school children just after the war than immediately before it,[2] but the effect of the increased school population was felt in the Infant schools between 1948 and 1954, by the Junior schools between 1951 and 1957 and by the Secondary schools between 1955 and 1961. The provision of new school places to accommodate these children in itself set a school building problem of considerable size and duration.

3) the need to build new schools to serve new housing estates or even new towns. The movement of population released a few places in a large number of schools, but the new concentrations of population made new schools necessary in each new estate and a large proportion of educational investment has been made in post-war housing estates.

The nett result of these overlapping factors was a schools building problem of immense size. The only comparable school building problem was that of housing "the huge conscripted army of quite young children"[3] after the passing of the 1870 Act and the School Boards and Voluntary bodies took as long as their modern counterparts to solve their building problem. Suffice it to say that

1 The Story of Post-war School Building Ministry of Education Pamphlet No.33 Ch.1 P.7.
2 - ditto -
3 G.A.N. Lowndes: The Silent Social Revolution 1939. Ch.1 P.4.

2,810,135 new school places[1] had been provided in permanent construction in the country between 1945 and 1960. When it is realised that these places were provided by Local Education Authorities, which in 1945 had neither the staff nor the technical knowledge to cope with the problem, and that from 1945 to 1953 many of the vital materials and labour were in short supply and subject to control,[2] the nature of the achievement can be appreciated.

The Problem in Hampshire in 1945

It would perhaps be appropriate at this stage to survey briefly the size of the school building problem in the Hampshire Administrative County after the war and to compare it with the problem encountered nationally.

The raising of the school leaving age in 1947 meant in Hampshire that a new school age group of some 6,000 children had to be accommodated and under the 1944 Act this age group should have been educated in separate secondary schools. In 1947 there were in fact 23 secondary schools as such, all of which had been provided by the Authority in the inter-war period. On the other hand, there were in 1945 139 all-age schools reduced to 74 in 1950 and to one in 1961.[3] The task of accommodating the extra age group and of reorganising schools into separate Primary and Secondary schools was a problem little different in Hampshire from that in other Counties or County Boroughs, although Hampshire had perhaps progressed further in the provision of separate Senior schools since the Hadow Report than many rural Authorities.

In common with most other Authorities after the issue of the 1945 Building Regulations,[4] Hampshire was faced with the fact that they had hardly any schools complying fully with the pre-

1 Education in 1960 Cmd. 1439 P.308
2 Education in 1953 Cmd. 9155 P.41
3 Report of the Hampshire County Education Officer to Secondary Education Sub-Committee 6 Jan. 1959
4 Standards for School Premises Regulations, Ministry of Education Statutory Rules & Orders No. 345. 1945

scribed standards. Almost all pre-war schools were and are theoretically in need of remodelling to a greater or lesser degree and, of course, a great number required to be replaced for economic and other reasons. The problem in Hampshire and other largely rural counties was perhaps specially acute, due to the proliferation of very small village schools. Many of these schools date from 1870 and are so small as to be uneconomic to maintain by modern standards even when they were capable of modernisation to accord with the regulations. The restriction of educational investment largely to the provision of new school places has in fact caused the postponement of this problem, but it is one which Hampshire will have to face in the not too distant future.

The problem in the County Boroughs was not quite the same, since most of the very old schools were situated in slum areas. These slums are gradually being replaced by new housing estates, each with their own new schools. In other words, the problem of the old sub-standard school is often linked in the urban authorities to the re-location of population by slum clearance. The provision of new schools to cater for the new estates has had a high priority in the post-war building programmes, whereas the replacement of old village schools has not.[1]

Again, as a rural county Hampshire was faced with the task of providing more and larger kitchens and dining facilities than the urban counties, where it is obviously easier for children to go home for lunch. On the other hand, the need for technical education in the county is very much less than that encountered by urban authorities. In 1945 there was not a single technical college of any real standing in the administrative county and the ones that existed were in very much sub-standard accommodation. Since the war three large new technical colleges have been built, but the provision of facilities for technical education has not raised the same problem in Hampshire as, for example, in Lancashire. The

1 Eighth Report from the Estimates Committee on School Building 1961 List 284 P.13

centres of advanced technical education lie in fact outside the administrative county - in Southampton, Portsmouth, Bournemouth and in Reading. Again, in contrast to the industrial areas, very few schools in Hampshire were destroyed or damaged by enemy action. In fact, only two schools received any substantial war damage, so that this was a negligible factor in Hampshire's post-war school building problem.

However, it is in the increases in the school population, due in part to the birth-rate 'bulge' but more particularly to the movement and influx of population, that Hampshire's main problem is to be found. Due partly to its proximity to London and to overspilling of the three large urban authorities, Southampton, Bournemouth and Portsmouth, the post-war increase in the school population of Hampshire is very much larger than that of most other authorities. The increase in the population of England and Wales between the Census of 1951 and 1961 was 5.3%. The corresponding increase in Hampshire was 21.2%. Only six Authorities had proportionately higher increases.[1] A vast new housing estate, Leigh Park at Havant, will accommodate 30,000 people new to the administrative county since the war; the same kind of development has taken place on a smaller scale in the Southampton and Bournemouth areas, where established industries expanded and new industries (for example, the Esso refinery at Fawley) have attracted population from elsewhere, while in the next ten years or so the populations of Basingstoke and Andover will double, due to overspill population from London. It is not surprising, therefore, that the school population rose by 50% between 1946 and 1956 and that by 1960 it had risen by approximately 72%.[2] The rise in the national school population from 1946 to 1960 was 38%.

1 Census 1961: England & Wales: Preliminary Report 1961 Table 2
2 According to the records of the Hampshire Education Department, the school roll was over 64,000 in 1946, just under 96,000 in 1956 and over 110,000 in 1960.

Building schools in Hampshire since the war, and indeed everywhere in the country, has been a race against time. Building programmes to date have been aimed almost exclusively at accommodating the rapidly increasing child population. Very few replacement or remodelling projects have been allowed to proceed and the size of the task and the achievement in Hampshire can be seen from the number of new school places provided, namely 68,000.[1] This is in fact more than the school population in Hampshire in 1946. In other words, more school places were provided in the county between 1946 and 1961 than between 1870 and 1939.

This kind of achievement at a local and national level was not obtained without a high degree of foresight, technical skill and administrative competence. Lowndes' verdict in this connection is worth quoting, since it displays an unusual appreciation of those frequently maligned figures, the civil servant and the local government officer. "Fortunately both at Government and County level a new generation of administrators with a much wider vision had, under the hard necessity of total war, developed a capacity for large-scale administrative organisation and executive planning which was able to rise to the occasion."[2] The following chapters will show how the school building problem was tackled up to 1962.

1 This figure is based on the number of school places provided on the completion of the 1960/61 Major and Minor Programmes.
2 Lowndes: The English Educational System P.158.

CHAPTER II

FACING THE PROBLEM

The immediate problems facing Authorities in 1945 were, then, the need to accommodate a new age group owing to the raising of the school leaving age and the need to replace or repair war-damaged schools. The problem of the bulge and of accommodating children from new housing developments followed closely on these post-war tasks. Unfortunately neither the Ministry nor the Authorities had at their disposal sufficient experienced and qualified officers to tackle these problems on their own[1] and the situation was further complicated by the shortage of essential materials and labour. In these circumstances there could be no question of carefully planned, long-term solutions: the need was urgent and speed was essential. Moreover until Authorities had prepared the Development Plans of their areas there was no basis for long-term solutions. Thus the period 1945-1949 is one of emergency measures and temporary solutions and at the same time a period of preparation and apprenticeship for the mounting of the full scale building programmes of the 1950's and 60's. In Vaizey's words, "the history of education in the post-war decade is the story of a series of administrative acts in a situation of shortage of labour and materials."[2] By 1949, 268,000 places had been provided - 36,000 of them in permanent construction. By 1952 more than half of the 823,000 places which had been provided were in permanent construction and by 1955 the proportion was two-thirds.[3] Since that date the great majority of new school places have been provided in new schools or in permanent extensions of existing schools, though Authorities are forced to resort to the provision of temporary classrooms to meet sudden emergencies, to provide accommodation for a class at a school which is scheduled to be discontinued but where the

1 In 1945 there was no Building Section of the Hampshire Education Department and no Development Group at the Ministry.
2 John Vaizey: "The Costs of Education" 1958. P.35.
3 Ministry of Education Pamphlet No.33, "The Story of Post-War School Building. P.17.

capital to build the replacement school is not available, to provide temporary accommodation at schools where the numbers are expected to fall as the birth-rate 'bulge' passes through or to bridge the gap until extensions can be found a place in a building programme.

By what means, then, were the 268,000 places provided between 1945 and 1949? The first means was the "Hutted Operation for the Raising of the School Leaving Age" or H.O.R.S.A., an unlovely title which bespeaks its product. The huts, mainly class and practical room units, were supplied and erected by the Ministry of Works. On approving an Authority's application for huts, the Minister of Education issued a certificate authorising the provision of the hut, which the Authority delivered to the Ministry of Works, who in turn supplied and erected the hut, claimed payment from the Ministry of Education, who in turn rendered an account to the Authority and so on. It was not until August 1949[1] that a system of prepayment by Authorities to the Ministry of Works superseded this materpiece of bureaucratic administration. However by 1949 136,000[2] places had been provided in Horsa huts (i.e. 50% of the total new places provided since 1945) and by 1953 when the system ended 167,880[2] places had been provided by this means.

In Hampshire 6,220 places were provided as a result of the H.O.R.S.A. programme and in some cases (in Havant and Fleet) it was found possible to combine the reorganisation of all-age schools with this provision.[3]

The second part of the attack on the problem of physically accommodating the increased school population was the minor works programme. Local Education Authorities were encouraged to make small additions to existing schools by means of projects costing not more than £5,000 each to tide over immediate difficulties.

1 Ministry of Education Administrative Memorandum 333 dated 3rd August, 1949.
2 Ministry of Education Pamphlet No.33. P.18.
3 Report of the Hampshire County Education Officer to the Secondary Education Sub-Committee, 4th July, 1950.

The minor works programmes were intended to cover the needs of population movements, largely the transfer of evacuees and the child population resulting in areas where pockets of post-war housing had been completed. Again the Ministry of Works standard huts were the principal answer to such problems as these but some Authorities did find other solutions, such as the acquisition of Army Huts and so on. 96,000[1] places were provided throughout the country by this means by 1949 and in Hampshire the total was 1,780.[2]

It is quite clear that the policy of accommodating the additional school population by the provision of so-called temporary huts was effective - after all 232,000 of the 268,000 places provided by 1949 were in this form of construction - and it is equally clear that had Authorities been forced to attempt to provide these places in permanent accommodation the task would have been utterly beyond them as the following paragraphs will attempt to show, but the resultant clutter of unbeautiful buildings which have littered the school sites of Hampshire and every other county for some fifteen years (they were originally to be used for only five or six years!) and which will continue to offend the eye for years to come is visible testimony that makeshift programmes are a poor if sometimes necessary substitute for careful long-term planning based on fundamental principles. An added disadvantage was that the cost of heating, maintenance and caretaking increased and the one-storey structures literally ate up the playground areas.

The third and fourth parts of the attack on the school building problem - and perhaps the most important parts from the point of view of the implementation of future programmes -

1 Ministry of Education Pamphlet No.33. P.18.
2 Report of the Hampshire County Education Officer to the Secondary Education Sub-Committee, 4th July, 1950.

were the Operational and short-term Programmes announced in 1946 and 1947. This use of annual programmes was in effect the re-introduction of a technique tried in the later 1930's.[1] The Operational Programme was originally in two parts, the first consisting of 108 projects costing £5¼m[2] was intended to cater for the provision of new schools needed by September 1947 as a result of the raising of the school leaving age, the second including some 235 proposals costing £11¾m[2] to cater for the provision of new schools in housing estates. In 1947[2] Part III was added to the Programme consisting of 78 proposals costing £3½m designed to provide the new schools necessary for September 1948 resulting from the raising of the school leaving age. By comparison with present-day programmes the controls imposed by the Ministry were cursory in the extreme - approval being given on preliminary plans and cost estimates and Authorities being allowed to select Contractors to carry out the work. The rigid cost limits and the close scrutiny to which Authorities' proposals were submitted during the 1950's did not apply.

The short-term Programme consisted of other projects which Authorities hoped to build during 1947 and 1948. Half of this programme was composed of school projects, the other half being made up of school meals schemes, teacher training establishments, Further Education projects and Special Schools. It is important to note that both the Short-term and the Operational Programmes consisted of new schools and other projects of a permanent nature. These then represented the beginnings of the long-term solution to the school building problem, where the H.O.R.S.A. and minor programmes represented the short-term answer. It is interesting and revealing that of the 190,000[3] places proposed to be provided by the Short-term and

1 Education 1900-1950 Cmd. 8244. P.97.
2 Ministry of Education Circular 143 dated 2nd June, 1947.
3 Ministry of Education Pamphlet No.33. P.19.

Operational Programmes, in fact only 36,000 were provided by 1949. It is true that the supply of labour, bricks, steel and timber was strictly controlled and that starting dates for projects were subject to the decision of the Regional Director of the Ministry of Works, but the main reason for the relative failure of Authorities to achieve their targets was the lack of time and the lack of experienced staff necessary for the detailed planning and preparation work which is inevitable in the mounting of a large-scale building programme. The conclusion is inescapable: much as the huts resulting from the H.O.R.S.A. and minor programmes are to be deplored on aesthetic grounds, they provided the only practicable solution to an immediate problem, since Authorities had not the time, the staff, nor the experience to tackle the problem on a long-term basis. On the other hand the Operational and Short-term Programmes marked the beginning of Local Education Authorities' building programmes of ever-increasing size. In monetary terms, projects worth £24m (including £9m in Ministry of Works huts) were started on site during 1947, in 1948 the figure was £26m, including £6¾m in huts, and the target for the 1949 programme was £50/55m.[1] Again these figures show that, on purely economic grounds, the programme of Ministry of Works huts was fully justified in the circumstances.

Under the Operational Programme two projects were actually started in Hampshire - extensions to the County Secondary School at Alton and to the County High School at Brockenhurst, 335 new secondary school places being thereby provided. Under the Short-term programme six projects were commenced - classroom extensions to the New Elson and Brockhurst Infant Schools in Gosport and to the Primary School in Mudeford,

1 Ministry of Education Circular No. 191 dated 16th December, 1948.

a new Infants' School at Manor House, Portchester, a new Junior School at Bridgemary in Gosport and a new Secondary Modern School at Manor Park in Aldershot. The Operational and Short-term Programmes did in fact include six further projects but five of these were transferred to later programmes either because plans were not approved by the Ministry or sites were not available in time, or because the Authority was unable to prepare plans in time. The sixth project was not proceeded with because the anticipated need did not develop.[1]

It will be noted that all this new accommodation was provided in urban concentrations of population where the raising of the school leaving age and the new housing developments had the greatest effect. As a result of the Short-term Programme 600 Primary and 1,000 Secondary places were provided. The total of some 8,000 places provided by the hutted programmes thus compares with 1935 places under the Short-term and Operational programmes. This proportion of one place in four in permanent accommodation in Hampshire compares very favourably with the national achievement - one place in approximately 7.5[2] Nevertheless not all the school population could be accommodated even with the additional 10,000 places which had been provided and the Hampshire Local Education Authority, in common with most other Authorities, had to resort to renting rooms, halls, etc. In fact 2,781 places were provided by such means by 1950.[3]

In order to allow Authorities more time for the planning and preparation of the 1949 programme the Minister invited proposals for inclusion in this programme in December 1947[4] and the

1 These facts have been extracted from the records of the Hampshire Education Department and in particular the report of the County Education Officer to the Secondary Education Sub-Committee, 4th July, 1950.
2 Ministry of Education Pamphlet No. 33. P.17.
3 Report of the County Education Officer to the Secondary Education Sub-Committee, 4th July, 1950.
4 Ministry of Education Circular 155.

actual programme was announced in August 1948.[1] In compiling the programme the Minister had to have regard not only to the capital available and the needs to be met but also to the availability of essential materials and labour with which the schools were to be built. To give Authorities even more notice of the following year's programme the Minister announced at the same time a Reserve List of projects for the 1949 programme, which became the nucleus of the subsequent year's programme, and Local Education Authorities could - theoretically - begin the planning of these projects simultaneously with the main programmes. The three priorities on which the programme was based were and indeed continued to be for the subsequent decade:-[2]

(1) The provision of new schools to accommodate the increased child population arising from the birth-rate bulge.

(2) The provision of schools to house children from new housing estates.

(3) The provision of facilities for Technical Education.

In the main, the 1949 Programme absorbed the arrears from Authorities' Operational and Short-term Programmes and initially the Ministry's controls in respect of plans and costs were of the same relaxed kind as had previously operated. Indeed the major part of Circular 180 is devoted to the description of the procedure for obtaining materials rather than for obtaining detailed approval to projects as such. This lack of control over expenditure and planning was a feature of the programmes up to 1949 but it was very shortly to disappear. This is not to say that Authorities had full latitude to plan new schools as they desired. Under

1 Ministry of Education Circular 180
2 D.H. Morell and A. Pott: "Britain's New School", 1960. P.5.

Section 10 of the 1944 Act the Minister had issued in 1945 his Building Regulations which were very specific in regard to the amount of teaching and ancillary accommodation to be provided at each type of school and to the amount of land appropriate to the size and type of school.[1] A detailed investigation of these regulations will be made in a later chapter.

The first of the annual major building programmes - that for the calendar year 1949 - contained the following projects in Hampshire:-

1. Christchurch Infants
2. Fareham Wallisdean Primary
3. Andover Portway Primary
4. Gosport, Bridgemary Infants
5. Basingstoke Technical College, Phase I - Conversions
6. Chandlers Ford Primary - extensions
7. Gosport, Holbrook Primary - adaptations
8. Ashley Infants
9. Gosport, Woodcot Primary
10. Farnborough, Grange Infants
11. Christchurch, Twynhams Secondary Modern - Extensions,

and the following projects were included in the Reserve List:-

1. Fordingbridge Primary
2. Hamble Primary
3. Winchester Romsey Road Secondary
4. Farnborough Hawley Lane Junior
5. Kings Worthy, Hookpit Primary
6. Petersfield Secondary
7. Basingstoke, St. Thomas's Special School - Conversion.

The inclusion of this reserve list was a definite advance in the direction of affording Authorities sufficient time to plan ahead. The Minister's intention with regard to these projects was summarised as follows:-[2] "Some of these can be transferred to the 1949 Programme in due course if they have been approved in principle and if building prospects improve or one of the projects in the existing Programme has to be deferred. In view of this, the

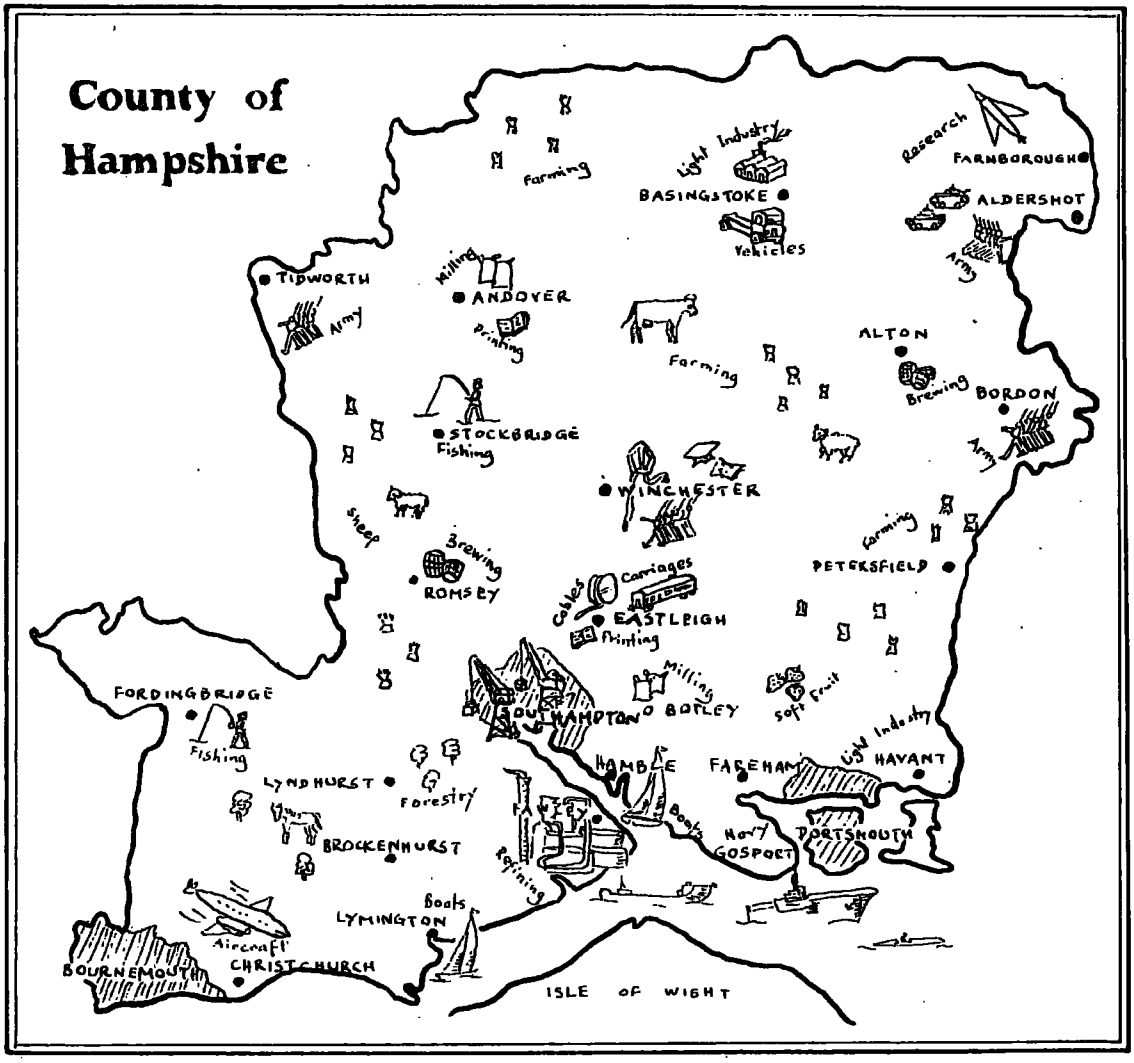
1 Ministry of Education Regulations prescribing Standards for School Premises, 1945, Statutory Order No. 345.
2 Ministry of Education Circular No. 180 - 10th August, 1948.

TABLE I

Extracted from Census 1961 (England and Wales) Preliminary Report (Table 2)

	Hampshire	Population 1951
*	Administrative County	628,959
*	M.Bs. and U.Ds.	362,253
	Aldershot M.B.	37,646
	Alton	8,638
	Andover M.B.	14,666
	Basingstoke M.B.	16,978
	Christchurch M.B.	20,488
	Eastleigh M.B.	30,559
	Fareham	42,520
*	Farnborough	26,724
	Fleet	9,015
	Gosport M.B.	58,279
*	Havant and Waterloo	35,416
	Lymington M.B.	22,699
	Petersfield	6,626
	Romsey M.B.	6,278
	Winchester M.B.	25,721
*	Rural Districts	266,706
	Alton	23,767
	Andover	16,857
	Basingstoke	16,978
*	Droxford	20,557
*	Hartley Wintney	22,226
	Kingsclere and Whitchurch	18,542
*	New Forest	44,876
*	Petersfield	19,698
	Ringwood and Fordingbridge	23,935
*	Romsey and Stockbridge	20,362
*	Winchester	38,908

HAMPSHIRE


County of Hampshire
Farming
Light Industry
BASINGSTOKE
Vehicles
Research
FARNBOROUGH
ALDERSHOT
Army
TIDWORTH
Army
Milling
ANDOVER
Printing
Farming
ALTON
Brewing
BORDON
Army
STOCKBRIDGE
Fishing
WINCHESTER
Sheep
Brewing
ROMSEY
Farming
PETERSFIELD
Cables
Carriages
EASTLEIGH
Printing
Milling
BOTLEY
Soft Fruit
SOUTHAMPTON
Light Industry
HAVANT
FORDINGBRIDGE
Fishing
HAMBLE
FAREHAM
LYNDHURST
Forestry
Boats
Navy
PORTSMOUTH
GOSPORT
BROCKENHURST
Printing
Boats
LYMINGTON
Aircraft
BOURNEMOUTH
CHRISTCHURCH
ISLE OF WIGHT

planning of projects in the Reserve List should be carried, as soon as practicable, to the point at which they can be put in hand without undue delay." The majority of the projects on the Reserve List became in fact the nucleus of the 1950 Programme.

At this point a brief outline of the topography and the distribution of population in the administrative county of Hampshire in 1951 is essential and this might best be illustrated diagrammatically and in tabular form. Figure I is a map showing the whole of the county and it will be noted that there are only three county boroughs in Hampshire. The main industries are shown diagrammatically. Table I shows that population was split approximately in the ratio of three to two between the urban and rural areas, and that the townships showed a spread of population between six thousand and forty-three thousand, with only Gosport having a population in excess of fifty thousand. The population and in particular the increases in population will be examined in greater detail in a later chapter.

It is not surprising that Hampshire's 1949 programme was restricted to centres of urban concentration - the Gosport/ Fareham area with four Primary School projects, the developing coastal belt - Christchurch and Ashley with two Primary and one Secondary project; Andover, Farnborough and Chandlers Ford (Eastleigh), with one Primary School project each. These areas all recur in the annual programmes in the 1950's.

The relatively heavy concentration of the programme on Primary Schools follows naturally from the priorities on which the Building Programme was based. The birth-rate bulge would obviously affect the Infants' Schools first and it was here that immediate provision had to be made. The statistics of school places provided nationally show very clearly the influence of the bulge, though it will be shown that this is not true to the same extent in Hampshire. For example, it is not until 1956 that the number of secondary school places exceeded the number of

primary school places provided nationally by an annual building programme.[1] The inclusion of the Technical College was to be expected in view of the Minister's stated views on the priority of Technical Education as such, but in fact the project was simply the adaptation of former school premises to form a Technical Institute.

By means of the 1949 Programme, 2,840 Primary School, 100 Secondary and 120 Further Education places were provided. Yet although this provision was far greater than the combined effect of the Short-term and Operational Programmes, the Hampshire County Education Officer was still forced to report in mid-1950, "But experience of the past two years shows quite clearly that much more needs to be done each year, and in a more sustained and undeviating programme. Authorities have a tendency to improvise, rushing to meet first one urgent need and then another, and it has been impossible really to get on terms with the problem in a systematic fashion. The gap between need and supply still remains wide."[2]

This characteristic lack of breathing space is a feature of all school building since the war.

The Cost Limits. On 24th October 1949 the Prime Minister made the following statement in the House of Commons, "There will be some slowing down of our advance. We shall maintain the progress of school and technical college building, securing the necessary savings by reducing costs and postponing the expansion of the school meals service."[3] The first of the series of financial crises characteristic of this country's post-war economy had arrived and the much vaunted pursuit of value for money by the Ministry of Education was initiated. On 28th October the implications of the

1 Eduaction in 1957. Cmd. 454 P.7.
2 Report of the Hampshire County Education Officer to Development Sub-Committee, June 1950.
3 Parliamentary Debates - Commons 948-49 Vol.468 P.1018

Prime Minister's statement were made clear to Authorities.[1] In the first place the first of the now famous series of Building Bulletins was issued[2] and the methods of reducing costs without necessarily impairing the quality of new primary schools were expounded. Secondly the Minister invited Authorities' suggestions regarding cost reductions for the attention of a departmental working party set up to study the problems of cost. Thirdly, and most important, Circular 209 announced that a 12½% reduction was needed in the cost of new schools. This reduction was obtained by imposing nett cost limits per place for primary and secondary schools - £170 for primary schools and £290 for secondary schools. To help Authorities make this reduction in costs the Minister proposed the following changes in procedures and standards:-

> "a) to amend the Building Regulations so as to make it unnecessary to provide separate cloakrooms (thus enabling coats, etc. to be hung in circulation spaces) and to re-establish approximately the pre-war scale of provision of wash basins, W.C.s and urinals;
>
> b) not to approve the provision of accommodation in excess of that prescribed in the Building Regulations themselves unless there is some exceptional case for doing so;
>
> c) to require stricter adherence to the policy outlined in paragraph 7 (e) of Circular 10, i.e. that until the compulsory school age is raised to 16 certain rooms should normally be omitted"[3]

Moreover the Minister announced that for the 1951 and future programmes a saving of 12½% would not be sufficient and that further cuts would be necessary.[4]

It might be as well at this stage to explain precisely what the 'limit of nett cost per place' means - and how the cost of a new

1 Ministry of Education Circular 209 dated 28th October, 1949
2 Ministry of Education Building Bulletin No. 1 - New Primary Schools, 1949
3 Ministry of Education Circular 209 dated 28th October, 1949
4 Education in 1949. Cmd. 7957 P.60

school is calculated from this limit. In general terms the nett cost of a school in 1949 and thereafter is the cost of the building itself and the playground and the additional costs comprise the site works necessary for the functioning of the school and the playing field.

The number of cost places allotted to a school is not usually the same as the number of pupil places it is designed to accommodate. For obvious reasons a school for fifty children is more expensive to build per pupil-place than a school for one thousand. Hence the Ministry made compensations from the outset for the smaller schools. For example a school for seventy primary pupils is at present allowed one hundred cost places. As the cost place system was developed so further compensations were made for sixth form pupils, high meals take-up and the like.

An example would show best how the limit of cost for building a specific school is obtained. A three form-entry secondary school of whatever kind is allotted 510 cost places (i.e. 450 pupils and 60 compensation). The nett cost limit of the school is the number of cost places multiplied by the limit of cost per place in (in 1950 £290). 510 x £290 = £147,900. To the nett cost limit of £147,900 is added ten per cent for additional costs to give:-

£147,900
14,790
£162,690

This is the gross cost limit for the school and for this sum the complete school, playing fields and playgrounds must be provided. The cost of the site and of the furniture and equipment is not of course included in this sum. The limits of nett cost per place have varied since 1950 but the system of costing has survived virtually unchanged to the present day. It follows that in

prescribing a cost limit per place the Ministry also limit the area per place that can be provided. The Ministry's aim has therefore been to set the cost place limit at a level which allows the architect to provide at least the amount of teaching and other accommodation specified in the Building Regulations. The effect of this system on school design will be examined in later chapters. With the arrival of this system the trilogy of Ministry control was established - the annual programmes, the Building Regulations and the limits of cost per place. These have been, and no doubt will be, the three essential features of the administrative framework by which the resources of local authorities are concentrated on what the Ministry regard as the most important tasks.

Whatever views one may hold about the Ministry's scale of priorities in the post-war era, there is no doubt about the extreme effectiveness of the system of controls. "Shuffling paper between the localities and the centre"[1] is reduced to a minimum because the Authorities know that only projects in a programme can proceed and provided these comply with the Building Regulations and the limits of cost approval is automatic. As the joint heads of Architects' and Buildings Branch put it: "The watchdogs (at the centre) decided in advance what wanted watching, described their requirements in simple language in documents available to all, and then undertook not to think of anything else at the last moment."[2]

Quite apart from the economic plight of the country as a whole there were good and sufficient reasons for imposing limits of cost at this time and in continuing to apply them in the future. Building costs prior to the war had been stable but in 1945 they were 50% higher than in 1939[3] and between 1945

1. Morell and Pott: "Britain's New Schools." P.12.
2. Morell and Pott: P.14.
3. Ministry of Education Pamphlet No.33, P.25.

and 1949 they rose steadily and have continued to do so ever since, but in varying measure from area to area according to the local labour and materials position. In addition, the efficiency and experience of Local Authorities' technical staff and administrators varied from area to area so that some plans used more space than others to meet the same needs. The need to defend the real level of achievement in educational investment by ensuring that school buildings costs were not subject to the inflationary tendencies of the period and the need to secure stability of administration and uniformity of standards was apparent by mid-1949, and the imposition of cost limits was a necessary and salutary answer to these needs.

The promised reduction in the cost limits for the 1951 and future programmes was again of the order of 12½%. The new limits for Secondary Schools were £240 per place and for Primary Schools £140 per place - though higher limits applied to the very small Primary Schools.[1]

The Ministry have always been anxious to make it clear that the limit of cost per place has been not only "the lever by which the cost of school building has been held down against rising prices" but also a means of cementing the partnership between Central and Local Government. Ministry approval to projects has since 1950 always been given to schemes which comply (a) with the Building Regulations and (b) with the cost limits, and within these controls Authorities have enjoyed a fair measure of freedom. The incentive to the Authorities is to provide the greatest area per child within the costs per place. The Ministry summarise this freedom as follows,[2] "if the cost per place is £240 it can be met by providing 80 sq.ft. of area per child at £3 per sq.ft. or 60 sq.ft. at £4 per sq.ft. First, therefore, there is a

1 Ministry of Education Pamphlet No. 33. P.26.
2 Ministry of Education Pamphlet No. 33. P.27.

choice between the quantity and quality of the accommodation provided and the Authority can strike the balance it wishes." Similarly the amount of circulation and ancillary space can be curtailed by ingenious planning provided the requirements of the building regulations are fulfilled.

The official conclusion on the cost limits is this, "A limit of cost per place is thus both a control and an incentive. It must therefore be fixed at a point which is not so high that everybody can meet it with ease or so low that nobody can meet it without sacrificing standards of accommodation or construction to an undesirable level. It must allow of economical but also of practical alternatives."[1]

This theory is not in dispute, but the Minister has often[2] been attacked for failing to set the limit of costs at a level which involved no sacrifice in standards, and this point will be the subject of later discussion.

One very important 'side-effect' of the national cost limits has been that education officers and architects have had little need to justify the cost of schools to the elected Committees. The existence of a limit of cost applying to every school in every authority has in general meant that Committees have felt that expenditure on schools built within these limits must be fully justified. From this viewpoint the cost limits have been a distinct advantage to local officials as the Association of Chief Education Officers have testified.[3]

It is perhaps appropriate at this stage to mention that the costing of extension schemes to existing schools has of necessity been rather different from the system of cost per place. To these schemes the Minister has applied a limit of nett cost per square foot of floor area provided and a rather stricter scrutiny has been made of plans for extension schemes.

1 Ministry of Education Pamphlet No.33. P.27.
2 e.g. By the Sheffield Education Committee: Estimates 1961. P.160.
3 Estimates Committee, 1961. P.202.

A few simple statistics of primary schools built in Hampshire in the 1949 programme shows the downward trend of costs. The national average cost per place of primary schools in 1949 was £200.[1] The Portchester Manor House Infants' School cost just over £200 per place but as a result of the Minister's informal exhortation to cut costs (but before the cost limits had been applied) the Gosport Bridgemary Infants' Schools cost £184.4 per place and this was reduced to £171 per place in the case of the Christchurch Infants' and Fareham Wallisdean Primary Schools,[2] and the Authority found no insuperable difficulty in complying with the cost limits of £170 per place for primary schools in 1950/51 and £140 in 1951/52, without impairing the quality of construction and finishes of the schools.

Yet the Hampshire Education Officer was not alone in expressing the view that the cost limits should not be reduced to the extent of impairing quality. "It would be false economy to build schools of low capital but high maintenance costs" and in pleading for a period of stable programmes, cost limits and stable Building Regulations so that the County Architect could "operate an undisturbed programme at full momentum."[3]

The 1949 Programme was a transition from fulfilling emergency needs to attacking the problem of the birth-rate bulge and new housing development and with the imposition of the cost limits the administrative framework of Ministry control from which this attack could be launched was completed. But before exploring the details of this attack on the problems of the 1950's, it would be as well at this point to investigate the nature and effectiveness of the Development Plans demanded from Authorities by the 1944 Act[4] and in particular the Plan prepared by the Hampshire Authority.

1 Ministry of Education Pamphlet No.33. P.26
2 Report of Hampshire County Education Officer to the Education Development Sub-Committee, June 1950.
3 Report of Hampshire Education Officer to the Education Development Sub-Committee, June 1950
4 Section 11, Education Act, 1944.

THE BACKGROUND TO THE BUILDING PROGRAMMES OF THE 1950's

Chapter III

Development Plans

"As soon as may be after the date of the commencement of this Part of this Act, every local education authority shall estimate the immediate and prospective needs of their area, having regard to the provision of this Act and of any regulations made thereunder and to the functions relating to primary and secondary education thereby conferred on them, and shall, within one year after that date or within such extended period as the Minister may in any particular case allow, prepare and submit to the Minister a plan (in this Act referred to as a "development plan") in such form as the Minister may direct showing the action which the Authority propose should be taken for securing that there shall be sufficient primary and secondary schools available for their area and the successive measures by which it is proposed to accomplish that purpose."[1]

Every area then was to have a blueprint for the development of primary and secondary education as defined in the Act. Moreover, the details of this blueprint are laid down:- Authorities were to specify:

(a) what types of schools (i.e. voluntary, or county, primary or secondary) the existing premises were to be

(b) details and estimates of cost of any alterations required

(c) the additional county and voluntary schools required for their area

(d) the arrangements to be made with non-maintained schools contributing to their scheme of primary and secondary education

(e) their proposals with regard to children under five and those requiring special treatment

(f) their proposals with regard to boarding school provision

(g) any other arrangements necessary to secure an efficient primary and secondary education service, e.g. transport.

1 Section 11(1) Education Act 1944

After outlining the procedure to be followed in obtaining the Minister's approval to the Development Plan, the Act goes on to detail how the Minister was thereafter to issue a local education order regulating the Authority's duty in respect of primary and secondary education for its area.[1]

The need to plan ahead in the provision of additional schools and the adaptation or discontinuance of existing ones must have been clear to all concerned with the drafting of the 1944 Act and the sections relating to the Development Plan's attempt to formulate this need.

To produce the kind of plan envisaged in the Act would have required conditions noticeably absent from the post-war world, viz.

a) the availability of capital, labour and materials for educational building on a grand scale - it is no use programming a new system of primary and secondary education over a given number of years unless the capital and the capacity will be available to allow the work to proceed as planned.

b) a reasonably static population - unless population movements and increases can be accurately forecast, such educational planning is abortive. Moreover, the Town and Country Planning Authorities, as they now exist, were not established until 1947.

c) stable costs. For the cost estimates to have been of any value a period of reasonably stable prices was essential.

d) Fixed fundamental theories at the base of the educational system and therefore stable school sizes and stable regulations prescribing the standards for school premises. If these standards were to be lowered or raised, it follows that the proposals of Development Plans would need to be re-examined:- as was in fact the case when the 1945 Regulations were superseded.

e) the ability of Authorities (in staff and experience) to put the plan into effect.

In the event the Minister did not avail himself of his power to issue local education orders. "There are a number of reasons for the failure of the Ministry to carry out this intention. There is

1 Section 11(2) Education Act 1944

the material fact of the post-war economic situation, which has forbidden the final determination of long-term programmes of educational development involving capital expenditure. The kind of control exercisable through programmes annually reviewed was both more strict and less open to discussion than that which could be done once for all. Again, as the dimensions and complications of development schemes were appreciated, it began to be appreciated, too, that orders embodying schemes would require constant amendment, with the original idea and every change the possible subject of lengthy negotiation and possibly of Parliamentary debate."[1] It is hard to see how programmes of public investment could be determined many years in advance except in a planned economy and under stable conditions, and planning has been until very recently most unpopular with the post-war Conservative Governments!

A brief examination of the Hampshire Development Plan will show that these stable conditions did not apply in the post-war period and that the grandiose conception of a master plan for educational development in the county was therefore largely nullified.

The school buildings in the County were classified in four groups:-

A. Good buildings which were satisfactory buildings as they stood apart from the need for enlargement

B. Premises which could be made satisfactory by relatively small additions or modifications

C. Premises which needed major additions or modifications

D. Premises which would require a disproportionate expenditure to bring up to standard.

It was assumed that the size of primary and secondary school classes would eventually be reduced to thirty and the plan was based on this premise. Schools were therefore classified on a 'form-entry'

1 Local Government and Central Control: A West-Midland Group Study 1956 P.225

basis. For primary schools not exceeding one form-entry, infant and junior departments were combined. Where admissions to a primary school exceeded one form, separate infant and junior schools or departments were to be established. Three form-entry secondary schools were taken as standard except in unusual circumstances. The case for the retention or abandoning of each very small village primary school was to be considered on its merits.

The proposals of the Hampshire Development Plan were programmed over the period 1947-1967, and each project was allotted to a two-year programme for the first ten years or to a three-year programme for the succeeding nine.

The restrictions in labour and materials between 1947 and 1953 and on capital between 1947 and the present time have to a large degree made nonsense of this programming. For example, two new secondary schools at Stockbridge and Swanmore were included in the 1949-50 programme in the Development Plan - both these schools were actually included in the 1958/9 Programme and have only just been opened. A new school to replace the Winchester, All Saints' Primary School was proposed for the 1951/52 programme. This school has not yet been replaced nor is it likely to be in the foreseeable future. Examples of this sort could be continued indefinitely, but suffice it to say that it has been quite impossible to carry out the proposals in the Development Plan as programmed and that it is quite probable that not all the proposals which are still feasible and desirable will have been implemented twenty years hence.

In the Havant/Emsworth area the Development Plan proposal was to provide five new primary and two new two form-entry secondary schools. In fact, fourteen primary, three four-form entry secondary and one grammar school will have been provided on completion of the 1961/2 programme. In this instance the Develop-

ment Plan has been rendered valueless by the movement of over 30,000 of Portsmouth's overspill population into the Havant area and the necessity to provide new schools for the very large number of children on the new housing estates there. This is perhaps an extreme example but it is true to say that in nearly every urban area of the County the Development Plan proposals for new school provision to cater for the forecast increased school population proved to be unrealistic in the light of the rate at which the child population actually did increase.

When the Development Plan was prepared it was estimated that the cost of implementing it to the full would be £431,175 for sites and £8,962,720 for buildings. Although this costing was admittedly based on general estimates and not on detailed plans for each proposal, it is interesting to note that Hampshire's major building programme alone has averaged £1.25m. over the past eight years and that this is likely to increase considerably over the next decade. Similarly, when the Development Plan was approved, it was estimated that some 1,400 acres of additional land would be required to implement it. It is sufficient to say that the acquisition of one 15-acre site for a secondary school recently cost the Authority £75,000 to show just how unrealistic was the estimate for the cost of sites. It is therefore apparent that the rising cost of land and of building work has rendered totally valueless all the estimates of cost put forward in the Development Plan.

Educational ideas have also changed radically since 1945. The Development Plan envisaged three-form entry secondary schools as standard provision, but the present national tendency is to very much larger schools[1] and this is certainly true of Hampshire. The reasons for this will be discussed in a later chapter, but an example of the effect of this tendency on the secondary modern school provision proposed in the Development Plan in one area in the county

1 Ministry of Education Booklet: New Secondary Schools: Preparing the Schedule of Accommodation 1961 P.1.

would be appropriate at this stage. For Winchester it was proposed to provide three-form entry boys, three-form entry girls and a three-form entry mixed secondary modern schools, and indeed two single-sex three-form entry schools were provided. However, instead of providing a third mixed three-form entry school, it has been found more economical and more desirable to extend the two single-sex schools to five-form entry each. In fact, the boys' school is at present being extended and the girls' school will follow suit in the 1963/64 building programme. This tendency to provide larger secondary schools than envisaged in the Development Plan can be seen in almost every area of the county and, indeed, in the country at large. Ideas about primary schools have undergone similar changes. Whereas the Development Plan proposes the retention of a number of one and two-class schools in rural areas, present policy is undoubtedly to group villages together and to provide a rather larger and more viable educational unit.

The Devon County Council, who have had an even more acute problem of small and sub-standard village schools, are also eliminating the one-teacher schools and grouping hamlets round a focal village with a larger school. In fact, 116 village schools have been closed in Devon since the war.[1]

The intention of the preceding paragraphs has been to show that the Development Plan transformed into a mandatory document by the issue of a local education order has not, and indeed could not, in view of post-war conditions become the master plan for primary and secondary school development that it was intended to be. This is not to say that the Development Plans were either unnecessary or without use. In the first place, Authorities were forced to review the existing school premises in their areas and to plan at least provisionally for the future. This in itself must have been salutary and certainly the Architects' reports

1 "New Life for the Village School": Education 3rd February, 1961. P.235.

made between 1945 and 1947 on the schools in Hampshire brought home to the Authority the scale of the problem, and even now these reports and the proposals in the Plan are useful as guides even if many are no longer acceptable in the light of changed circumstances.

It is now accepted practice for plans such as these to be reviewed at regular intervals - the Planning Authorities have quinquennial reviews of their Development Plans - but the formulation of the Development Plan for Primary and Secondary education was of a "once and for all" kind and once it becomes out-of-date and unrealistic, it was never officially reviewed. It is perhaps unfortunate that Authorities in their fight to provide the necessary school places for the 1950's have rarely had the opportunity to sit back and look at the whole problem of school provision on a county, or borough, wide basis. This applies particularly to rural areas, for each urban area for which a Development Plan is prepared by the Planning Authority does at least to some extent have its current and future school provision reviewed in the light of forecast increases in population, but such plans are not prepared for predominantly rural areas. A more generous staffing in most local authorities' development sections would be necessary before a comprehensive review of educational development in each area could be attempted and this is unlikely to be forthcoming in the current financial climate.

Before going on to discuss the Hampshire school building programmes of the 1950's, it might perhaps be appropriate to outline the background of Ministerial policy and national achievement against which these programmes must be set. The Ministry's role in the 1950's has been "primarily to establish the right conditions for effective control and execution of large-scale building programmes"[1] - and, as has already been stated, these conditions have been based since 1950 on three major factors -

1 Ministry of Education Pamphlet No. 33 P.28.

the announcement of building programmes sufficiently far in advance for Authorities to plan and prepare for their execution, the Building Regulations which set the minimum standards with which premises must comply and the cost limits which lay down the maximum expenditure which will be approved for any given project. Within this framework the Minister has "sought to interfere as little as possible in the direct execution of authorities' programmes."[1] This would perhaps be the appropriate stage to outline the development of this trilogy of control during the 1950's.

One of the functions of the Ministry is, in Vaizey's words,[2] to act as "the economic planning authority for education." To be more specific, the global amount of capital which can be allocated to educational building for any given year is decided by the Government, and the Ministry's task is to ensure that this global sum is expended to the best educational advantage. As the Select Committee on Estimates put it - "The role of the Education Department is to examine the proposals for school building which are submitted by the local education authorities and to approve a programme which will ensure that the total investment allocation for that purpose decided by the Government is used to the maximum educational and financial advantage. The local authorities are then free to build the schools, subject to controls designed to make sure that minimum standards are maintained and that the money is spent to the best advantage."[3] The Government decide the size of the allocation and the Ministry then determine, in consultation with the local

1 Ministry of Education Pamphlet No. 33 P.28.
2 Vaizey: The Costs of Education in 1958 P.34.
3 Estimates Committee 1961 P.IV.

authority associations, the priorities and policies which will ensure that the allocation is put to the best use. The authorities then put the policy into effect. To this extent it is the Government and the Ministry which decide policy: the authorities merely implement it.

The major part of the 1950's has been described as the "roof over heads" era.[1] If an authority during this period submitted a proposal for inclusion in a building programme, which envisaged the replacement of existing, if inadequate, accommodation, rather than the provision of new accommodation for new school population, then the Ministry would not approve it. Thus it has been virtually impossible for an authority to diverge from the policy centrally laid down - not that authorities have disputed the priorities established by the Ministry; indeed, the real bone of contention[2] has been the size of the investment allocation, and this is a Government, not a departmental decision. The fact that the Goverment decides the level of educational investment means, of course, that it has to be related to the economic circumstances prevailing at any given time. This has been unfortunate, as later chapters will show, since economic circumstances seem to have been most irregularly controlled by successive post-war Governments.

The building programmes are, as Vaizey rightly points out, one of the means whereby the Ministry can impose a degree of uniformity in respect of school provision between the various authorities, since they are based on "assessed need."[3] The other means if, of course, the Ministry's Building Regulations setting minimum standards for school premises. The Ministry's priorities for the building programmes of the 1950's have been clearly stated.[4]

1 Estimates Committee P.37.
2 " " P.62 .
3 Vaizey: The Costs of Education 1958 P.66.
4 Estimates Committee 1961 P.13.

They were in order of importance:

1) Schools to house a) additional population
   b) population rehoused in new estates
2) Science laboratories for VIth forms
3) After 1956 projects for the reorganisation of all-age schools
4) Additional accommodation for those staying on after reaching the age of fifteen.

From 1960 to 1965, apart from the priorities stated above, the stress will be on the improvement of secondary schools, especially the reorganisation of all-age schools, and the remodelling of the older primary schools.[1]

It is clear that the school building problem is not the same for each authority. The progress made in school building prior to the war varied from authority to authority. But the major factor since the war has been population increase. For example, the population of Hertfordshire increased by 36.5% between the census of 1951 and that of 1961. In Hampshire the rise was 21.2% this being the seventh largest proportional increase among all the local education authorities in England and Wales. Cornwall, on the other hand, increases its population by less than 3% and many urban authorities - the London County Council among them - actually lost population to the counties. Indeed, it is significant that in general the counties with the greatest proportional increase in population are those within easy reach of London and Birmingham. Counties like Cornwall and Devon were relatively static in population.[2] Hence the problem for Cornwall was different in degree from that of Hertfordshire. Hertfordshire has spent the whole of the post-war period building schools for its increasing population, largely in its new towns and overspill areas.[3] Hardly any attempt has been made to tackle the problem of the older schools. At the

1 Secondary Education for All: Cmd. 604 1958 P.7.
2 Registrar General: Census 1961 England & Wales Preliminary Report P.14 (Table 2).
3 Estimates Committee 1961 P.38.

same time Hertfordshire have evolved a new and, in some ways, revolutionary[1] system of school construction to cope with the number of schools to be built.[2] Hampshire has had the same kind of problem but not with the same degree of acuteness. Cornwall, obviously, has not had the same problem in housing its school population. It follows, therefore, that not all authorities have been able to reach the stage of improving the older primary and secondary schools. Some authorities are still coping with their increasing child populations; others - for example, the London County Council[3] and the North Riding of Yorkshire[4] are already tackling the problem of remodelling inadequate schools.

The basis of the Ministry's distribution of the investment allocation between authorities rests on their respective needs in view of the reigning priorities. But the Ministry have also had to have regard to the inability of some hard-pressed authorities to put larger programmes into effect,[5] and it is inevitable that the authorities with only minor population problems have made more progress in their school development programmes than those with rapidly increasing populations. This state of affairs is not necessarily the fault of the Ministry nor of the Authorities concerned. The building industry in any given area can only cope with a certain amount of work. In the areas of expanding population the builders are already heavily employed in building housing and industrial installations quite apart from schools. Thus, although the expanding authorities need large allocations in order to keep in step with the national achievement, it is not always practicable for such allocations to be made, since the authorities would find great difficulty in finding contractors to build the schools within the limits laid down.[6] This situation applies to Hampshire, as later chapters will attempt to show.

1 R. Furneaux-Jordan calls it a "technical revolution, comparable with the Roman use of the vault" - "School Construction 1955-6" P.2.
2 Hertfordshire County Council: A Hundred New Schools P.4.
3 Estimates Committee 1961 P.91.
4 Estimates Committee 1961 P.208.
5 Estimates Committee 1961 P.364.

The conclusion of this section is this: the building programmes are the means whereby the Minister carries out his policy with regard to school building priorities. Even though the programmes are compiled not on a formula but on assessed need, it is impossible, in view of the different circumstances prevailing in each authority; for the Ministry to ensure that progress in educational building is made at a uniform rate throughout the country.

As a matter of administrative convenience the building programmes have from their inception been split into two types. The annual Major Programme has been the main bearer of educational investment, consisting of individual projects of major importance - new schools, technical colleges and large extensions to existing schools - which have been programmed as far in advance as the Ministry and the Treasury have been able to allow. The Minor Programmes, as the name implies, have been the means whereby Authorities have carried out limited amounts of building work at a large number of schools. Whereas the Major Programme for any given year is simply a list of projects approved for that year by the Ministry, the Minor Programme priorities are now decided by the Authority, the Ministry simply allocating to each Authority a figure which they will be allowed to expend on works costing less than a specified limit, which has varied during the 1950's. In fact, between April 1956 and March 1958 authorities were free to undertake as many minor projects as they wished, and a peak expenditure of £16.7m. on minor works was reached in 1957/8.[1] The financial crisis of that year made it necessary to return to the allocation system, which has continued from that time. The limit for each project has been increased, in stages, from £5,000 to £20,000 and, more recently, Authorities have been allowed, subject to Ministry approval in each case, to spend more than £20,000 on minor projects, and works costing less than £2,000 have been freed from Ministerial control. It follows, therefore, that, whereas the Major programme has borne

1 Estimates Committee 1961 P.14.

the burden of long-term educational development the Minor programme has been devoted to providing additional classrooms (often temporary), additional playing fields, playgrounds, and to improving facilities - heating systems, sanitation and the like at many schools. Latterly it has been possible to build complete new schools, up to three-class size, as part of this programme.

Major projects at Aided and Special Agreement schools have had to be programmed as part of the Local Authorities' own Major Programmes, but Aided and Special Agreement Minor projects have been charged against a central Ministerial capital allocation so that it has been the Ministry, not the Authorities, which has allotted priorities to voluntary school projects.

With regard to the advance notification given by the Ministry for Authorities' Major Programmes, this has progressively increased since 1949. The 1949 and 1950 Programmes were for the calendar year, but, partly to cut the level of investment and partly to marry in with the financial administration within Authorities, the currency of the 1950 programme was extended in time up to March 1951, and since that time programmes have been given for the financial not the calendar year. Up to 1957 Authorities were given one year's notice of a complete programme and two years' notice of half the programme. That is to say that the complete 1954/55 Major Programme was announced in March 1953 but the nucleus of the 1954/55 Programme had already been announced in March 1952. In 1958 this notice was increased to one-and-a-half years for the complete programme and two-and-a-half for the nucleus. The necessity for this advance notice is self-evident. The selection and acquisition of land on which to build new schools can be a lengthy process. The Planning Authority, School Managers or Governors, County or Borough Committees, as well as the Architect who is to build the school, have to be satisfied that the site is suitable before purchase negotiations can be opened, and the willing vendor is becoming progressively rarer despite the 1959 Town and Country Planning Act, which forced Authorities to buy land at a price

TABLE I

Starting Dates of Major Projects 1959-1962

	1st Quarter April-June	2nd Quarter July - September	3rd Quarter October - December	4th Quarter January - March	TOTALS
1959/60	-	-	4	8*	12
1960/61	-	-	2	18*	20
1961/62	1	2	-	12*	15
TOTALS	1	2	6	38	47
Approximate Proportions	2½%	4½%	13%	80%	100%

* includes projects actually started after the end of the financial year.

calculated not on its current use but according to the use to which the Planning Authority would allow it to be put. The actual planning of the school, in particular the larger schools, from preparing a schedule of accommodation to signing a contract for its construction, can take a year and often more where technical staff cannot be continuously employed on it. In the early programmes the tendency had been for projects to be started in the latter part of the year - often tenders were invited for the major part of a building programme in January and February, so that building contractors were flooded with work at these periods and fair prices were not obtained. Increased, advance notification of programmes is intended to overcome these problems. There are cases where the advance notification is still not sufficient, but many Authorities, including Hampshire, do not make the fullest use of the notice given. It should, theoretically, be possible to start a high proportion of the building programmes in April, May and June, but, in fact, projects still tend to start towards the end of the programme period rather than the beginning. Table I sets out the breakdown of starts for the major programmes in Hampshire for the last three years, and it will be seen that on average eighty per cent of the programme has been started in the last quarter of the financial year or later. That this situation applies to many other authorities is clear from the evidence given by the National Federation of Building Trade Employers and the Sheffield Education Committee to the Estimates Committee.[1] Simply by making the fullest use of the extra period many Authorities could advance the actual completion dates of their major projects by six months to a year. Unfortunately, the shortage of technical staff and the unwillingness of some Authorities to increase their staffs often frustrate the purpose of giving advance notice of Major Programmes. Firm Minor

1 Estimates Committee 1961 P.158 & 269.

allocations have been made only two or three months in advance, but a provisional allocation is made a full year in advance. Since Major projects are programmed on a long-term basis, it is desirable that they should be left intact when the Treasury wields the economy axe, though some of the programmes of the 1950's were severely mutilated by the Chancellor, as a later chapter will show. More recently it has been through the Minor Programmes that the economic brake has been applied or released, according to the general financial position - witness the cuts in Minor allocations in 1961 and 1962.

The Building Regulations

The first post-war Building Regulations[1] were issued in 1945 and it is important to examine these in some detail so that the trend of Ministry policy can be ascertained by a comparison with the Regulations of 1951,[2] 1954[3] and 1959[4]. It has been said that the 1945 Regulations "prescribed almost all the physical requirements for school building in such detail that they were capable of literal translation into bricks and mortar without any undue exercise of the imagination."[5] Certainly it is possible, by reference to the three schedules to the 1945 Regulations, to detail exactly what accommodation should be contained in a primary, secondary or special school up to three-form entry size. A two-form infant school would have, for example, five or six classrooms each of 520 square feet, together with two general purpose rooms each of 700 square feet, and an Assembly Hall of 1,800 square feet. Quite precise standards are laid down for daylight and artificial light, heating, ventilation, water supply, drainage, sewage disposal, and

1 Regulations prescribing Standards for School Premises 1945, Statutory Order No. 345.
2 Standards for School Premises Regulations 1951, Statutory Instrument, No. 1753.
3 Standards for School Premises Regulations 1954, Statutory Instrument, No. 473.
4 Standards for School Premises Regulations 1959, Statutory Instrument, No. 890.
5 J. D. Godfrey and R. C. Cleary "School Design and Construction," London 1953. P.34.

the like, and a further memorandum[1] goes on to particularise the arrangements and standards which should apply to every conceivable aspect of the building. Paragraph 31 (d), for example, states "Where earth closets are fitted, the pail should be galvanised iron, and wooden seats should be provided at such a height that the tops of the pails come as close as possible to the seat. A slot should be provided to ensure that the pail, when replaced under the seat, coincides with the hole in the seat, etc." This example serves to show the immense lengths to which the Ministry went to prescribe standards for every part and facet of school buildings - details, which as the following paragraphs will show were discarded gradually in the succeeding regulations. Some types of regulations were, however, retained. In particular, the 1945 Regulations prescribed standards for the area of each school site, playing field and playground. The minimum teaching area was laid down as were the number of wash basins and lavatory fittings for each type and size of school. The regulations affecting these facets of school building have continued in amended form in all the post-war building regulations. The 1945 Regulations, unlike some documents issued pre-war[2], did not, however, recommend any particular plan-form, nor, indeed, have any of the post-war Building Regulations.

Perhaps the best way of comparing the successive Building Regulations would be to contrast the basic rules outlined above, which lay down site, playing field and playground areas, teaching areas and scale of sanitary fittings and which have appeared in all the post-war versions of the Regulations. Table I sets out the areas prescribed for the sites of typical-sized schools under the successive Regulations:-

1 Memorandum on the Building Regulations 1945
2 Suggestions for the Planning of New Buildings for Secondary Schools, Board of Education, 1931

Table I

School Sites (in acres)

	1945	1951	1954	1959
2 F.E. Infant	2	1.25	1.25	1.25
2 F.E. Junior	2	1.5	1.5	1.5
3 F.E. Secondary Modern (Mixed)	3	3	3	3
3 F.E. Grammar	3	3	3*	3*

* + ¼ acre for every 50 pupils or part thereof in the VI Form.

It is immediately apparent that the size of primary school sites was cut severely by the 1951 Regulations and that site areas have been otherwise constant. The main factor entering into this cut was the Ministry's attack on costs. Pre-war and immediate post-war schools - in particular the primary schools - had been planned with a view to securing as much light and air as possible and had been allowed to sprawl wastefully and expensively over large areas of ground. The 1951 Regulations were intended to realize more compact and therefore less expensive primary schools.

Table II sets out the prescribed playground areas.

Table II

Playground areas (in square feet)

	1945	1951	1954	1959
2 F.E. Infant	13,200	6,600	6,600	6,600
2 F.E. Junior	22,600	22,600	22,950	18,700
3 F.E. Secondary Modern (Mixed)	32,000	32,000	34,200	34,200
3 F.E. Grammar	32,000	32,000	34,200	34,200

Again it will be seen that the Infant School was affected by the 1951 Regulations, the playground area being slashed by half, and that a smaller cut was made in respect of the Junior School by the 1959 Regulations. The areas prescribed for secondary schools, on the other hand, were increased. These facts evidence the growing realisation in the post-war years that, whereas primary school pupils do not need, and indeed, should not have, an adult-

sized environment, (post-war school furniture is another good instance of this realisation) secondary school pupils' needs are more specialist, demanding particular sized courts for particular games.

Table III sets out the playing field areas.

Table III. Playing field areas in acres

	1945	1951	1954	1959
2 F.E. Infant	1	Nil	Nil	Nil
2 F.E. Junior	3.25	3.25	3	3
3 F.E. Secondary Modern (Mixed)	14	10.5	10	10
3 F.E. Grammar	14	10.5	10*	10*

* + $1\frac{1}{4}$ acres for every 120 or part VI form.

In this instance, the areas prescribed for both the primary schools and the secondary schools have been cut (eliminated in the case of Infants). Land costs, land shortage and post-war experience must all have had a hand in this.

Table IV sets out the area of teaching accommodation allotted to each type of school.

Table IV. Teaching areas in square feet

	1945		1951		1954	1959
2 F.E. Infant						
Hall	1,800	Total	1,800	Total	Total	Total
Other areas	3,480 - 3,600	5,280 - 5,400	3,500	5,300	5,220	5,400
Minimum size of classroom	520		520		520	540
2 F.E. Junior						
Hall	1,800	Total	1,800	Total	Total	
Other areas	4,520 - 4,800	6,320 - 6,600	4,600	6,400	6,260	6,760
Minimum size of classroom	520		520		520	540
3 F.E. Secondary Modern (Mixed)						
Hall	3,000)					
Gym	2,800)					
Classrooms	6,960)					
Specialist Rooms	8,100)	20,680		20,680	20,680	20,790
Minimum size of classroom		480		480	480	500
3 F.E. Grammar						
Hall	3,000)	Total 22,320	19,830		22,550 including allowance for VI Form	23,910 including allowance for VI Form
Gym	2,800)		B.+ allowance for VI Form			
Classrooms	6,960)	20,120	G.			
Specialist Rooms	*9,560 or **7,360)					
Mininum size of classroom		480	480		480	500

* Boys' Technical
** Girls' Commercial

Teaching area has been to a marked degree the sacred cow of the Building Regulations. The attack on costs was as far as possible not allowed to lower the area of teaching accommodation prescribed. The table in fact shows that there has been a general rise in the minimum areas prescribed, particularly marked in the case of the Grammar School. Moreover, whereas the 1945 Regulations laid down

detailed schedules of accommodation, the succeeding Regulations merely specified an area based on the number of school places provided from which a schedule can be drawn up according to the type of education it is proposed to provide. This was a great advance in the direction of allowing Authorities freedom to plan both the accommodation in their schools and the content of the education to be provided. The onus of responsibility for the detailed planning of school accommodation, and, indeed, of school facilities and structure in general passed as a result of the 1951 Regulations from the Ministry to the Authorities.

Table V shows the number of wash basins prescribed by the successive Regulations:-

Table V. Washbasins

	1945	1951	1954	1959
2 F.E. Infant	27	20	18	16
2 F.E. Junior	33	26	24	20
3 F.E. Secondary Modern (Mixed)	44	34	30	30
3 F.E. Grammar	44	29	30*	30*

* + 2 for every 30 VI Formers.

The 1945 Regulations followed pre-war trends in prescribing sanitary facilities on a lavish scale. This was an obvious target for the Ministry's assault on the school building costs in 1950 and the numbers have been decreased gradually in the light of experience since that time.

Much the same applies to the regulations prescribing sanitary fittings set out in Table VI.

Table VI. Sanitary Fittings

		1945	1951	1954	1959
2 F.E. Infant	Girls	27	10	8	8
	Boys	20	10	8	8
	Total	47	20	16	16
2 F.E. Junior	Girls	14	13	10	10
	*Boys	22	13	10	10
	Total	36	26	20	20
3 F.E. Secondary Modern (Mixed)	Girls	18	17	14	15
	*Boys	34	17	14	15
	Total	52	34	28	30
3 F.E. Grammar (Single sex) or	Girls	27	28	28	30
	*Boys	57	28	28	30
	Total (Boys)	57	28	28	30

* In every case a large number of urinal stalls were prescribed.

In general, then, the standards regarding site, playing field and playground areas of schools have been reduced overall as have the regulations governing the number of sanitary fittings and wash basins but the teaching area has remained untouched. Indeed, it has even been increased. It is also noticeable that, as the 'bulge' passed into the Secondary Schools, the allowances for specialist courses and VI form pupils in these schools were formulated. It is also important that, whereas the 1945 Regulations prescribed in great detail what accommodation was to be provided at each and every school, later regulations allowed very much more latitude. In the 1950's it was, in fact, Ministry policy to suggest and advise on school planning by means of Building Bulletins, Pamphlets and the like but not to prescribe

what form individual schools should take. In other words, although the Minister has power under the 1944 Act to prescribe precisely the physical shape of the schools, it was a power which he abdicated to a large extent in the 1950's. In this connection Mr. Morell, the present joint head of the Architects and Building Branch at the Ministry, recently said in evidence to the Estimates Committee, "What has happened over the years is that we have, I think, switched the main weight of our efforts from controlling, as standards have been established and have been accepted by local authorities, to providing a positive service particularly on the development side."[1] The mandatory regulations were greatly reduced after 1945 but the advisory material as later chapters will show was increased.

The Cost Limits

The reasons for introducing cost limits have already been discussed and have also been well summarised by Mr. Morell: "The origin of the system was that the Department faced up to the fact that we should not be able to provide a place in school for every child who needed it with the resources likely to be available, unless we cut costs down very considerably and streamlined our procedures. That was the origin. It was an attempt to get a quart our of a pint pot."[2] It would be appropriate at this point to outline the variations which have been made to the limit of nett cost per place since that time. For the 1950/51 Programme the limits were £170 for primary schools and £290 per place in secondary schools - a reduction of some 12½% on the average cost per place up to that time. For the 1951/52 Programme a further cut of 12½% was made, the limits being reduced to £140 for primary and £240 for secondary school places.[3] These were the lowest limits applied to school building

1 Estimates Committee 1961 P.37.
2 " " " P.380.
3 Ministry of Education Circular 215 - 27th February, 1950.

and represented the Ministry's declared intention of obtaining value for money. From that time the story is one of continuing effort to keep down the cost of school building in the face of rising building costs[1] but inevitably the cost limits have had to be raised from time to time in order to avoid impairing the quality of the schools provided.

To bring the cost limits in line with increased prices, they became in April, 1953, £146 and £250,[2] and were further increased to £154 and £264[3] for the 1955/56 Programme. In accordance with governmental policy to combat inflation, it was decided[4] in April 1956 not to increase the cost limits in spite of an increase in building costs of about 6% in the previous year. The limits were, however, raised in April 1960[5] to £164 and £290, and in March 1961 to £175 and £310[6].

In 1949 the national average nett cost per place of new schools was approximately £200 for primary and £320[7] for Secondary schools. In 1961 the limits of nett cost per place were £175 and £310 respectively. The extent of the achievement can only be measured when a comparison is made with the tremendous rise in costs in every facet of life in the country in this period. It is a fact that new schools to-day, though smaller in total area, are larger in teaching area and 50% cheaper in real terms than they were in 1949, and the Ministry have asserted that the schools built in the 1950's would have cost the tax and ratepayers £300m. more than they did had the 1949 costs per place been allowed to rise in step with the cost of labour and materials[8].

1 Education in 1957 Cmd. 454 P.56.
2 Ministry of Education Circular 26 4 - 10th March, 1953.
3 " " " " 274 Addendum No. 1. 7th April, 1955.
4 " " " " 301 - 26th April, 1956.
5 " " " " 6/60 - 13th April, 1960.
6 " " " " 6/60, Addendum No. 1 - 1st March, 1961.
7 " " " Pamphlet No. 33 P.25.
8 Estimates Committee 1961 P.16 .

It is not surprising, then, that the Select Committee on Estimates should acknowledge that they are "satisfied that the search for better value for money has been thorough and is continuing."[1] Consideration will be given in later chapters to the ways in which the cost of school buildings has been kept down and to the effects, retrograde and beneficial, on school design. It is sufficient at this stage to state that the holding down of school building costs against the rapidly rising prices of other buildings represents an achievement of which the Ministry, and to a lesser extent Authorities, have every reason to feel proud.

It is interesting and significant that the Treasury and the R.I.B.A.,[2] among others who submitted evidence to the Estimates Committee, should stress that the cost programme system developed by the Ministry of Education should be extended to other building projects and other departments, e.g. hospitals and universities.

The history of the Ministry's triple system of control up to 1961 by Programmes, Costs and Building Regulations has been briefly outlined. This is the administrative framework on which school building in the 1950's and early 1960's has been based, but the Ministry's function is not only to control but also to advise. One of the recommendations of the Technical Working Party on School Construction in 1948 was that the Ministry should take an active part in the promotion and publication of new ideas and techniques in school building. Largely as a result of this recommendation the Ministry's Development Group, consisting of administrators, architects, quantity surveyors and H.M. Inspectors, was set up in January 1949[3] as an instrument to investigate standards and techniques of school building. This was taken a

1 Estimates Committee 1961 P.5.
2 " " " Pp. 61 & 76.
3 Education in 1948 Cmd. 7724 P.57.

stage further in September 1949 by the establishment of Architects and Buildings Branch of the Ministry.[1] The Development Group is divided into teams, each team carrying out a specific project, such as a new school for an education authority, and complying with the Ministry's own regulations regarding costs, standards and procedures.[2] Naturally much more time can be given to these projects than Authorities could normally spare, and every item right down to an individual light fitting can be tested and studied. These development projects are thus vehicles for ideas, and the lessons learned are disseminated in the form of Building Bulletins which have also been used to convey more general advice to Authorities and Architects on the subject of school buildings and design. The Building Bulletins have been a distinctive contribution to the story of post-war school building, providing a common body of data, ideas, terms and techniques for the guidance of all concerned with educational building. More detailed reference will be made to these Bulletins in later chapters, but first it would be appropriate to examine the Hampshire Building Programmes of the 1950's and to set them against the national background of school building achievement.

1 Education in 1949 Cmd. 7957 P.59.
2 Ministry of Education Pamphlet No. 33 P.69.

Chapter IV

THE BUILDING PROGRAMMES 1950 - 1962

The intention in this chapter is to review in some detail the Hampshire Building Programmes of the 1950's. Before doing so it would be as well to recall the points already made in previous chapters that the first priorities in school building have been, and indeed still are, projects to house the increased child population due to the 'bulge', and the raising of the school leaving age, and projects to accommodate child population re-located in new housing estates. The only other projects which the Ministry would approve for inclusion in the programmes of the 1950's were those for providing science and practical accommodation at secondary schools and those designed to further the process of reorganisation of primary and secondary education. It was not until late in the decade that remodelling and replacement projects became eligible for inclusion in the programmes[1].

Population increase has, therefore, been the crucial factor in compiling the programmes. As has already been stressed the proportional increase in population in Hampshire between 1951 and 1961 was the seventh highest in England and Wales. None of the County Boroughs and only six of the County Councils display a higher increase in population[2].

According to information published in the Annual Reports of the Minister of Education the number of pupils in maintained schools between the ages of five and nineteen rose from 5,502,727 in January 1950[3] to 6,924,281 in January 1960[4]. This represents a rise of about twenty-six per cent. In the same period the school population of the Hampshire Authority rose from 74,820 to 109,925, a rise of almost forty-seven per cent[5]. The problem of housing new school population in Hampshire has, therefore,

1 Morell & Pott: Britain's New Schools 1960 - P.5.
2 Registrar General: Census 1961 England and Wales - Preliminary Report Table 2.
3 Education 1900-1950: Cmd. 8244 - P.81.
4 Education in 1960: Cmd. 1439 - P.11.
5 Records of the Hampshire Education Department.

been considerably more acute than for the average Local Education Authority. To some extent the new population was attracted by developing industries so that the population in certain areas of the county expanded very rapidly. Consequently the building contractors were flooded with work - with industrial installations, housing and shops and with schools. If the building industry is locally overloaded it follows that its tendering is less competitive. For this reason tenders for schools within the permitted cost limits have been harder to obtain in Hampshire than in most Local Education Authorities[1].

The increase in Hampshire's population has three main causes - the expansion of industry, overspill from the adjoining boroughs and the attraction of the county - particularly the coastal belt - as an amenity area of the country. A few examples might illustrate these points. In 1947 Esso established their great new oil refinery at Fawley and Monsanto Chemicals and allied industries followed in their train. The result as regards education provision in the Fawley area will be studied later in this chapter. Similarly the Atomic Energy Establishment at Aldermaston, although situated in Berkshire lead to a rapid increase in the population of Tadley, where most of the staff were housed. The overspill estate from Portsmouth at Leigh Park, Havant, has already been cited. This in itself, with a population of some 30,000 people new to the county, presented a major problem in the provision of new schools. The examples quoted are areas which posed pressing problems, but the influx of population to the county generally has had a marked if not a violent effect on the schools.

One of the conclusions of Vaizey's study of education costs is that expenditure on education has increased most rapidly when the school population has expanded[2]. However, he adds that the national economic position has been an even more crucial factor - "The peak rates of expansion have always coincided with years of high economic activity[3]." This trend is certainly

1 Hertfordshire have had similar problems - Hertfordshire County Council: A Hundred New Schools - P.4.
2 Vaizey: The Costs of Education 1958 - P.22.
3 Vaizey: The Costs of Education 1958 - P.71.

Table I

Programmes 1950 - 1962

	Projects (Primary, Secondary and Special)	Places	Cost* £
1950/1	9	1,705	292,000
1951/2	2	245	87,000
1952/3	8	2,270	557,000
1953/4	11	4,070	1,052,000
1954/5 (including one Further Education project)	16	5,600	1,731,000
1955/6	18	5,695	1,534,700
1956/7	19	5,675	1,827,300
1957/8 (including two Further Education projects)	11	2,310	1,153,200
1958/9 (including one Further Education project)	25	5,140	1,733,300
1959/60 (including one Further Education project)	14	3,090	943,700
1960/61 (including one Further Education project)	20	5,190	2,030,000
1961/62	18	4,680	1,793,400

*Cost: County Council approvals in respect of capital cost of - erection and furnishing the schools and extensions.

reflected in the capital investment programmes of the 1950's and 1960's.

Table I summarises the Hampshire Major Programmes from 1950/1 to 1961/2 in terms of projects, school places provided and costs of erecting and furnishing the schools. It is immediately apparent that there has not been an uninterrupted progression from relatively small programmes to very large ones. The capital cost of the 1954/5 Programme for example is expected to be almost as great as that of the 1961/62 Programme. The 1951/2 Programme is only a fraction in number and value of projects of any other, and if the further education projects are omitted from the 1957/8 Programme, it is approximately a third of the size of the preceding and succeeding programmes. Why is this? The answer is not hard to find. The post-war economy of this country has moved through boom period to inflation, to financial crisis and consequent restriction in public investment with monotonous regularity. As the Treasury somewhat euphemistically put it in evidence to the Estimates Committee: - "The investment control exercised by the Treasury is designed to contain investment within the resources expected to be available as the economy develops and to determine priorities among various interests[1]." Unfortunately the available resources have varied violently almost from year to year. And capital investment in school building has reflected almost every Government squeeze. The first came as early as 1950[2], although in a somewhat disguised form. The currency of the 1950 Programme which was intended to cover the calendar year was extended to 31st March, 1951. This may well have helped Authorities finding difficulty in starting projects by the end of December and it may have had the advantage of marrying future programmes to the normal financial year observed by the Treasury and the Authorities, but it also extended this programme period from twelve to fifteen months and consequently lowered the actual level of

1 Estimates Committee 1961 - P.61.

2 Ministry of Education Circular letter dated 27th June, 1950.

educational investment.

The subsequent 1951/2 programme was even more severely hit. In the beginning of 1952 the Minister declared a moratorium on school building. All major projects not started by 4th February were simply transferred to later programmes. The reason - the "need for financial economy, the shortage of steel and the temporary overloading of the building industry[1]."

At this time Authorities were having great difficulty in starting their projects before the last few months of the financial year, due to the lack of time and experience necessary for planning and preparation work. The cut was therefore much more heavy than it appears at first sight. In Hampshire eight projects were approved for the 1951/2 programme but only two were carried out due to the moratorium. Although these six projects were carried over to later programmes, others had to be deferred as a consequence and the cuts therefore affected not one but several programmes. This kind of stop-start policy to which educational building has been subject makes nonsense of long-term planning besides being more than frustrating for the administrators and architects planning the schools and the teachers hoping to use them.[2]

The Treasury's axe was felt yet again in 1956. On this occasion the Ministry stated [3] that 330 Primary and Secondary schools worth £30m. had not been started as planned in the 1955/6 programme and as a result these projects together with those already approved for 1956/7 would amount to an expenditure of £89m. This was too heavy a burden for one year and only £55m. would in fact be expended from April 1956 to March 1957[4]. In this instance the Programme period was extended to 18 months up to October 1957, and the 1957/8 Programme became current for

1 Ministry of Education Circular 245 dated 4th February, 1952.
2 The Estimates Committee commented adversely on the fluctuating level of capital investment - Estimates Committee 1961 - P. VI.
3 Ministry of Education Circular 306 dated 16th June, 1956.
4 Education in 1957 Cmd. 454 - P.54.

the next six months. Table I shows that the capital value of the 1956/7 Programme of 18 months was only slightly more than that of other programmes.

This was not the last time that the weight of the Chancellor's axe was felt by Authorities. The financial squeeze of 1961 fell - fortunately not on the Major but on the Minor Programme which was cut by over 25%. Such events are taken almost as a matter of course by Authorities but no-one doubts the harm these economy cuts wreak on educational provision and educational planning. It would not be untrue to say that the realization of the ideals embodied in the 1944 Act of Schools affording "for all pupils opportunities for education offering such variety of instruction and training as may be desirable in view of their different ages, abilities and aptitudes, and of the different periods for which they may be expected to remain at school[1]" has been greatly retarded by the fact that educational investment is subject to the Chancellor's now notorious "brake". It can be argued that the Nation's economy can only bear so much capital investment at any given time but again and again it has been in the public investment sector - the sector that the Chancellor can most easily control - that the "brake" has been applied. To say the least, the results have been frustrating to Authorities, teachers and pupils alike. As the Sheffield Authority put it: "The alternate application of the 'brake and the accelerator' has created serious difficulties for local authorities in the organisation and maintenance of the technical and administrative machinery necessary to deal effectively and economically with large schemes of educational expansion[2]."

Because the 'bulge' appeared in the primary before the secondary schools, it would appear reasonable to assume that the provision of new primary school places would dominate at least the early programmes of the 1950's. In fact the Ministry

1 Education Act 1944, Sect. 8(1)b.

2 Estimates Committee 1961 - P.158.

have said[1] that 1956 was the first year in which more secondary than primary school places were provided. The Hampshire programmes have not, however, entirely followed this pattern as Table 2 shows. In only four years, 1950/51, 1952/3, 1953/4 and 1961/2, have more primary than secondary school places been provided and in these cases the differences were only marginal. The main reason for this is that in the urban areas the Authority have preferred to build new secondary schools, releasing the former secondary or all-age school premises for primary pupils. This was done because the special needs of children of secondary school age are not easily satisfied in older premises, and the absence of laboratories and practical rooms is a much more serious disadvantage to secondary than to primary pupils. Moreover, a very large proportion of Hampshire primary pupils are in small village schools - many of which were formerly all-age schools. By providing new secondary schools in the nearest town or at a central point for a number of villages, a large number of primary school places were freed to accommodate the 'bulge' pupils. It was also possible for a large number of rural schools to accommodate the bulge increase from their relatively small catchment areas, where additional accommodation could be provided if needed, from the Minor rather than the Major Programme. The fact that the provision of new school places does not follow the national pattern is further evidence that Hampshire's problem was not only the bulge but also the influx of new population to the County area - new population whose children could obviously have an age ranging from five to eighteen. Similarly in the latter part of the decade where the national pattern in new school provision is two or more secondary places for every one primary place[2], the ratio in Hampshire is almost 1 : 1. Again, this can be construed as evidence that the 'bulge' was only one factor - and not the most important one - which dictated the type of new school needed in Hampshire.

1 Ministry of Education Pamphlet No. 33 - P.8.

2 This is evident from the Ministry's reports from 1957 to 1960.

Table 2

Breakdown of Projects, Primary, Secondary

	Primary School Places	Secondary School Places	Total Places
1950/1	940	765	1,705
51/2	-	245	245
52/3	1,280	990	2,270
53/4	2,120	1,950	4,070
54/5	2,480	3,120	5,600
55/6	2,785	2,910	5,695
56/7	2,480	3,195	5,675
57/8	960	1,350	2,310
58/9	2,440	2,700	5,140
59/60	1,200	1,890	3,090
60/1	2,400	2,790	5,190
61/2	2,380	2,300	4,680
Totals	21,465	24,205	45,670

The Hampshire programmes do, however, reflect the national tendency to provide specialist science and practical rooms at all existing secondary schools. Up to 1958/9 practical blocks had been provided sporadically at secondary schools as and when priorities allowed, but in the 1958/9[1] programme no fewer than nine secondary schools were provided with practical and science rooms.

In December 1958 a White Paper[2] was published as a result of which the Ministry laid down[3] the priorities for the 5-year period starting 1960/61. £300m. was to be invested in school building over this period with the intention of realising a system of secondary education as envisaged in the 1944 Act. First, reorganisation was to be completed, science provision to be improved and overcrowding to be obviated, and then facilities were to be provided for advanced courses for pupils over the statutory leaving age. Major programmes were to be announced more in advance than ever before (a firm programme two years ahead, a provisional programme three years ahead).

The first priority, however, was to be the basic need to accommodate the school population. Theoretically, this 5-year plan marks the switch from defence to offence - from merely housing the children to providing the type of education outlined in the Act. In Hampshire at least the impact of this 'new drive' has so far hardly been felt. The 1960/61 programme was fairly evenly balanced between primary and secondary provision, and the 1961/2 programme is in fact weighted in favour of the primary schools (see Table 2). All this shows that in Hampshire the 'basic need' of housing the child population is still an urgent and continuing priority. Nationally, the programme may be directed to improving the secondary schools but in Hampshire with

1 See Appendix A setting out the Hampshire programmes 1950-62.
2 Secondary Education for All - Cmd. 604, 1958.
3 Ministry of Education Circular 342 dated 3rd February, 1958.

its special population problem the effort is largely if not exclusively devoted to providing new school places[1]. It is in fact the Hampshire Authority's complaint against the Ministry that the programme allocations do not sufficiently reflect the needs of the various areas and that insufficient notice is taken of population expansion in some Authorities as opposed to decreases in population elsewhere.

The White Paper also announced the raising of the Minor Works limit from £10,000 to £20,000 and introduced the system of allocating to Authorities a limit of Minor expenditure within which they were free to plan and allocate priorities. This might be a convenient point at which to summarize the history of the Minor Programmes over this period. Prior to 1958 Minor works had been controlled centrally by the Ministry[2], each project having to be approved on its merits subject to an overall limit of cost. From 1958 onwards Authorities have been given one year's firm and one year's provisional allocation of Minor capital, thus allowing a certain degree of forward planning. As has been stated previously, it is through the Minor works programmes that urgent and sudden demands for projects of limited size are fulfilled and unforeseen pressures relieved. In Hampshire from 1957 onwards approximately £250,000 per annum has been spent in this way. The limit per proposal was £5,000 up to February 1952, when it was raised to £6,500. In September 1953 the limit was raised to £7,500, in December 1954 it became £10,000, and from April 1959 to date the limit has been £20,000. In March 1961 the Minister indicated that he would be prepared to approve projects in excess of £20,000 as minor works where the need was proved and full value for money would not otherwise be obtained. This, of course, was in response to the obvious criticism of maintaining inflexible, artificial limits purely for administrative and account purposes[3].

1 The Hampshire Authority's submissions for annual programmes have repeatedly stressed this point.
2 Except for a period from December 1954 when all controls except the limit of cost per project were removed. Ministry of Education Circular 283 dated 3rd December, 1954.
3 Addendum No. 1 to Circular 3/60 March 1961.

Table 3

Extract from Census 1961 (England and Wales) Preliminary Report (Table 2)

Hampshire	Population 1961	Population 1951	Intercensal Increase Numbers	Intercensal Increase Per cent
*Administrative County	762,214	628,959	133,255	21.2
* M.Bs. and U.Ds.	457,686	362,253	95,433	26.3
Aldershot M.B.	31,260	37,646	-6,386	-17.0
Alton	9,158	8,638	520	6.0
Andover M.B.	16,974	14,666	2,308	15.7
Basingstoke M.B.	25,940	16,978	8,962	52.8
Christchurch M.B.	26,498	20,488	6,010	28.3
Eastleigh M.B.	36,577	30,559	6,018	19.7
Fareham	58,277	42,520	15,757	27.1
* Farnborough	31,437	26,724	4,713	17.6
Fleet	13,672	9,015	4,657	51.7
Gosport M.B.	62,436	58,279	4,157	7.1
* Havant and Waterloo	74,564	35,416	39,148	110.5
Lymington M.B.	28,642	22,699	5,943	26.2
Petersfield	7,379	6,262	753	11.4
Romsey M.B.	6,229	6,278	-49	-0.8
Winchester M.B.	28,643	25,721	2,922	11.4
* Rural Districts	304,528	266,706	37,822	14.2
Alton	24,334	23,767	567	2.4
Andover	16,832	16,857	-25	-0.1
Basingstoke	18,988	16,978	2,010	11.8
* Droxford	22,577	20,557	2,020	9.8
* Hartley Wintney	24,465	22,226	2,239	10.1
Kingsclere and Whitchurch	23,264	18,542	4,722	25.5
* New Forest	57,451	44,876	12,575	28.0
* Petersfield	22,059	19,698	2,361	12.0
Ringwood and Fordingbridge	26,713	23,935	2,778	11.6
* Romsey and Stockbridge	21,615	20,362	1,253	6.2
* Winchester	46,230	38,908	7,322	18.8

It had been necessary, for example, to omit desirable or in some cases essential features from minor extensions simply to bring the cost within the limits applying at the time.

The final part of this chapter will attempt to outline how the Major projects were distributed over the County area. This distribution will then be related to factors causing the need for new school provision. Table 3 shows the population of each urban area in 1951 and in 1961 and analyses the increases which occurred, as well as showing the rise in the rural population and the County population as a whole for the same period. It is important to note from the outset that, whereas the rural population rose by 14.2%, the increase over the County as a whole was 21.2%, and the increase in the urban areas was 26.3%. The Hampshire building problem was not then concerned so much with the rural as with the urban areas. Moreover the average urban rise of 26.3% covers increases ranging from 0.8% to 110.5%! The problem was therefore not with all the urban areas but more particularly with those where the increase in population was significant both proportionately and numerically. It will be seen that these areas would appear to be:

	Population increase	Proportion %
Havant and Waterloo	39,148	110.5
Fareham	15,757	37.1
Basingstoke	8,962	52.8
Eastleigh	6,018	19.7
Christchurch	6,010	29.3
Lymington	5,943	26.2
Farnborough	4,713	17.6
Fleet	4,657	51.7
Gosport	4,157	7.1
Winchester	2,992	11.4
Andover	2,308	15.7

Petersfield, Romsey and Alton cannot be said to have posed any real problem.

Table 4 is a breakdown of the Major projects from 1950/51 to 1961/62 between the urban areas in the County. In addition to the towns set out in Table 3 two other areas, Fawley and Tadley, are included. This allocation of projects to areas does not

Table 4

Concentration of Major Projects in Pressure Areas

	1950/1	1951/2	1952/3	1953/4	1954/5	1955/6
Aldershot)* Farnborough) Fleet)	2	1	-	2	1	1
Alton						1
Andover						
Basingstoke**		1	2	1	-	-
Christchurch			1	1	-	-
Eastleigh Area***			1	-	1	1
Fareham			1	-	1	1
Fawley			1	-	2	2
Gosport				3	1	-
Havant/Waterlooville Area	1	-	1	4	5	5
Lymington					1	-
Petersfield	1	-	-	-	-	1
Romsey						1
Tadley					1	1
Winchester	2	-	-	-	1	1

	1956/7	1957/8	1958/9	1959/60	1960/61	1961/2	Total
Aldershot)* Farnborough) Fleet)	1	-	4	2	3		17
Alton		1					2
Andover	1	-	1	-	-	2	4
Basingstoke**	-	2	-	1	2	3	12
Christchurch	1	-	2	1	1		7
Eastleigh Area***	1	-	-	-	1	2	7
Fareham	3	1	1	1	3	2	14
Fawley	1	1	2		1		10
Gosport	2	-	1	1	-	3	11
Havant/Waterlooville Area	2	1	2	2	2	4	29
Lymington	-	1	1				3
Petersfield	-	-	-	-	1		3
Romsey							1
Tadley	-	-	1				3
Winchester	2	-	3	2	2		13

* + 1 Technical College Phase I starting 1954/5 - Phase II 1957/8 - Phase III 1959/60.

** + 1 Technical College starting 1957/8.

*** + 1 Technical College starting 1958/9.

entirely coincide with the boundaries of the urban districts and municipal boroughs but in general, it can be seen that where there has been a significant increase in population, this is reflected in the number of major projects carried out.

Havant & Waterloo	29
Aldershot/Farnborough/ Fleet	17
Fareham	14
Winchester	13
Basingstoke	12
Gosport	11
Fawley	10
Eastleigh	7
Christchurch	7
Andover	4
Lymington	3.

The relation of major projects to population increase is even closer than this list suggests for although the Aldershot area ranks above Fareham in number of projects, more new school places were in fact provided at Fareham than in the Aldershot area. This is in line with the comparative increase in the respective populations. At first sight it seems surprising that Winchester has attracted so much major capital investment but it should be remembered that the City's secondary schools serve a considerable rural area as well as Winchester's own population. Thus, three of the ten projects have been taken up in providing two new 3-form entry secondary schools and in extending one of them to 5-form entry size. Two others have been devoted to the two grammar schools. The inclusion of the Fawley area with ten projects is not surprising when one remembers that the expansion of Esso and allied industries to what was originally a rural area has profoundly affected the population. It may also seem strange that Lymington with a population rise of almost six thousand should have only three projects, when Petersfield whose population rose only by some six hundred had the same number of projects. This phenomen results from the very high proportion of retired people in Lymington. The increase in population is not primarily to be found in the children but in the influx of elderly people retiring to the area.

The provision of schools in the Fawley area is particularly interesting since the area presents a good example of the modern phenomenon of industry invading what was formerly an agricultural and rural area. Before the development of the Esso refinery a small village school was sufficient to cater for the local children. As technical and administrative staff of the refinery swelled the local population, the existing facilities became totally inadequate and the newcomers were convinced that the Education Authority was neither fully aware of the situation nor taking adequate steps to improve the school provision. Hence an Action Committee was set up in 1951 and pressure was put on the Authority in every possible way to improve facilities. Moreover, members of the Committee contested local elections and indeed a prominent Esso employee soon became a County Councillor. Exactly what direct effect this local pressure group had on the improvement of education facilities is difficult to evaluate. The Action Committee quite naturally claimed that the new schools (an infant school for 160 pupils in 1952/3, a junior school for 320 pupils and an extension to the existing primary school in 1954/5, a junior school for 320 pupils as well as extensions to the infant school in 1955/6, a new secondary school for 450 pupils in 1956/57 and so on) were provided largely as a result of their agitation but there is no evidence that their efforts led to one brick being placed upon another and in view of the forward planning entailed in the building programmes and the fact that all projects were subject to the scrutiny of the Ministry these claims are manifestly exaggerated[1]. It may be that this local group kept the Authority's officers on their toes but if new schools were provided in the Fawley area it was only at the expense of other areas, since the capital available for new schools was severly limited throughout the decade. Moreover, the situation of which the Action Committee complained - the time-lag between the provision of houses and the erection of new schools

1 This account is taken from correspondence of the Hampshire County Education Officer with Dr. H.E. Bracey of Bristol University, Economics Department, who is supervising a treatise on "The Impact of Industry in the Countryside."

Table 5

Educational Provision in the Havant (Leigh Park) Area

	New Schools built and occupied	Places	Cost
1.	Havant Grammar County Mixed	570	
2.	Broom Field County Secondary Mixed	600	
3.	Oak Park County Secondary Girls'	600	
4.	" " " " Boys'	600	
5.	Barncroft County Junior	480	
6.	" " Infant	360	
7.	Front Lawn County Junior	480	
8.	" " " Infant	360	
9.	Parkhouse County Junior	480	
10.	Riders County Junior	480	
11.	" " Infant	360	
12.	Stockheath County Junior } Temporary	600	
13.	" " Infant } premises		
14.	Trosnant County Junior	480	
15.	" " Infant	360	
	In addition, the Church of England Diocesan Authority have provided:		
16.	St. Alban's C.E. Junior & Infant	280	
	and the Roman Catholic Diocesan Authority has provided:		
17.	St. Thomas More's R.C. Junior & Infant	280	
	Total	7,370	£1,602,905
	New School Accommodation programmed and started		
1.	Leigh Park Day E.S.N.	100	
2.	Sharp's Copse County Junior	480	£147,710
	Total	580	£1,750,615
	Grand Total	7,950	

was common to the whole country in the early 1950's[1].

Before concluding this chapter, it would be appropriate to analyse in greater detail the Major Programmes as they affected two specific urban areas - Leigh Park in Havant and Fareham. Again, this can be done most conveniently in tabular form, Table 5 shows the Major projects carried out in the Leigh Park area. In brief, the Local Education Authority will have provided on the completion of the 1961/2 programme one grammar, three secondary, twelve primary and one special school, and the Church Authorities have provided a further two primary schools. In all, 7,950 new places will have been provided at a total cost of over £17.75m. The need for this vast programme of new schools has already been outlined but it should also be noted that Leigh Park is a completely post-war housing estate and in addition to the population being new to Hampshire, this estate has followed the national pattern in producing children far more quickly that more settled areas. In a normal area the number of children per age group for every thousand head of population is said to be of the order of 14 per thousand. In Leigh Park it appears to have been at least 16 per thousand. Thus the school building problem was intensified. It should also be noted that Havant reflects the Authority's more recent policy of providing relatively large Secondary schools - all three being four-form entry size. Similarly the size for Infant and Junior schools in urban areas has been at least two-form entry and more often three. This too is exemplified in Havant. The Church Authorities on the other hand have almost invariably built primary schools of one-form entry size at the largest, partly due of course to the legal difficulties of enlarging aided schools with the assistance of Ministerial grant.

The position with regard to the Fareham Urban District is set out in Table 6. Briefly one Grammar, two Secondary and nine primary schools will have been provided on completion of the 1961/62

1 This was one of the main criticisms of the Select Committee on Estimates in 1953 - Eighth Report from the Select Committee on Estimates 1952-3 Cmd. 186 - P.XII.

Table 6

Educational provision in Fareham Urban District

	New Schools provided and occupied by major projects	Places	Cost
1.	Fareham Girls' Grammar	360	
2.	Fareham County Secondary Girls'	450	
3.	Crofton County Junior	320	
4.	Fareham Park C.E. (Cont.) Junior	320	
5.	" Wallisdean County Infant	360	
6.	Portchester, Manor House County Infant	320	
		2,130	£490,000
	New Schools under construction		
7.	Portchester, Northern County Junior	320	
8.	" Wicor County Junior	320	
9.	Fareham, Uplands County Junior and Infant	280	
		920	£161,000
	New Schools proposed to be started before April 1962		
1.	Fareham R.C. Aided Primary (owing to site difficulties this project will not start until late Summer 1962).	280	
2.	Fareham, Wallisdean County Junior	480	
		760	£121,000
	Total	3,810	£772,000
	In addition, a new County Secondary Boys' School giving 750 places is included in the 1962/3 programme, and 400 places have been provided by Minor projects in instalments of new schools		
	Other Major Extensions to existing Schools		
1.	Fareham Price's(Cont.) Grammar Boys'	90	
2.	Portchester County Secondary	120	
3.	Sarisbury County Secondary	60	
4.	Sarisbury C.E. (Cont.) Junior and Infant	160	
		430	£164,000
	Grand Total	4,240	£936,000

Major Programme and four further schools will have been extended, giving 4,240 new places at a cost just under £1m. This, of course, does not include new places provided by means of minor works projects.

It will be noted that school accommodation in Leigh Park was provided in entirely new schools, whereas in Fareham some school places have been provided by extensions. At first sight it appears that new school place provision has been more generous in Fareham than in Leigh Park in view of the population increases in the respective areas. But it should be remembered that almost all the schools in Leigh Park are of post-war construction, whereas many of the Fareham schools were built between 1870 and 1939. It is a fact that a post-war school can, if necessary, accommodate more pupils than it was intended to house. This is not so easy in an older school. In fact the Havant schools have consistently had on roll many more children than they were planned to accommodate.

Conclusion

The Major Building Programmes of the last decade in Hampshire have done little more than accommodate the increased child population. As a result those children attending post-war schools enjoy very much better conditions than those in schools which have received little attention since the war. The problem of remodelling the older - particularly the rural schools - must be solved by the programmes of the 1960's and 1970's. Moreover, the physical problem of housing the children is likely to continue in contrast to many areas in the country as a whole and it is therefore essential if the ideals embodied in the 1944 Act are to be realised in the foreseeable future, that the level of educational investment should be raised and the programmes freed from the threat of Treasury restrictions. Hampshire's problems in the 1950's have been largely with a relatively small number of urban areas and it is likely that this concentration of capital investment to specific areas will continue, particularly as it is anticipated that the towns of Andover, Basingstoke and

possibly Tadley will more than double their size over the next twenty years due to the planned influx of London overspill population. Similarly, it is likely that 20,000 people from Southampton will overflow into the County area in the same period. More will be said of these developments in a later chapter.

The history of educational building since the war has now been covered in general terms and the administrative framework on which the building programmes are based has been outlined. The next two chapters will deal specifically with the design of new primary and secondary schools and will attempt to show how design evolved to match the limitations placed on costs and the influx of new ideas in educational practice.

Building Programme 1950

Actually carried out

	Pupil Places
Brockenhurst County High - Extension	135
Cove County Secondary - Extension	90
Fleet, Court Moor County Secondary - Extension	90
Petersfield, Churcher's College (Aided) - Laboratories	
Winchester County High - Boarding Accommodation	
Winchester County Secondary Boys'	450
Bedhampton, Stockheath County Primary	420
Hamble County Junior	320
Kingsworthy County Primary	200
	1705

Building Programme 1951/2

Actually carried out

	Pupil Places
Aldershot, Manor Park County Secondary - 3rd Instalment	200
Basingstoke, St. Thomas' Special Deaf School	45
	245

Building Programme 1952/3

	Pupil Places
Basingstoke, The Shrubbery County Secondary Girls'	450
Fareham, Price's Aided Grammar - Laboratories	
Totton County Grammar	540
Basingstoke, South View County Junior	320
Christchurch, Somerford County Junior	320
Eastleigh, The Nightingale County Infant	240
Fawley, Blackfield County Infant	160
Havant, Riders County Infant	240
	2270

1953/54 Programme

	Pupil Places
Christchurch, Somerford County Secondary	450
Farnborough, Fernhill County Secondary	450
Gosport, Bridgemary County Secondary Boys'	450
Havant, Warblington County Secondary	600
Basingstoke, Oakridge County Infant	240
Cove County Infant	240
Gosport, St. Mary's R.C. (Aided) Primary - Extension	200
Gosport, Woodcot County Junior	480
Havant, Barncroft County Infant	360
Havant, Riders County Infant - Extension	120
Havant, Riders County Junior	480
	4070

1954/5 Programme

Eastleigh, Barton Peveril County Grammar	540
Fareham Girls' Grammar	360
Fordingbridge County Secondary	300
Gosport County Grammar	720
Havant, Oak Park County Secondary Boys'	450
" " " " " Girls'	450
Lymington, Priestlands County Secondary	300
Farnborough, Fernhill County Junior	320
Havant, Barncroft County Junior	480
Havant, Trosnant County Junior	480
Havant, Trosnant County Infant	360
Hythe County Primary - Extension	120
Hythe, Langdown County Junior	320
Tadley, Burnham Copse County Junior - Adaptation of leased premises	240
Whitehill, Bordon County Primary - Extension	160
	5600

Farnborough Technical College - Phase I.

1955/6 Programme

	Pupil Places
Aldershot County High - Extensions	300
Baughurst, The Hurst County Secondary	450
Bordon, Mill Chase County Secondary	450
Havant, Broom Field County Secondary	600
Odiham, Robert May's C.E. (Controlled) Secondary - Extensions	210
Petersfield County Secondary	450
Romsey County Secondary	450
Alton, Anstey County Junior	320
Chandler's Ford County Junior	320
Fareham Park C.E. (Controlled) Junior	320
Fawley, Blackfield County Infant - Extensions	
Fawley, Blackfield County Junior	320
Havant, Front Lawn County Infant	240
Havant, Front Lawn County Junior	320
Havant, St. Alban's C.E. (Aided) Primary	280
Havant, St. Thomas More's R.C. (Aided) Primary	280
Longparish C.E. (Aided) Primary	65
Winchester, Weeke County Junior	320
	5695

1956/57 Programme

	Pupil Places
Andover Grammar - Extensions	270
Fareham County Secondary Girls'	450
Fleet, Court Moor County Secondary	450
Gosport, Bridgemary County Secondary Girls'	450
Hythe Noadswood County Secondary	450
Portchester County Secondary - Extensions Practical	120
Ringwood County Secondary	450
Totton, Testwood County Secondary - Extensions	105
Winchester, Danemark County Secondary Girls'	450
Barton Stacey C.E. (Controlled) Primary	200
Bishopstoke County Junior	320
Christchurch, Somerford County Infant	240
Cowplain County Junior	320
Crofton County Junior	320
Gosport, Rowner County Junior	320
Horndean C.E. (Controlled) Primary	280
Yateley C.E. (Controlled) Primary	240
Waterlooville, Stakes Hill County Infant	240
	5675

Winchester, Lankhills E.S.N. - Extensions.

1957/58 Programme

	Pupil Places
Alton County Secondary - Extensions	180
Basingstoke, Charles Chute County Secondary Boys'	450
Hamble County Secondary - Extensions Practical	90
Havant Grammar	570
Sarisbury County Secondary - Practical	60
Basingstoke, South Ham County Infant	240
Bramley C.E. (Controlled) Primary	240
Dibden Purlieu County Primary - Replacement	160
New Milton County Junior	320
	2310

Basingstoke Technical College - Phase I

Farnborough Technical College - Phase II.

1958/9 Programme

		Pupil Places
Aldershot, All Hallows R.C. Secondary (Special Agreement) - Phase I		300
Andover County Secondary Girls' - Practical		120
Brockenhurst County Grammar - Practical Block		90
Christchurch, Somerford County Secondary School	Practical Rooms	135
Christchurch, Twynham County Secondary School		120
Cove County Secondary		120
Fareham, Price's Grammar School - Extensions		90
Farnborough Grammar School - Practical Block		120
Hardley County Secondary	Practical Rooms	90
New Alresford Perin's County Secondary		90
New Milton, The Gore County Secondary		450
Purbrook Park County Grammar		105
Stockbridge County Secondary		300
Swanmore County Secondary		300
Totton, Testwood County Secondary - Extensions		180
Winchester, Peter Symonds' Grammar - Extensions		90
Cove, Manor County Junior		480
Gosport, Rowner County Infant		240
Havant, Parkhouse County Junior		320
Hythe, Langdown County Infant		240
Nursling C.E. (Controlled) Primary		160
Tadley, Burnham Copse County Junior		480
Winchester, Weeke County Infant		240
Winchester, Winnall County Primary		280
		5140

Further Education

Eastleigh Technical College - Phase I.

1959/60 Programme

	Pupil Places
Aldershot, All Hallows R.C. Secondary (Special Agreement) - Extensions II.	150
Aldershot, St. Michael's C.E. (Controlled) Secondary	300
Basingstoke, Queen Mary's Grammar - Extensions I	120
Hayling County Secondary	300
Hedge End County Secondary	450
Totton County Grammar - Extensions	210
Winchester County High - Extensions	120
Winchester, Peter Symonds' (Controlled) - Extensions II.	240
Denmead County Primary - 1st Instalment	160
Gosport, Alverstoke County Infant	240
Havant, Parkhouse County Junior - Extensions	160
Highcliffe County Junior	320
Portchester, Wicor County Junior	320
	3090

Further Education

Farnborough Technical College - Phase III.

1960/61 Programme

	Pupil Places
Aldershot, Heron Wood County Secondary	450
Basingstoke County High - Extensions Phase I.	120
Basingstoke, South Ham County Secondary	600
Bordon, Mill Chase County Secondary - Extensions	150
Brockenhurst County Grammar - Extensions	150
Christchurch Grammar School	360
Eastleigh, North End County Secondary - Extensions	210
Fareham, Price's Grammar - Extensions Phase I	
Farnborough, Fernhill County Secondary - Extensions	150
Petersfield County Secondary - Extensions	150
Stockbridge County Secondary - Extensions	150
Winchester County Secondary Boys' - Extensions	300
Cowplain Park County Junior	480
Dibden Purlieu County Junior	480
Fareham Uplands County Primary	280
Farnborough, Grange County Infant	360
Havant, Sharp's Copse County Junior	480
Portchester, Northern County Junior	320
Winchester, Lankhills E.S.N. - Extensions	
	5190

Further Education

Sparsholt Farm Institute - Extensions Phase I.

1961/2 Programme

	Pupil Places
Andover County Secondary Boys' - Extensions	150
Basingstoke County High - Extensions II	180
Basingstoke, Queen Mary's Grammar - Extensions II	210
Eastleigh, Alderman Quilley County Secondary	600
Gosport, Brune Park County High - Phase I	650
Havant, Oak Park County Secondary Boys' - Extensions	150
Havant, Oak Park County Secondary Girls' - Extensions	150
Purbrook Park County Grammar - Extensions II	210
Andover, Portway County Infant - Extensions	120
Basingstoke, South Ham County Junior	320
Chandler's Ford Fryern County Junior	320
Cowplain Park County Infant	360
Fareham, Wallisdean County Junior	480
Goodworth Clatford C.E. (Aided) Primary	100
Gosport Day E.S.N.	100
Gosport, Grange County Junior	320
Havant Day E.S.N.	100
Sarisbury C.E. (Controlled) Primary - Extensions	160
	4680

CHAPTER V

THE EVOLUTION OF DESIGN IN POST-WAR PRIMARY SCHOOLS

Joseph Lancaster was perhaps the first of the moderns to publish his ideas of what a school building should be.[1] Before 1840 he envisaged a large square room with an elevated platform for the teacher, fixed forms for the pupils and monitors to do the actual teaching work. With the advent of the pupil-teacher system in the 1840's the large schoolroom was partitioned (usually by curtains) into separate spaces, all still under the supervision of one teacher. Even after the 1870 Education Act the question of supervision and economy of space was paramount. Single schoolrooms could no longer cater for the number of pupils who were now to undergo compulsory education and the normal plan was at first to have a series of classrooms off a wide corridor. Gradually this corridor was enlarged to allow for the assembly and dismissal of pupils and so the central hall with classrooms grouped round it evolved and became the plan recommended by the Board of Education[2] as the most economic and easily supervised arrangement. This central hall plan, often in two and three-decker forms, persisted almost until 1914, although attacked by the Medical Authorities on the grounds of its poor ventilation and heating arrangements after the passing of the Public Health Act of 1907[3]. The fate of this plan was sealed by the Board of Education's Regulation of 1914 with their insistence that the classroom should be "arranged to let sun and air into every corner." In its stead came the 'open-air' schools, single-storey sprawling arrangements with each classroom having cross ventilation. For the larger schools this system was adapted into the quadrangle plan with

1 Hints & Directions for building and fitting up and arranging schoolrooms on the British System of Education 1811.
2 Rules for the Planning and Fitting up of Public Elementary Schools - Board of Education, November 1902 P.14.
3 Education 1900-1950 Cmd. 8244 P.93.

classrooms, practical rooms and hall grouped round three or four sides of an open court. The Oxbridge influence is here evident. In 1936, however, the drawbacks of this type of plan were pointed out by the Board - "it occupies over much ground, since the inside court is useless for play or physical exercises, it does not lend itself easily to expansion and it frequently results in an unsatisfactory aspect for the rooms on at least one of its four sides[1]." No particular type of plan was, however, recommended, though the Board did suggest that the aim should be to reconcile "compactness for convenience" with "ample light and air for health[2]." This has perhaps been the principle task of post-war school design.

Another feature of school design increasingly stressed by the Board of Education up to 1939 was the need to include specialist practical rooms.[3] This was particularly applicable to the Senior schools after the publication of the Hadow Report but it was to a lesser extent true also of primary school design.

The main factors which have influenced post-war school design have been

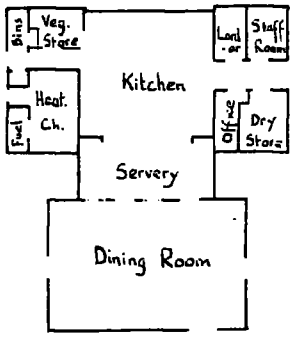
a) New ideas about school sizes, facilities and accommodation
b) Developments in the theory and practice of prefabrication
c) The cost limits and the price of land

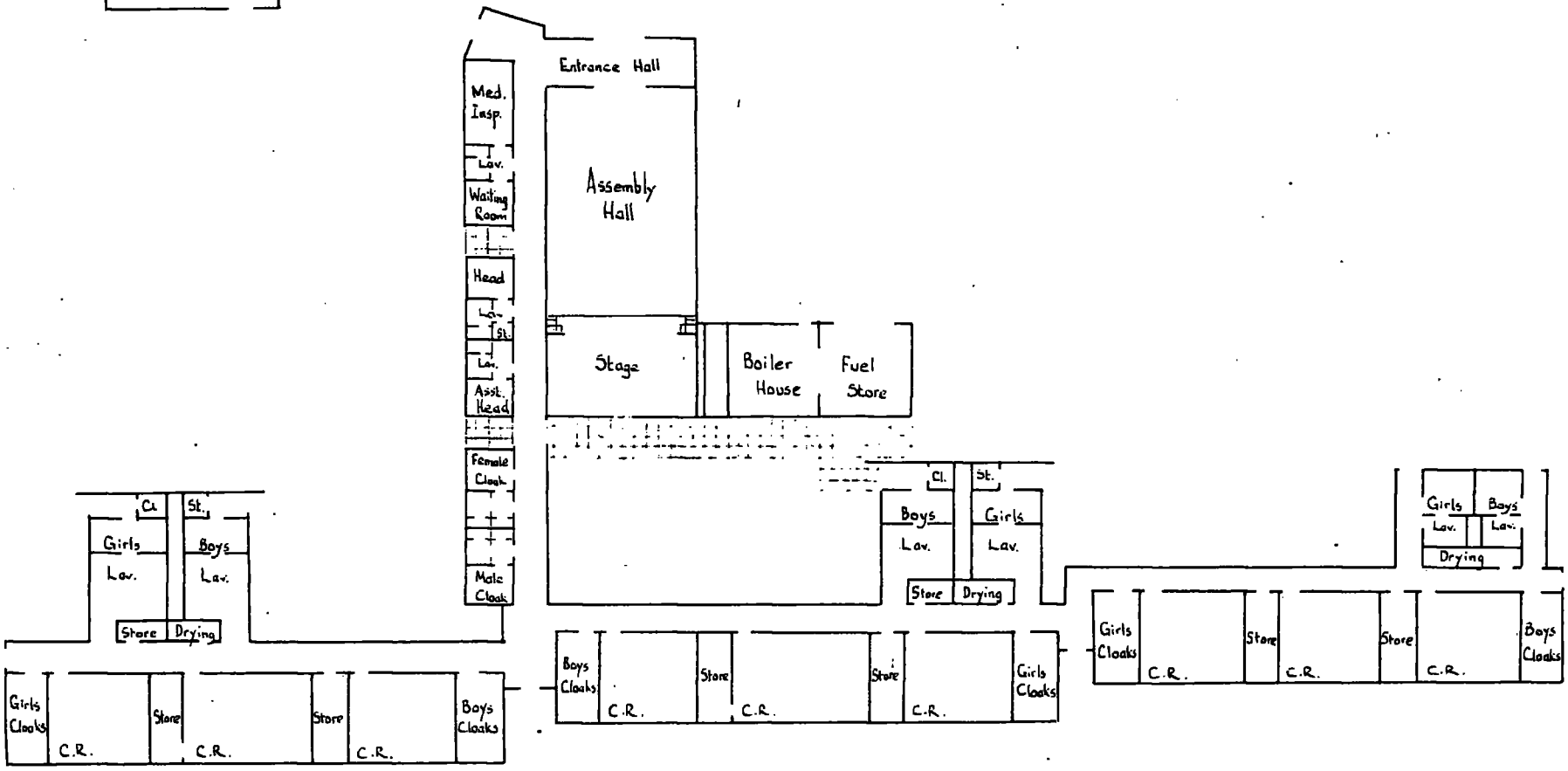
The influence of these factors will be analysed in some detail but before this is attempted it would be as well to study the plan of a typical primary school built in the immediate post-war period, and compare it with other primary schools built subsequently. Basically the immediate post-war school would be expected to follow the design of the 1930's - the so-called 'finger' plan in which class and practical rooms were disposed in rows with a corridor or covered way on one side. Usually several rows were planned parallel to each other and set like fingers at right-angles to the

1 Board of Education Pamphlet No. 107 "Suggestions for the Planning of Buildings for Public Elementary Schools" 1938 P.75.
2 Board of Education Pamphlet No. 107 1938 P.74.
3 Education 1900-1950 Cmd. 8244 P.96.

FAREHAM WALLISDEAN JUNIOR SCHOOL

Scale: 1in. = 40ft.

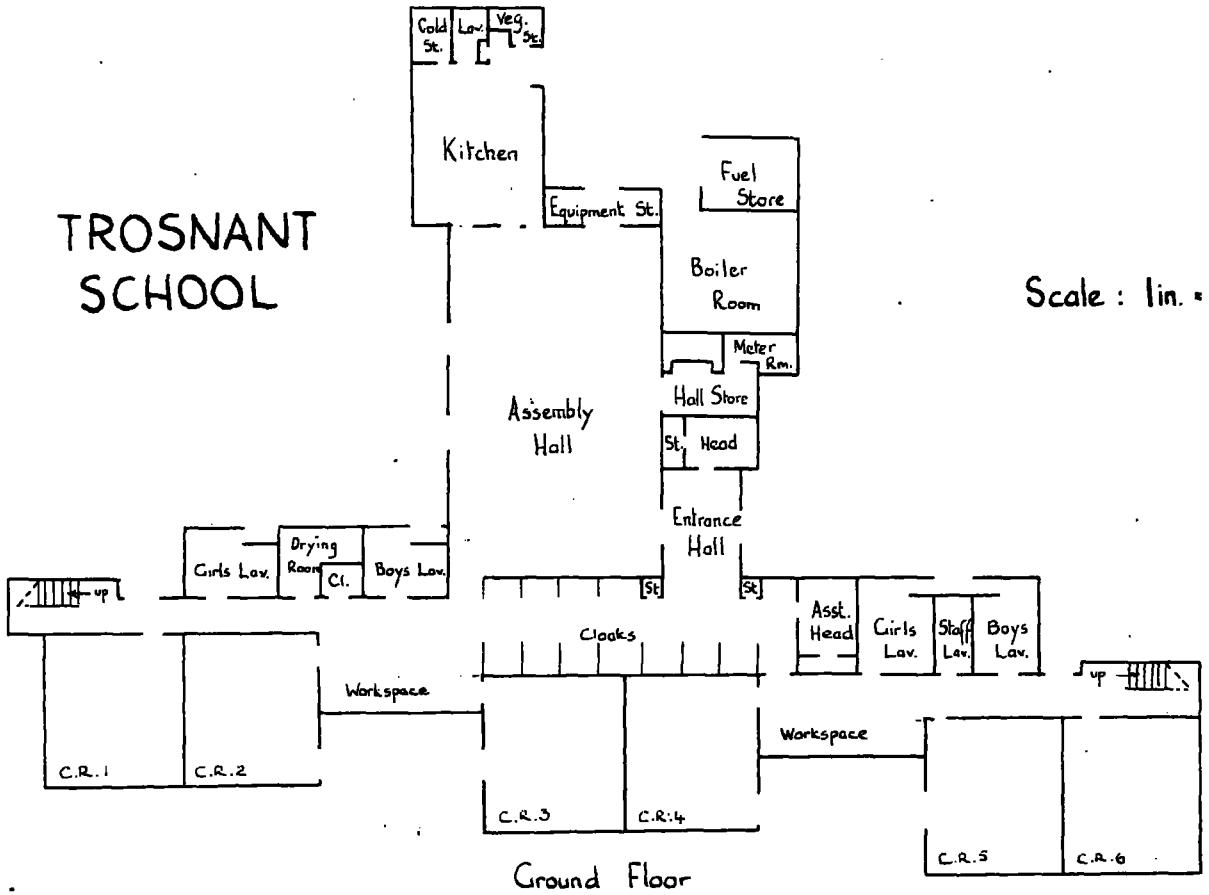




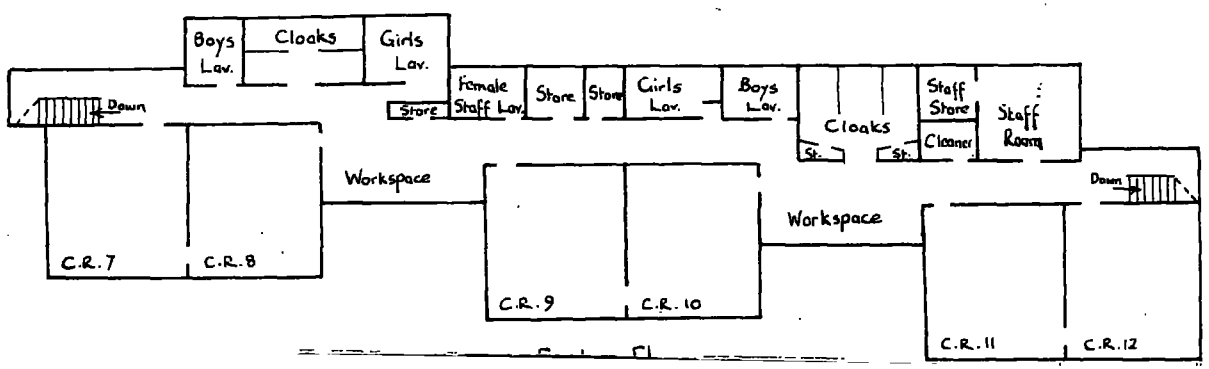
palm which embodied the hall, administrative rooms, cloakrooms and lavatories. Each teaching room in this type of plan could have good aspect and ventilation and sound transmission could be reduced to a minimum. But to obtain these advantages a large proportion of the site had to be built on and an extravagant floor area - much of which would be circulation space - had to be provided. Supervision was consequently difficult, and the plan being organised geometrically rather than functionally was formal, even institutional, in character. Figure 1 shows the Wallisdean Primary School at Fareham built in 1950. Although not a typical 'finger-plan' school it embodies many of the features of this type of design. The classrooms are strung together in rows off a corridor. All have a southerly aspect and cross-ventilation is obtained. They are not, however, in parallel rows but are joined in sections, each section being offset from the other. The hall is typically at right-angles to the classroom row. Cloaks and lavatories are, however, provided in each classroom unit. Like most primary schools of this period it is a one storey structure making extravagant use of the land. Circulation space accounts for 16.5% of the total area and in fact almost as much circulation space is provided as teaching area. It is interesting to note that this school is one of five compounded from standard units prepared by the Hampshire County Architect in order to overcome the problem of planning and building primary schools quickly. The units consisted of three classrooms, cloaks and lavatories planned for right hand, left hand or centre, assembly hall and heating chamber, administrative offices and the like. Simply by putting the units together a school of the desired size could be obtained. Each school was, therefore, not individually planned but became merely a repetition or permutation of units used in other schools. Fortunately the imposition of cost limits and the introduction of new Building Regulations brought this system to an early end for this was standardisation of the worst type, the schools being

HAVANT TROSNANT JUNIOR SCHOOL

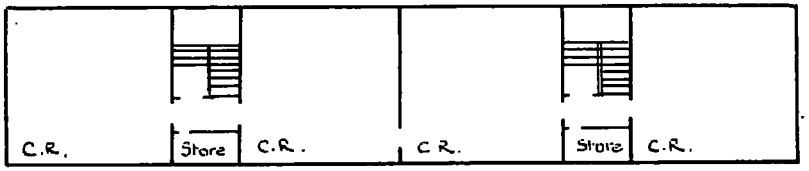
Scale : 1in. = 32 ft.



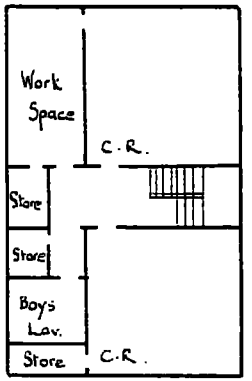
Ground Floor

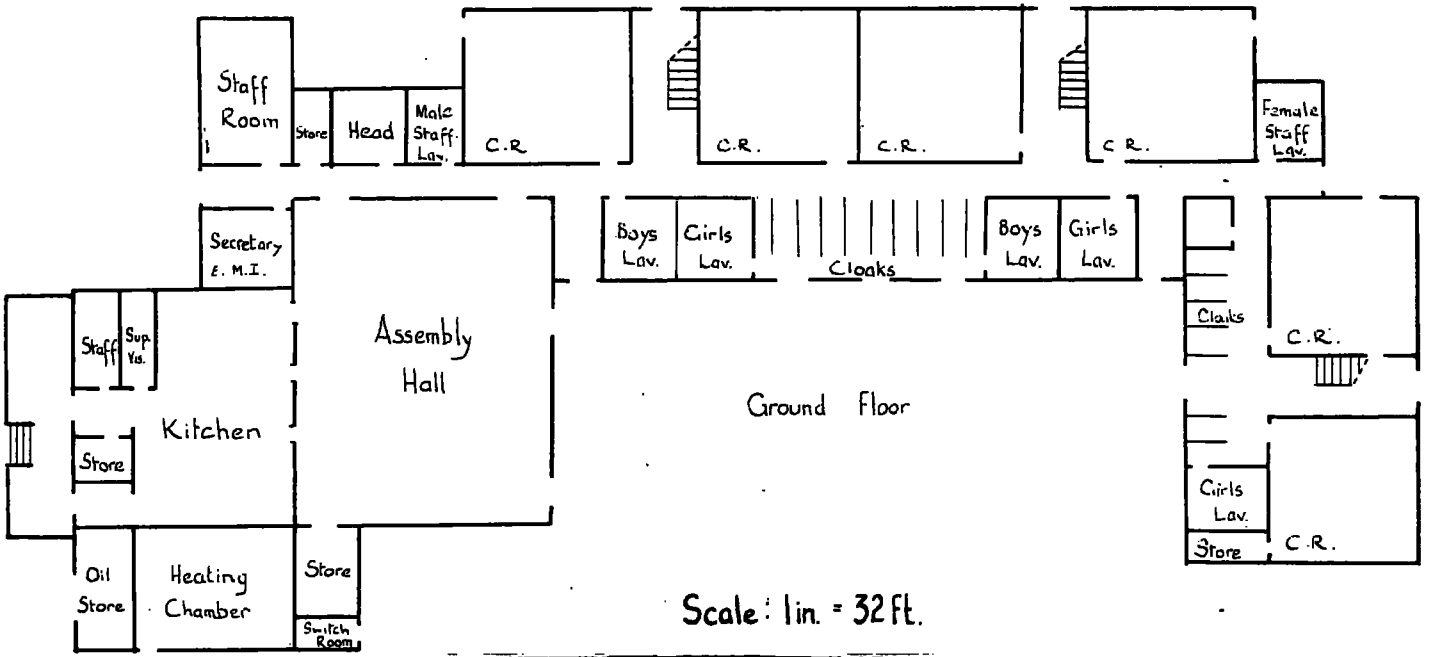


HAVANT SHARP'S COPSE JUNIOR SCHOOL



First Floor





Ground Floor

Scale: 1 in. = 32 ft.

pieced together like a jig saw from a given number of units, irrespective of the site. What is more, little attention could be paid to planning the school as an organic unit.

Figure 2 is a plan of the Trosnant Junior School at Havant built in 1955. Basically the plan provides for a two storey block, each storey consisting of six classrooms off one side of a central corridor with cloakroom, lavatory and administrative accommodation off the other side and for a hall, kitchen and other ancillary accommodation in one storey construction to the north of the two storey block. It will be seen immediately that this plan is more compact than the previous one, more economical use being made of the land available. Circulation area is reduced to 6.45% of the whole and amounts to only one third of the teaching area. All the classrooms have good southerly aspect and ventilation and space is saved by having cloak facilities in recesses in the corridor. The provision of work spaces and outdoor teaching areas marks an advance in educational ideas. Whereas 69 sq.ft. per place were provided at the Wallisdean school, only 39.85 sq.ft. were provided at Trosnant. The proportion of teaching accommodation per place is, however, more than maintained and the cost per place is reduced. No separate dining space is provided at Trosnant in contrast to Wallisdean.

Like the Trosnant school, the Sharp's Copse school shown in Figure 3, and which is included in the 1960/61 Programme, is a three-form entry Junior school.

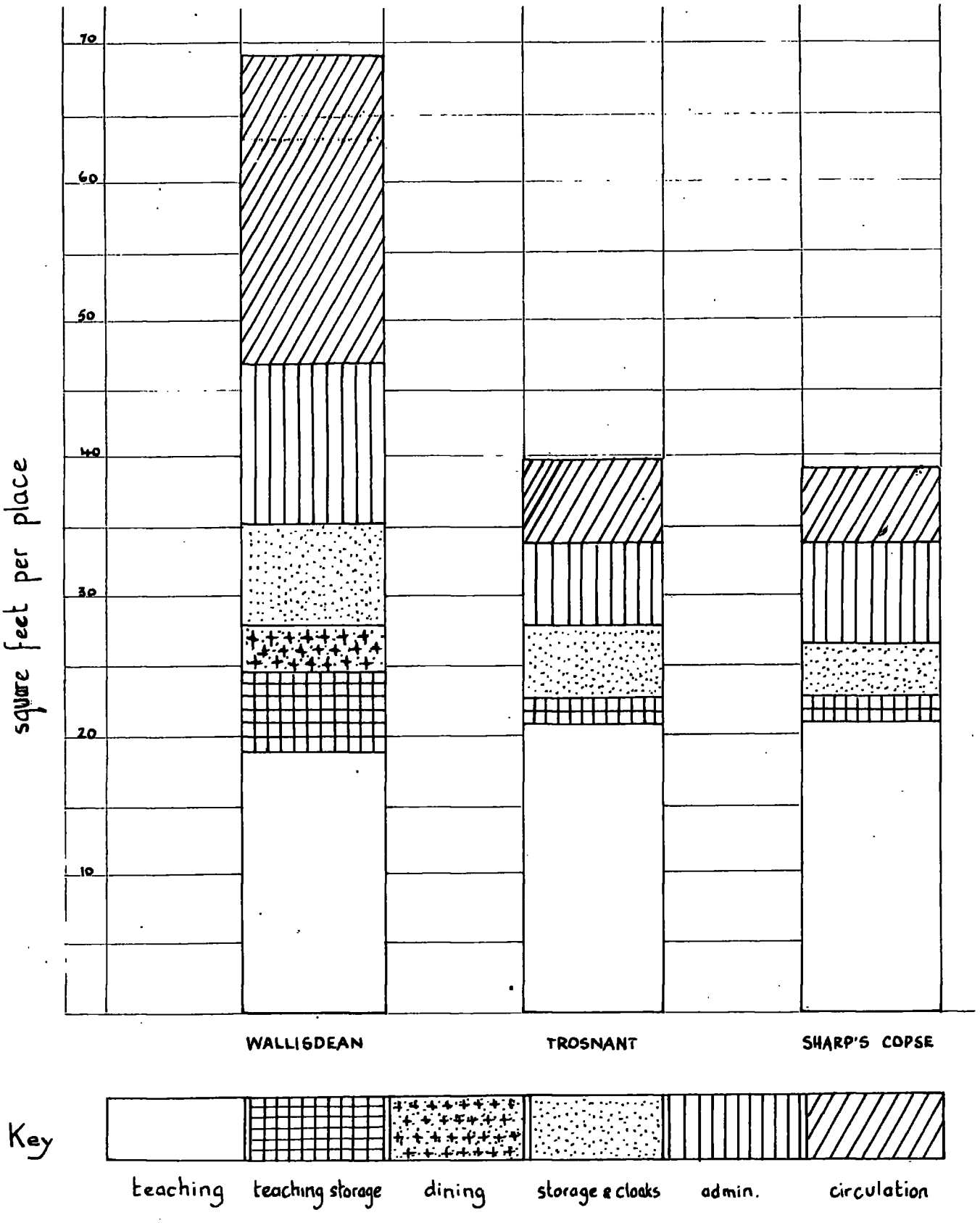
Comparision of areas provided in three Hampshire Primary Schools

Table I Figures in square feet

	Total Area per Place	Circulation Area per Place	Administration Area per Place	Storage/Cloak Sanitary area per Place
Wallisdean	69	16.5	17.5	7.3
Trosnant	39.85	6.45	5.49	5.09
Sharp's Copse	39.2	5.5	6.8	3.9

	Separate Dining Area per Place	Teaching Area per Place	Teaching Storage per Place	Net Cost per Place	Type of Construction
Wallisdean	3.4	18.7	5.6	~~£184~~ £171	Brick
Trosnant	-	20.83	1.99	£150	Intergrid Pre-fab system
Sharp's Copse	-	20.9	2.1	£164	Brick

FIGURE 4


70
60
50
40
30
20
10
square feet per place
WALLISDEAN
TROSNANT
SHARP'S COPSE
Key
teaching
teaching storage
dining
storage & cloaks
admin.
circulation

The accommodation is provided round three sides of an open court, the longer southern side being a two storey block containing eight classrooms, staff rooms, cloak and sanitary facilities. The west wing is again two storey, containing the remaining four classrooms with their cloak spaces and toilets. The east wing, which is in single storey construction, contains the kitchen, heating chamber, assembly hall and combined Secretary/Medical Inspection room. Good aspect and ventilation are obtained. Work spaces are provided within the classrooms but unfortunately not on the same relatively generous scale as at Trosnant. No separate dining space is provided, the Assembly Hall becoming a multi-purpose space.

The problem which posed itself in the post-war years was to design a building, which, without surrendering the physical standards achieved by the finger plan was more economical in total area but more generous and adaptable in the amount of space used for teaching. The way this has been tackled is illustrated in the three school plans and is more conveniently summarised in Table I and Figure 4. The area per place has been reduced from 69 sq.ft. at Wallisdean to 39.2 sq.ft. at Sharp's Copse - a cut of well over 40%. The effect of this reduction on the building cost is obvious. The reduction in area has been achieved in the following ways in order of importance:-

1) The circulation area per place has been cut by approximately two thirds
2) The administration area has been reduced by almost the same proportion
3) General storage, cloaks and toilet space has been halved
4) Separate dining spaces have been eliminated
5) Space for teaching storage has been slashed

As a by-product of this greater compactness the great lengths of roads and paths entailed in the sprawling design of pre 1950 schools have been largely eliminated with a consequent reduction in

cost. Figure 4 also shows that the area of the vital part of the school - the teaching area has, in fact, been increased.

This maintenance of the teaching area at the expense of the rest of the school accommodation is not, of course, confined to any one Authority but is general throughout the country.[1]

In real terms the cost of school building has been halved since 1949.[2] The important question is whether the schools have suffered significantly from this cut in costs. The Ministry are in no doubt of the answer.

"The essential question we must ask, therefore, is whether having halved the real cost of schools, we have also halved the value of the assets we have created. It is inconsistent with all the evidence to assume that this is so. Whatever changes have been made in the design and construction of new schools, nobody can conceivably demonstrate that they have been such as to make schools today only half as good, whether in area, construction, finishes, durability and appearance, as they were in 1949. It follows that, for what we have spent, we have progressively obtained more value for our money."[3]

This official view of the post-war achievement is supported in many quarters. Two examples are perhaps worth quoting. The Sheffield Education Committee have testified as follows - "The architect and the educationist have, as never before, worked 'cheek by jowl' to match technical skill to human needs, and there has emerged during the post-war years a growing sense of partnership in a great enterprise which in terms of 'good value for money' has undoubtedly enriched education and given inspiration to architecture."[4] Lowndes is equally enthusiastic - "Certainly, too,

1 Education in 1957 Cmd. 454 P.56.
2 Education in 1959 Cmd. 1088 P.73.
3 Ministry of Education Pamphlet No. 33 P.64.
4 Estimates Committee 1961 P.160.

at no time in the educational history of this - or probably any other country - has so much first-class creative thought been devoted by architects, administrators and teachers in partnership to school design."[1]

Since reductions in cost have been achieved primarily by reduction in overall space it would be as well to examine whether these reductions have been justified.

Certainly the reduction in circulation space - particularly in the Primary School - is easily justified. Since primary school classes tend to stay in the same room for most of the day there is no need for permanent traffic routes except to the hall and to the play areas where music, drama activity, physical education and dining takes place. In some cases use can be made of circulation spaces for teaching purposes and Trosnant is a case in point, for work spaces are provided in recesses off the main corridor.

In 1949 administration areas were provided on a lavish scale. Reductions have been effected by making the Secretary's room serve also for the periodic Medical Inspections. For example at Wallisdean a Medical Inspection room, waiting room, recovery room and toilet facilities were provided in addition to the Secretary's Room. At Sharp's Copse only the Secretary's room, conveniently placed for toilets and provided with a washbasin, remains. The scale of provision for staff has also been reduced. This may well be not entirely desirable, but it is fully justified in view of the need to economise.

Under the 1945 Building Regulations cloakrooms could not be recessed from corridors, drying rooms had to be provided and lavatory fittings were required on a generous scale. With the relaxation of these Regulations in 1949 a considerable amount of space was saved, but it can hardly be contested that the provision made for cloak and lavatory facilities in modern schools is less than adequate.

1 G. A. N. Lowndes: The English Educational System: 1960 P.165.

As part of the attack on costs separate dining spaces had to be omitted from modern schools. As a consequence the Assembly Hall is generally used for this purpose as well as for music, drama and physical education. This may well have been a necessary step but there is no doubt that it was undesirable. The problem of stacking chairs and tables and leaving the Hall clear immediately before and after as well as during the lunch period is not particularly difficult for Headteachers, but it does limit the use of the Hall for teaching purposes besides being inconvenient. It also means that the Hall is not available in secondary schools for social and club activities during the lunch period when it could be of greatest use. The schools built immediately after the war are generally in this respect at least better equipped than the later ones.

This view is also taken by the majority of the educational bodies giving evidence to the Estimates Committee.[1] In fact Hertfordshire feel so strongly about the need for a separate dining space that it has been a matter of policy for such a space to be provided in all their post-war schools.[2] This case is exceptional for Hertfordshire is the only Authority who have consistently been able to afford the provision of separate dining spaces within the Ministry's cost limits and for this the Authority's development of a relatively cheap system of prefabrication must be at least partly responsible.[3]

It is also regrettable that the attack on costs has affected the amount of teaching storage space provided. One of the continual complaints of teachers even in new schools is the lack of storage space and the schools of the 1949 vintage undoubtedly have the advantage in this respect.

1 Estimates Committee 1961 P.10.
2 " " " P.390
3 Hertfordshire County Council: Building for Education 1948-1961 P.8

On the whole, the Ministry's contention that far better value for money is being obtained in schools built now than in those built directly after the war, cannot be disputed. There is, however, evidence that the cost limits are beginning to impose too severe restrictions on Authorities. It can be argued, for example, that the plan of the Sharp's Copse school marks no advance over that of the Trosnant school. The differences between the two plans in the component parts of the total area per place are only marginal. The Sharp's Copse school should reflect the advances in educational theory and practice which have taken place over the five years since the building of the Trosnant school. One might hope, therefore, that the classrooms would be bigger, the storage space more generous, facilities for practical activity more adequate. However, this is not so and the reason lies less in the Authority's outlook on primary school design than in the restrictive effect of the current cost limits. There is no point in designing a school at 45 to 50 sq.ft. per place with more generous teaching facilities, if no contractor can build the school within the limits of cost imposed by the Ministry. Experience of the tendering state in Hampshire shows that it is becoming increasingly more difficult even to maintain the standards reached in 1954. To improve on them to any marked degree is impossible within the present cost limits. It can be argued, therefore, that the Ministry have made a virtue of necessary. For economic reasons the generous total area of the schools built between 1945 and 1950 could not be maintained. Cuts in area were made where they could best be afforded. If schools built today are, in the essential parts of their design, at least as good as the earlier schools, this is a victory of good planning over cost problems. But to argue that the cost ceiling imposed on school building as a result of the national economic situation is anything other than a necessary evil is to some degree a rationalisation of the issue. Good school design should ideally proceed from sound educational theory and practice, not from cost

limits externally imposed. The restrictions imposed by the cost limits were inevitable; sacrifices in desirable features have been made. The indications are that the current cost limits will entail sacrifices in more essential features of school design and in fact cost difficulties have undoubtedly retarded advances in school planning since the middle fifties. The 'pursuit of value for money' is, therefore, not the unmixed blessing the Government would have us believe and the Ministry is in some danger of becoming intoxicated by its own slogan. The implications of this point will be taken up again in a later chapter. Another factor which is acting restrictively on primary school design is the minimum size of classroom laid down by the Building Regulations - 540 sq.ft. for forty pupils. A classroom of this size does not offer scope for group and practical activities which should be carried on in a primary school classroom. This view is held among others by the London County Council[1] and is shared in the Ministry.[2] It is significant, however, that one of the main reasons for deferring any increase in the minimum regulation size is that the cost limits would inevitably be affected and this would be particularly serious for the aided school managers.

Running parallel with the problem of cost in the post-war years has been the problem of time. Authorities have been faced with building not a single school but a County full of schools. This has had two main effects nationally and in Hampshire. First the technical staff of the Authorities were hard put to it to design each school as an individual project and some form of standardisation had to be effected if the plans were to leave the drawing boards at the requisite time. The standard unit technique of the Wallisdean school has already been discussed. The Sharp's Copse School is also one of a series of two/three-form entry primary schools of the same general design. Time has thus been saved at

1 Estimates Committee P.91.
2 " " P.375.

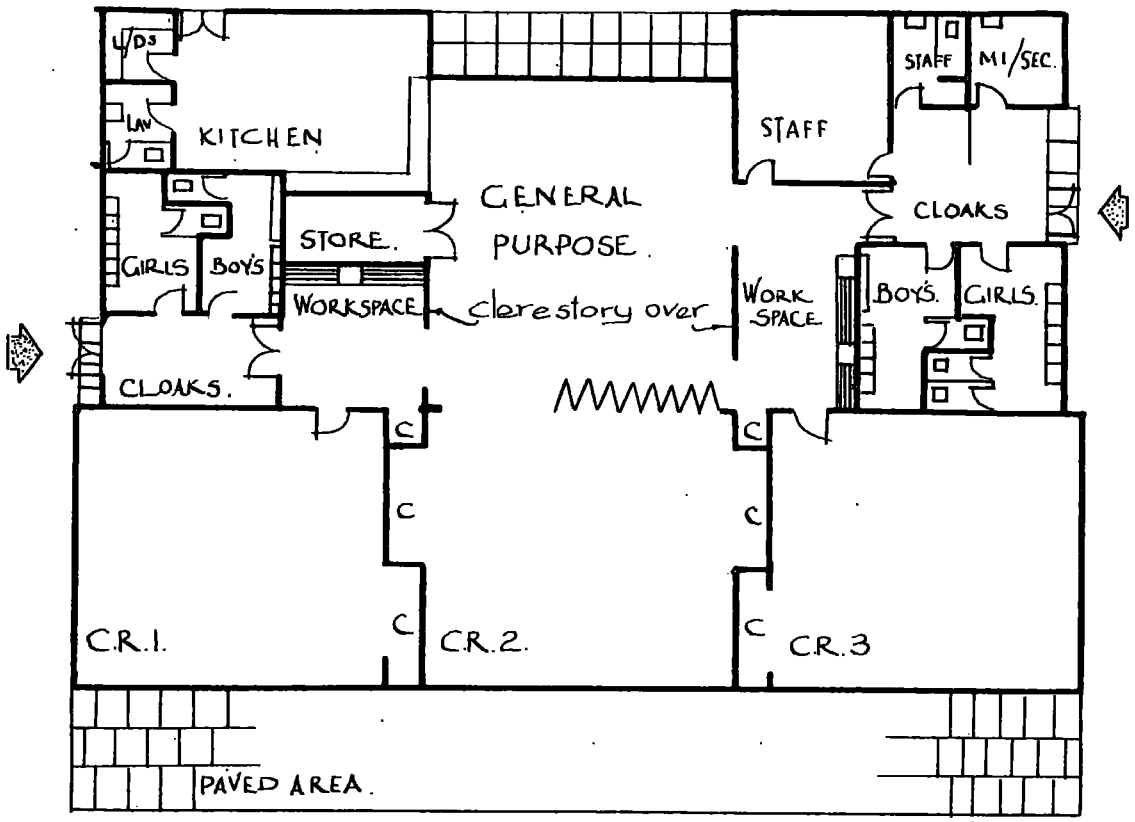
design stage, but given also the national shortage of skilled building labour and the overloaded state of the industry, it was also necessary to ensure that schools were erected with reasonable speed. Seen within the technical context of the age - scientific industrialism - the answer was obvious: the building processes had to be transferred from craft work on the site to precision tooling in the factory. It was a solution which had already been given to the problem of mass demand in other industries - furniture, motor cars and the like - and indeed in 1944 the Wood Committee[1] recommended the application of techniques of prefabrication to school building and in 1948 this exhortation was repeated in another Ministry Report.[2] Nevertheless, the swing to prefabricated systems had not been by any means complete - indeed it has been the Hampshire Authority's policy to build in traditional brick wherever circumstances allow, and a large proportion of the post-war schools in Hampshire are of traditional construction. It is apparent, however, that present circumstances are conspiring to force systems of prefabricated construction on Authorities. The lack of skilled building labour, the speedier erection of prefabricated schools, and the advantages of bulk buying of standard components particularly by groups of Authorities rather than individual ones[3] - these factors will assume even more importance in the future. As it is, the adoption of prefabrication techniques has been much more marked in school building than in other parts of the industry and indeed it has been said that the typical Hertfordshire school of 1947 "was the recognition that modern architecture was a technical revolution comparable with the Roman use of the vault and the Victorian use of cast-iron."[4] It is also significant that a primary school in CLASP construction won the premier prize at the 1960 Milan Triennale.

1 Post-war Building Studies No. 2: Standard Construction for Schools 1944 P.7.
2 The Report of the Technical Working Party on School Construction 1948 P.10. Administrative Memorandum No. 302.
3 Ministry of Education Bulletin No. 19: The Story of CLASP 1961 P.28.
4 R. Furneaux-Jordon - 'Architecture Problems in School Design 1946-1956' - Article in 'School Construction' 1955-1956' P.1.

Apart from the advantages already outlined, schools in prefabricated construction generally lend themselves to expansion or remodelling. The pre-war type of school with its structural partition walls and load-bearing brickwork was not planned with an eye to future developments and the importance of flexibility to meet future conditions was not generally recognised until the post-war period. The steel-frame structure has, of course, distinct advantages in this respect.

Of the 438 maintained schools in the County some 361 are primary schools. This very large proportion of primary schools reflects the generally rural character of the County. Many of the villages have their own school, the numbers on roll varying from as few as fifteen to as many as two hundred and eighty dependant on the size of the village. The majority of the village schools are, however, considerably less than one-form entry size, so that separate classes for each age group are not possible. One of the current problems is that of amalgamating the very small schools into larger units. Local opposition to the closure of the village school is often encountered - the conception of the Local Education Authority as an ogre, red in tooth and claw, is one which is very easily conjured up - but on economic as well as educational grounds such amalgamation is not only justifiable but necessary. The design of the very small schools does, however, set special problems which the Ministry have recently publicised.[1] The small school for say seventy pupils is a much closer-knit unit than the larger urban school and must provide the same educational opportunities. This implies space on a generous scale - for physical activity, practical work and study. A school for seventy children cannot, of course, have a hall such as a larger primary school contains nor is it easy to provide the work and study spaces which are desirable. The designer's problem is to get the highest possible educational value out of the small space available.

1 Building Bulletin No. 3. 1961.



OTTERBOURNE

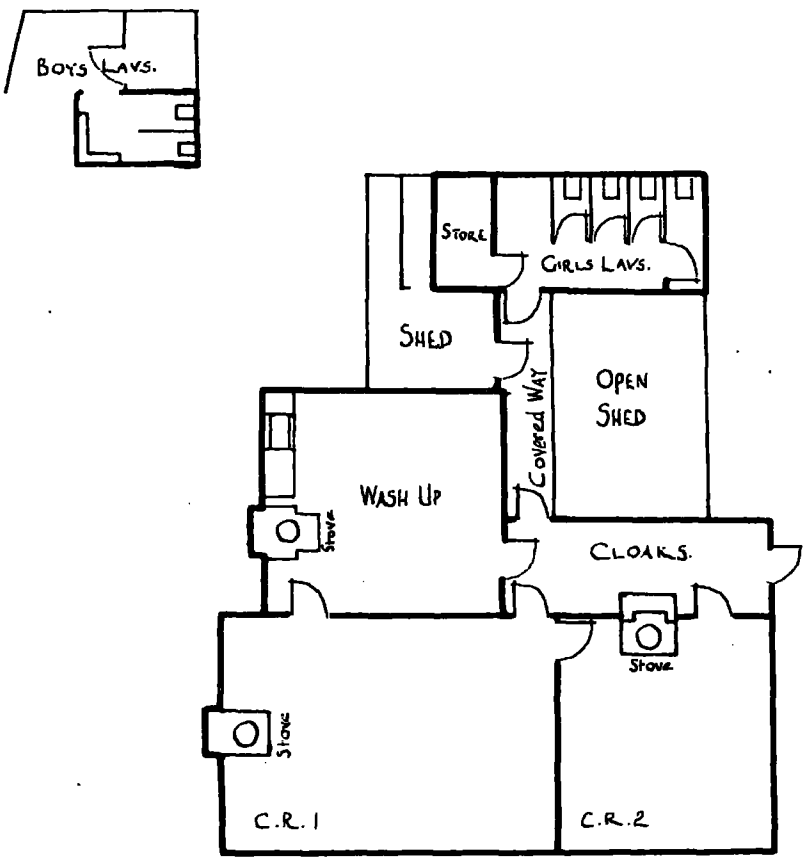
3 class school for 70

Scale: 1 in. = 16 ft.

Figure 5 is the plan of a new three class school for seventy pupils at Otterbourne. Features are the reduction of the corridors to the minimum, the general purpose area serving as a circulation as well as a teaching space. An area sufficiently large for assembly, dining and physical activity can be procured by throwing classroom two into the general purpose space. Toilets in this case are provided outside the classroom area with separate blocks for infants and juniors, though it is accepted Ministry practice in schools of this size for toilet accommodation to be directly reached from the classroom, thus giving ease of supervision and training and producing a more domestic atmosphere. This does, however, raise cost problems and good caretaking is essential. It will be noted that the teaching area mounts to some 60% of the total area of the school as compared with 50% in the Trosnant and Sharp's Copse schools and that paved areas for outdoor teaching and shared work spaces are provided in addition. It is interesting that the very compact planning embodied in this school and in the models publicised by the Ministry (e.g. the Finmere School, the CLASP primary school of Milan fame) represents to some degree a return to the principle of the central hall for the smaller school. The atmosphere which the design aims to produce is one of informality and homeliness. Indeed, the reduction of primary schools from adult to child size - in ceiling height, furniture and fittings is a feature of post-war design and has resulted not only in a more friendly and less institutional type of school but also in reduced costs.

The normal ceiling height in a Victorian or Edwardian school is about fourteen feet. The average today is ten feet and some classrooms are as low as eight feet six inches.[1] This reduction in cubic capacity has played a large part in the overall lowering of school building costs and has also meant lower maintenance costs (heating is a good example). At the same time the modern school is

1 D. H. Morell and A. Pott: Britain's New Schools 1960 P.27.



OTTERBOURNE

Church of England School

Scale: 1in. = 16ft.

more suited to its occupants. The old Victorian church-type school, with its vaulted ceilings, sombre colours and solid furniture, was built on an adult scale and tended to overpower its small inhabitants. School buildings no less than teaching practice have, therefore, reflected the modern acceptance of the child-centred approach.

It is interesting and instructive to compare the new school outlined above with the premises it is designed to replace. Figure 6 shows the existing school built in 1837 and extended in 1873 and showing all the defects of its age. High-vaulted ceilings, a roof liable to leak, gas lighting, outside and very unsatisfactory toilets, poor heating, two very sub-standard classrooms with no activity space, dilapidated shed additions, cloak pegs congesting the narrow corridor, unsatisfactory day lighting, no school meals kitchen - most of these are features of very many of the village schools in Hampshire and the country at large and the building programmes of the 1950's have, in general, done little to remedy these deficiencies. It is to be hoped that the replacement or remodelling of the rural schools will feature a great deal more prominently in future programmes and that projects like the one at Otterbourne will help to eliminate what is one of the worst features of the present educational system - namely the disparity of facilities and amenities provided in post-war, as opposed to the older schools.

CHAPTER VI

THE EVOLUTION OF POST-WAR SECONDARY SCHOOL DESIGN AND PLANNING

The Hampshire Authority's immediate post-war policy with regard to Secondary schools has already been outlined. Schools of three-form entry size were to be standard, smaller schools being established only when local circumstances demanded them. Secondary schools, with the exception of Grammar schools, are, however, a relatively new concept. Unlike the Primary schools, there has been until recent years no generally accepted pattern of curricular activities within the Modern schools and it is not surprising that policies on these schools have changed considerably since the war. In order that the design problems involved in the Hampshire Secondary Schools can be properly understood, it is essential to appreciate the Authority's aims in respect of the education provided at non-selective secondary schools.

Secondary Technical Schools have played no part in the County's Development Plan. There are no such schools in the County and no plans to establish any. There are two main reasons for this: first, the existence of three kinds of intelligence suited to the three kinds of Secondary school - Grammar, Technical and Modern - has always been regarded with scepticism by the Authority. Secondly, the County is predominantly rural and agricultural in character and the need for technically biased schools is not felt in the same way as in other areas.

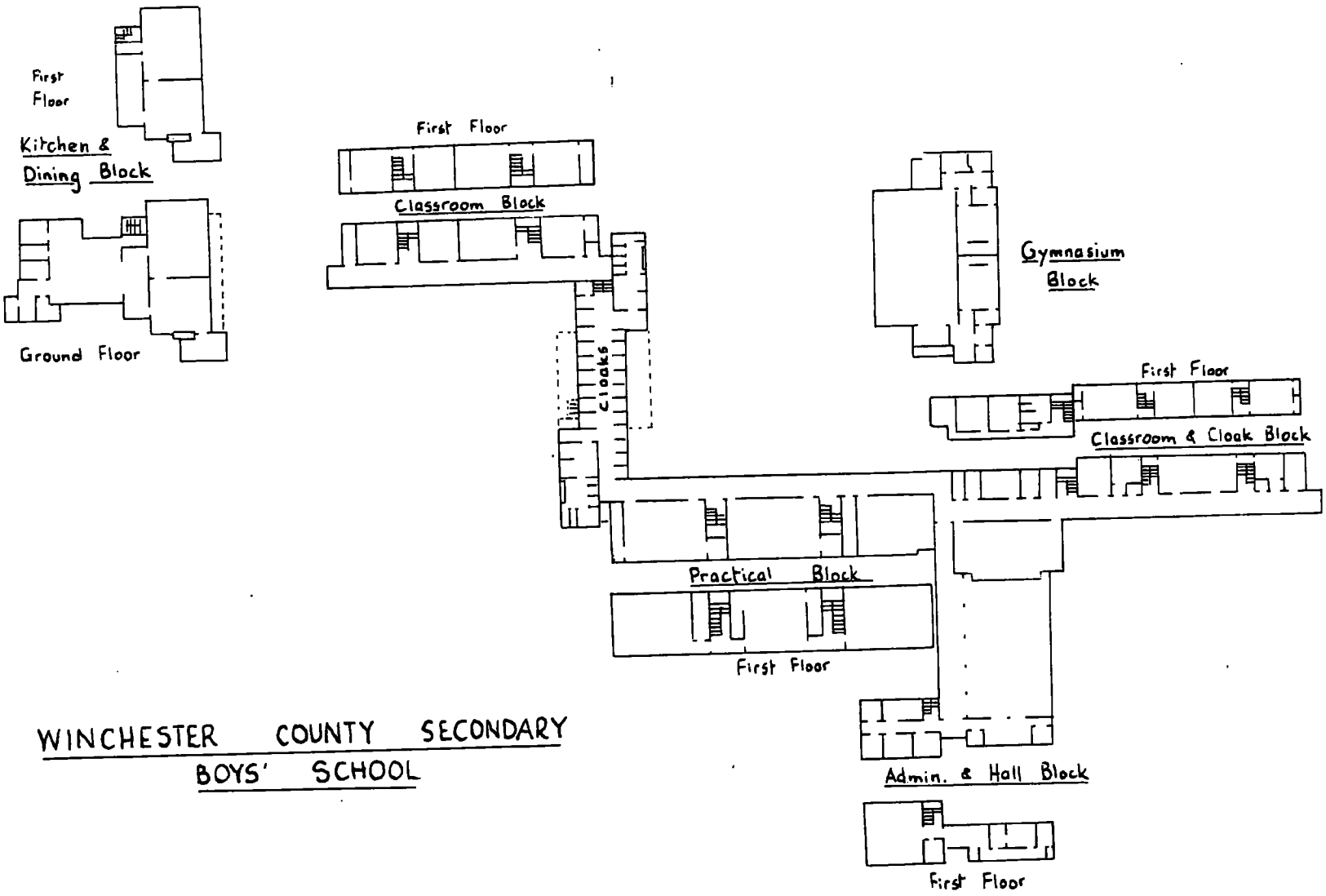
The entry to Grammar Schools has over the years been of the order of 17%.[1] This figure is well below the national average[2] and is in part attributable to the relatively large number of private schools in the County area. Nevertheless, the Authority's policy has not been to "cream off" all the talent to the Grammar schools and the reason will be made clear in the subsequent paragraphs.

1 Report of the County Education Officer to the Secondary Education Sub-Committee - 6th January, 1959.
2 Education in 1960 Cmd. 1439 P.153.

There are two methods of attacking the educational problem in the Secondary Schools. The first is basically an extension of the Primary School technique and consists in building on the pupils' centres of interest. In this system traditional academic methods and standards are not of prime importance. The second is to locate a school with definite scholastic aims. The Authority's view is that only in exceptional circumstances does the first approach achieve results acceptable to parents, teachers and children and that it is a matter of observation that the schools adopting the second approach will achieve academically higher standards than the ones with more general aims.[1] The aim in the Hampshire Secondary Modern Schools has been to provide G.C.E. 'O' level courses for the abler pupils, commercial and technical courses for the less academically minded, rural science and practical courses for the non-academic pupils. The usual criticism levelled at this approach is that the less able children tend to suffer. The Authority's experience, is on the contrary, that the tone and character of the schools is raised by virtue of its very definite aims (and high achievement) and that the duller pupils benefit from this atmosphere. As a consequence of this scholastic approach and, because of the absence in a large part of the country of that shortage of juvenile labour which militates against staying on, the proportion of pupils remaining at school after reaching the statutory leaving age is very high. The effect of this policy has been that the Authority have come to favour large rather than small schools. The three-form entry school is becoming more the exception rather than the rule and the tendency is to build schools of at least four-form entry and where circumstances allow the size can be as great as eight-form entry.

For example, the eight-form entry Brune Park Bilaterial School in Gosport, the Authority's largest urban centre, is included in the 1961/62 and 1962/63 Major Programme, the size of Alderman Quilley

1 Focus on Hampshire: Education 24th May, 1957 P.939.



WINCHESTER COUNTY SECONDARY BOYS' SCHOOL

School at Eastleigh was increased from three to four-form entry during the course of the year in which it was programmed, the Winchester Boys' Secondary School is being extended to five-form entry as part of the 1960/61 Programme and the Girls' School will follow suit in 1963/64.[1] The larger schools are able to provide more varied and advanced courses, because the specialist staff, rooms and equipment are available. The general facilities are also more varied. In addition, one large school can be built quicker and often cheaper than two smaller schools to accommodate the same number of pupils.

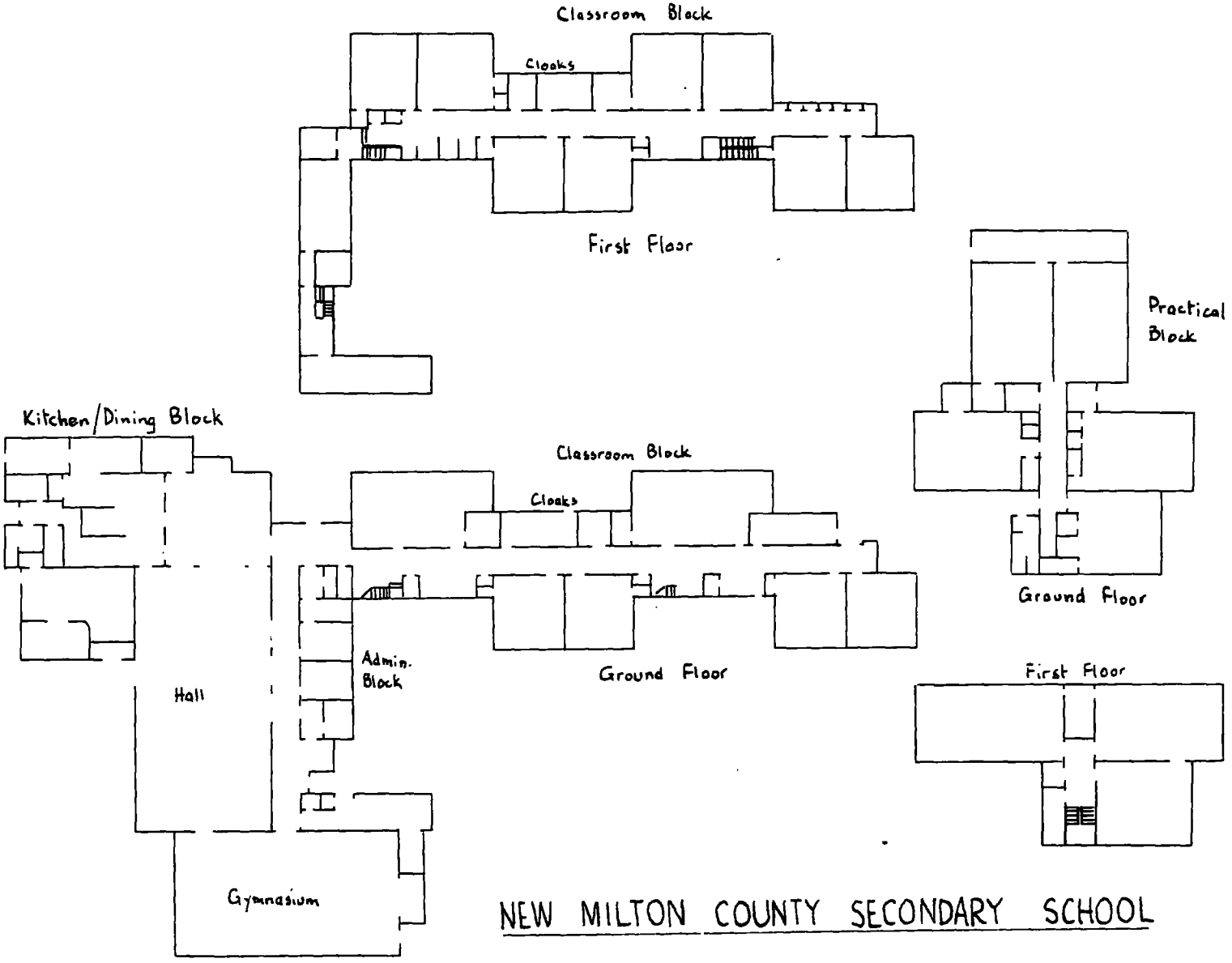
The implications of this policy on Secondary school design will be examined in greater detail at a later stage, but it would perhaps be advisable to outline first the general trend of secondary school design since the war. This will be approached in much the same way as for the Primary schools in the previous chapter, (that is by selecting examples of Hampshire Secondary Schools built since the war to illustrate national trends).

Figure I is the plan of the Winchester County Secondary Boys' School, the first new Secondary school to be built in the County after the war. The plan is typical of its period, in that prime importance was placed on obtaining good lighting and aspect, cross ventilation and in reducing noise transmission to a minimum.[2] This plan is in effect a carry over from the plans of the 1930's which in turn were a revolt against the physical drawbacks of the central hall type of plan which had been decried by the medical profession for its inadequate ventilation and lighting. This school and most others of its period were built before the two major factors, which changed the design of post-war schools, changed educational ideas and different economic circumstances had begun fully to operate. It was built at a time when the Ministry and the Authorities had not yet had time to remedy the defects inherited from pre-war years.[3]

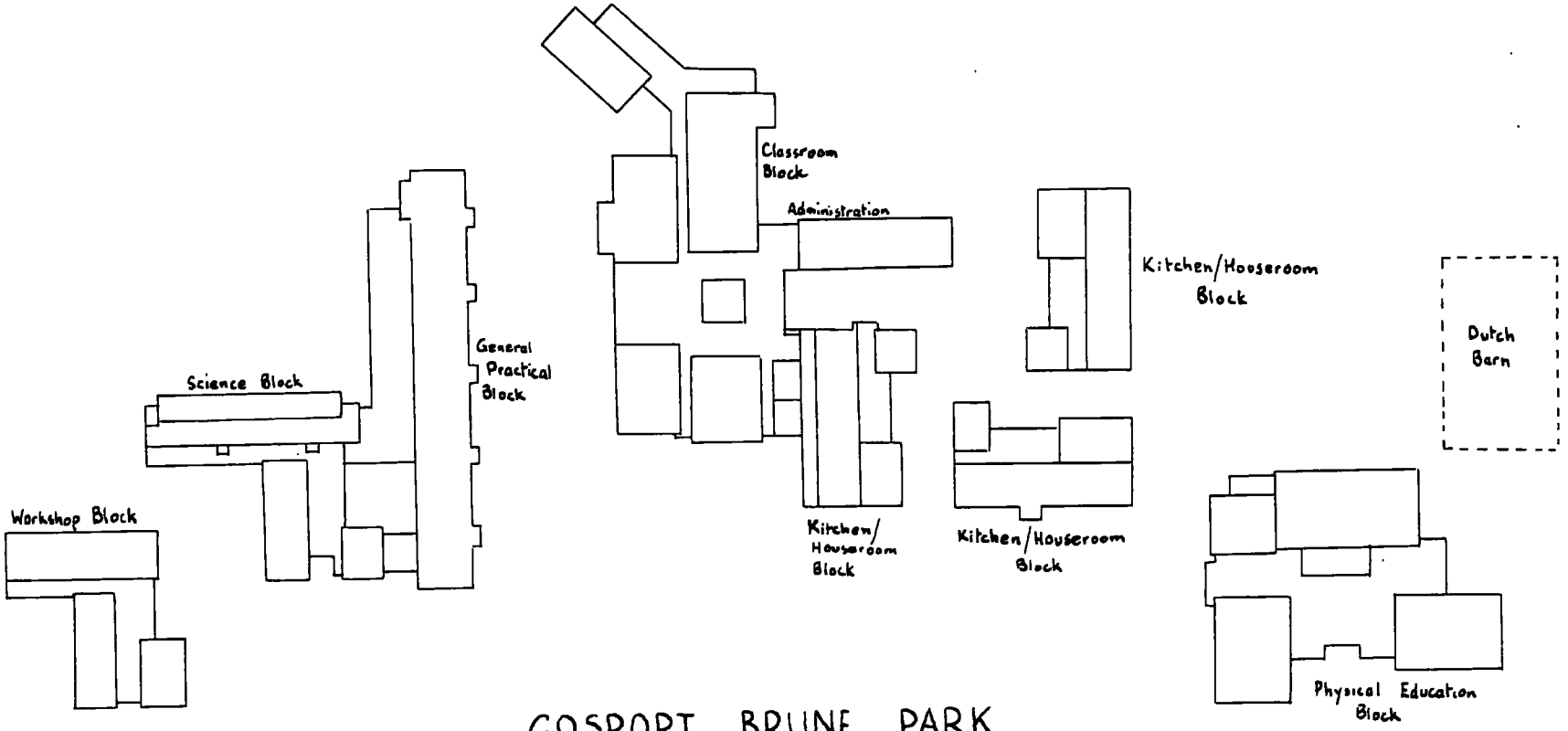
1 Records of the Hampshire Education Department.
2 Ministry of Education Pamphlet No. 33 P.33.
3 Morell & Pott: Britain's New Schools 1960 P.17.

To obtain the desired physical standards, rooms are arranged in rows off a corridor or covered way. Much of the building is in two-storey construction, the corridor being omitted on the first floor. To maintain the ventilation and lighting standards, two-storey construction in this case simply means placing one row of rooms above another. Hall, Gymnasium, kitchen and dining rooms are in separate blocks. The overall effect of this kind of planning - as in the case of the early Primary schools - is that the buildings sprawl over a large proportion of the site and that long and expensive lengths of corridors, covered ways and paths are necessary. Like the Wallisdean Primary School, this Secondary School was compounded from a number of standard plan units. Unit A, for example, is a two-storey classroom block with four rooms up and four down; Unit B is a two-storey block with three practical rooms up and three down; Unit G is an Assembly Hall, exhibition foyer, M.I. room; Unit H consists of administrative rooms. By piecing together the appropriate units a school of the desired size is obtained. This kind of standardisation in Hampshire - and the one that followed which consisted in repeating several times the overall plan of a secondary or primary school of normal size - runs counter to the declared policy of the Ministry. In the words of the Ministry's Chief Architect "We do not believe in standardising plan shapes."[1] Ideally, of course, every building project should be related to its site and its setting and the only defence for standardisation of this sort lies in the acute shortage of technical staff and pressure of building work which had made many such short-cuts necessary in order to get the children into school. This is one case where the Ministry's view of what should happen was not always upheld by the Authorities faced with the immediate problem of executing large building programmes in a situation of shortage of key staff and lack of time. Again, the Ministry's cost limits and the amendments to the 1945 Regulations put an end to these standard unit designs.

1 Estimates Committee 1961 P.56.



NEW MILTON COUNTY SECONDARY SCHOOL



GOSPORT BRUNE PARK SECONDARY SCHOOL

The advance made over the Winchester Boys' School - the first built in the County after the war - is shown in Figure 2, the plan of the Gore County Secondary School, New Milton, which was built as part of the 1958/59 Major Building Programme. Like the Winchester school it is a three-form entry school but in this case it is mixed and capable of extension to four-form entry when necessary. The advance from the sprawling, expensive design of the Winchester school is apparent. Kitchen, small hall (used for dining as well as for teaching purposes), hall, gymnasium, administration and staff rooms form the western wing of the main block, which is in single-storey construction. The rest of the main block is a two-storey structure, comprising library, Art and Craft rooms, and four classrooms with cloak and sanitary facilities at ground floor level and with eight classrooms on the first floor. The whole plan is made much more compact by merging the large spaces - halls, gymnasium, etc. - into a single complex and by having rooms in the two-storey part off both sides of a central corridor. At the same time lighting and ventilation in the classrooms are maintained by offsetting each block of two classrooms against each other, thereby obtaining the effect of building round three sides of a series of small courts. As in many secondary schools, the practical block is a separate entity to obviate disturbance by noise. The nothern part of the block is in one-storey construction and comprises the woodwork and metalwork rooms, the southern part is two-storey, having two housecraft rooms and the technical drawing room on the ground floor with two science laboratories and one general practical room over. Again, the practical block layout is designed to cut circulation to a minimum.

As a contrast to these two schools it might be as well to examine the plan of a very much larger school, the Brune Park County Secondary School at Gosport designed to accommodate 1,300 pupils of whom four hundred will be of Grammar school ability (Figure 3). It is the first of a number of large bilateral schools which are likely

to be built in the County and exemplifies the modern tendency to larger and therefore more complex secondary schools[1]. The school is to be built as part of the 1961/62 and 1962/63 Major Building Programmes. The problems of design raised in this large school will be examined later. At this stage the plan will only be summarised and compared with the two plans already quoted. The plan shows that the school is designed as a series of interrelated complexes, each complex containing rooms for related subjects. The central complex and focus of the school is a four-storey classroom block containing twenty general teaching rooms, the two halls, library, music and administration rooms. To the north of this block are six houserooms, six house classrooms, with three kitchens each serving two houserooms. To the north again and overlooking the games fields is the Physical Education complex, comprising two gymnasia, swimming pool and covered games area. Commerce, art and craft and science laboratories form a separate complex to the south of the central block and the Workshops are contained in yet another separate block in the southern tip of the site. Apart from the larger spaces - the halls, gymnasia, etc. and the general teaching rooms in four-storey construction, most of the remaining accommodation is planned in two floors. Houserooms, house classrooms and kitchens are, however, in one-storey buildings. Despite the multi-storey planning, it is inevitable that a school of this size will extend over a large area of land and in this case the architect has taken rather more land than the Ministry normally allow in an endeavour to open up the mass of buildings by means of enclosed or partly enclosed courts.

This kind of architectural solution would not have been practicable for an Authority like the London County Council who find the greatest difficulty in obtaining sufficient land on which to site their schools let alone provide the statutory playing field area for them.[2] In London the limitations of the site are

1 Morell & Pott: Britain's New Schools P.10.
2 Estimates Committee 1961 P.87.

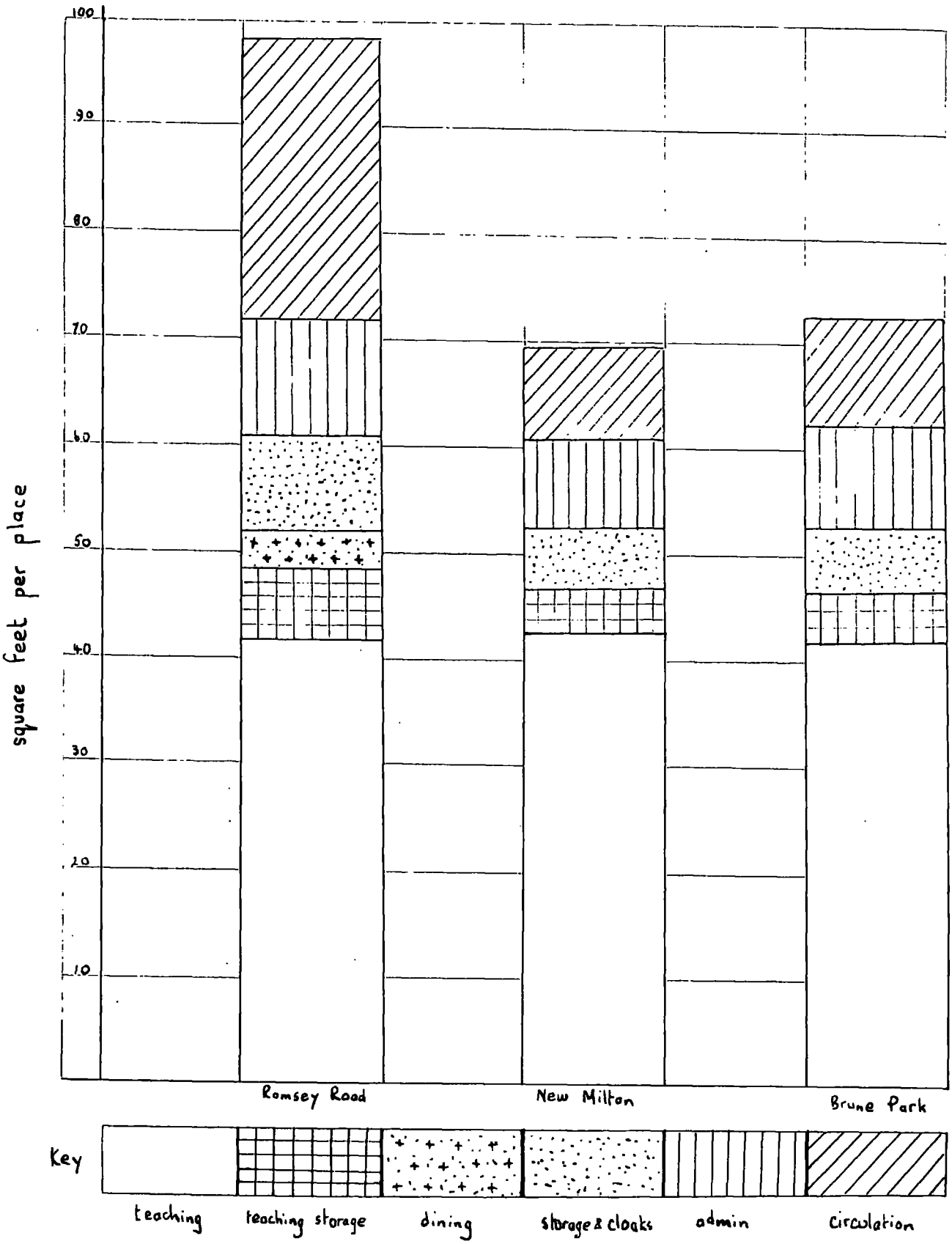
TABLE I

Comparison of Areas in the Post-war Secondary Schools

Figures in square feet

	Total Area per Place	Teaching Area per Place	Teaching Storage per Place	Pupils Storage Cloakrooms, Sanitary	Separate Dining Area per Place
Romsey Road	98.7	41.5	7.2	8.7	3.3
New Milton	69.59	42.46	4.47	5.92	-
Brune Park	72.7	41.5	4.6	5.9	-

	Administration area per Place	Circulation area per Place	Cost per Place	Type of Construction
Romsey Road	11.1	26.9	£291	Brick
New Milton	8.1	8.64	£264	Brick
Brune Park	9.7	11	£310	Brick


100
90
80
70
60
50
40
30
20
10
square feet per place
Romsey Road
New Milton
Brune Park
Key
teaching
teaching storage
dining
storage & cloaks
admin
circulation

generally a crucial factor in the school design and it is not unusual for secondary and even primary schools to have seven floors or even more.[1] The site may, of course, influence other things than the height of the building including its cost. Such problems are rare in Authorities like Hampshire where land is not at such a premium.

At this stage it would be appropriate to evaluate the changes in design in these three Secondary school plans. Table I analyses the area per place into its component factors for each school and Figure 4 shows diagrammatically how the imposition of cost limits and the evolution of ideas on secondary school design affected these constituent parts of the area per place. It will be seen that the overall area per place has been reduced from approximately 100 to approximately 70 square feet. This thirty per cent cut has been achieved - as in the case of the primary schools - not at the expense of the teaching area but at the expense of circulation, storage, administration, cloak and sanitary spaces. Circulation space has been cut by almost sixty per cent., cloakroom, toilet space and teaching storage by approximately 40% and administration area by fifteen to twenty per cent. Separate dining areas have been entirely eliminated. By these means it has been possible to build the Brune Park school at only £19 per place (i.e. less than 7%) more than the Winchester school despite the tremendous rise in building prices in the intervening ten years, and both functionally and architecturally the Brune Park school will undoubtedly be the better school of the two.

It has already been stated that the Hampshire Authority's policy with regard to Secondary education is to provide schools with very definite scholastic aims, to provide within these schools a variety of courses suited to the varying aptitudes of the pupils and ranging from G.C.E. 'O' level to pre-apprenticeship courses in

1 Estimates Committee 1961 P.98.

practical subjects. This had led to a demand for specialist rooms not provided in the immediate post-war schools. This has been, of course, a national trend as is evidenced by the fact that practical accommodation at secondary schools lacking these facilities have been eligible for inclusion in Building Programmes throughout the 1950's.[1] For example, the Winchester Boys' School and the New Milton School were built to accommodate the same number of pupils. Both have twelve general classrooms, but whereas the Winchester school contains a woodwork, a metalwork, two craft, an art room, two science room and a library - making a total of eight specialist rooms, the New Milton school contains a woodwork room, a metalwork room, a technical drawing office, two science laboratories, one general practical laboratory, two housecraft rooms, one art and craft room and a library - a total of ten specialist spaces. The larger the school, of course, the more specialist spaces can be provided. Apart from the types of specialist rooms already mentioned, the Brune Park School contains special facilities for mathematics, music, geography, commerce, biology, engineering, needlework and religious instruction. In addition a lecture/demonstration room and a visual and aural aids room are provided.[2] From the point of view of the accommodation which can be provided and the courses which can be pursued, there is no doubt that very large secondary schools have tremendous advantages and this factor has played a major part in the modern trend towards larger schools. Moreover the economic factor has contributed to this trend. As the London County Council puts it "Experience in London generally shows that it is more economical to build a large school rather than several small schools providing the same total number of places."[3] These economies are, of course,

1 Estimates Committee 1961 P.13.
2 There will be 26 general classrooms (including five small VIth form division rooms) and no less than 36 specialist rooms in the school.
3 Estimates Committee 1961 P.88.

most substantial in areas where land prices are very high but considerable economies can be made in sharing expensive services such as heating and hot water.

The Ministry affirm that the neat categories of secondary schools visualised in the early post-war years no longer have real validity. The Secondary Modern, Secondary Technical and Secondary Grammar Schools envisaged in the pre and immediate post-war era have tended to overlap and merge to some extent. Many Grammar and Modern schools have a technical bias and the comprehensive or bilaterial school often includes all three categories. Straightforward Grammar and Modern Schools do exist in large numbers: Technical Schools are comparatively rare.[1] "Secondary education for all" can therefore mean many different things in the different circumstances in which schools have to operate. It should also be stressed here that the Ministry have made it a policy since the 1945 Building Regulations were discarded not to tie Authorities to specified schedules of accommodation for given schools.[2] The overall minimum teaching area is laid down as are certain regulations regarding administration rooms, number of sanitary fittings and so-on. But the individual Authority has full freedom to prepare the schedule of accommodation and to design the school. Recommendations as to desirable proportions of storage and principles of secondary (or primary) school design are disseminated by the Ministry in their various Building Bulletins but there is no recommended plan form - as for example the central hall plan and its derivative the "three decker" of the late 19th and early 20th century - the "permanent ulilitarian ugliness"[3] of which can still be seen in many parts of the country. It follows, therefore, that although secondary schools in the country show certain trends and have certain features in common it is unrealistic to

1 Ministry of Education Booklet: New Secondary Schools: Preparing the Schedule of Accommodation 1960 Pp. 1 and 2.
2 Ministry of Education Pamphlet No. 33 P.26.
3 G. A. N. Lowndes: The Silent Social Revolution 1939 P.6.

speak of a "national policy" with regard to secondary school design. The only truly national policies have been embodied in the Building Regulation which prescribe minimum standards for school premises and the cost limits which prescribe maximum levels of expenditure for each project. It has been for the individual Authorities to decide their policy with regard to desirable sizes of schools, with regard to the form the secondary education in their area should take and with regard to the detailed shapes of their schools. Since the decisions of the Authorities have varied, so have the plan-forms of the schools. Two trends are, however, clear - the demand for more and more specialist rooms partly arising from the longer school life and the tendency to find a solution to this demand in larger schools.[1] It might therefore be appropriate to examine the advantages and problems - architectural and educational in these schools.

The first step in designing a school of any size is to draw up a schedule of accommodation. Given the number of pupils the school is to accommodate, the minimum teaching area which the school should contain can be calculated by reference to the Ministry's Building Regulations; the cost within which the school must be built can similarly be calculated by reference to current Ministry circulars. For example, the Ministry's minimum teaching area for the Brune Park school is 54,690 square feet and number of cost places 1365. At £310 per place nett plus 10% additional cost this gives a gross building cost limit of £465,465. The next steps is for the Authority to decide the range of subjects to be taught and the courses to be provided. In this connection, the simple pattern of groups of 30 for academic subjects with half classes for practical subjects, which was accepted in the earlier post-war years, rarely corresponds with the needs of the school organisation and in the later years of the secondary course the tendency is to provide options for pupils involving cross-setting

1 Ministry of Education Booklet - New Secondary Schools - Preparing the Schedule of Accommodation August 1960 Pp. 1 and 2.

TABLE II

The allocation of teaching area at Brune Park

	Area in Square Feet	Proportion of whole
Halls	5,607	10%
Gymnasia/Swimming Pools	8,076	14%
Libraries	2,045	4%
General teaching rooms (including rooms specially designed for maths, geography, etc.)	17,520	31%
Science	6,147	11%
Technical subjects - wood, metal, engineering, etc.	4,510	9%
Commerce	1,944	3%
Housecraft/Needlework	4,643	9%
Art/Craft	3,606	6%
Music	1,800	3%
TOTAL	55,898	100%

and teaching groups which vary greatly in size.[1] This trend has its effect on the schedule of accommodation.

The curriculum of a school depends to some extent on the area it serves. Gosport, which is to be served by the Brune Park school, is a large urban area with a number of light industries employing the major part of the population. It follows that the school should have a bias to scientific, technical and practical courses for boys and girls and that commerce should be promiment for girls. Table 2 shows how the teaching area at Brune Park is allocated to the various demands. It can be seen that the proportions allotted to the basic practical courses for girls - housecraft and needlework rank high as does that allocated to general arts and crafts. This can be expected in all mixed secondary schools.[2] The points to note are the high proportion of science, technical and commerce space and the relatively low proportion of space allotted to general teaching rooms in which some fifty per cent. of lessons are held. It is also interesting that the P.E. space is as high as 14% of the teaching area - and this in addition to the normal playing fields and hard paved areas. The schools perhaps more than any other aspect of British life reflects the national cult of physical activity.[3]

In all very large schools one of the basic problems is how to give significance to the individual. This problem resolves itself into the best method of sub-dividing the school into more manageable units. Various methods have been tried - the split by age into lower, middle and upper schools, the splitting by ability into academic, technical and practical courses, the split by subject groups into faculties and the vertical split into houses.[4] Whichever way the sub-division is made, it will be reflected in the physical design of the school. Indeed it is essential that it

1 Morell & Pott: Britain's New Schools - P.9.
2 Ministry of Education Building Bulletin No. 2A 1954 P.12.
3 It is interesting, for example, that in Hampshire there are seven P.E. Organisers supervising the teaching of the subject and only one Science Adviser and one Technical Studies Organiser.
4 Building Bulletin No. 2A P.68.

should, for unless Carter's House, Middle School, language faculty or Science course connotes a physical portion of the school, the sub-divisions are merely notional and to a great degree valueless. It was decided to combine two methods of sub-dividing the Brune Park school. It was felt that children of eleven entering this enormous building would feel lost and overwhelmed unless they were allotted a special and, as far as possible, a separate area. The first year entry therefore is the Junior school having their own Hall, dining together and having a separate block of classrooms. The school is also split into six houses, each member of the Junior School also being allocated to a house. The house is made into a physical entity by the provision of a house dining room, a house common room, as well as some small house offices. Morning assembly, meals, social activities are all to be pursued in these communal spaces, which also do duty as classrooms in normal school hours. This stress on the social side of school life is yet another modern trend.[1]

One of the most difficult problems to solve in Secondary schools is that of dining. Separate dining spaces - preferably a number of small ones is the ideal solution but as the London County Council have stressed[2] they cannot normally be provided on grounds of cost. The normal answer has been to make one of the larger spaces - the small hall or assembly hall serve this as well as its other purposes. The disadvantage of the arrangement is that dining in very large groups tends to make social training difficult. The noise made and behaviour indulged in by secondary pupils dining en masse is something every teacher acknowledges and deplores.[3] Classroom dining on the other hand though less anti-social is much more difficult to arrange satisfactorily due to the

1 Morell and Pott: Britain's New Schools P.8.
2 Estimates Committee 1961 P.90.
3 Estimates Committee 1961 P.10.

number of points at which meals have to be served and the need to free the rooms before and after as well as during the dining period. Other methods such as the dual purpose music/dining room have been tried but no generally acceptable solution has been found. At Brune Park it was decided to have the Junior School dining together in their own hall. Decisions of this kind are usually taken by officers after discussions with the architect and any interested adviser. The normal dangers of hall dining are thus minimised by the age of the diners, and the young pupils do have a chance of getting to know each other before being introduced to the mass of older children. The Senior school will dine in the six houserooms in two sittings. As approximately 65 - 70% of the children are expected to take meals, each houseroom sitting will comprise some 50 - 60 pupils and some 160 pupils will dine in the Junior Hall. From the social point of view, this is as satisfactory a solution as can reasonably be obtained but it does pose a design problem of some magnitude for the architect. The solution has been to have one large central kitchen serving the Junior Hall and two houserooms and two further kitchens each serving two houserooms. In this case all the houserooms are on ground floor level.[1] A central store/vegetable preparation area to serve all three kitchens is provided.

The value of the Assembly hall in thelarge school is becoming more and more problematical.[2] In a smaller school it is used for physical activity, drama, music, dining and so on. The demand for specialist spaces for music, drama and physical education and the trend to remove dining from the hall may mean that the hall, the largest single space in the school is unused for a large proportion of the day. This is particularly true of the very large school where it is impossible to assemble the whole

1 Another solution would have been to have ground floor kitchens, serving dining rooms at first and second floor level by means of a lift, a system which has been operated in some of the London comprehensive schools.

2 Ministry of Education Booklet: New Secondary Schools: Preparing the Schedule of Accommodation P.2.

TABLE III

Brune Park Secondary School

Allocation of Area

Teaching Area	56.1%
Teaching Storage	6.4%
Kitchen/Dining	4.5%
Storage of pupils' belongings/Sanitary accommodation, changing rooms	8.1%
Administration	10.1%
Circulation	14.8%
Total	100%

school in one space. In these circumstances the Hall could become merely a space in which open school functions such as prize-givings, speech-days and the like are held. It is at least arguable that a hall as such should not be provided in the very large schools. The space could logically be better employed in specialist rooms and for example in the provision of a small theatre. At Brune Park a formal hall is included in the schedule of accommodation but it may well be omitted from future schools of this size.

A problem arising from the tendency for pupils to stay longer at school - and this is particularly true of the schools with at least a Grammar school element - is the need to design a set of rooms acceptable to pupils of 16 to 18.[1] It is an acknowledged fact that boys and girls mature rather earlier than formerly and this had to be reflected in design of sixth form rooms and their furniture. At Brune Park there will be a sixth form reference library and four small and one large division rooms arranged as a suite, the large room to serve also as a sixth form common room. The furniture for these rooms will, of course, be much less formal than elsewhere in the school.

Once the architect is provided with a schedule of accommodation and is briefed in the way in which the various rooms should be associated, his problem is to provide not only the teaching rooms but also the stores, administration rooms, cloak and sanitary spaces and circulation areas, roads, tarpaving, playing fields and fencing within the permitted cost limits. It follows that the more he can save in space in circulation area and the like the easier his task is.

The proportions of the total area allotted to the various components of the plan for the Brune Park school are shown in Table 3. These, in fact, come very close to the proportions allotted by the Ministry in the Arnold school built as a Development Project.[2]

1 Ministry of Education Building Bulletin - No. 17 1960 P.29.
2 Building Bulletin No. 17 P.11.

The advantages of large secondary schools are various. It is often easier to acquire one large rather than two smaller sites and less land is required under the Ministry's regulations for one large than for two small schools accommodating the same number of pupils. It is administratively simpler to plan one rather than two schools to serve the same purposes. The facilities which can be provided are more varied. The Special facilities for swimming and athletics and the range of specialist rooms and advanced laboratories which will be provided at Brune Park,[1] will be unique in the County. There may be some educational drawbacks in providing schools for 1,200 or more pupils but as long as the physical advantages in terms of facilities that can be offered are so clear, the trend to larger educational units is likely to continue.

A further point relating to both secondary and primary school design might well conclude these two chapters. Schools built in the last decade exemplify an essentially simple architecture. There are very few frills, not only because the strict cost control prohibits the building of 'municipal monuments' but also because school building is very much in the fore-front of the modern functional idiom in architecture. As the Ministry's Chief Architect puts it - "The design and construction of most new schools are almost entirely functional."[2] This is not to say that new schools are aesthetically unimpressive - in many cases, the reverse would be true - but it means that they gain their effect not by mere ornament by their mass and its proportions.

1 See Appendix A - The Schedule of Accommodation at Gosport Brune Park County Secondary School.
2 Morell and Pott: Britain's New School P.30.

As a general conclusion the official verdict that the decade from 1950 to 1960 has seen "a revolution in British school design" and that it represents "the greatest single era of British school building"[1] can hardly be disputed.

The next chapter turns away from school design and concerns itself with the position of the voluntary schools since the war and in particular the relative positions of the Roman Catholic and Church of England Aided schools.

1 Morell and Pott: Britain's New Schools P.3.

Gosport, Brune Park County Secondary School

Schedule of Teaching Accommodation

Group	Accommodation	No. of rooms	Area /each room	Area /each group	No. of Teaching Spaces
A	Halls	1	3200		1
		1	2407		1
	Gymnasia	2	2400		2
	Swimming pool	1	3276	13,683	1
B	Lending Library	1	1180		-
	Sixth Form Reference Library	1	342		-
	Reference Library	1	523	2,045	-
C	General teaching rooms:				
	Classrooms 1 - 16 incl.	6	507		6
	Houseroom 1	1	677		1
	" 2	1	631		1
	Houserooms 3 - 6 incl.	4	635		4
	Classroom 7	1	537		1
	" 8	1	524		1
	" 9	1	520		1
	" 10	1	524		1
	" 11	1	520		1
	" 12	1	524		1
	" 13	1	520		1
	" 14	1	524		1
	" 15 Maths 1	1	716		1
	" 16 Maths 2	1	501		1
	" 17 Senior Geography	1	802		1
	" 18 Junior Geography	1	714		1
	" 19 Visual & Aural Aids	1	712		1
	" 20	1	730		1
	R. I. Chapel	1	813		1
	Sixth Form Div. Room 1	1	463		1
	" " 2	1	243		½
	" " 3	1	243		½
	" " 4	1	250		½
	" " 5	1	250	17,520	½

Group	Accommodation	No. of rooms	Area /each room	Area /each group	No. of Teaching Spaces
D	Practical accommodation:				
	Senior Physics Laboratory	1	960		1
	Junior " "	1	960		1
	Senior Chemistry Laboratory	1	960		1
	Junior " "	1	960		1
	Senior Biology Laboratory	1	616		1
	Junior " "	1	961		1
	Lecture Theatre	1	730		1
	Senior Woodwork	1	952		1½
	Junior "	1	851		1½
	Engineering	1	999		1½
	Drawing Office	1	756		1½
	Metalwork	1	952		1½
	General Commerce	1	606		1
	Commerce 1	1	744		1
	" 2	1	594		1
	Senior Housecraft 1	1	952		1½
	" " 2	1	1150		1½
	Junior Housecraft	1	952		1½
	Senior Needlework	1	851		1½
	Junior "	1	738		1½
	Senior Art	1	961		1
	Junior Art	1	961		1
	Senior Craft	1	961		1
	Junior "	1	723		1
	Senior Music	1	722		1
	Junior "	1	722		1
	Junior Music Practice	2	61		
	Senior Music Practice	2	117	22,650	
	Total Teaching Area	70	-	55,898	56

CHAPTER VII

VOLUNTARY SCHOOLS

Before proceeding to discuss voluntary school building projects it will be necessary to survey briefly the situation after the passing of the 1944 Act as it affected the Voluntary Schools and to show how this situation was altered by subsequent legislation. Under Section 15 of the 1944 Education Act voluntary schools were to be classified into three types - Aided, Special Agreement and Controlled Schools. On application to him by the Managers or Governors of the Voluntary School and provided that he was satisfied that the Managers or Governors would be able, with assistance of maintenance contribution from the Ministry, to defray the expenses which would fall to them, the Minister was to issue an order allotting the school to a specific category. Application for such an order had to be made within six months of the issue of the Local Education Order. If no application were made the school automatically became controlled.

Where an agreement had been made between a Local Authority and the promoters of a Voluntary school under Section 8 (2) of the 1936 Education Act this agreement would be put into effect in its original or in a revised form if it was in accordance with the Development Plan for the area. These schools would be Special Agreement schools under the Act. As there were nearly 500[1] proposals made under the 1936 Act which had not been carried out by April 1st, 1945 this constituted potentially a considerable building problem. In addition, there were 37 schools for which special agreements had been put into effect under the 1936 Act.

The various differences between the three categories of voluntary schools as to management, secular and religious instruction and the appointment and dismissal of teachers are not relevant in this context, but it is important that the respective responsibilities

1 W.P. Alexander and F. Barraclough - County and Voluntary Schools - 1953 P.56.

of the managers or governors, the Authorities and the Ministry in respect of the maintenance, alteration and replacement of voluntary schools under the 1944 Act should be made clear. Section 15 (3) made clear the responsibility for maintenance and alterations. The managers or governors of a controlled school were not responsible for any of the expenses of maintaining the school; in the case of aided and special agreement schools the managers or governors were responsible except for repairs to the playground, playing fields and the interior of the school buildings, the responsibility for those resting with the Local Authority. The responsibility for altering and maintaining medical inspection, school meals and milk facilities also rested with the Authority. Under Section 102 of the Act the Minister was empowered to make a grant of one half of the expenses incurred by the managers or governors in carrying out their responsibilities. Similarly where an aided or special agreement school was transferred to a new site or a new school was built in substitution for one or more voluntary schools the Minister was empowered to pay grant of 50% of the managers' share of expenditure on the new school. The Local Authority was responsible, in the case of a transferred school, for providing the school site, the playing fields and all buildings connected with it, the playground, roads, paths, fencing and surrounds. Similarly, the cost of providing school meals and medical inspection facilities was the initial responsibility of the Authority though such expenditure is reimbursable in full by the Ministry. In the case of a substituted school the cost of the new site fell on the managers or governors but the Minister was empowered to pay 50% grant on this expenditure. The Authority provided the playing fields and any buildings on them, medical inspection and school meals facilities. In assessing the amount of grant payable to the managers or governors the Minister could take into account any sums which might accrue to them in respect of the disposal of the site and premises of the school or schools discontinued.

Under Section 104 of the 1944 Act a new aided school could be established partly or wholly to accommodate displaced pupils, these pupils being those for whom education would have been provided in some other aided or special agreement school if it had not ceased to be available as a result of the reorganisation of primary and secondary pupils into separate schools or as a result of the reduction in the number of pupils for whom education could be provided in this other school. In this case the new site and the new school must be provided by the managers, but the Minister could make them a grant of not more than 50% of part of the cost of the new site and school buildings as he determined to be attributable to the provision of education for the displaced pupils. In this case the Authority's responsibility was limited to the provision of the playing fields and any buildings on them - the school meals and medical inspection facilities.

If a new aided school were to be provided as a distinct new entity the new site and the new school buildings had to be provided by the promoters without any financial assistance from public funds. The Authority must provide the other buildings (i.e. kitchen, medical inspection room, caretaker's dwelling, if provided) the playing fields and any buildings on them required for the purpose of the new aided school.

In all cases the "other buildings" become the property of the trustees but the legitimate interests of the Authority are protected in the event of the discontinuance of the school by the managers or governors. The playing fields and any buildings on them, however, remain the property of the Authority.[1]

1 Alexander and Barraclough: County and Voluntary Schools 1953 P.38.

Section 105 of the 1944 Act gave the Minister power to loan money to the managers or governors of aided and special agreement schools to enable them to meet their share of any initial expenses required in connection with the school premises which would involve expenditure which ought, in his opinion, properly to be met by borrowing.

Section 109 of the Act gave Authorities power to assist the managers or governors of voluntary schools in providing temporary accommodation in order to overcome difficulties arising out of war conditions. It was intended, however, that this accommodation should remain only until such time as the managers or governors could reasonably be expected to provide permanent accommodation under the terms of the development plan for the area.

The 1946 Education Act clarifies and expands some of the provisions of the principal Act in respect of voluntary school building and maintenance. The first schedule of the Act sets out in some detail the various responsibilities as to maintenance of voluntary schools. In particular the schedule specifies that it is the duty of the Local Education Authority to provide any site which is to be provided for the school in addition to or instead of the whole or any part of the existing site of the school, except where the responsibility is allotted to the managers or governors under the principal Act. In the case of a controlled school the Local Authority is also responsible for providing the school buildings. The Authority must also meet any expenditure incurred in making the new site suitable for building purposes and must convey the site to the trustees of the school. The schedule also lays down that, if the former premises of a controlled school are sold when the school is transferred, the Minister may determine that a proportion of the proceeds shall be payable to the Authority. Similarly when the Authority convey their interest in any voluntary school premises to trustees for the purpose of the school, and these premises are later sold by the trustees or their successors

the Minister may require the trustees to pay the Authority as much of the sum received as he thinks just.

Section 1 of the 1946 Act provides that a controlled school can be enlarged to such an extent as to become a new school under Section 13 of the principal Act if the enlargement is due to the need to accommodate pupils from some other voluntary school if this other school has been discontinued or otherwise ceased to be available. The expense of this enlargement falls on the Authority.

Section 2 provides that the Managers of aided or controlled schools organised in separate departments can apply through the Local Education Authority for the issue of an order by the Minister that each department constitutes a separate aided or controlled school as the case may be. In the case of an aided school the managers may apply for one or both departments to become controlled.

No changes or introductions of any real significance as regards school building were made to the principal Act by the Education (Miscellaneous Provisions) Act 1948, but the Act of 1953 made a number of important changes. Under Section 1 the term "displaced pupils" used in Section 104 of the 1944 Act was extended to include pupils who had ceased to reside in an area as a result of action taken or proposed to be taken under the Town and Country Planning Acts and who either did or could be expected to have attended some other aided or special agreement school in that area. Under Section 2 the Minister would require a Local Education Authority to meet the whole or a specified part of the cost of establishing a new controlled school provided that the managers and the Authority show that the new school is required to accommodate pupils who would otherwise have been housed in some other voluntary school if it had not been discontinued or otherwise ceased to be available.

Section 3 of this Act extends the significance of Section 1 of the 1946 Act in that it provides that a Controlled Secondary school can be enlarged at the Local Education Authority's expense, if the Minister is satisfied that the enlargement is desirable for the better provision of secondary education in the premises or for securing sufficient secondary schools in the Authority's area or for both reasons and that the enlargement is not likely to amount to the establishment of a school of a new character.

The 1959 Act is perhaps the most important of the Acts after 1944 in so far as the Aided and Special Agreement schools are concerned. The first reason for this is that Section 1 of the Act increased the proportion of grant payable by the Minister on the legitimate expenditure of the managers or governors from half to three-quarters. Under the same section the Minister was given new powers to pay grants and make loans towards the cost of the provision of a new site and school buildings for a new aided secondary school, if such a school is needed wholly or mainly for children from certain aided or special agreement primary schools. The primary schools in question must have been either established as aided or special agreement schools before the Act came into force on June 15th, 1959 or their establishment must have been approved under Section 13 (4) of the 1944 Act before that date or they must be schools specifically provided to replace such schools.

This then is the brief history of the post-war education acts as they affected voluntary school building. It can be seen that a process of amplification and clarification has taken place and that the trend of the legislation has been to ease the financial burden placed on the Churches in respect of the maintenance, alteration and replacement of existing schools and the provision of new schools. The increase in the proportion of Ministry grant payable on the legitimate expenditure of managers or governors under the 1959 Act, the extension of the meaning of displaced pupils under the 1953 Act, the provisions relating to the

establishment of new aided secondary schools under the 1959 Act - these are examples of the trend.

Another important feature is the evolution of the law in relation to the controlled schools. The difficulty with controlled schools has been that of enlarging them to such an extent as to require the publication of notices under Section 13 of the 1944 Act. No such enlargement was possible under the principal Act. The 1946 Act made it possible to enlarge controlled schools to accommodate pupils from voluntary schools discontinued or otherwise no longer available. The 1953 Act extended this change to the provision of new controlled schools with the same provisos and allowed the enlargement of controlled secondary schools under certain conditions. The reasons for these alterations are obvious. In many cases it is uneconomic and educationally undesirable to build new county schools rather than enlarge existing controlled schools. In Winchester, for example, the boys' Grammar School is controlled, and the provision of a new County Grammar school would have resulted in two small uneconomic schools, unsuited to modern educational practice. Under the 1953 Act the enlargement of the Controlled Secondary school is allowed. The same difficulties arise with the primary schools but unfortunately Authorities are not allowed the same latitude in enlarging these schools. This is a disadvantage that may well be remedied by future legislation. Similarly it is not at present possible for a controlled school to revert to aided status and it may well be that the Church of England and the Free Churches will press for amending legislation on this point. All except two maintained Roman Catholic Schools have aided status,[1] so that this situation does not affect them.

1 Education in 1960 Cmd. 1439 P.151.

Before passing on to a discussion of the aided schools in Hampshire it would be appropriate to survey briefly numbers of aided schools nationally and the bodies who control them and to outline post-war trends in Church school provision. More than one child in five attends a school of distinctly denominational character at some stage in its school life.[1] The Church of England has 3,341 aided schools (there are a further 4,476 Church of England Controlled Schools), the Roman Catholics 2,070 and the Free Churches only twenty aided schools.[2] The attitude of the three Churches towards denominational schools is very different. On the passing of the 1944 Act the assumption in the Church of England was that the schools would all be essentially Christian through the application of an agreed syllabus of religious instruction, regular R.I. lessons and a daily act of worship. The general view was that there was little to be gained from hanging on to aided schools and incurring the unnecessary expense of maintaining them. In fact, over half the Church of England schools became controlled as a result of the 1944 Act.[2] The Roman Catholics, on the other hand, have always taken the view that there should be a place for every Roman Catholic child in a Roman Catholic school.[3] As Bishop Beck put it: "Religion is the keystone of the arch, without which education is an unstable structure or a mass of loose stones. It is the cornerstone, not a mere facing-brick put on to give a dignified appearance to the structure. Its influence must pervade the whole school and dominate the whole of life."[4] Almost all Roman Catholic maintained schools have, therefore, aided status and every effort has been made since the war to increase the number of

1 Church and Schools: 1959 and After. Education 20th October, 1961 P.620.

2 Education in 1960 Cmd. 1439 P.151.

3 This view is admirably summarized in the pamphlet "Why pay for Catholic Schools" - Catholic Education Council 1952 and "Our aim is to teach our children to die loving God. We try to do this by training them to live their whole lives according to the teaching and example of Our Lord with the help He gives us in the Church through the sacraments. We are convinced that the only way to do this is to have our children taught by real Catholic teachers in real Catholic schools."

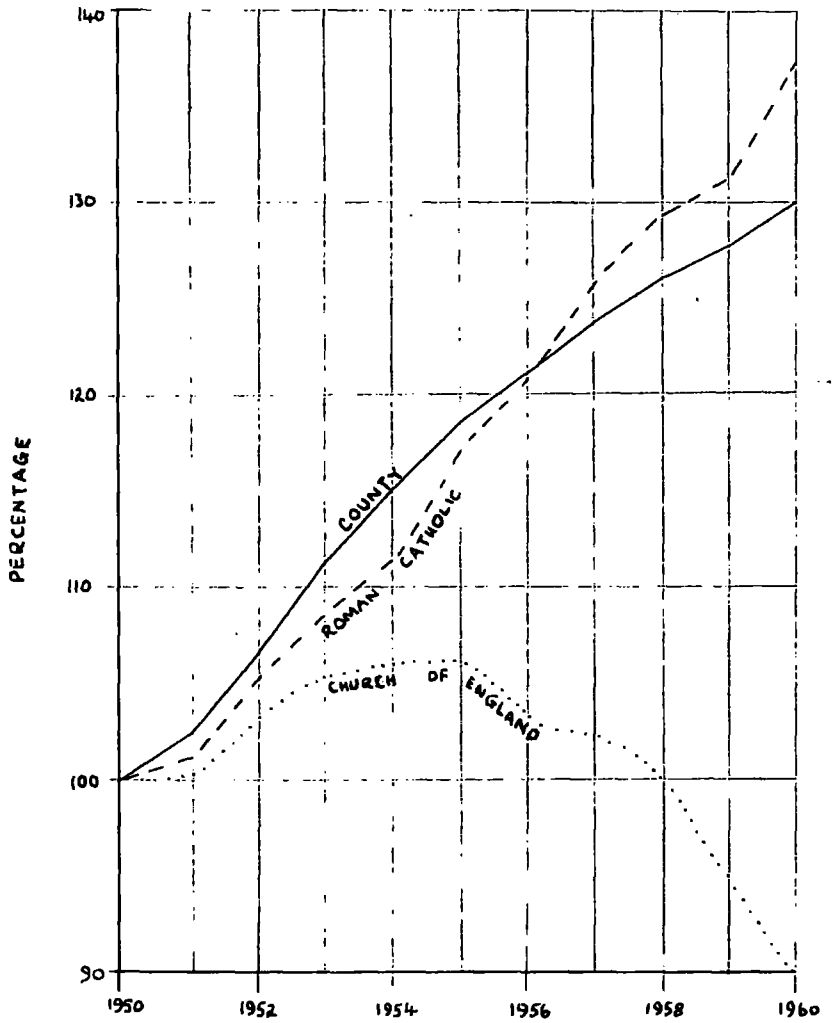
4 Religion in Education: Rt. Rev. G.A. Beck Catholic Truth Society 1952 P.16.

schools and school places. The Free Church Authorities have long opposed the dual system and the fact that their schools, numbering over one thousand in 1895, have decreased to such an extent is evidence of a deliberate policy.[1] As opponents of the Roman Catholics they have often decried "denominational education off the rates" though there is some evidence of change in their official views and policies.[1] The only other body controlling denominational schools are the Jews and their aided schools are intended to cater for the special requirements of orthodox members of the faith and are concentrated on very large urban centres of population such as London and Manchester.[2]

Broadly speaking, then, the two bodies controlling significant numbers of aided schools are the Church of England and the Roman Catholics, and the differences in approach to post-war building problems between the two churches are not difficult to appreciate. Between 1945 and 1960 the Church of England Authorities provided 23,000 new school places and the Roman Catholics 120,000.[3] It is not surprising, therefore, that the Church of England's share of the total school population fell from 17% in 1951 to 12.8% in 1960, whereas the Roman Catholic's share rose from 7.2 to 8.1%.[4] Whereas the Anglican community has spent its funds on improving the stipends of the clergy and in building new Churches, the effort of the Roman Catholics has been directed first and foremost to the provision of new school places. By the end of the 1964/65 financial year the Church of Rome will have spent from its own funds £30,000,000 on the capital cost of new school provision.[5] This is in itself a measure of the zeal and single-mindedness of the Roman Church and the fact that their

1 'The Outsiders' - Church and Schools Education 3rd November, 1961 P.750.
2 Education 3rd November, 1961 P.752.
3 Church and Schools - 1959 and After - Education 20th October, 1961 P.623.
4 Facts and Figures about the Church of England: Church Information Office 1962 P.16.
5 "Education" 20th October, 1961 P.623.

FIGURE I



Percentage change in number of pupils attending County, C of E and R.C. Schools 1950 - 60 (1950 = 100)

Graph reproduced From:
'Church and School : The Insiders' in "Education". 10th November 1961

share in the school system has increased considerably while the Anglican share has declined is not surprising. In this connection part of the Minister of Education's report for 1960 is worth quoting, "During 1960 the Minister approved, under Section 13 of the Education Act 1944, proposals for 606 new primary and secondary schools - 481 county and 125 voluntary. Of the latter 100 were Roman Catholic, 20 Church of England, two Jewish and three undenominational."[1] The preponderance of new Roman Catholic Schools indicates that the Roman Catholic share of the school population is likely to rise even further. Figure I shows the extent of these post-war changes. The fact that the Roman Catholic part of the educational system is the only one which is "permanently expanding as its base" -[2] i.e. in the number of Roman Catholic children - is only a partial explanation. It has been claimed for example that "the expected increase in the total school age population is likely to be entirely in the Catholic community after the beginning of 1972."[3] The expansion of the Roman Catholic school system is the direct result of a deliberate policy, pursued with single-mindedness. The decline in the Church of England's schools reflects the lack of a real policy and direction with regard to denominational schools. It has been suggested that the 1959 Act and the Roman Catholic achievement will lead to a much more positive approach to denominational education on the part of the Anglicans[4] but it is doubtful whether the Church of England will ever muster sufficient financial support from its lay members to match the effort of the Catholics.

The concessions made to the promoters of denominational schools in the 1959 Act were largely inspired by the Roman Catholics. Under the capable leadership of Bishop Beck of Salford

1 "Education" in 1960 Cmd. 1939 P.16.
2 The Post-war Growth of the Catholic Child Population of England & Wales: Catholic Education: A Handbook: Catholic Education Council 1960/61 P.18.
3 Catholic Education: A Handbook 1960/61 P.24.
4 Church and Schools 1959 and After - "Education" 20th October, 1961 P.623.

TABLE III

Figures calculated from rolls and number of schools in September 1961.

SECONDARY GRAMMAR SCHOOLS

	County	Controlled	Aided Church of England
Number of Pupils	8,949	1,150	420
Number of Schools	15	2	1
Average Number of Pupils per School	597	575	420

TABLE II

Figures calculated from rolls and numbers of schools in September 1961.

SECONDARY MODERN SCHOOLS

	County	Controlled	Special Agreement	
			Roman Catholic	Church of England and others
Numbers of Pupils	36,158	868	443	---
Number of Schools	55	3	1	---
Average Number of Pupils per School	657	289	443	---

TABLE I

Figures calculated from rolls and numbers of schools in September 1961.

PRIMARY SCHOOLS

	County	Controlled	Aided	
			Roman Catholic	Church of Engla and others
Number of Pupils	45,601	12,435	1,809	5,735
Number of Schools	195	102	8	56
Average Number of Pupils per School	234	122	226	102

an intensive campaign of political lobbying was carried out[1] and if the results were not entirely satisfactory to the Roman Catholic Church they did go at least part way in satisfying the demand for an easing of the financial burdens on the promoters of aided schools. It is likely that discussions on the dual system will figure much more prominently in political circles in the next few years than has been the case since the war and there is little doubt that the extension of a 75% or greater grant to new aided primary schools together with greater financial assistance to training colleges will have a prominent place in the demands made by the Roman Catholic camp.[2]

Tables I, 2 and 3 show the breakdown of Hampshire schools to County, Controlled and Aided Status. It is interesting to note that over 40% of the primary schools are Church of England schools whereas less than 2% are Catholic Schools. As a rural area there are a very large number of village schools in the County, and many of these are Church schools. It follows that most of these are small schools, housed in old and by modern standards inadequate premises. On the other hand the Roman Catholic Schools are in the urban areas where the number of children of Roman Catholic faith justify their provision. Thus the average number of children per Roman Catholic school is almost as high as that in County schools, whereas the average size of the Church of England schools is less than half that of the County schools. The building problem facing the two Churches in Hampshire is therefore very different. The problem for the Roman Catholics is to expand their existing schools and to build new ones to cater for the increasing Roman Catholic population. As a proportion of live births the Roman Catholic Infant baptisms in the Portsmouth Diocese rose from 6.4%

1 Catholic Education - December 1959.
2 "Why pay for Catholic Schools:" Catholic Education Council 1952 has the slogan - "We ask for fair play:- that is to have our children education according to our conscience without a fine of over Fifty million pounds." (the estimated cost of new Catholic schools in 1952).

in 1938 to 10.3% in 1957.[1] The Anglican problem is to rationalise the large number of small schools into larger units which are educationally and economically more viable, and at the same time to bring existing premises into line with modern requirements. On the primary side the Roman Catholics will have provided, by means of major projects, at the completion of the 1961/62 Programme 480 new school places, and the Anglicans 445. In addition the Roman Catholic Authorities will provide two new one-form entry primary schools outside the Building Programmes and without aid from public funds.[2] In general the Catholics are much more willing to proceed with projects without grant-aid than the Anglicans. On the Secondary Modern and Grammar School side there are only one special agreement Roman Catholic school and one Church of England aided Grammar School, though a further Roman Catholic Secondary School is proposed. The Roman Catholic special agreement school, unlike the Church of England Grammar School, has been provided since the war, so that despite the differences in the size of the two Churches, the Roman Catholic Authorities in Hampshire are following the national pattern in providing more post-war school places than the Anglican Church.

The biggest problem posed for the aided schools since the war has been that of financing their building projects. Until mid-1959 the Ministry paid only 50% grant on maintenance works and alterations to and replacements of existing schools. All new schools had to be financed by the promoters apart from those providing wholly or partly for displaced pupils. The 1959 Act has eased the burden though it has by no means gone as far as most Churchmen would like. It would, therefore, be as well to discuss briefly the methods by which the Churches finance their building projects. Broadly speaking the fund-raising system of the Roman Catholic Church is decentralised, the responsibility resting

1 Catholic Education: A Handbook 1960/61 P.23.
2 Records of the Hampshire Education Department.

largely with the parishes and the local managers. Some help by way of loans and grants can be obtained from the Diocese but it is in the parish itself that the fund raising is done. Often parishioners contribute to the school fund on a weekly or monthly basis and whist drives, bingo and the like help to swell the fund.[1] It speaks well for the local priests and the support of his parishioners that this method has been so successful. The methods employed by the Anglican Church are very different. In 1950 it was decided that it would be advisable to centralise control and responsibility for aided schools ~~ie~~ on the Diocese. The details of the scheme proposed, popularly known as the Barchester Scheme, are set out in a pamphlet issued by the National Society.[2] It was proposed that provided that managers or governors made a specified annual contribution to each of two funds the responsibility for maintenance and development work would be undertaken by the Diocese. The first fund was for maintenance and the managers' annual contribution was calculated at 10/- per head for the first hundred children, 5/- for the second hundred and 2/6d. per head for any remaining pupils. This rule of thumb was given by the Ministry in light of post-war experience.

The second fund was the development fund and the managers' annual contribution was assessed by converting the estimated capital cost of the managers' share of any alteration work or in some cases of the replacement of the school into an annual loan charge. One quarter of the annual loan charge was to be the managers' annual premium which would continue for whatever number of years the Diocese specified. The proportion of one quarter was chosen since this was the amount given by the Minister as being acceptable as evidence of the managers' ability to meet their obligations under the 1944 Act. The effect of this scheme can best be demonstrated by an example. If a school was scheduled to be replaced at an estimated cost of £30,000, the managers' contribution

1 A justification of these methods is given in "Why pay for Catholic Schools" Catholic Education Council 1952.
2 "The Church and the Financing of Aided Status," Canon R.R. Barley - 1950.

was worked out as follows:-

a) Capital Provision

Capital cost of the transferred school	£30,000
Deduct proceeds of sale of old site and buildings	3,000
	£27,000
Deduct 50% Ministry grant	13,500
Managers' capital deficit	£13,500
Deduct funds already in hand	500
	£13,000
Convert this into annual loan charge at, say, 5½%	£715
Deduct income from endowment	15
	£700
Annual premium to be raised to secure aided status, one quarter of this balance	£175

b) Maintenance Provision

Maintenance at 10/- per head for 100 children	£50
Maintenance at 5/- per head for 80 children	£20
Total to be raised each year	£245.

In the Winchester and many other Dioceses this scheme or some variation of it was adopted. It had the advantages of centralising and simplifying the administration of financial control and of converting the large sums required for capital development into manageable sums which managers would be expected to raise. Its drawbacks are equally obvious. First it is based like the Development Plan on the premise that building costs and Ministry regulations would be stable and that the building effort would be of the once and for all kind. Secondly, it made no provision for the establishment of new aided schools - i.e. for the expansion or maintenance of the Church of England's share in the

educational system. In the Winchester Diocese the annual premiums are still paid on the basis of estimated building costs prepared in 1952 and no modification to the scheme has been made as a consequence of the raising of the Ministry grant to 75% in 1959.[1] The question of increasing the annual contributions was raised in 1961 but the Diocesan Conference decided instead to make an annual contribution of £6,000 to the Development Fund. This sum is to be produced by a levy on all parishes, and not just those maintaining aided schools. The managers' contributions are to continue for a fifty year period starting in 1952. If managers preferred to complete their capital quotas before this time capital sums so contributed would accumulate interest.

The main difference between the methods of financing school building of the two churches is that the Anglican method is conservative and aims at maintaining, adapting and replacing existing schools, whereas the Catholic policy is expansionist. If every Roman Catholic child is to have a place at a Roman Catholic school it follows that new schools must be built, many of them without grant aid. The responsibility for raising the necessary capital is placed on the parish and in particular on the parish priest. This method would probably have been unworkable in the Anglican community since the support of local Churchmen for denominational schools is far less than that encountered in the Roman Catholic Church.

One of the problems which has been apparent and become increasingly more so is the lack of experienced administrators and technicians needed to implement Church building programmes.[2] Most of the Anglican Dioceses have a clergyman supervising and administering building matters on a part-time basis, and there are, of course, Diocesan Committees to advise Managers and decide on building policy. Often lay members of the Church help on a voluntary basis. This kind

1 Minutes of the Winchester Diocesan Aided Schools Finance Sub-Committee January 1962.
2 Estimates Committee 1961 P.57.

of arrangement cannot, however, compete with the organisation of Local Authorities with their experienced staff of administrators, architects and the like and it follows that the Church building effort is less efficiently organised and administered than is desirable. The rate of Church school building and the condition of existing schools is thus markedly worse than that found in County schools.

In this respect, too, the Roman Church seems to have the advantage. Although the same system of priests working part-time and laymen helping on an honorary basis applies, the Roman Catholic community is much closer knit and often the Local Priest is able to call on the assistance of experienced lay members of his faith - the bank manager, the builder, the architect. As a result the Roman Catholic building projects often mature much more quickly than those of the Church of England.

It is apparent that a much larger proportion of the building programme of the 1960's will go the Church schools[1] and it is obvious that without some streamlining of their organisation the Churches - in particular the Anglican Church - will be unable to fulfil the demands made on them.[1] It is possible that the organisation of the Church of England at Diocesan level could be supplemented by paid, full-time officials. Alternatively a closer integration of aided school bodies and Local Authorities and a greater use of the resources and experience of Local Authorities will be needed if the Church schools are not to become the poor relation of the County Schools. So far this account has been concerned principally with the schools and before concluding it will be necessary to examine the history of further education building since the war and in particular the Hampshire further education building.

1 This was stated by the Ministry's Officers at the School Building Conference held at Reading in April, 1961, and it was also said that a significantly higher proportion of Church school projects than Authority projects failed to start by the specified date.

CHAPTER VIII

FURTHER EDUCATION BUILDING 1945-1962

The statutory duty of local authorities to provide adequate facilities for further education is laid down in Section 41 of the 1944 Act. Further education is defined as full and part-time education and leisure time occupation for persons over compulsory school age. As in the case of primary and secondary education authorities were to prepare a development scheme giving particulars of their proposals for fulfilling their duties with respect to further education and they were to submit it to the Minister of Education at a time he would specify. The Minister could modify the scheme, after undertaking whatever consultation with the Authority he thought expedient and thereafter approve the scheme. The approved scheme would then be put into effect by the Authority by such measures as the Minister after consulting the Authority might direct. Schemes of further education could be amended or revoked by the Minister as he thought necessary. They were, moreover, to be prepared by the Authority after consultation with any universities, educational associations, adjacent local authorities and other bodies. In the same way each local authority was to prepare a plan for the provision of county colleges in its area[1].

In fact the Hampshire Authority's Development Scheme for Further Education submitted to the Minister in October 1948 combined the plan for county colleges and the scheme for the further education facilities required under the 1944 Act. Some of the assumptions made in drawing up the plan, especially with regard to population, are interesting in that the event proved them unwarranted. It was assumed that "Hampshire will remain substantially one of the amenity areas of England, rural in its general aspect and with no great increase in manufacturing industries[2]." In accordance with the Registrar General's

1 Section 43(2) Education Act, 1944.

2 Hampshire County Council Education Committee: Development Scheme for Further Education, October 1948 - P.2.

estimate, it was assumed that the population in 1962 would be 601,000. In fact a much greater development of industry and a greater increase in population has occurred than was foreseen. The reasons for this unexpected increase in population have already been examined in an earlier chapter. Briefly, the main factors were the accommodation of overspill population - particularly from Portsmouth, the development of existing industries, the establishment of new industries - the Atomic Energy Establishment at Aldermaston and the Esso refinery at Fawley, and the influx of population to the County - in particular to the amenity areas of the coastal belt. The County population in 1961 was in fact some 757,000. It follows naturally, that the facilities required for further education were under-estimated. This under-estimate was not confined to Hampshire. The Ministry of Education have admitted: "In technical education it was estimated in 1949 that a total post-war investment of some £50,000,000 would be necessary before the country could claim that it had the minimum facilities needed. But it soon became clear that this estimate was far too low, and in 1956, the Government announced a five-year plan to start major building projects for technical education valued at £70,000,000 in England and Wales ..... This plan has now been extended by a further three years to the end of 1963/64 to cover the start of major projects worth £45,000,000[1]." Since, however, the same detailed forecasts of future provision as those needed for the Development Plan for Primary and Secondary Education were not required, this under-estimate of the likely needs is less obvious and important.

There were no facilities for advanced further education courses in the County administrative area in 1945, though the Authority did contribute to the maintenance of University College, Southampton, and otherwise assist persons from the County to take advantage of advanced courses at establishments

1 Estimates Committee 1961 - P.14.

provided by the authorities of adjoining Boroughs. The only full-time further education courses were at the Winchester School of Art, one of the constituent schools of the Southern College of Art and at the County Farm Institute at Sparsholt, where hostel accommodation for forty students was provided. Part-time day facilities were provided at the Basingstoke Technical Institute and evening courses were available at the Farnborough Technical Evening School and various evening institutes and classes throughout the County. In addition the Royal Aircraft Establishment at Farnborough provided specialised courses under the direction of the Ministry of Supply. It was therefore evident, that, although it was not proposed to establish any advanced centres of technical education within the County Council area, the facilities existing in 1945 were woefully inadequate to enable the Authority to carry out its statutory duty with regard to further education.[1] The proposals for County Colleges need not be examined, since it seems that County Colleges are likely to remain a dead letter for a considerable period. This is to be deplored since the County Colleges and the Technical Colleges and Institutes were to be the foundations of the further education system envisaged in the 1944 Act. The Development Scheme proposed a Technical Institute at Farnborough. At the instigation of the Minister, it was decided that the R.A.E. College and the Technical Evening School should be integrated. Further Technical Institutes were proposed at Basingstoke, where it was envisaged that the former Grammar School premises would be suitably adapted, and at Eastleigh. In addition local colleges at Andover, Fareham and Gosport were proposed together with smaller colleges at eight other urban centres. It was also envisaged that the County Farm Institute would be expanded to accommodate eighty students in hostel accommodation, and the School of Art replaced by new premises.

1 This account is a brief summary of the Hampshire Education Committee's Scheme for Further Education 1948 - Pp. 1 & 2.

Almost all the capital available up to the mid 1950's was expended on the provision of new school places at primary and secondary schools. Some priority was given during this period to the provision of technical facilities in the larger urban areas, where the need was obviously more pressing than in Hampshire generally. In fact the Hampshire Authority was given permission to build only the first phase of the Farnborough Technical College before the 1956 White Paper on Technical Education which promoted a new government drive to increase the number and improve the facilities of technical education institutes.

The 1956 White Paper[1] arose from the Government's realisation of the urgent need for more scientific manpower, in the form of technologists, technicians and craftsmen. The rate at which Russia and the United States were producing scientists and engineers was - and indeed still is - far in excess of that in the United Kingdom. If Great Britain was to hold its place as a leading industrial nation, then a greater proportion of the capital available would have to be expended on facilities for technical education. Moreover the success of the schools in promoting the growth of science studies had increased the existing demands for more advanced courses. The White Paper therefore announced[2] a five-year programme of development, the aim of which was to increase by one half the output of students from advanced courses at technical colleges with a proportionate increase at the lower levels of technical education. The first five-year programme, 1956-1961, was to cost £70,000,000. The programme for the first year 1956/57 was to be of the order of £9,000,000 which was £2,000,000 more than the previous programme and £4,000,000 more than the 1954/55 Programme. The 1957/58 and 1958/59 programmes were each to be worth £15,000,000. In addition to

1 Technical Education Cmd. 9703 1956 - P.38.
2 Cmd. 9703 - Ps. 21 and 22.

the £70,000,000 for building work a further £15,000,000 would be spent on equipment. In order to ease the problem of Authorities with regard to planning and land acquisition the notice given for programmes was to be increased from one to two years. Thus the 1959/60 Programme was approved in the Spring of 1957. Apart from the general aim of increasing the output of technicians, technologists and craftsmen, the White Paper also promised that Advanced Colleges of Technology would be created from Colleges already offering appropriate advanced courses and that new Advanced Colleges would be built. In addition it was hoped to increase the number of girls taking technical courses.

In Hampshire the effect of this new policy was felt almost immediately. The first phase of the Basingstoke Technical College and the second phase of the Farnborough Technical College were approved for the 1957/58 Programme. Eastleigh Technical College was included in the 1958/59 Programme and the third phase of the Farnborough Technical College in the 1959/60 Programme. Thus the three large Colleges envisaged for the County in the Further Education Development Scheme were largely provided as a result of the 1956 White Paper. The effect of the new emphasis is apparent from a comparison of the Further Education major projects approved nationally between 1946 and 1956 and those approved between 1956 and 1960. In the first period work to the value of £39,205,000 was approved - an average of £3.92m. per annum; in the second the figure is £69,232,000 - an average of £13.84m. per annum[1]. In Hampshire the financial comparison is equally marked. Moreover the facilities provided were very much more ambitious than those originally envisaged. For example, it had been thought that the Technical Institute at Basingstoke would continue in the former Grammar School premises for a considerable period. In fact a completely new College was provided on a nearby site in addition to the existing facilities.

1 Figures taken from Education in 1960: Cmd. 1439 - P.306.

It is important to note that further education projects have been programmed separately from primary and secondary school projects. This is understandable, since the criteria for assessing an Authority's needs with regard to primary and secondary schools are not the same as those applying to the need for technical facilities. Similarly limits of cost cannot be applied to technical colleges in the same form as for schools. Planning and design problems are also different from those at schools. Before looking more closely at the Hampshire Technical Colleges it would be appropriate to summarise the general aspects of planning and costing such projects.

Further education colleges unlike the schools cater for a variety of age groups and a diversity of interests. The courses offered range from those of a general educational type to highly specialised post-graduate work and the individual colleges can either cater for all or part of the whole range or for a relatively small and specialised section of it. One of the post-war concerns has been to recognise and promote the cultural and social function of the colleges[1]. All these factors have their effect on the design of such establishments.

The Ministry of Education have picked out[2] several major design problems associated with Further Education College buildings of which three are of particular significance. The first is the diverse and constantly changing needs served by the Colleges. From this it follows that the building provided must be adaptable to changing circumstances. The possible need for enlargement and external adapations should be recognised. The size of the site should thus permit additions to the original structure and internal partitions should be removable. Similarly it should be possible to alter the services provided. Secondly Technical Colleges are large, complex and costly buildings. Maximum use should therefore be made of the accommodation

1 Technical Education Cmd. 9703 1956 - P.22.
2 Ministry of Education Bulletin No. 5: Colleges of Further Education, September 1959 - P.32.

provided and the plan should aim at economy and compactness. Thirdly in view of the limited resources available many colleges have to be built in instalments. The instalment must however be a workable educational entity and the whole of the project must be planned at least in outline so that further instalments can readily be constructed.

The first stage of planning consists of the preparation of a schedule of accommodation. If the project is only an instalment, it is also necessary to prepare a schedule for the complete scheme. Each schedule is dependent on the courses to be offered and these in turn depend on the area the college is to serve and the industries existing or anticipated in the area. It is therefore necessary to assess the long-term needs of the area in order that the schedule can be properly compiled. The accommodation is classified under four heads - teaching, administration, communal, circulation and ancillary. The teaching area is, of course, the core of the schedule and the remainder of the accommodation must stand in a proper proportion to it. The size and nature of the teaching area is therefore decided first, then the administrative and communal areas are settled on the basis of the maximum student capacity of the teaching accommodation. For example, if the teaching area can accommodate 1,000 students, the refectory and kitchen must be capable of serving whatever proportion of this number of students are expected to take meals, and the common rooms must be planned on the same principle. When these areas are decided one quarter of the total in the case of workshops and one third in the case of the other accommodation, is added for circulation and ancillary space[1].

The size of most teaching rooms is dictated by the number of students they are expected to house, though in some cases (e.g. the textiles workshop) the size is dictated by the equipment to be installed. Wherever possible the Ministry has laid down[2]

1 This procedure is described in the Ministry Building Bulletin No. 5: Colleges of Further Education 1959 - P.7-25.
2 Building Bulletin No. 5 - P.11.

a specific area per student for each type of teaching accommodation. Metalwork shops, for example, should give 90 square feet per student, general classrooms only 20 square feet. In the same way the Ministry recommend specific proportions for storage in the various departments.

The area of administrative and communal accommodation required is calculated roughly according to the number of students. The Ministry suggest[1] a scale for arriving at the total area required. A college for 500 students should have administrative and communal space on the scale of 21 square feet per student, a college with a maximum student capacity of 2,500 should have 9.5 square feet per student. In other words a large college requires fewer square feet per student than a smaller one. Of this total approximately one quarter would be for administration and the remainder for communal rooms. The actual rooms provided will depend on local circumstances. An assembly hall and gym for example may or may not be necessary. The only rules laid down for the size of individual rooms relate to the kitchen and dining hall, 12 square feet per diner being allowed for the dining hall and the kitchen size being regulated precisely according to the number of meals it is to serve.

From the area allowed for circulation and ancillary accommodation the architect has to provide the entrance hall, corridors, staircases, lifts, lavatories, cloaks and locker spaces, boiler house, cleaners' stores and maintenance rooms. Any saving made in this allowance can be used to improve standards of finishes or to provide extra communal space. No additions to the approved schedule of teaching accommodation are permitted from any savings on the allowance for circulation and ancillary space.

Scales of sanitary fittings are similarly laid down[2]. For students six w.c's are required for the first one hundred, and thereafter five w.c's for each further hundred students. For staff the scale lays down three w.c's for the first twenty

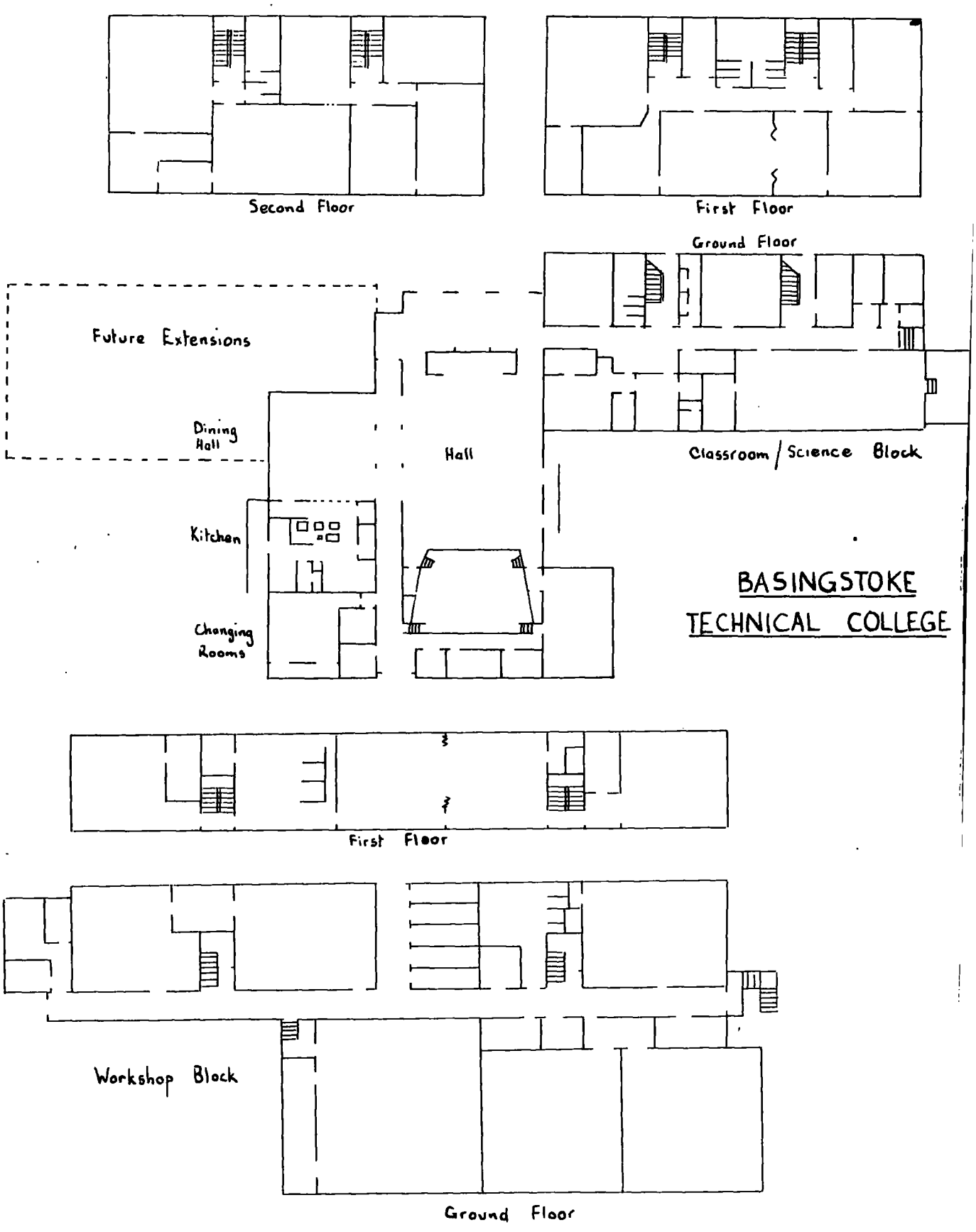
1 Building Bulletin No. 5 - P.15.

2 Building Bulletin No. 5 - P.22.

and one w.c. for every fifteen thereafter. Washbasins are to be provided on the scale of three to every five w.c's. This scale of provision for sanitary fittings is rather lower than that applicable to schools - understandly so since students do not remain in the college all day and it is only at peak periods that the college would contain its maximum number of students.

Because different courses often require different amounts of teaching accommodation and because some types of teaching accommodation are more expensive to provide than others it has not been possible to devise a reliable yardstick regulating college building costs based on a limit of cost per place or per student. Workshop accommodation because a high standard of finish is not required is less expensive to provide per unit of area than general classrooms. It follows that a college requiring a high proportion of classroom space would be relatively more expensive than one requiring a high proportion of workshop space. The Ministry have therefore adopted a costing system similar to the one used for school extension projects whereby the cost limits are based on an allowance for each square foot of accommodation, workshop accommodation being allowed less than the other rooms in the college. The actual limits of cost per square foot have varied over the years but are currently 75/- per square foot for workshops and 95/- for other accommodation.[1] As an example from the Hampshire colleges will show more clearly how this cost system is applied. For the Eastleigh Technical College the appropriate limits of cost were 65/- for workshops and 85/- for other accommodation. The workshop area provided was 13,533 square feet and the associated circulation space 2,358 square feet, giving a total of 15,891 square feet. At 65/- per square foot this gives a total of £51,646. The other accommodation totalled 37,011 square feet and the associated circulation and ancillary area 12,154 square feet, giving a total of 49,165 square feet. At 85/- a square foot this gives a total of £208,951. The total nett cost limit was therefore £260,597 to which the normal allowance

1 Ministry of Education Circular 8/61 dated 31st May, 1961.


Second Floor
First Floor
Ground Floor
Future Extensions
Dining Hall
Hall
Classroom / Science Block
Kitchen
Changing Rooms
BASINGSTOKE
TECHNICAL COLLEGE
First Floor
Workshop Block
Ground Floor

of 10% for additional costs is added to give the gross cost limit for the project of £286,657. It will be noted that the circulation and ancillary areas provided for the workshops are 14.8% of the total and for other accommodation 24.7%. A saving was made in this case on the proportions allowed, which could be used on other aspects of the college.

Since the courses catered for and the accommodation provided are different from college to college, their planning has tended to be less uniform and more individual than in the case of schools. To use the Ministry's words Technical Colleges are "each a unique answer to a particular set of local circumstances[1]." It is possible to provide, for example, a four form-entry secondary school in one area, almost identical with a school of the same size in another area. Indeed, the Hampshire Authority have made it a policy to provide a number of schools using the same plan form, with consequent saving in time and expense. The plans for the three technical colleges are, however, very different as they differ not only in size but in the types of courses offered and consequently in the accommodation provided. Nevertheless a number of planning principles are common to all technical college designs. Figure 1 is the plan of the Basingstoke Technical College. It can be seen that the accommodation has been located with particular regard to areas or zones of noise. The heavy workshops for engineering and building subjects at the rear of the separate workshops block are in single-storey construction and their associated laboratories are in close proximity in the two-storeyed building which screens the main building from the noise of the heavy shops. The class and specialist rooms and the library are placed as far away as possible from the noisy areas. This principle of locating areas according to noise is basic to modern technical college design.

Future extensions are shown on the plan in outline. Again the problem of phasing these large buildings is often encountered and the only principle of planning the whole although only part is

1 Estimates Committee 1961 - P.18.

built initially operates at Basingstoke as at other colleges.

The virtue of using land economically by multi-storey building and by integrating the larger spaces is practised here. Thus the laboratories are in a two-storeyed and the classrooms in a three-storeyed structure and the halls, kitchen, refectory and associated rooms grouped in a single complex linked to the classroom block. Circulation space is kept to a minimum. For example the laboratories at first floor level are not linked by corridors, two staircases being the only circulation space; the same applies to the classrooms on second floor level, whilst even the first and ground floor classrooms and administration rooms open off both sides of a central corridor. Similarly an attempt is made to extract the most value from the larger spaces - the assembly hall serving also as a gymnasium, the entrance hall as exhibition space. In the same way the changing rooms serve for drama and physical education purposes. Most Authorities have adopted similar means to use land and the space provided economically[1].

Every effort has been made to allow flexibility in the use of the accommodation. Two drawing offices are provided, the partition between them being sliding, folding doors, so that one large room can be formed if desired. The assembly hall can be joined to the refectory in the same way to give a very large space for public functions and the like.

All these problems - the economic use of land and of the accommodation provided, noise, phasing, flexibility - arise in designing primary and secondary schools and the lessons learnt from school building with regard to economic and functional design have been applied to the Technical Colleges.

The design problems are, however, different in degree. The noise factor for example is much more important in Technical Colleges than in the schools. Moreover, a College of Further Education is essentially an adult building and the Common Rooms, and refectories, must reflect this. A school dining hall should

1 Estimates Committee 1961 - P.14.

be planned for ease of service and supervision and should ideally be a relatively small space in which good social habits can reasonably be fostered. A College refectory, on the other hand, might well be planned on the lines of a good commercial cafeteria. In the same way it is acceptable for Technical Colleges to be designed on a more functional basis than the schools. Whereas an Infant classroom to some degree seeks to reproduce the setting of the home, Technical College classrooms proclaim their purpose more clearly and for this reason a more formal and functional arrangement of teaching spaces and a greater reliance on multi-storeyed buildings is usual.

New schools have been provided since the war essentially to accommodate the increase in the child population. Technical Colleges have been provided partly to provide better facilities for existing courses and to meet existing demands and partly to foster and encourage the inception of new technical courses[1]. In Hampshire the facilities provided at Eastleigh, Farnborough and Basingstoke are for the time being at least more than equal to the local demand. In fact local secondary schools make use of surplus practical and class rooms at the Eastleigh College. In Hampshire, therefore, the provision of good technical facilities does not only proceed from the existing needs but is intended to promote and stimulate greater interest and participation in technical courses. Whereas the majority of the secondary schools accommodate as much as 40% more pupils than they were built to house[2], the Technical Colleges are operating well below capacity. It must, of course, be recognised that Colleges of the sort provided are a new venture in Hampshire and inevitably it will take some years before the public and employers make full use of them.

Agricultural Education is of particular importance in Hampshire and it is not surprising that it was one of first constituents in the County of what is now known as further

1 Technical Education Cmd. 9703, 1956 - P.20.

2 Letter from the County Education Officer to the Ministry, January 1962.

education. The Residential Farm School was opened in 1899 "to provide instruction in the science and practice of agriculture and gardening, but particularly to make the practical approach as nearly as possible to business conditions, consistent with educational purposes[1]." Now transferred to Sparsholt and enlarged till it comprises 436 acres of farmland the County Farm Institute has figured prominently in post-war building programmes. The Development Scheme for Further Education envisaged an increase from 40 to 80 resident students. In fact a new Assembly Hall and male study bedrooms were provided in 1953/1954 and a women's hostel in 1960. A development programme phased over a number of years and starting in 1962/63 is to increase the boarding accommodation to cater for 100 students as well as improve the farm and teaching facilities[2].

The other specialist further education establishment in the County - the School of Art - is to be replaced by a new building as part of the 1963/64 building programme[3].

The Youth Service

Although the Youth Service is not explicitly mentioned in the 1944 Act, it is clear that sections 41 and 53 give the Minister power and lay upon the local authorities the duty of providing and maintaining an efficient Youth Service. However, during the 1940's and 1950's all the available capital was directed to the provision of new school places and the expansion of facilities for technical education. Leisure time facilities for youth became very much a neglected sector of the education service and it was in order to investigate the needs of the Youth Service that the Minister of Education in November 1958 appointed the now famous Albemarle Committee. In its report presented to Parliament in February 1960 the Committee expressed its concern

1 Residential Farm School, Old Basing - Prospectus 1900 - P.1.
2 Report of the County Education Officer to the Agricultural Education Sub-Committee, November 1961.
3 Report of the County Education Officer to the Education Building Sub-Committee, 14th March, 1962.

at the "state of acute depression[1]" in the Service and outlined the problems which needed to be attacked immediately. The effect of the "bulge" was being felt in the adolescent age group and this effect would become progressively greater; social changes had similarly created a gap between adult society and young people. The existing facilities provided by authorities and voluntary bodies were totally inadequate even to cope with the existing problem and could hardly be expected to serve the increasing population of adolescents. The Committee recalled that it was in 1939 that the Board of Education took over "a direct responsibility for youth welfare[2]" and this responsibility was continued under the terms of the 1944 Act, and they found that between 1945 and 1957 there was a fall of one quarter in actual expenditure by the Ministry of Education on the Youth Service, and that in 1957/58 "of every pound the Ministry and the Authorities spent on education about one penny went on the Youth Service[3]." The Committee therefore concluded: "The Minister has been unable to exercise effectively his function of guiding local education authorities in the development of policy and of ensuring the performance of their duties under the 1944 Act, since he has been unable to release the funds that would be necessary to implement the Act's requirements[4]."

As a result of their findings the Albemarle Committee recommended the setting up of a Youth Service Development Council to advise the Minister and enquire into the problems facing the Service. The Minister's administrative arrangements for the Youth Service should be overhauled, local education authorities should each establish a sub-committee of the Education Committee to direct local policy on the Youth Service. Most important a ten year programme of development should be inaugurated to rehabilitate the Youth Service and

1 The Youth Service in England and Wales Cmd. 929, 1960. P.1.
2 Board of Education Circular 1486, March 1939.
3 The Youth Service in England and Wales Cmd. 929, 1960. P.8.
4 Cmd. 929 - P.11.

equip it for the expansion that would be necessary. Local authorities should accordingly revise their development schemes for further education and make proposals to the Minister for the development of the Service in their areas[1].

The recommendations of the Committee regarding Youth leaders, finance and administration generally are not relevant to this context, but the recommendation as to the form youth facilities should take are interesting in that they lay down specific lines of approach which have since been investigated by authorities. The Committee envisaged Youth Club facilities, approximating to those offered by a college union, with good decorations in good colours, modern appearance, a coffee bar rather than a canteen, together with a reading room, a listening or viewing room, games and committee rooms. To obviate the criticism that the provision of expensive buildings for purely part-time use was wasteful the Committee suggested that where practicable provision for Youth should be made in secondary schools, if possible at the earliest stage of planning. In this way the club could share the facilities of the School. Similarly the Committee recommended the establishment of Youth Clubs on sites acquired for future County Colleges and the integration where feasible of Youth and Community Centre facilities. In addition the Committee hoped that specially designed Youth Centres would be established in new towns and new housing estates, and Residential Centres provided for Youth leaders and young people.

In a statement in the House of Commons on the 3rd of February 1960 the Minister welcomed the report of the Albemarle Committee and announced that he would initiate measures which would given effect to the main recommendations requiring Government action. A £35m. building programme for the Youth Service for the period 1960/62 was announced by the Ministry. In common with other building programmes, the sum allocated was

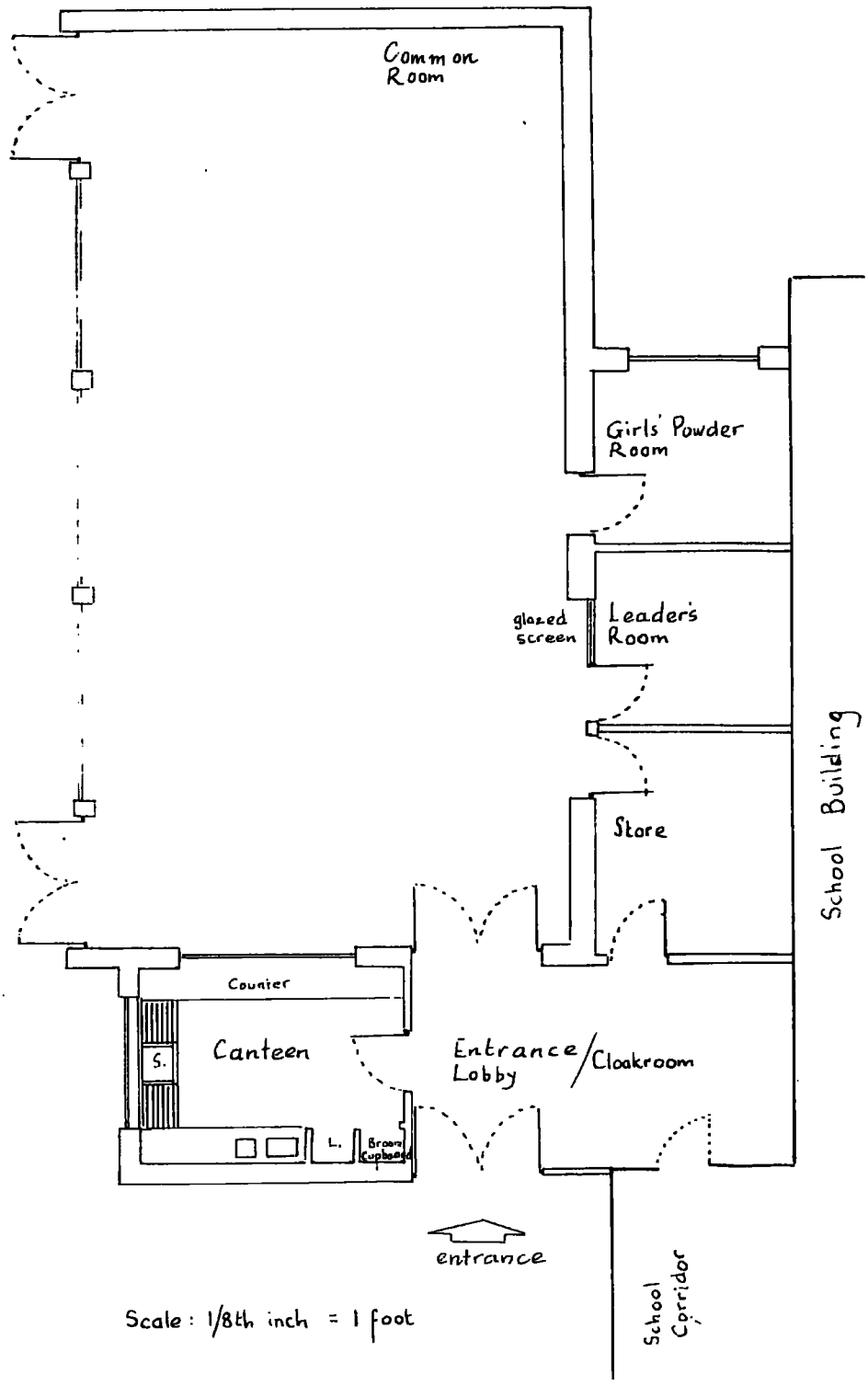
1 Cmd. 929 - P.109

2 Ministry of Education Circular 3/60 dated 31st March, 1960.

intended to cover only the cost of new buildings and the adaptation of existing buildings and was not intended to cover the cost of land, existing buildings, repairs and maintenance, furniture and equipment and fees. In addition projects costing less than £1,000 were to be charged to Authorities' minor works allocation and not to the Youth Service Building Programme. Authorities were asked to submit projects for inclusion in the programme and to follow the normal approval procedures as for major projects despite the relatively small cost of each Youth project in order that information could be accumulated and disseminated by the Ministry. Arrangements were announced whereby Youth Club facilities could be incorporated into the plans for new Secondary Schools, or community centres, and the cost charged to the Youth Service Building Programme. In addition the Minister urged authorities to take account of the wishes and tastes of the young people who would use the facilities provided. In the same circular the Minister asked voluntary bodies to submit their proposals for inclusion in the programme. Any voluntary project included would attract grant, usually not exceeding 50%, under the Social and Physical Training Grant Regulations, 1939.

In some ways the Hampshire Authority had anticipated the Albemarle report and the subsequent action by the Minister. Facilities for youth had been provided at a number of Secondary schools and in fact a large youth club room and ancillary accommodation was already at an advanced stage of construction when the Albemarle Report was presented to Parliament. All these facilities had had to be charged to the Authority's major and minor programmes and the announcement of a separate allocation for youth projects was a welcome relief. In fact the Authority's allocation for the 1960/62 period was forty thousand pounds. From this sum it was originally hoped to construct youth wings at eight secondary schools, but on more detailed planning and cost analysis this number has been reduced to six. In view of the relative ignorance regarding the requirements of youth clubs and the lack of time available for planning, it was decided that

BAUGHURST THE HURST SECONDARY - YOUTH WING



these six projects should be split into two batches of three, the youth wings in each batch to be as nearly as possible identical. All were to be on secondary school sites so that they could use existing facilities. The first batch were to be "attached" wings with access if possible to the school hall or gymnasium. In the event this has not proved possible in each case. The second batch were to be larger and more self-contained and were to be separate from the actual school building, although sufficiently near to make use of the school accommodation as required.

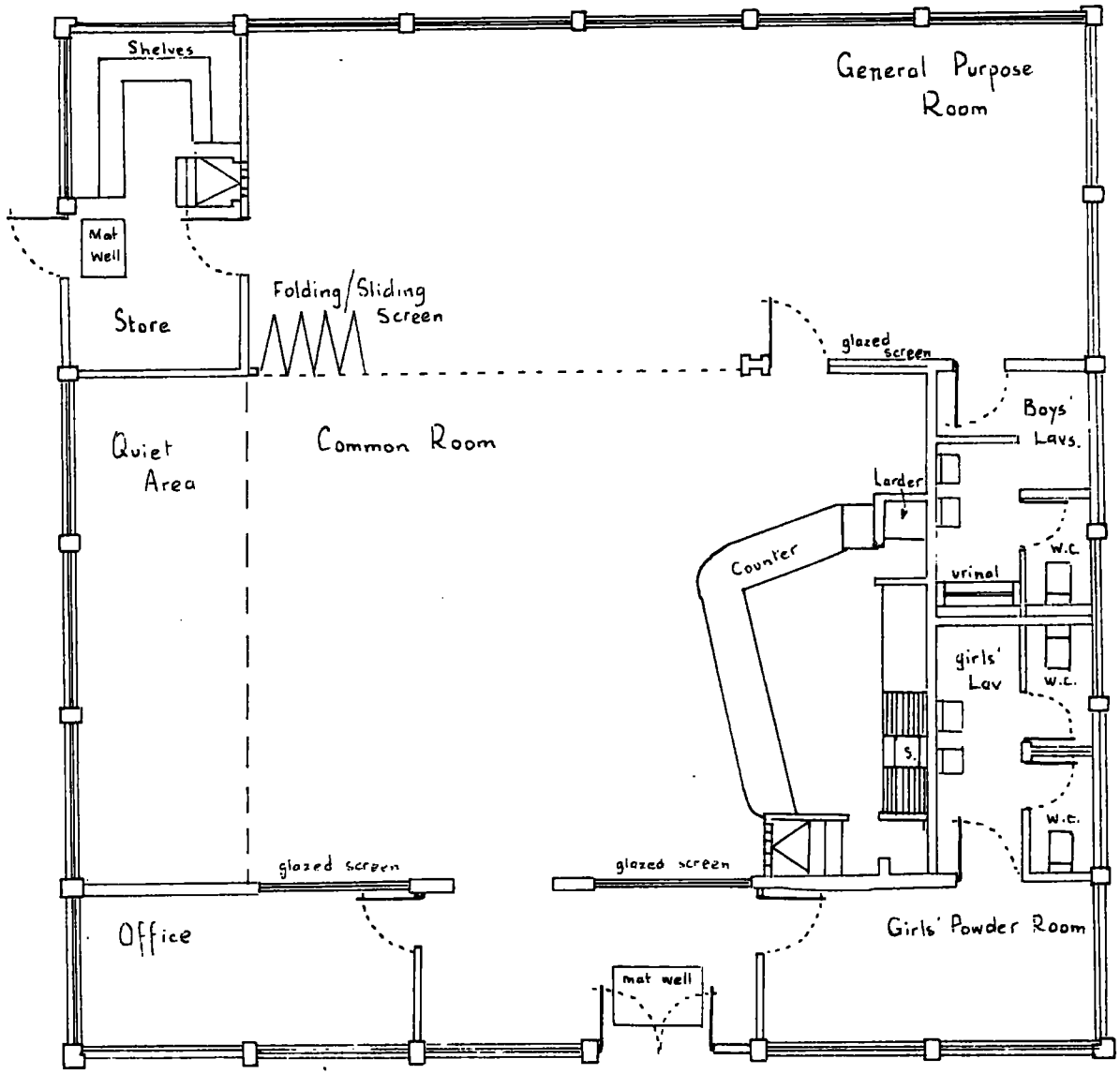
Figure 1 shows the Youth Wing at the Hurst Secondary School at Baughurst, one of the first batch of three wings. The facilities provided consist of a common room, leader's room, store room, and girls' powder room. No attempt is made to make the club self-contained - for example no toilet provision is made - the school accommodation being regarded essentially as part of the club facilities.

A comparison of this accommodation with that recommended recently by the Ministry for Youth Wings incorporated into Secondary Schools is revealing. The Ministry say:-[1]

"The accommodation provided solely for the use of the club should be enough to provide a satisfactory base for its social life at times when the school is closed ..... The essential needs are a club room and social area on the lines of paragraph 47 - 54 ..... Some separate cloakroom and lavatory accommodation is also essential for the Club to function as an independent unit. ..... The separate youth accommodation for an average nightly attendance of 120 included in the design of a new school or college might comprise a total area of about 2,500 square feet and be disposed as follows:-

A social area linked to a practical area	1,600	sq. ft.
Other activities	300	" "
Leader's office	120	" "
Cloaks, etc. storage	500	" "
	2,520	sq. ft. "

1 Building Bulletin No. 20. Youth Service Buildings, General Mixed Clubs, 1961 - P. 32-33.



PORTCHESTER

YOUTH WING

Scale: 8ft = 1inch.

The first batch of Hampshire clubs certainly do not measure up to these recommendations. They are not self-contained, they do not have their own toilet accommodation, there is no practical activity space, the floor area provided amounts to only 1,500 square feet. The Hampshire clubs were of course planned before the Ministry had issued any guidance on the planning of youth buildings and were restricted in space and facilities with a view to spreading the County's allocation for the 1960/62 period over a larger number of projects. There is no doubt that this was a mistake. The grounds for building clubs of limited size were that they could use the school gymnasium, assembly hall, practical rooms and classrooms, if required, and that toilet accommodation was readily available at the school. The fact that the clubs would not be self-contained was fully appreciated and felt to be justifiable. This was largely because the Authority was under pressure from several Local Groups to provide accommodation for existing clubs and in order to satisfy the most pressing demands the money available had to be shared between rather more projects that it could adequately cover. The resultant lack of independence may, however, prove a severe handicap to the Youth clubs.

The second batch of these clubs were also designed before the publication of the Ministry's recommendations but they mark a distinct advance over the first batch and a closer approximation to the official policy. This advance lies not so much in a better design by the architect as in a revision of the brief presented to him. Figure 3 is the layout of the youth club at Portchester. In this case the club is detached, though close to an entrance to the school. Moreover, it is self-contained and affords more generous facilities than the previous ones. The overall area is approximately 2,000 square feet and the plan is of the 'open' type preferred by the Ministry, consisting essentially of a bar area, a quiet area and a practical/games space together with leader's room, stores and cloak and toilet accommodation. Both this and the previous batch of clubs reflect the generally accepted policy of

equipping and designing clubs in a contemporary "coffee-bar style", and of inducing "unattached" youths into the club by its brightness and gaiety and then allowing them to see exactly what goes on inside without having to leave the bar and venture through doors into other rooms[1]. This second batch of clubs, of which Portchester is one, represents a break with the Authority's original policy of "spreading the jam." This change of policy was brought about by two factors. In the first place the Authority's advisers on the Youth Service had become convinced that more space was needed if the clubs were to function properly. In the second place, the views of the Ministry were becoming known through contact with its officers and those of the Authority even before the publication of Bulletin 20 and this too had its effects. It is likely that the plan of the Portcheste wing will become the basis of the clubs for the 1962/63 programme.

The Hampshire Authority is also to include youth club facilities as an integral part of the plan of their latest secondary schools. The advantages of designing the club with the school are obvious. It is cheaper to do so and the accommodation can be placed from the outset in a proper relationshio to the spaces the members will utilize in the school, i.e., the hall and gymnasium.

The kind of link between club and hall which had to be provided at the Baughurst School since the school was already in existence is little more than adequate and planning club and school at the same time removes this difficulty. It is likely that Youth club facilities will become an integral part of the design for many of the new Secondary Schools provided in Hampshire and elsewhere in the future.

One of the first aims of the Ministry in launching a building programme of a new type must inevitably be to establish a firm basis for costing each project. From March 1960 until October 1961 youth projects were costed on a square foot basis in the same way as school extension projects. Once sufficient information had been accumulated from authorities and the

1 Building Bulletin No. 20 - P.11.

Ministry's development Group had carried out a project themselves in order to see what the difficulties were, the Minister announced[1] the manner in which cost limits would apply for Youth Service building projects. The limit of nett cost for a separate Youth Club is £170 per unit of average nightly attendance. For clubs associated with schools or colleges the limit is £90 per unit of average nightly attendance. Thus a club on a school site with an average nightly attendance of 100 would have a nett cost limit of £9,000 and a gross limit of £9,900. Areas are controlled by the same yardstick, being at least 37.5 square feet per unit of average nightly attendance in the case of a separate club and 20 square feet for a club on a school or college site. The limit of nett cost per square foot is thus 90/- in the case of a club on a school site and fractionally more for a separate club. This is comparable with 95/- per square foot for secondary school extension projects and is therefore reasonable since a greater expenditure on services can be expected in school extensions than in youth clubs. Thus in respect of the Youth Service as well as the schools and colleges the Ministry continue their search for value for money.

1 Ministry of Education Circular 17/61, dated 3rd October, 1961.

CHAPTER IX

CURRENT AND FUTURE PROBLEMS

The shortage and high cost of land is fast becoming a major political issue and, as the largest land owners in the country, the local authorities - particularly the education authorities - are vitally concerned. The expansion of the cities, towns and villages and the consequent encroachment on former agricultural land is a matter of observation. Under the 1947 Town and Country Planning Act local authorities were given the duty of controlling and co-ordinating this gradual, and in some cases rapid, expansion and development, and they have remained, subject to the overriding decision of the Minister of Housing and Local Government, the arbiters of the use to which land may be put. The inevitable result has been that the planning authorities by their decisions have set a value on the land under their jurisdiction. In Hampshire a plot of land with a valid planning permission to develop it for residential purposes may command a price of up to £10,000 an acre, dependent on the density of dwellings allowed to the acre. The same plot of land with permission only for agricultural use might fetch only some £300 or £400 per acre. The planning Authority's verdict can thus make a difference of many thousands of pounds in the valuation of any given plot of land. This difference is, of course, far greater in areas where building land is scarce. The tremendous power vested in planning authorities is the subject of some concern particularly since it is to some degree open to abuse.

Table I sets out the prices paid by the Hampshire Authority for new school sites since the end of the war. Up to 1958 authorities were not allowed to buy land in advance of requirements and the table shows how, with the relaxation of this restriction, the amount of land acquired by the Authority increased tremendously. The pattern of prices shows an irregular rise until 1959, with a very

Table I (Contd.)

School	Acres	Cost (£)	Cost per Acre	Average Co per Acre
1961 (Contd.)				
East Meon Junior and Infant	2.0	4,000	2,000	3,439
Emsworth Junior and Infant	5.0	8,000	1,600	
Fareham, Redlands Junior	5.0	13,500	2,700	
Farnborough, St. Peter's Junior	2.58	9,000	3,488	
Gosport, Brockhurst Infant	1.9	8,310	4,374	
Kingsclere, Woodlands Junior and Infant	3.0	1,850	617	
Portchester, Northern Infant	1.6	6,094	3,809	
Portchester, Westlands Grove Infant	7.4	28,048	3,250	

Table I (Contd.)

School	Acres	Cost (£)	Cost per Acre	Average Cost per Acre
1959				
Dibden Purlieu Infant	1.5	1,680	1,120	
Thruxton C.E. Junior and Infant	1.5	110	73	597
1960				
Basingstoke Brookvale Junior	5.7	6,000	1,053	
Bishop's Waltham Junior	4.3	4,250	988	
Farnborough, Blackthorne Infant	1.4	2,500	1,786	
Gosport, Privett Secondary	14.0	26,000	1,857	
Highcliffe Infant	1.5	3,976	2,651	1,437
Hordle Junior and Infant	1.8	2,200	1,222	
Lymington Avenue Infant	2.8	5,455	1,948	
Otterbourne Junior and Infant	2.0	120	60	
Sway, St. Luke's Junior and Infant	5.8	5,970	1,029	
1961				
Abbott's Ann Junior and Infant	2.0	4,300	2,150	
Alton, The Butts Junior and Infant	3.5	6,300	1,800	
Alton Secondary	5.2	15,000	2,920	
Bedhampton Infant	2.2	2,430	1,105	
Burton Junior and Infant	3.54	9,800	2,770	
Chandler's Ford Oakmount Junior	7.0	35,000	5,000	
Chandler's Ford, Oakmount Secondary	14.6	75,000	5,137	
Christchurch, Jumpers Junior and Infant	4.0	15,900	3,975	

TABLE I

Cost of New School Sites in Hampshire

1958-61

School	Acres	Cost (£)	Cost per Acre	Average Cost per Acre
1948				
Portchester Manor Junior	4.8	1,160	242	242
1949				
Eastleigh, The Nightingale Junior	8.9	3,880	436	436
1952				
Aldershot R.C. Junior and Infant	6.8	5,407	795	795
1954				
Grayshott Junior and Infant	2.5	625	250	
Preston Candover Junior and Infant	1.5	100	66	181
1955				
New Milton Infants	1.6	1,450	906	
Purbrook, Mill Road Junior and Infant	8.3	9,200	1,108	1,075
1956				
Andover, Anton Junior and Infant	7.2	2,000	277	
Liphook Junior and Infant	4.2	1,435	342	421
Purbrook Infant	1.5	2,000	1,333	
1957				
Gosport, Grange Junior and Infant	7.5	5,250	700	
Havant, Sharp's Copse Infant	1.6	1,697	1,061	763
1958				
Lock's Heath Junior	8.0	1,000	125	125

sharp rise in 1960 and 1961. The effect of the 1959 Act is obvious here. Prior to this Act authorities could acquire land at its current use valuation - usually, of course, agricultural or open space. After 1959 authorities were compelled to pay for land according to the basis of compensation decided in each case by the planning authority under Section 5 of the 1959 Act.[1] School sites must inevitably be placed in close proximity to houses and it follows that new schools are commonly built on land which would otherwise have been developed for residential purposes. Hence the marked rise in the cost of land acquired for educational use. There is no doubt that land costs will rise further yet and there does appear to be a case for affording some relief to authorities in respect of the high cost of land needed to fulfil their statutory duties under the Education Acts.

In this connection it might be interesting to quote an isolated example of the experience of the London County Council with regard to land acquisition for school purposes. For the Sir William Collins Secondary Boys' School the Council acquired 4.2 acres of land to extend the existing site. The cost of acquiring the land and properties on it amounted to £129,000. In addition, the Council incurred a rehousing liability for 751 persons amounting to £413,050, so that the total cost of the additional land was £542,050 - an average of £129,059 per acre.[2] This is, of course, an extreme example, the problems of the London County Council being almost unique in degree, if not in kind.

In order to carry out their duties authorities need to acquire a large number of sites for new schools or for extensions of existing schools, and it follows that the long-term needs of authorities for school sites must be safeguarded. Under the 1947 Town and Country Planning Act County and County Borough Councils,

1 Now amended by Section 17 of the 1961 Town & Country Planning Act.
2 Estimates Committee 1961 P.98.

who were established as the planning authorities, were required to submit by 1951 development plans for their areas which were to be reviewed every five years thereafter. Arising out of this enactment the Minister of Education advised[1] the education authorities of their ability to have land designated for educational purposes in the planning authority's development plan. By so doing the long-term educational needs could be safeguarded without the necessity of acquiring land which was not immediately required. The designation of such land can be of two sorts - it can be designated for compulsory purchase if it is likely to be required within ten years and it is thought that compulsory powers under Section 90 of the 1944 Education Act will be required, or it can simply be allocated on an area development map for educational purposes. In either case the planning authority has power "to prevent any development inconsistent with the use for which a site has been allocated."[2] All land purchased by local authorities for educational purposes has to be negotiated at a price agreed by the District Valuer and they have no power to acquire land at a price in excess of his valuation. Should the Valuer be unable to agree a price with a vendor, then authorities can resort to compulsory purchase. In fact, land owners are often unwilling to sell land for school purposes at agricultural valuation - a fact which has been remarked by the Cambridgeshire authority[3] - so that compulsory purchase powers are not infrequently invoked. In the early 1950's all sites had to be approved by the Ministry of Education, whether they were to be designated or acquired. This is not now the case, authorities having power to designate or acquire any sites they need without reference to the Minister except where the issue of a compulsory purchase order is proposed. In the field of land acquisition the familiar process of a gradual transfer of responsibility from the

1 Ministry of Education circular 188, dated 15th November, 1948.
2 Ministry of Education circular 243, dated 25th January, 1952.
3 Estimates Committee 1961 P.394.

Ministry to the individual authorities is evident, which has been remarked in the planning of schools and the procedures for securing approval to them.

There is no doubt that local education authorities have sufficient powers to acquire land in order to carry out their statutory duties. Hampshire follows the procedure adopted by other authorities of assessing their educational needs in conjunction with the quinquennial review of the individual Town Maps made by the planning authority. In these maps increases in population are forecast for the next twenty years and areas of land allocated for residential development, each cartogram area having a forecast population figure. By calculating the child age groups at fourteen per thousand head of population for existing housing and sixteen for projected development, a forecast of the child population in each area of the town can be made and new school sites reserved accordingly. It is, of course, one of the duties of the planning authority to specify and approve the actual plots of land which will be allocated for educational purposes.

Hampshire, like some other authorities, is likely to experience a rapid expansion of population over the next twenty years. Without taking account of overspill population, which will be discussed in the following paragraphs, the planning authority estimates that the population in 1981 will be almost 1,000,000 as compared with a current population of some 760,000.[1] For this reason, the school building problem in the County is not likely to become less acute and, unless more capital is made available by the Government, it seems probable that a large part of the building programmes of the next two decades will need to be devoted to accommodating the increasing child population.

Although this is likely to be particularly true of Hampshire, it applies also to other authorities. John Vaizey fore-

1 Hampshire Development Plan: First Review: Report of Survey 1961 P.8.

sees an increase in the annual birthrate from 250,000 to 850,000 in the next two decades[1] and Lowndes supports this view.[2]

Overspill development is likely to take place in the County in four separate areas. Within the next twenty years it is anticipated that Basingstoke will increase in population from 24,000 to 80,000 or even 85,000, that Andover will expand from 16,000 to 48,000 and Tadley from 5,000 to 20,000. In addition, it is expected that between 16,000 and 20,000 inhabitants from Southampton will overspill into the county area in the next ten years. The total increase in population in these four areas is likely to be more than 120,000.[3] Purely to accommodate the increased number of children (calculated on the basis of an age group of 16 per 1000 population) would require 16 three-form entry Infant, 16 three-form entry Junior, 3 four-form entry Grammar and 13 four-form entry Secondary schools - a total of no less than 48 new schools. Under the current cost limits these schools will cost £6,143,280. It is anticipated that the Authority will receive an extra allocation of capital to provide schools for overspill population, but the administrative and technical problems involved in mounting a building programme of this size over and above the normal programmes will be very great. The closest consultation between planning officers who prepare the overall development plans and education officers who will be responsible for school provision (as well as the co-operation of the Ministry of Education) is necessary if the schools are to be provided in sufficient numbers at the right place and at the right time. The problems involved in school building - particularly special programmes of this kind and, indeed, in education generally - are thus becoming more and more complex and it follows that a greater responsibility and a greater power inevitably falls on the technical and administrative officers whose duty it is to solve these problems.

1 N.U.T. Investment for National Survival 1962 P.5.
2 Lowndes: The English Educational System 1960 P.171.
3 The figures quoted are taken from the draft Development Plans for these areas.

Thus while the elected representatives are nominally responsible for implementing educational policy, they are forced to rely increasingly on the guidance of their paid officials. This feature of Local Government has been noted in a West Midland Group Study - "Further, the growing complexity in Local Government affairs, the rapid changes in the legislative framework, and the electoral "landslides" of the post-war years have made the local councillor far more dependent on the guidance, or the lead, given him by his officials."[1] The growth of a local government bureaucracy and technocracy in the best sense of the words is inevitable and desirable. The servants must be the rulers in almost everything but name if the educational tasks imposed on authorities are to be carried out effectively.

Apart from the special problems involved in building schools to accommodate a rising population in the county generally and the overspill areas in particular, Hampshire may have to face with other authorities the additional building made necessary by the raising of the school leaving age, and the reduction in the size of classes. The raising of the leaving age will affect only the Secondary schools and in particular the Secondary Modern schools and it may be in the event that the majority of pupils in these schools will increasingly stay until the age of sixteen without compulsion.[2] Most secondary schools now being built are designed to accommodate a full five-year course, but all the pre-war and many of the earliest post-war schools cater for a four-year course with varying provision for fifth-year stayers. Disregarding the fact that all secondary schools in the county are already grossly overcrowded and assuming an average existing provision in secondary schools for one third of the age group in the fifth year a four-form entry

1. Local Government and Central Control: A West Midland Group Study - 1956 P.243.
2. C.F.N.U.T. Investment for National Survival P.27.

secondary school would now house 480 pupils in the first four years and forty in the fifth form. When the leaving age is raised to sixteen, it will have to accommodate 600 pupils, an increase of over 15%. The same proportion would apply to any other size of school if the same assumptions are made. The raising of the leaving age will therefore involve authorities in increasing the accommodation provided at all their secondary schools by something like 15%.

The reduction in the size of classes is likely to be aimed initially at the primary schools. If classes are reduced from 40 to 30, it follows that the number of children each primary school can house (assuming it has classes of 40) is reduced by 25%. A two-form entry Junior school, for instance, which now accommodates 320 would then be capable of accommodating only 240 pupils. The number of primary schools would therefore need to be increased by 25%.

The third factor which would present authorities with a large-scale building problem would be the implementation of the 1944 Act as regards County College provision.[1] Every town in the County of any size is intended to have a County College under the development scheme for further education and the Authority would be faced with building County Colleges as soon as this section of the Act were put into force.

Authorities would be confronted with very large building programmes over a period of years if these three reforms were put into effect. However, unless the economic situation improves, it is unlikely that any Minister of Education will be bold enough to implement more than one of the reforms in the next decade. It is, however, certain that educational investment will rise considerably over the next 10 years.[2] In 1959/60 £46m. was allocated to the Major Building Programme, of which £43m. was spent, £3m. being lost because the Local Education Authorities and the Churches were unable

1 Education Act 1944 Section 43.
2 This information was given by the Ministry's officers at the South-East Regional School Building Conference, Reading, April 1961

to start a number of projects before the end of the year and the Treasury normally allow no carry over. The reasons for the under-spending were the failure to acquire sites in time and the inexperience of the promoters of voluntary schools.[1] The first should be eliminated by the greater notice given for programmes and the second by a greater degree of co-operation between the churches and local authorities. The 1960/61 Programme was of the order of £75m. and by 1965 the Ministry anticipate[2] that the yearly figure will be in the region of £150m. The total programme figure for the 1960's is expected to be of the order of £1,000m.[2]

It is anticipated by the Ministry[3] that a large proportion of this total will be spent on remodelling and replacement projects. It is evident, however, that the progress made by the authorities in their new school building has been uneven. Those with static populations will be able - and, indeed, have been able already - to proceed with projects designed to remedy the defects of old schools. Others with increasing populations are likely to have to concentrate their efforts and the resources available on providing new school places. Comments made in this context by officers of various authorities to the Estimates Committee are illuminating. The London County Council have already remodelled a number of primary schools and have completed most of their new school building.[4] Nottinghamshire, too, have done the major part of their new building.[5] Hertfordshire, on the other hand, claim to need larger programmes simply to keep pace with an expanding population.[6] Shropshire[7] and Cambridgeshire[8], where the population

1 This information was given by the Ministry's officers at the South East Regional School Building Conference, Reading. April 1961.
2 Minutes of the South East Area School Building Conference, Reading. April 1961.
3 Estimates Committee 1961 P.38.
4 " " " P.86.
5 " " " P.176.
6 " " " P.388.
7 " " " P.208.
8 " " " P.393.

problems are much less acute than in Hertfordshire, still testify that at the present rate of investment it will take some twenty years to bring their schools up to standard, and this view is echoed by the Association of Chief Education Officers.[1] Hampshire, as has already been stated, has very special population problems and will need greatly increased programmes over a long period if the older schools are to be modernised. Itseems, then, that there are serious disparities between authorities in the progress made with regard to school building. The Ministry seem to be of the opinion that much of the new building work has been accomplished and this may be true taking an average between authorities. Nevertheless, this average conceals wide differences, and neither the Ministry nor the Authorities claim that the school building problem is anywhere near final solution. Lowndes, on the other hand, is confident that Local Education Authorities will have implemented the major part of their Development Plan and schemes for further education by 1965,[2] and Vaizey is even more optimistic:- "It is probable that building at the present rate in primary and secondary education will have the effect of satisfying most needs by 1965."[3] Both authors would find it difficult to find an education officer dealing with building matters who would agree with their diagnosis!

This anticipated increase in the size of the annual programmes will have two main effects, which will apply particularly to Hampshire because of its special population problems. The first is the need for a simplification of the approved procedures. Many projects are delayed for three months or more while the Ministry officials and architects consider whether approval to sketch or final plans can be given. Already a procedure has been introduced whereby authorities can make a submission for final approval at sketch plan stage, provided final plans are certified as being in accordance with the Building Regulations.[4] In order to cope with the increased volume of work,

1 Estimates Committee 1961 P.202.
2 Lowndes: The English Educational System: 1960 P.162.
3 John Vaizey: The Costs of Education 1958: P.91.
4 Ministry of Education Circular 11/61 dated 8th June, 1961.

it is likely that procedures will be further streamlined until the Ministry are operating very nearly on a rubber stamping basis.

The second effect will be an increase in the already tremendous pressure of work which will be thrown on the authorities and more particularly the building industry.

To take the first point first:- the streamlining of controls and the transfer of responsibility in the building field from the Ministry to the Authorities - it follows that authorities have since the war accumulated a degree of experience which renders close supervision unnecessary. This is the view not only of the authorities but of the Ministry. In the words of Mr. Morell, the joint head of Architects and Buildings Branch - "What has happened over years is that we have, I think, switched the main weight of our efforts fron controlling, as standards have been established and have been accepted by local authorities."[1] This is not to say the vital controls - the building programmes, the cost limits, and the building regulations - will be swept away, for these appear to be the essential minimum acceptable to the Treasury[2] for a service supported by funds from the central government. It is the detailed controls - the submission of plans, schedules of accommodation and the like which are likely to disappear. In this way the principle of leaving maximum freedom with local authorities enunciated by Local Government Manpower Committee[3] in 1951 and more recently by R.M. Jackson would be observed at least in this department of the central government. As Jackson says, "The starting point must therefore be that controls should be limited to those that are essential to good government, and they should be administered in a way that leaves as large an area of freedom to the local authorities as possible."[4] Moreover he sees the introduction of the block grant

1 Estimates Committee 1961 P.31.
2 " " " P.62.
3 Second Report of the Local Government Manpower Committee 1951 Cmd. 8421 - Para. 3.
4 R.M. Jackson: The Machinery of Local Government 1958 - P.264.

system as a step in this direction.[1] No grant-supported service can expect freedom from supervision nor would it be anything but naïve to accept the idea of "partnership between local and central government" entirely at face value in view of the power vested in the Minister by the 1944 Act. Nevertheless in the building field it would be true to say that controls are being reduced to a minimum and the word "partnership" has at least in this context a great deal of truth in it. For example, several education officers refer to the close co-operation between the officers of the Ministry and the authorities in glowing terms[2] in their evidence to the Estimates Committee and the West Midland Group are undoubtedly right in detecting in the post-war years a growth of "corporate professionalism between officers on the local and central side of a service."[3] If this "professionalism" is tending to weaken the effective power of the elected members and to make local officers to some degree agents of the central authority as is claimed,[4] it can be said that the effectiveness of the elected members of authorities has already been undermined by the increasing complexity of local government affairs. Moreover, the post-war trend has been to increase the status of the local officer vis-á-vis his central colleague.[5] Certainly the local education officer is far from willing to admit that the Ministry have a monopoly of wisdom and indeed many of the most important advances in the building sphere have been initiated locally. The Hertfordshire system of school construction[6] and the first Consortium of local authorities[7] are the best evidence of this.

The second effect of the increased programmes - the pressure of work on authorities and on the building industry has three distinct aspects. The first is the need for the authorities to

1 R.M. Jackson: P.266.
2 e.g. Estimates Committee 1961 - P.113. Chief Education Officer of the London County Council:- "I think they are a pattern on the professional side of how a central government Ministry's professional staff can work with the local authorities doing the job.
3 Local Government and Central Control: A West Midland Group Study: 1956 P.243.
4 Local Government and Central Control: P.287.
5 " " " " " P.242
6 Hertfordshire County Council: A Hundred New Schools.
7 Ministry of Education Bulletin No. 19 - The Story of CLASP 1961.

organise themselves in the way most conducive to securing efficiency and economy of building; the second is the need for the Ministry to regulate the cost limits to ensure that standards are not reduced to such a degree as to involve high future maintenance costs; the third is the evident need for the building industry itself to recognise the need for reorganisation and modernisation of its structure and its methods.

The last point is a specialised one. Sufficient to say that the need has been recognised by the Royal Institute of British Architects[1] and by the CLASP[2] authorities.

With regard to the second point, the Ministry themselves aver that no significant further economies in school building at least on the design side are practicable[3] and that the cost limits are likely to rise in step with the building cost index. Arguments have been advanced for varying the cost limits to suit local circumstances[4] but this is unlikely for purely administrative if for no other reasons.

It is in the first aspect - the need for authorities to organise themselves - that the best prospects for the future seem to lie and this might be an appropriate point to examine the achievement of the first of these organisations - the Consortium of Local Authorities Special Programme. CLASP is the first example of a group of public authorities coming together voluntarily to pool their professional resources to develop and control a system of prefabricated building construction for their own use and then to secure the full economic advantages of the production of standardized components in quantity. CLASP is a natural development from the prefabricated technique developed first by Hertfordshire, then by the Ministry in their development projects, and finally by Nottinghamshire who produced the CLASP system.

1 Estimates Committee 1961 P.77.
2 Estimates Committee 1961 P.264.
3 " " " P.17.
4 " " " P.11.

The history of the CLASP system of construction dates effectively from 1953,[1] when Nottinghamshire began to face up to the technical and financial difficulties they were encountering in their building programmes. At this time tenders for school projects were high and undesirable cuts were being made to reduce the tender figures to within the Ministry's limits, schools were taking an inordinately long time to build, precautions against mining subsidence were costing up to ten per cent of the nett cost of the schools, and the normal system of competitive tendering for each project was proving expensive and cumbersome.[2] The Nottinghamshire authority decided to put the whole of one year's school building programme in the hands of private architects in order that the County Architect's department could investigate means of overcoming the problems the authority were encountering and evolve a constructional system which could enable future programmes to be undertaken efficiently, economically and speedily. From this year's development the CLASP system was born and because it had very great economic advantages in overcoming the problems of mining subsidence,[3] it was decided that a number of authorities with this particular problem could well group themselves together under the auspices of the Ministry for school building purposes in order to obtain maximum financial benefit from the bulk buying of standardised components. Hence the members of the Consortium increased till they now number thirteen, Coventry, Warwickshire, Derbyshire, Durham, Glamorgan, The West Riding of Yorkshire, Leicester, Nottinghamshire, Gateshead, Lanarkshire, the War Department, the Scottish Education Department and the Ministry of Education.[4] The value of the CLASP building programmes have similarly grown from under £3m. in 1958/9 to almost £7m. in 1961/2.[5]

The Consortium operates on three levels. A Working Party of architects from the constituent authorities meets periodically -

1 Ministry of Education Building Bulletin No. 19 - The Story of CLASP 1961. P.10.
2 Estimates Committee 1961. P.250.
3 Estimates Committee 1961 P.251.
4 Estimates Committee 1961 P.250.
5 Building Bulletin No. 19. P. 15 and 16.

usually monthly - to co-ordinate the technical work being carried out on the standard components, to co-ordinate the component tenders and to integrate the requirements of the respective authorities. The Chief Architects together with the Consortium Clerk and Treasurer meet quarterly to decide future policy and elected members meet annually to receive reports and approve a Consortium policy.

A full technical description of the CLASP system is not appropriate in this context.[1] It is sufficient to say that it is a prefabricated system and that the aim of all such systems is to design standard parts which can be assembled in a wide variety of ways to meet the various requirements of different types of buildings and different sites. The virtue of the Consortium approach is that the most favourable prices can be obtained for these factory made components since they are bought in bulk and the manufacturer can gear his production to a known long-term programme. Similarly, time is saved because most of the craft-work done on site is now carried out in the factory. This is increasingly important since the speed with which a school is built has been largely dependent on the availability and speed of work of joiners, bricklayers and so on. These craftsmen are in short supply and unable to cope with the demands of the overloaded building industry. As Mr. Lacey, the County Architect for Nottinghamshire puts it - "We think that the problem of shortage of labour in the building industry, which has been with us ever since the war, is not a temporary but a permanent problem and as part of our future technical development I think we have got to go on improving our CLASP design so that it can be organised even more simply than it is now because the speed of the building is being controlled, for instance, by the number of joiners."[2]

The manufacturers of the steel frame and the heating units used in the whole of the CLASP programme are nominated by the

1 This is given in Building Bulletin No. 19 P.30 - 52.
2 Estimates Committee 1961 P.176.

Consortium. They can thus gear their production to known long-term requirements and install the necessary plant in the knowledge that it will be used to capacity. In this way the most economic prices for these components can be obtained. The supply of other standard components ranging from doors to lavatory basins, from roof units to window frames is arranged by obtaining competitive tenders for the requirements of the Consortium for a whole year's programme. Once prices for components are negotiated or obtained by tender it is up to the individual authorities to order the components they require as they are needed.[1] Similarly, the individual authorities plan their own projects in the CLASP system and arrange for tenders for the building work involved in each project to be obtained.

The difference between thissystem of prefabrication and any other - such as Laing-span and Thermogard - quite apart from the economic advantage of bulk purchase of components is summed up by Sir Donald Gibson, Chairman of the CLASP Board of Chief Architects - "The difference between this system of prefabrication and the usual system of prefabrication is that the control rests with the users and not with the manufacturers. Our organisation is the only one where the client has himself developed a system which he controls and the contracting industry is told what to do."[2] The same point is differently put by Mr. Lacey, the Nottinghamshire County Architect - "Every part of the system is made by different people - windows by one firm and so on - and not one of these parts individually is worth two pins, it is only when they are all assembled together that they make a structure or a building, and therefore we are the only people who can dictate terms and control the technical and commercial basis of the Consortium."[3]

It is also important to note that each member of the Consortium has agreed to contribute up to one quarter of one per cent of the value of their CLASP programme in order to provide staff time for the technical development of the system. This

1 Building Bulletin No. 19 P.16.
2 Estimates Committee 1961 P.260.
3 " " " P.176

means that the system is continuously evolving and improving.[1] For example, an improvement to the design of a window which took ten architects months (say £1,500) of development work to produce resulted in a saving of approximately £2,200 on every £100,000 worth of building subsequently erected. On a £7m. programme some £17,500 per annum could be devoted entirely to development work - say ten architect-years. Such a research programme is beyond even the Ministry's capacity.[2] This point will be developed later in this chapter.

It is not surprising that savings on school building costs are considerable among the CLASP members. For instance, the national average cost per square foot for primary schools for the half year ending June 1960 was 73s. 0d; the equivalent figure for CLASP primary schools was 68s. 0d. In addition, whereas the minimum teaching area for primary schools is exceeded nationally by 10%, the figure for CLASP schools is 15%. Thus CLASP schools provide a greater area at a lower cost than the national average.[3] Moreover the schools are erected in approximately half the time taken to build similar schools in traditional construction. In these circumstances it is understandable that the system is being used elsewhere - in fact the Consortium members are already receiving royalties from the use of the system in West Germany and Italy among other European countries is likely to make use of the system.[4]

The official Ministry view is that the Consortium approach is the main avenue by which the real cost of school building can be further reduced[4] and this view is shared among others by the Institute of Municipal Treasurers and Accountants.[5] However, it is

1 Estimates Committee 1961 P.253.
2 " " " P.381
3 Building Bulletin No. 19 P.22.
4 Estimates Committee 1961 P.18 and 47.
5 " " " P.143.

thought that an extension of the existing Consortium would render it too cumbersome for maximum efficiency[1] and the Ministry are actively encouraging the formation of separate Consortia. One such Consortium - SCOLA - which includes the Hampshire authority will be considered later in this chapter. It is interesting to note in passing that the London County Council considers itself sufficiently large to be a self-contained Consortium and sees no prospect of reducing its costs by association with other Authorities,[2] and certainly the difficulties frequently encountered in building on restricted London sites would make modular planning with its restriction on the height of the building impracticable in many cases. The Association of Municipal Corporations is apparently not enamoured of the Consortium idea[3] either, though the reason in this case may well be a desire to retain complete independence and freedom of action within the Borough authorities. On the other hand the County Councils Association support an extension of the Consortium principle.[4]

Another interesting and apparently rewarding innovation by the Nottinghamshire authority is the system of serial tendering. This consists in inviting tenders from selected contractors for the erection of a notional school for which a master bill of quantities has been prepared, and then negotiating with the lowest tenderer a series of contracts for school projects on the tendered rates in the master bill.[5] The number of contracts negotiated can be as much as the whole programme but in practice is restricted to a series of jobs of similar kind. It is contended that tenders negotiated on this basis are keener than those obtained in open competition and that the advantages of being able to consult the contractor at design stage are substantial. Moreover, it is contended that a contractor given a series of jobs at negotiated

1 Estimates Committee 1961 P.260.
2 " " " P.100.
3 " " " P.137.
4 " " " P.116.
5 A full description of this contracting method is given in Building Bulletin No.19 P.23.

rates gives better service than one employed for a single project.[1] The Royal Institute of British Architects[2] and the Institute of Municipal Treasurers and Accountants[3] are two bodies who favour an extension of this system, and certainly the advantages of normal competitive tendering laid down in the Standing Orders of most councils seem small as compared with benefits derived from serial tendering. The only real advantage of open tendering is that the authority is seen to act fairly and without favour and that local contractors have the opportunity to submit tenders. In the present state of employment in the building industry it seems that an extension of the Nottinghamshire system of serial tendering might bring real advantages to authorities. This is at any rate the view of the Estimates Committee.[4]

The development of new Consortia and to a lesser extent the investigation of new tendering methods seem to be, then, the principal means of future economies in school building, and indeed the Second Consortium of Local Authorities (SCOLA) comprising the County Councils of Shropshire, West Sussex, Gloucestershire, Dorset and Hampshire is already well launched. Since Hampshire is one of the founder members of this Consortium it might be appropriate to investigate in some detail the history of its formation. Shropshire was the prime mover in this venture and indeed carried out development work on a prefabricated system of building for some time before the County Architect approached his colleagues in other authorities informally. At this time Hampshire - under the stimulus of a new County Architect who had served with the West Riding County Council (one of the CLASP authorities) - was investigating possible membership of CLASP or a new Consortium and from informal discussions it seemed clear that a second Consortium could well be formed. Thus in June 1961[5] the Clerk of the Shropshire County Council

1 Estimates Committee 1961 P.180.
2 " " " P. 78.
3 " " " P.142.
4 " " " P. 15.
5 Letter from the Clerk to Salop County Council, dated 20th June, 1961, to the Clerks, Dorset, Hampshire, Gloucestershire and West Sussex.

called a meeting of the appropriate Chief Officers of Gloucestershire, Hampshire, Dorset and West Sussex to work out firm recommendations on which to base the Consortium. By this time consultations in Hampshire between the County Architect, the Clerk, the County Treasurer and County Education Officer had taken place. The first meeting of the Chief Officers agreed[1] that the constituent authorities should be asked to commit themselves to the Consortium with a building programme starting in 1962/63. The name of the Consortium was chosen; it was agreed to work in the same framework as CLASP - i.e. annual meetings of elected members, quarterly meetings of Chief Architects and other Chief Officers and monthly meetings of a technical working party. Moreover a start was made on formulating the technical basis of the Consortium - a 3'4" structural grid was chosen, it was agreed that Messrs. Hill of West Bromwich might be nominated contractors for the steel frame, details of cladding, roof, floors, foundations, partitions, services were discussed. Even at this early stage the Ministry of Education was represented.

A further meeting of Chief Officers was held in July 1961 and the build-up of programme values was discussed.[2] It is interesting to note that Mr. Morell, joint head of Architects and Building Branch at the Ministry, made it clear at this meeting that if cuts had to be made in future programmes the potential financial risk of the Consortium authorities would be taken into account as had been the case with CLASP. A recommendation was passed at this meeting that the respective authorities should be asked to commit themselves to the Consortium and it was agreed that "as in the case of CLASP the Consortium should operate as a joint enterprise in furtherance of a common purpose but without formal legal status." This latter recommendation is most signifi-

1 Minutes of the meeting between SCOLA Chief Architects and their staff - 29th June, 1961.
2 Minutes of the meeting between SCOLA Chief Officers - 11th July, 1961.

cant in view of the widely-held image of local authorities as strongholds of red-tape! At this stage of course SCOLA had no standing but in due course the County Councils of Shropshire, Gloucestershire, West Sussex and Hampshire formally committed themselves to membership and this was recorded at a meeting of elected representatives in October 1961.[1] The Dorset County Council followed suit in November 1961, though the first programme in which they will participate will be 1963/64. At the October meeting the Chairman of the Shropshire County Council, Sir Offley Wakeman, was elected Consortium Chairman. At a previous meeting the Clerk of the Shropshire Council, the Shropshire County Architect and the Hampshire County Treasurer had been appointed Consortium Clerk, Chairman of the Board of Chief Architects and Consortium Treasurer respectively.

The recommendations made by the Board of Chief Architects were largely accepted by the elected members and from this meeting SCOLA had officially arrived. It is hoped[2] that the 1962/63 SCOLA programme will be of the order of £1m. and that the 1963/64 programme will increase to some £3m. Many of the components already developed in CLASP will be incorporated into the SCOLA system and liaison between the Consortia will take place to reduce overlap of development work. As with CLASP, members of SCOLA will pay one quarter per cent. of the value of their building work, or the equivalent staff time in order to develop the SCOLA system.[3]

It is, of course, too early to judge whether SCOLA will enjoy the same success as CLASP either in the quality of its schools or in the economic advantages of its methods. Similar results are anticipated. However, if CLASP marked a break-through in the field of co-operation between authorities, SCOLA as an extension of the same principle is a significant pointer to future development in

1 Minutes of the first meeting of SCOLA members - 5th October, 1961.
2 Minutes of the meeting between SCOLA Chief Officers - 11th July, 1961.
3 Minutes of the first meeting of SCOLA members - 5th October, 1961.

school building. It is also interesting to note that Lancashire are developing a standardised range of kitchen equipment under the name of Local Authorities School Meals Equipment Consortium and that SCOLA are likely to take advantage of this starting with the 1963/64 Programme.[1] It follows that there is ample scope for the development of co-operation in similar fields - e.g. school furniture and text books.

Two aspects of the development of CLASP and SCOLA are worth further consideration. The first is the fact that both Consortia were initiated by officers of the local authorities and that the principal part in their development has been taken by officers. In theory the workings of the Consortia are subject to the decision of the elected members of the various authorities, in practice the elected members have little choice but to accept the advice given to them by their officers. The Consortia are in effect professional associations.[2] This point will be taken up again. The second aspect is the growth in the power of the local authorities vis-à-vis the Ministry.

Since the war research into educational building problems has been centred on the Ministry of Education's Development Group. Teams from this group have undertaken development work on behalf of Local Education Authorities on all kinds of projects ranging from the two-class primary school at Finmere to the large Secondary School at Arnold, Nottinghamshire. Lessons learned have been disseminated in the form of bulletins and circulars. But in every case development projects have been individual jobs, although a stricter cost control has been possible since more time and staff could be devoted to design and supervision work.

With the arrival of the Consortium approach in the local authorities the importance of the development work undertaken by

1 Minutes of meeting between SCOLA and LASMEC officers - 4th April, 1962.
2 Estimates Committee 1961 P.176.

the Ministry will be much reduced. The significance of the capital and staff-time allocated by Consortium members to development work on their constructional systems has already been noted. The CLASP system of construction is continually evolving and improving because teams of architects are spending their time in carrying out research into ways of improving the components of the system and at the same time reducing their cost. It is anticipated that the SCOLA system will evolve in the same way. It is neither practicable nor desirable that the Ministry's Development Group should carry out concentrated and continuous research of this kind, and it is admitted[1] that the influence of the Development Group will decrease as the number of Consortia increases. Moreover, the Ministry cannot hope to compete with the massive purchasing power of the Consortia and they could not, therefore, hope to match the quality and economy of the schools constructed by Consortium members. It seems, therefore, that the task of research into school design and construction is likely to pass during the next few decades from the Ministry to the authorities - or at least to the Consortia. There appears to be nothing inherently unacceptable to the Ministry in this development for the formation of new Consortia has been strongly encouraged from Curzon Street and that the Ministry are not averse to giving freedom to authorities is made clear by Mr. Morell, joint head of Architects and Building Branch: "ever since the end of the war it has been our policy to give authorities as much freedom in managing their building programmes as is consistent with doing our job properly."[2] Indeed the Ministry seem to be turning some of their attention from mounting and controlling the British school building programmes to studying the educational problems of the underdeveloped countries and assisting in solving them. Nigeria for example is currently being helped.[3]

1 Estimates Committee 1961 P.381.
2 " " " P.367.
3 Education in 1960 Cmd. 1439 P.95.

The Consortium approach is not, of course, applicable to all authorities. Some like the London County Council consider themselves large enough to obtain advantage from bulk buying. Others like Hertfordshire consider that they have their building programmes on a sufficiently sound economic footing. The smaller authorities - particularly the Boroughs - will probably often be unwilling to sacrifice any part of their independence for the economic benefits of larger organisations. Nevertheless in grouping together to form larger units local education authorities are following the modern economic pattern. It can be seen in enterprises both large and small from the European Common Market, the abortive I.C.I. - Courtaulds merger right down to the take-over of the small shop. Nor is there any indication that co-operation between authorities will be limited to the field of school building, though this is likely to be the most productive field.

The growth of Consortia is likely to accentuate a development which has already been greatly felt in local government - the increasing reliance on the professional, the expert. Again this trend is not confined to local government but it is particularly marked here. The increase in the professional staff of local authorities since the war - in their architects, engineers, surveyors, planners, educationists, accountants, solicitors - has been observed by more than one writer.[1] Local Government is becoming increasingly complex and the elected member must often feel overwhelmed by the intricacies of the huge machine, of which he is nominally in control. This is particularly true of school building and even more true of consortium building. Consortium building is very big business indeed and the local councillor can hardly be expected to master its technical and administrative intricacies. He is forced to rely on the paid professional. One study sees in this kind of development a considerable

1 R.M. Jackson: The Machinery of Local Government 1958 P.112. Local Government and Central Control: A West Midland Group Study 1956 P.242.

weakening in the local control of government, since the power of the professional inevitably undermines the real power of decision of his committee.[1] The same study sees in the close relations existing between the specialists on the central and local sides of a service a further weakening of local democracy.[2] These views may well be justified, for in local government as in almost every other sphere the effectiveness of the amateur is decreasing. This is not to say that the Committee structure of local government is an unnecessary encumbrance. Committees exist for the protection of the ratepayer as well as for the implementation of public services and it is essential that the schemes of the specialist and the proposals of the expert are exposed to the commonsense judgment of elected laymen. If the solicitor, the architect, the accountant, the planner and the educationalist are necessary to carry out the varied and complex tasks of local government, the elected member is equally necessary as a democratic safeguard and to temper expertise with common sense.

1 Local Government and Central Control P.243.
2 " " " " " P.287.

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