

INNER-LONDON SCHOOLS 1918-44 A THEMATIC STUDY

Geraint Franklin



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Frontispiece: Interior of pavilion classroom on the grade II listed Aspen House Open Air School, LB Lambeth (LCCAD, 1925) (DP070341).

Front cover image: Girls' drill at Huntingfield Road, LB Wandsworth (LCCAD, 1920-25; dem.). (LMA: SC/PHL/02/0244-36; City of London, London Metropolitan Archives).

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SUMMARY

The subject of this report is school building between the 1918 and 1944 Education Acts, with a focus on inner London. The period 1918-44 saw a movement from a parallel system of all-age elementary schools for the working classes and secondary schools for a largely middle-class minority, to the progressive stages of nursery, primary and secondary. The government suggested a break in schooling at 11 and the extension of the educational franchise to secondary schooling in the form of a tripartite model of secondary education comprising grammar, modern and technical schools.¹ The design of school buildings diverged and specialised accordingly.

The period after the First World War also saw school building catch up with major shifts in practice and policy affecting health, hygiene and educational theory. School plans accordingly loosened up or split into a series of single-storey wings or blocks, increasing lighting and cross-ventilation. Important experiments were made in temporary, prefabricated and light construction. The glazed area was increased, and the provision of direct access from classroom to playground sometimes reduced corridors to open-air verandas or galleries. Such reforms in planning and construction were usually accommodated within a neo-Georgian style. Bold reforms and experiments in school planning and construction, and a shift from the monumental to the functional, were often achieved without recourse to architectural rhetoric, such as that of the Modern Movement.

The schools of the London County Council illustrate the reaction of a typical local education authority to these changes. The LCC school-building programme was split between the increased provision of secondary, nursery and special education; rebuildings of obsolete Board schools and school building in the new LCC estates. Greatest progress was made in the newer school types such as the nursery and open-air school, where policy was at its boldest and designers comparatively unhampered by regulation, standardisation and the weight of accumulated tradition. The design of open-air schools eventually influenced mainstream schools, as the introduction of 'open-air classrooms' in LCC elementary schools demonstrates.

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INTRODUCTION

This thematic study represents one of a number of projects undertaken by the Research Department of English Heritage relating to England's historic school buildings. The study was commissioned to address a lacuna in our understanding of schools between the Education Acts of 1918 and 1944, identified in a 2007 English Heritage scoping report on research related to schools.² In the past twenty years, English Heritage has undertaken thematic research and designation programmes on both London's Board schools and post-war schools.³ Simply put, the aim of the present study is to understand what came between the permanent, compact 'triple-decker' schools and the light, airy, flexible post-war schools.

The report aims to assist those making informed decisions on designation and statutory casework, underpinned by an understanding of the architectural and historic interest of these buildings. It is hoped that the document will also be of use to local authorities or independent trusts responsible for the maintenance, refurbishment or re-use of historic school buildings. The policy driver for this and related studies is the government's current commitment to invest in new school buildings, as well as the refurbishment of older ones, for the next ten to fifteen years as part of the 'Building Schools for the Future' and 'Primary Capital Programme' initiatives.⁴ These renewal programmes are underway in many local education authorities, and have already had the effect of increasing the number of applications for alteration and demolition, and conversely for designation by concerned bodies.

The aim of this study is two-fold: to outline the development of school building in the period; and to assess, quantitatively and qualitatively, the surviving stock of purpose-built schools within inner London. This report falls into three parts. The first section sets out the national context of school building, such as the influence of the national economy, new theories relating to education and healthcare, and regulation and legislation on school building between the Education Acts of 1918 and 1944. Part two is a study of the resultant trends in school design in inner London, including planning, site and setting, construction and materials and architectural style.



Fig. 1: Ealdham Square School, LB Greenwich (LCCAD, 1929). The school as built (top) and in 2008 with upVC replacement windows and other alterations. Top: LMA: SC/PHL/02/0240-39; City of London, London Metropolitan Archives. Bottom: DP070342.

The final part of the report proper examines school types in greater detail through a selection of London case studies that illustrate innovation in educational thinking or in architectural design. An additional criterion for selection has been the present condition and intactness of the schools: the majority of London's historic schools have been refenestrated with uPVC windows, for example (figure 1). A gazetteer of schools falling within the scope of the project is reproduced as Appendix 1, which identifies school type, dates, architects and the extent of subsequent alteration or extension and current threats where relevant. Appendix 2 is a list of minor projects (extensions and alterations) and Appendix 3 is a list of demolished schools. Appendix 4 is a typology of school plans in use in London from 1918-44. Appendix 5 is a glossary of types of school in use during the period.



Fig 2: Map of Greater London, indicating the modern boroughs and pre-1965 counties. The geographical focus of this report is the former County of London, shown here in grey.

It is necessary to delimit carefully the scope of any thematic study. The geographical area of study is defined that under the jurisdiction of the London County Council (LCC), which was the local education authority between 1904 and 1965. The largest school district in Britain, it comprised an area of 117 square miles and housed a population of 4.5 million in 1939.⁵ The County of London was divided into a number of London boroughs (hereafter abbreviated to LB).

The present report considers every stage of education up to the statutory school-leaving age (raised to 14 in 1918); and both state-aided and independent schools. In London, the 'Council' or 'provided' schools were designed by the Architect's Department of the London County Council (hereafter referred to as LCCAD), and thereafter directly maintained by LCC as local education authority. Non-provided, voluntary or endowed day schools such as church schools had to provide their own buildings, which were usually designed by architects in private practice.⁶ Lastly, the so-called 'public' or independent schools were entirely funded from private sources, usually in the form of school fees.

Certain specialised types of schools such as reformatory, industrial and hospital schools, children's homes, remand homes and orphanages have been excluded from the report.⁷ The provision of secondary technical education in London came in the form of junior day technical classes and junior technical schools run as departments of further education institutions after regulations drawn up by the Board of Education in 1913.⁸ This topic

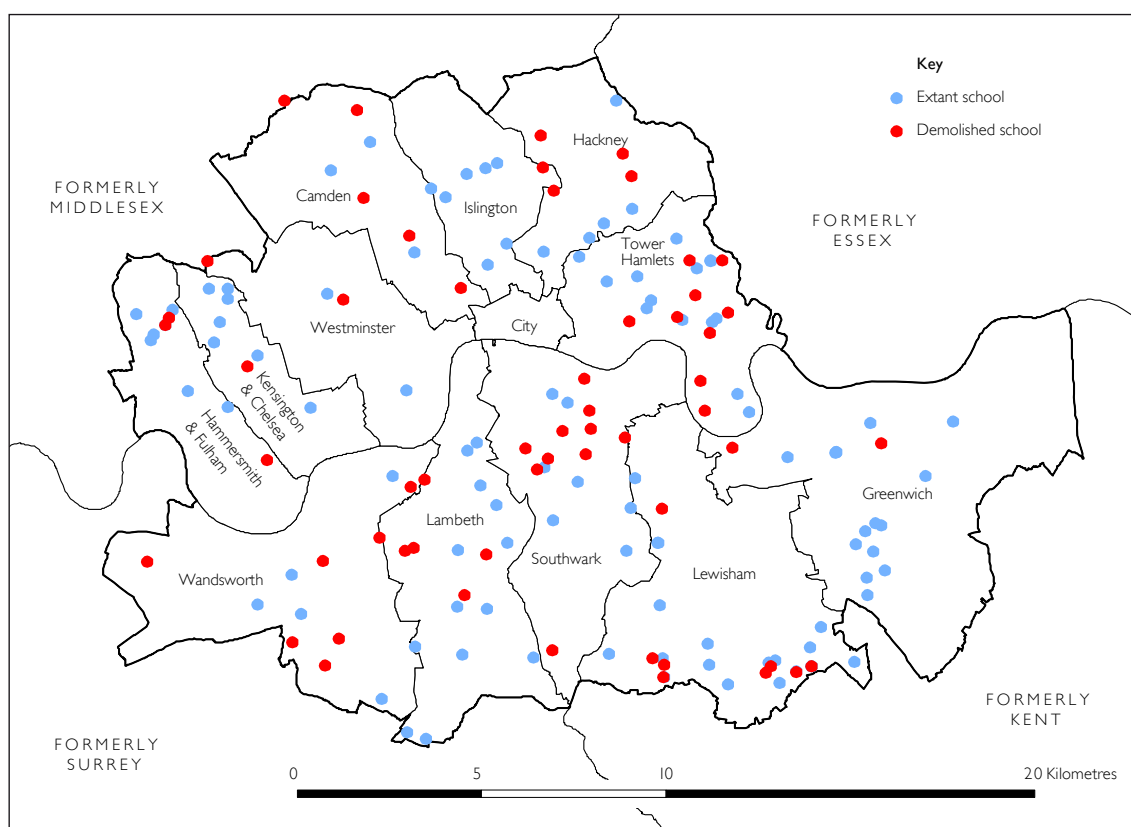


Fig. 3: Map of the County of London with modern boroughs, showing distribution and survival of purpose-built schools, 1918-44. The distribution pattern of demolished schools is influenced by several different factors, one of which is school renewal programmes undertaken in the last decade by local education authorities.

would best be considered within the scope of a separate study of London's technical institutions.⁹

Only purpose-built schools erected between 1918 and 1944 are considered, and not the adaptive reuse of older schools, although it is recognised that reconditioning programmes were a key aspect of state school provision during the period.¹⁰ Nor are extensions and ancillary buildings considered in detail, with the exception of a few projects considered to be of particular architectural interest. Similarly, the conversion of other building types to educational use is outside the scope of this report, although it played an important role in, for example, the provision by the LCC of day continuation schools after 1918 (see Part I). Lastly, original school names are used throughout; current school names are listed in the appendices.

ENDNOTES

- 1 Board of Education 1926 and 1931b. These suggestions were made mandatory in the 1944 Education Act.
- 2 Smith 2007.
- 3 English state schools of the period 1902-1918 are another area deserving of further study.
- 4 www.partnershipsforschools.org.uk/documents/BSF_Guidance_Documents/BSF%20Introductory%20Guide%202008.pdf; http://www.teachernet.gov.uk/_doc/12293/Primary%20Capital%20Programme%202008-2022.pdf.
- 5 LCC 1939, 12.
- 6 An exception is St Martin's in the Fields High School, **LB** Lambeth (1928) which was a non-provided school designed by the **LCCAD**. The Girls' Public Day School Trust had its own Architect's Department by 1918 (Elain Harwood, pers. comm.).
- 7 The most notable **LCC** hospital school was that of the Goldie Leigh Hospital of c.1938, by job architect George Weald. It was 'planned on the lines of a modern elementary school, with certain modifications in the finishing to meet medical requirements' (The Builder, 27.1.1939, pp205-07).
- 8 See Appendix II of Board of Education 1926.
- 9 Saint 1989.
- 10 It is estimated that for every rebuilding, local educational authorities reconditioned or extended two existing schools. The **LCC**'s reconditioning programme of 1935-38 installed electricity, central heating, hot water, and specialist classrooms in c.150 schools at an average cost of £4,000 per school (**LCC** 1939, 21).

PART I: THE NATIONAL CONTEXT
OF SCHOOL DESIGN

Introduction

The provision of schools in England in the inter-war period was divided into three sectors: 'maintained' schools provided directly by the local educational authorities; 'non-provided' schools built and run by non-governmental bodies in receipt of public funding; and 'independent' schools wholly funded from private sources (these categories are defined at greater length in Appendix 5). At national level, government regulation was imposed by the Board of Education.

The main influences on inter-war school building in the period 1918-44 were hygiene, new educational thinking and economic efficiency. Medical and pedagogical reforms—and the architectural treatment their implementation required—often filtered first into the progressive educational authorities and independent schools and were later adopted as permissive policy by central government. The economic aspects of school-building programmes were subject to top-down control from central government through a variety of mechanisms, including building grants and loans and the regulations periodically issued by the Board of Education.

The drive for health

The effort to monitor and improve the physical health and welfare of the schoolchild emerged from the 19th century public health reform movement, which promoted good health and preventative measures at the level of the community rather than that of the individual. This was to lead to the idea that the state should assume responsibility for aspects of social welfare.

The Schools Medical Service was established by the 1902 and 1903 Balfour Acts, and the Medical Branch of the Board of Education (later the Special Services Branch) was set up in 1907 by a Liberal government. The latter body was responsible for special educational treatment for disabled children, programmes of school visits by medical inspectors, the provision of means-tested school meals, the organisation and inspection of physical training and nursery education. As a result local authority chief medical officers were given a new and important advisory role in school planning. For the first time, schools were influenced by the planning of sanatoria.



Fig. 4: Classroom lighting. Elaborate clerestory windows were employed by the LCCAD at Haimo Road, LB Greenwich (1925-26) and elsewhere (DP070343).

The concern for health also permeated the design of schools in the form of a preoccupation with improving environmental conditions influencing learning. The extreme manifestation

of this, adopted by the LCC before other educational authorities, was the open-air school (see Part III). At around the same time the county architect for Staffordshire John Hutchings (1868-1945) and his Derbyshire counterpart George Henry Widdows (1871-1946) were advocating looser and cross-ventilated plans, of which Welbeck Road, Bolsover (1907); Croft Infants School, Alfreton (1908, Grade II) and North Wingfield (designed 1910, built 1914) are early examples.¹

Poorly-lit classrooms became a particular concern of architects: a study of 1938 by the Medical Research Council and the Building Research Station found that children's eyesight and concentration levels was being impaired by inadequate lighting. Such a degree of attention was paid to the report that something of an over-correction resulted, with many subsequent schools being over-glazed, causing glare and thermal heat gain.²

Nursery schools and child welfare

The pioneering nurseries were philanthropic in spirit, providing social and medical welfare to underprivileged children in working-class districts. The initiative came from the voluntary sector, and particularly the McMillan sisters, Rachel (1859-1917) and Margaret (1860-1931), who opened an open-air nursery in Deptford, LB Greenwich in March 1914. It was soon recognised and financially supported by the educational authorities (see Part III). Nurseries that resulted from cooperation between community groups and local infant welfare clinics were more likely to be housed in non-purpose built accommodation. The voluntary movement was encouraged by the 1908 report of the Consultative Committee of the Board of Education, which recommended that children under five should not be admitted to infants' schools, but instead placed in separate institutions. The inter-war nursery developed from these roots: the emphasis was firmly on health, nourishment and physical welfare rather than intellectual advancement.³ Yet public investment in this field remained limited; by 1937, half of the 87 nurseries recognised by the Board of Education were voluntary.⁴



Fig. 5: Ceramic plaque at Chelsea Open-air Nursery School. The school was established by Susan Isaacs in 1928 with funding from Natalie Davies, an American benefactor (reproduced courtesy of Kathryn Solly).

State-aided nursery provision expanded during the First World War as woman workers entered the factories in unprecedented numbers. The Education Acts 1918 and 1921 permitted local education authorities to supply or aid the supply of nursery schools and classes for children between two and five years of age; conditional grant-aid was made available from 1919. The Board grant-aided 19 nurseries in that initial year; the number had increased by almost a hundred by 1938.⁵ In the absence of mandatory legislation, developments continued to come from the liberal and progressive private sector, which enjoyed free access to radical pedagogical models and the freedom to experiment.

The augmentation of state nursery provision was recommended by a joint Ministry of Health and Board of Education circular of 1929 and the 1933 Hadow report *Infant and nursery schools*, in which the McMillan Nursery School was advocated as a model. The Nursery Schools Association, formed in 1923 with Margaret McMillan as president, advocated that space be set aside for nursery schools in any new housing scheme.⁶ In advocating nurseries for all children, not just those with poor health or from poor backgrounds, the movement prepared the ground for the provisions of the 1944 Butler Act. The LCC anticipated the policies of national authorities, financially assisting the McMillan school from 1919. Two experimental nurseries opened in 1930 in Tower Hamlets and babies' classes provided in 1936; the latter scheme was extended to six classes by 1938.⁷ By 1939, there were five maintained and six aided nursery schools and half the children in London between three and five attended school.⁸

Primary schools and educational reform

The growing desire for 'child-centred learning' was explained in 1923 by Henry Morris (1889-1961), the celebrated Education Officer for Cambridgeshire: 'No longer are [teachers] content to impart information. They will give and take with pupils... For in the recent past authority has given place to teaching, and today teaching gives place to conversation'.⁹ 'The developmental tradition', as described by educationalist Alan Blyth, was conceived by educationalists such as Friedrich Froebel (1782-1852), Edouard Séguin (1812-1880), John Dewey (1859-1952) and Maria Montessori (1870-1952) who stressed self-development and experiential learning through real-life tasks and challenges.¹⁰ Ideas from continental Europe and the United States spread to Britain via a number of small but progressive private elementary schools and organisations such as the London Froebel Society (founded in 1874) and the New Education Fellowship (founded in 1920).¹¹

Book-learning and drill practice were replaced by more active or project-based work, in which children were allowed to express themselves. The teacher was more enabler than director. Studies in the intellectual and social development of children backed up child psychology with copious observational data. The work of Susan Isaacs (1885-1948) at the experimental Malting House school, Cambridge from 1924-27 and her subsequent books of 1930 and 1933 were particularly influential. In 1933, Isaacs became the first Head of the Child Development Department at the Institute of Education, University of London, where she established an advanced teacher-training course in child development.

Teachers, educationalists and the growing field of developmental psychologists realised the importance of school buildings in a child's development: 'the buildings are not merely a shell of the school; they are an educational factor in themselves—for good or ill; and they cannot be left out of account in any assessment of the quality of education, either on the practical side, or in its emotional and social influence'.¹² The importance newly ascribed to active work, group work and play was reflected in more in larger sites, open layouts, and the replacement of fixed desks by lighter, mobile tables and chairs.

By 1931, the principle of child-centred learning had been accepted by the state. The Hadow report *The Primary School* anticipated the 1966 Plowden report by suggesting that the school 'is not a place of compulsory instruction, but a community of old and

young, engaged in learning by cooperative experiment'.¹³ Hadow suggested breaking up the all-age elementary model by separating infant and junior schools wherever possible, with a break at seven years of age. Prior to 1926, when the Hadow committee first recommended this policy, several authorities had created separate junior departments and schools. But between 1927 and 1930, the number of pupils in reorganised junior departments rose from 150,000 to 400,000.¹⁴

Secondary education and permissive legislation

Progress towards the Butler Education Act of 1944 and the universal provision of secondary education can be seen as a gradual process occupying much of the first half of the 20th century, in which milestones were the raising of the leaving age from 13 to 14 through the 1918 Fisher Act, the reorganisation of schooling on the basis of a break at 11, and the increasing provision of alternatives to 'staying on' at an elementary school until the leaving age. As early as 1902, J. J. Findlay (1860-1940), the Professor of Education at the University of Manchester, suggested that every child should receive post-primary education from 11 to 14 plus. The political movement for universal secondary education was represented by the Labour Party's *Secondary Education for All*, written for the 1922 general election by the social historian R.H. Tawney (1880 - 1962), who later sat on the Hadow committee. Tawney's report prefigured the Hadow reports, the Butler Act of 1944 and the emergence of the welfare state generally.

The Education Acts of 1918 (Fisher Act) and 1921 had placed a requirement on local educational authorities to provide selective, advanced and specialised instruction for older and more intelligent children who could not afford, or gain admittance into the grammar schools.¹⁵ Extra capacity was provided in the form of central schools, senior departments or day continuation schools. The LCC provided around 50 additional



Fig. 6 Secondary school provision in London at the end of the First World War: number of children (per 1,000 population) attending secondary school by borough (reproduced from LCC 1920).

central schools, either newly built or converted from former elementary schools.¹⁶ This represented an increase in provision rather than a change in policy: since 1905, the LCC had operated central schools for older pupils, who were admitted on the basis of vocational aspirations and parental choice.¹⁷

The LCC started to reorganise groups of elementary schools according to a break at 11 in 1924, including senior elementary schools with a 'practical bias' for those who were not admitted to central or grammar schools. By 1929 there were 28 such groups, comprising 77 council schools.¹⁸ The LCC policy of reorganisation anticipated the recommendations of the consultative committee of the Board of Education which, under the chairmanship of Sir W. Henry Hadow, reported in 1923, 1924, 1926, 1928, 1931 and 1933. The education historian Richard Aldrich has written that *The Education of the Adolescent* (1926) proposed a redefinition of secondary education 'not in terms of a particular curriculum or ethos, still less as an expression of social distinctions, but simply in relation to the age range of pupils'.¹⁹ Hadow proposed that the leaving age should be raised 'as soon as possible' from 14 to 15, a suggestion not enacted until 1947.

The 1926 report proposed a 'universal system' of advanced instruction for over-11s, if possible in a separate institution. The system was to comprise grammar, technical and 'modern' (the precursors of Butler's 'secondary moderns'). But Hadow was prepared to perpetuate the system of senior classes or departments at elementary schools. The scope of reform was compromised by giving a great deal of latitude to the local educational authorities: some rebuilt schools, others reorganised existing groups of all-age elementary schools into infant, junior and senior schools, yet others re-planned the 'triple decker' school, changing infants', girls' and boys' departments into infants' and coeducational juniors' and seniors' departments. The non-mandatory status of Hadow's recommendations meant that implementation depended on the political will, organisational abilities and financial wherewithal of the local educational authorities. With no timetable, progress was slow and periodically halted, especially during the depression years of 1929-33. By 1938, the LCC had achieved more than most educational authorities, with 89% of maintained schools and 26% of non-provided schools reorganised.²⁰

The consultative committee reported again in 1938 under a new chairman, Will Spens. Spens's recommended simplifying post-primary education to suit children of different aptitudes and abilities. The tripartite arrangement of grammar, technical and modern was again offered, but this time there was no mention of 'staying on' in the senior classes of elementary schools. The committee stopped short of the comprehensive secondary school model and both the principle of selection and the distinction between an academic course geared to university education (the grammar school) and practical and vocational work (the technical school) remained. Nevertheless, Spens advocated 'parity of esteem' as an explicit aim in educational policy, underpinned by a common core curriculum, salary scales, standards in class size and school buildings.

The report stressed the similarity of the building requirements of grammar and modern schools, noting that in certain circumstances, such as rural areas, grammar and modern schools could occupy the same building (termed a bilateral school). This could perhaps be described as idealistic, as elsewhere the committee recognised that more specialist

classrooms and laboratories would be required in the former, making the cost per place one third more expensive. The intervention of the War left the implementation of many of the principles of the Spens report to the Butler Act of 1944.

Village Schools: the school as community centre

The village college movement, in which educational and social facilities for isolated rural communities were integrated into all-age schools, was first proposed in 1925 by Henry Morris, Education Officer for Cambridgeshire County Council. A village college would be located in a large village, serving a hinterland of around ten smaller villages with a combined population of around 10,000.²¹ This approach had the benefits of dissolving the barriers between childhood and adulthood in secondary education, developing adult education in areas of dispersed population, and integrating schools into the communities in which they stood.²²

Out of 11 planned colleges, four were built before the war halted the programme. Sawston (1927-30) by H.H. Dunn reflects Morris's own humanist strain of classicism, whilst S.E. Linton's Bottisham (1937) and Linton (1938) are Dutch-influenced, with open-air classrooms and paved terraces for outdoor teaching. The fourth, Impington (1938-40) was designed by Walter Gropius and his partner Maxwell Fry. Apart from the Bauhaus in Dessau, Germany (1925-26), which introduced the 'pinwheeling plan', Gropius's experience in designing educational buildings included a child care centre for the German Froebel Society in 1924-26 and a nursery for the Caryl Peabody Trust in the United States in 1937 (both unbuilt).²³ Impington was described by Nikolaus Pevsner as 'one of the best buildings of its date in England, if not the best'.²⁴



Fig. 7: Impington Village College, Cambridgeshire; Gropius and Fry, 1938-40. A view showing the adult education wing with assembly hall in the background (© Elaine Harwood).

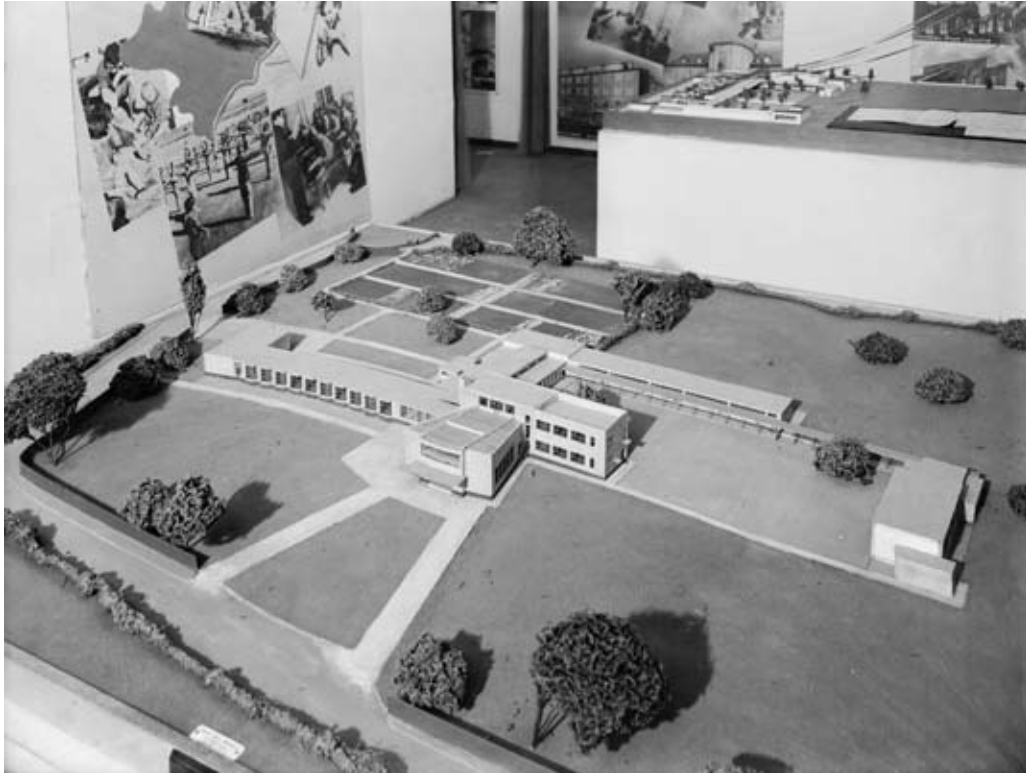


Fig 8: Model of Impington, possibly on display in the 1937 Modern Schools exhibition held at the RIBA (Herbert Felton; NMR:CC47102205).

A tension always existed between the functions of school and community centre. Each of the Cambridgeshire schools had an adult education wing, but the balance between the two sets of users was a delicate one. Thus the Impington plan was revised in an attempt to achieve a balance between the segregation and integration of adult and child users. An early perspective for Impington faithfully reflects Morris's 1925 dictum that the planning of the village school should be based on 'two wings or three-sided courts, one containing the school portion, the other accommodation for adult activities, and with the village hall between'.²⁵ Gropius's pinwheeling plan was adopted in the revised design, in which the adult wing was distinguished from the rest of the building by its gently curving form and repeated bay windows, and faces away from the main entrance. The fan-shaped assembly hall was moved further from the classroom range. The eventual position, described in the Impington brochure, was 'a community centre housing a secondary modern school'.²⁶

The influence of the village college movement may be detected in the Physical Training and Recreation Act of 1937. This empowered local educational authorities to provide and maintain community centres, which contained concert halls, gymnasia and canteens, often serving large and isolated estates. The first LCC community centre was opened the following year. From these beginnings grew ideas of community education widely promoted after the war, and developed architecturally by authorities such as Nottinghamshire and Leicestershire in the 1960s and 1970s.²⁷

The funding of schools

A weak national economy and political anxiety about state expenditure on education put a repeated brake on the development of school buildings between the wars. On the outbreak of peace in 1918, the local authority backlog of public works was put in abeyance due to restrictions on capital expenditure, skilled labour and materials. The purchase of new sites was restricted by the housing shortage, so existing schools were instead remodelled or rebuilt. The day continuation schools required by the Fisher Act were procured from a variety of old school buildings and hired premises. In Deptford, the Methodists' Church Hall of 1903 was pressed into service.²⁸ Pressure was alleviated by use of temporary or non-purpose built structures such as army huts, from which the LCC Bow Road Open-air school, LB Tower Hamlets was constructed in 1921-22.²⁹ The result was essentially the same piecemeal, improvisatory approach that had prevailed in wartime; neither was the shift in population from the centre to the periphery addressed. This was a marked divergence from the house-building programme initiated by the 1919 Housing Act.³⁰

The tone of retrenchment was set by the reports of the Geddes Committee on National Expenditure in 1922 (popularly known as the 'Geddes axe'), which recommended a halt on all educational development, an increase in class sizes and the exclusion of children under six from school. The Board of Education, under continual pressure from the Treasury, urged restraint and economy. Such conservative policies encouraged neither the extension of educational provision nor innovation in the building of schools. Edmund Phipps, the deputy secretary of the Board of Education, admitted in 1921 to a group of architects, 'I and my colleagues spend much time preventing you and your colleagues in doing your work in building schools'.³¹ In 1925, the Baines Committee recommended



Fig. 9: Bow Road Open-air School, LB Tower Hamlets (LCCAD, 1921-22). The bosky setting conceals reused army huts (LMA: SC/PHL/02/0428-14; City of London, London Metropolitan Archives).

single-storey brick buildings, reducing corridors and halls in size and setting roofs at a lower pitch. Less money was to be 'unnecessarily lavished on [the] internal finish' of the assembly hall, and there was pressure to build fewer specialist rooms.³² In 1931, the Board of Education stated that stone facings were 'needlessly expensive' in secondary schools.³³

During recurrent periods of national economic crisis in the inter-war years, programmes of building were postponed or cancelled—a reversal of the Board of Education's 1914 policy of promoting public works programmes as a means to stimulate the local economy and to alleviate unemployment.³⁴ Construction already in hand was suspended or prolonged. In response to this uncertainty, the Board encouraged local educational authorities to spread the outlay of school building over a number of years by phased construction, which required forward planning for future expansion. Early experiments in cheap and lightweight school building were encouraged on the same grounds, continuing a strand of policy that had existed since at least 1911 (see page 32).

The recovery of the national economy in the mid-1930s led to a short burst of progress in school building in the period 1936-39. The 1936 Education Act provided for 50-70% grants for denominational schools to provide additional secondary places, in exchange for the transfer of management powers to the local education authorities. The school leaving age was to be raised to 15 on 1 September 1939. There followed a 'mini-boom' of the building of schools and particularly secondary schools, mostly in the suburbs. There was a corresponding increase in quality, as architects at last engaged with schools and caught up with medical research and pedagogical advances. There was much coverage of schools in the architectural press, such as a series of articles in the *Architects' Journal*, later republished in book form. A competition held by the *News Chronicle* in 1937 was also well publicised and influential. The same year the Royal Institute of British Architects held an exhibition on school architecture. All this activity was curtailed in late 1938 by the reallocation by the Treasury of resources to rearmament and the following year by war.³⁵

ENDNOTES

- 1 See Brook 2004.
- 2 Saint 1977, 38; Swarbrick 1947.
- 3 Dudek 2000, 33; Whitbread 1972, 68; Saint 1987, 44.
- 4 Darling 2007, 158.
- 5 Blackstone 1971, 42-50.
- 6 Darling 2007, 158.
- 7 **LCC** 1947; **LCC** 1939, 33.
- 8 **LCC** 1939, 81.
- 9 *Architects' Journal* 19.3.1980, p566.
- 10 Blyth 1965.
- 11 Harwood forthcoming a.
- 12 Workers' Educational Association pamphlet, cited in **LCC** 1947, 10.
- 13 Board of Education 1931.
- 14 Central Advisory Council for Education 1967.
- 15 The raising of the school leaving age was recommended by the Hadow committee, and the Board of Education subsequently announced in January 1936 that the leaving age would be raised to fifteen in September 1939.
- 16 **LCC** memorandum from the Education Officer to the Architect, 15.7.1920.
- 17 Finlay 1902; Seaborne and Lowe 1977, 123-24.
- 18 Foreword by Education Officer G.H. Gater to the 1929 **LCC** Annual Report.
- 19 Aldrich 2002, 37.
- 20 **LCC** 1939, 81.
- 21 Rowntree and Lavers 1951, 325.
- 22 Saint 1987, 40.
- 23 Dudek 2000, 36.
- 24 Burke and Grosvenor 2008, 87.
- 25 Rée 1985, 148.
- 26 Rowntree and Lavers 1951, 325.
- 27 Harwood forthcoming b.
- 28 Bourne and Latham 1991, 78.
- 29 Although the **LCC** had reused existing buildings in the Bostall Woods experiment of 1908, and others, including the McMillan sisters, advocated an improvisatory, 'home-made' approach to school buildings (Saint 2003, 74).
- 30 Seaborne and Lowe 1977, 111.
- 31 Seaborne and Lowe 1977, 113.
- 32 Board of Education 1932, 5.

- 33 Board of Education 1931a, 58.
- 34 Seaborne and Lowe 1977, 110-112. The LCC used unemployed labour in the construction of the foundations of several schools in the mid-1920s, such as Haimo Road, Orchard Street and the remodelling of Raywood Street. LCC Education Committee minutes 27.11.1923.
- 35 Seaborne and Lowe 1977, 119.

PART II: ASPECTS OF SCHOOL DESIGN
IN LONDON

Introduction

From 1870 until 1990, the provision of public education in inner-London was dominated by a succession of single, centralised local governmental institutions. The Forster Act of 1870 had established the school boards, amongst them the School Board for London (hereafter abbreviated **SBL**), vesting in them power to build and run schools where there were insufficient voluntary school places. The maintenance and regulation of schools was transferred by the 1902 and 1903 Balfour Acts from school boards to the county and borough councils created in the 1888 Local Government Act. The London County Council (**LCC**), which had been created in 1889 to replace the Metropolitan Board of Works, duly assumed responsibility for education in 1904.¹

To a certain extent it was business as usual, as the school-building programme was initially run from the education department by T.J. Bailey, formerly Architect to the School Board for London. The break with board school tradition is more likely to have come on Bailey's retirement in 1910, which provided the opportunity to transfer school building to the Architect's Department under Divisional Architect Robert Robertson (1866-1939), who previously headed the Houses for the Working Classes Branch.² This pivotal earlier period would benefit from further study, but it appears that with the reorganisation of the schools division, the planning of schools was reformed and brought into line with housing design, which provided models for schools both urban (the tenement block) and suburban (the cottage estate).³

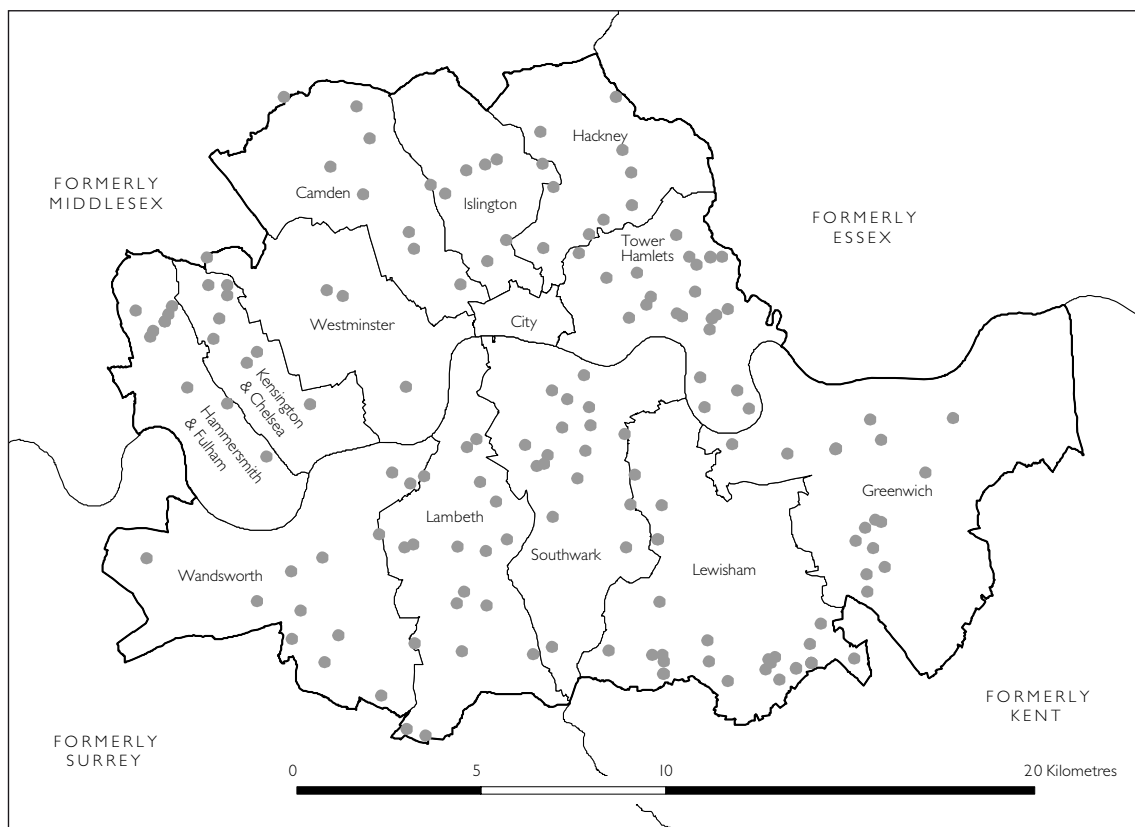


Fig 10: Map of the County of London, showing distribution of purpose-built schools constructed 1918-44. The clusters in Hammersmith & Fulham, and Lewisham (two) relate to the LCC Old Oak, Bellingham and Downham estates respectively.

Notwithstanding, the infrastructure, policies and, not least, the school-building programme initiated by the **SBL** remained an important influence on education in London long after its abolition. The **LCC**, or at least its education department, saw its vocation as continuing the unfinished business of the **SBL**. E.M. Rich, the Education Officer of the **LCC** wrote in 1935:

‘What [the **SBL**] had neither the time nor the power to do, and what in consequence became the task of their successors, was to link the public system of primary education with a public system of secondary education; to build up a system of technical and further education; to segregate those children whose education could only properly proceed in a different kind of school, by different methods, or at a different pace [...]’.⁴

This was at the same time an admission that the **LCC** in 1918 faced an entirely different challenge to that of the **SBL** in 1870. By then, most of the inner-London districts were comparatively well served by the **SBL** and early **LCC** schools. Moreover, statistics compiled annually by the **LCC** showed a decline in birth rates during the period 1901-42: the elementary school roll declined from 727,000 in 1914 to 579,000 in 1932.⁵ So why and where did the **LCC** find it necessary to build 228 new schools between the wars?⁶

At its most basic level, any school-building programme is governed by supply and demand principles: how the distribution and condition of the existing estate meets demographic change. The most significant population trends in inter-war London, outward migration and dispersal, were assisted by the twin **LCC** policies of displacement following slum-clearance and rehousing in estate building programmes. The flight from the inner-city to the outer boroughs and out-county suburbs made some inner-London Board schools redundant on one hand, whilst requiring schools to serve the suburbs, including the large new cottage estates started in Bellingham, Downham, Roehampton and elsewhere.

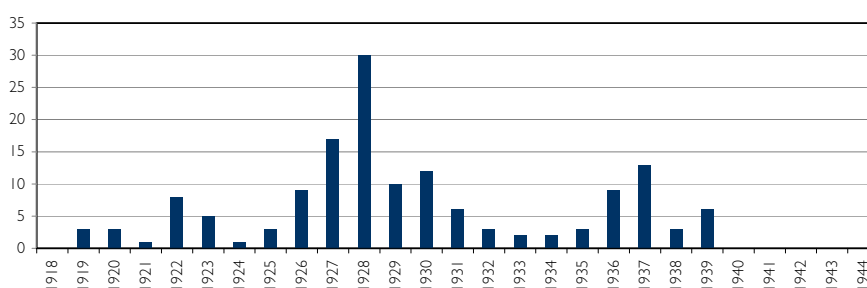


Fig. 11: Purpose-built schools in the County of London, by completion or opening date, 1918-44. The pronounced spike of c.1928 can be explained in different ways: the **LCC** programme of reorganising maintained elementary schools following the 1926 Hadow report; a works backlog dating to the First World War, and relatively benign economic circumstances. The school-building boom of 1936-37 can also be distinguished.



Fig. 12: SBL datestone from the West Kensington Central School, LB Kensington & Chelsea, reset in the boundary wall of the rebuilt 1936 school (DP070344).

Some rebuilding of the first crop of SBL schools from the 1870s was found necessary by the LCC. The problem was not their condition—the demolished schools were substantial structures with an average age of only 50 years—but an obsolescence caused by changes in planning and accommodation standards. In 1907, the Board of Education established new building regulations for elementary schools, including ‘certain requirements as to plans’, standardised classroom sizes and the provision of halls, gymnasia and playgrounds. In 1912, the LCC introduced the so-called ‘40 and 48’ scheme with the approval of Board, which set class size maxima of 48 for infants and 40 for senior pupils, requiring 120,000 additional places, spurring a capital investment programme which only saw

completion in the mid-1930s.⁷ It was not due to their age, quality or condition that many board schools were rebuilt. Indeed, their very permanence made them inflexible buildings and in some cases remodelling was deemed prohibitively difficult, making demolition the only apparent answer.

Rebuilding was also caused by reorganisation programmes, principally the adoption of the 1926 proposals of the Hadow committee for separate infant, junior and secondary schools wherever possible, with breaks in education at the ages of seven and eleven (see page 13). This caused a wave of rebuilding in London which peaked around 1928 (figure 11). Lastly, special schools were required by the Special Services branch of the LCC Education department, mostly in the form of open-air schools (see page 70).

Planning

Two models of school planning can be broadly distinguished during the period 1918-44. The legacy of the board schools, perpetuated by the high cost of city sites, could be termed ‘vertical planning’, in which three departments, commonly infants, girls and boys, were stacked on successive floors. This compact, predominately urban mode of building was adopted for schools rebuilt on restricted inner-city plots. In lower-

density rural and suburban areas, lower and looser forms of 'horizontal planning' had earlier been pioneered by John Hutchings and George Widdows in Staffordshire and Derbyshire respectively. More permeable, well-lit and cross-ventilated buildings were made possible through 'single banking', (ie. the practice of planning classrooms on one side of the corridor only) and the substitution of external verandas for internal corridors.⁸ Horizontally-planned schools could be composed of a number of single-storey departments expressed in plan as wings radiating from a central axis, ranged around a quadrangle, or split into a series of pavilions. 85% of English schools built from 1924 to 1926 were single storey.⁹ These two modes, horizontal and vertical planning, have a direct analogy in the gallery-access tenement blocks and cottage estates built by the housing section of the LCCAD, where many of the architects of the Schools Division started their careers (see page 43).

The preoccupation with environmental conditions in the classroom, set in train by the health reformists, considerably loosened up school planning, where space allowed. The desire for cross-ventilation and natural lighting led to shallower, more permeable plans and contributed to the gradual demise first of the deep plan of the board school, and later of the formal, symmetrical plan. In a 1931 circular, the Board of Education advised that 'the architect's job is to open up as far as possible every part of the school building to the air and sun, to provide free cross ventilation, natural lighting and a suitable temperature'.¹⁰ The orientation of the plan, angling of wings at 30°, 45° or 60°, and the distribution of glazed areas all attempted to track the path of the sun during the day, reflecting changing ideas about the lighting of classrooms.

The butterfly plan and its variants presented one way to 'open up' the school plan. Infirmaries and sanatoria (Fairfield isolation hospital, Bedfordshire of 1878, by George Fowler Jones) and indeed schools (Vittoria Place, LB Islington; SBL, 1879) had made use of the plan long before it was popularised in domestic architecture by the Arts and Crafts movement (the oft-cited example being Edward Prior's the Barn, Exmouth of 1896-97). The Glebe Elementary School, South Normanton, Derbyshire of 1911 (grade II) was of double-butterfly or X-form; to *The Builder* it was 'reminiscent of a famous consumptive hospital'.¹¹ Designs of c.1920 for the LCC elementary schools for the Old Oak, Bellingham and Roehampton estates show non-

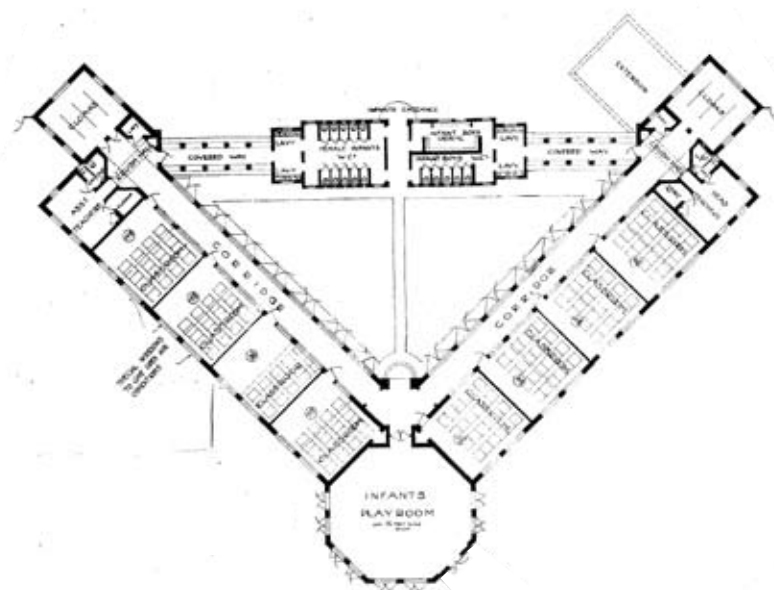


Fig. 13: Infants' Department of Athelney Road School, LB Lewisham (LCCAD, 1920-23), built to serve the Bellingham estate. The plan is related to G.H. Widdow's Creswell Elementary School of 1911. (Reproduced from LCC 1920).



Fig. 14: The classroom pavilions at Wood Lane Open-air School, LB Hammersmith and Fulham. (LMA: SC/PHL/02/0432-5; City of London, London Metropolitan Archives).

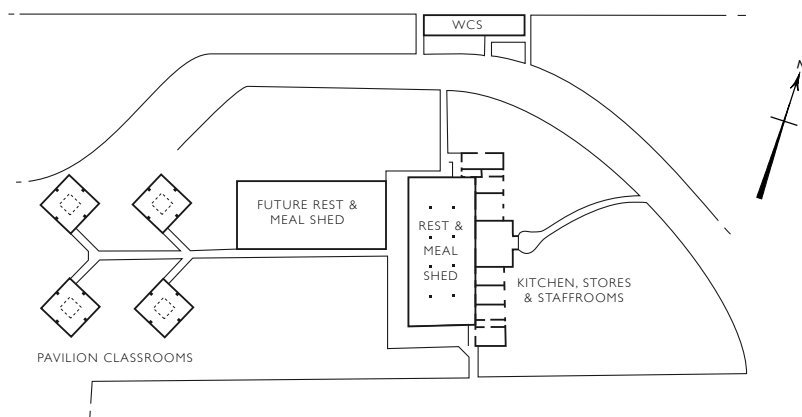


Fig. 15: Separate-block planning at Wood Lane Open-air School (LCCAD; 1929). (Figure redrawn from LMA/LCCIAR/SCH/1133).

orthogonal wings radiating from a central hall and administrative accommodation. The LCCAD described them as 'of a pavilion type, which approximates [...] to the lines of a sanatorium'.¹²



Fig. 16: A geography lesson in an open-air classroom at North Hammersmith Central School, , LB Hammersmith and Fulham (LCCAD; 1931). (LMA: SCIPHL/02/0267-25; City of London, London Metropolitan Archives).



Fig. 17: Wilmot Street School, LB Tower Hamlets (LCCAD; 1931). (LMA: uncatalogued album entitled 'LCC schools section photographs'; City of London, London Metropolitan Archives).

The open-air schools (see page 70) achieved similar ends by means of a different planning technique: separate-block planning.¹³ The term as used here refers to the polarisation of the functions of a school into clusters of separate, freestanding blocks, connected by a path or covered way (see Appendix 4). Margaret McMillan commented, 'the form of the open-air nursery schools is not one large building, but many small shelters: a collection of small townships; of small classes, each one self-contained'.¹⁴ This isolating plan was developed in hospitals and workhouses in the 19th century as an alternative to a single building which improved ventilation and inhibited contagious disease.¹⁵ Introduced to the design of the LCC's open-air schools, it had the added advantage of noise insulation and integration with the mature landscapes of their sites. Each form was associated with a specific activity—teaching, dining, resting—and the whole was informal, diffuse and less 'institutional': there were no grand entrances in open-air schools, for example.

From the early 1920s, aspects of open-air school design began to influence mainstream schools in London, largely through the provision of outdoor terraces and open-air classrooms 'capable of being thrown almost entirely open'.¹⁶ Full-height, folding French windows or partially-glazed screens allowed direct access from classroom to

playground, and corridors were transformed into open verandas or access galleries, an arrangement pioneered by Hutchings and Widdows in Staffordshire and Derbyshire respectively. This arrangement was at first met by teachers with enthusiasm but by the LCC with caution, as recorded in the minutes of a 1925 meeting with representatives of the London Headteachers' Association: 'the teachers were enthusiastically in favour



Fig. 18: Granton Road School, LB Lambeth (LCCAD; 1928). (LMA:SC/PHL/02/0242-36; City of London, London Metropolitan Archives).

of building new schools with an open verandah. They agreed with me that we were hardly ripe for a school with the open verandah on both sides with the sides of the rooms capable of practically being removed, as in the case of North Wingfield and other schools in Derbyshire'.¹⁷ Nevertheless, the LCCAD soon commenced designing schools of the 'Derbyshire type' (see page 25), such as Ealdham Square, LB Greenwich, of 1928-29.¹⁸ This was a multi-storey elementary school with gallery-access open-air classrooms, an experiment

repeated by the LCC in the early 1930s. By 1928 the LCC had incorporated a total of 167 open-air classrooms into their new elementary schools.¹⁹ One such example was Furzedown, LB Wandsworth, of 1928. The Council's two experimental nursery schools (Columbia Market and Old Church Street, both in Tower Hamlets and designed in 1929) incorporated open-air classrooms. In 1930-31, the LCC built a girls' secondary school with open-air classrooms (see page 63). After the initial enthusiasm of the open-air craze, something of a backlash against open-air classrooms occurred (see page 57).

Flexible classroom layouts facilitated a mixture of formal and informal education, an emphasis on project and collaborative work, and the principal of encouraging children to make discoveries for themselves. By the end of the period light and portable school furniture was available, and informal layouts were being advocated in nursery and infants schools. Communal facilities, such as halls and libraries, were given greater emphasis in planning and equipped for new uses such as music, drama, cinema and radio. Halls were increasingly shared by departments for reasons of economy, but also because of the increasing prevalence of co-educational primary schools. The Board of Education recommended central halls, and discouraged double-banked classrooms and classrooms opening directly on to the hall, two aspects of board school planning.²⁰ The hall was occasionally built as a separate block from the classrooms, as at the Honor Oak School for Girls, LB Southwark of 1930-31.

Attention was paid for the first time to specialist accommodation such as gymnasias, science labs, geography, arts and crafts studios, manual and domestic workshops, and music rooms. Most maintained secondary schools were provided with specially-equipped rooms, not just those schools with a vocational or technical emphasis. Even elementary schools with as few as four classrooms, such as Carnac Street central school, LB Lambeth and Dalmain Road elementary school, LB Lewisham (both LCCAD, 1928), were equipped with workshops. These were located centrally, displacing the central hall of the LCC model plan (see page 102). Workshops and laboratories, with their complex space-planning and servicing requirements were sometimes accommodated

in wings or detached blocks, which could be built in a lighter construction if required. Public secondary schools had had separate science blocks since the 19th century, and the practice continued at Clifton College, Bristol (science buildings of 1927), Bedford School, Bedfordshire (1933) and Marlborough College, Wiltshire (1933).

What we now recognise as the typical school gymnasium, with wallbars, window ladders, vaulting horses and benches was established during this period.²¹ At Cooper's Lane, **LB** Lewisham (planned 1934, opened 1936), a detached gymnasium was provided for the first time in an **LCC** elementary school; prior to this the hall doubled as a gymnasium.²² A detached gymnasium was provided at Battersea Grammar School, **LB** Lambeth (J.E.K. Harrison, 1936), disrupting the rigid symmetry of the teaching block. Greater emphasis was also placed upon school libraries after the 1928 Hadow report *Books in Public Elementary Schools*, and the 1936 report of the Carnegie United Kingdom Trust highlighted the inadequate provision of libraries in secondary schools. The reports advocated at least one library per school, with adequate accommodation, greater expenditure on books and training in librarianship.

The need to respond to pedagogical reform, coupled with a reaction against the perceived inflexibility of the board school model, caused architects to consider how their designs could withstand change. The technological solution was the adoption of light construction (see page 31). The Board of Education advocated that the client or commissioning body adopt the longer-term view that future additions should form part of the original scheme.²³ In other cases, flexibility was designed into buildings to allow future conversion or changes in school numbers.²⁴ Building schools department-by-department to a pre-conceived plan was one way of prioritising the urgent local demand for school places. Around a dozen **LCC** schools were built in this way, mostly in the 1920s, such as Rangefield School, **LB** Lewisham, where the infants' department was opened in April 1925, with the junior boys' and girls' following in November 1925 and March 1926 respectively. The phased approach, first employed by the **SBL**, also had a financial advantages, as capital expenditure could be spread across several annual budgets. The need to minimise disruption to the teaching arrangements during rebuilding itself was



Fig. 19: This early view of Orchard School, **LB** Hackney (**LCCAD**; 1926) demonstrates the principle of phased expansion (LMA:SC/PHL/02/0242-27; City of London, London Metropolitan Archives).

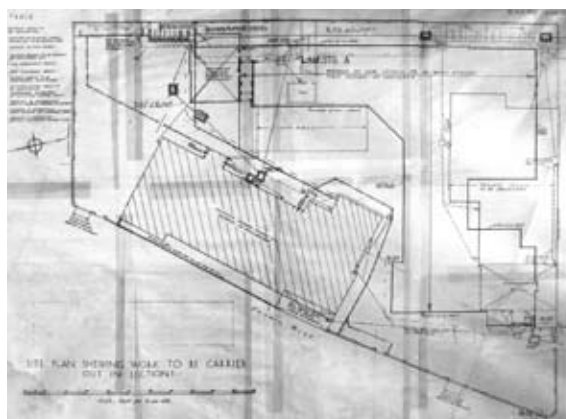


Fig. 20: The L plan of Jessop Road, **LB** Lambeth (**LCCAD**, 1937) allowed the retention of the **SBL** school it replaced during construction. **LCC** contract drawing held by school (DP070358).

considered no less important. London Fields, LB Hackney (LCCAD, 1921-23), and Credon Road, LB Southwark (LCCAD, 1936) were planned for erection in sections for these reasons, whilst the L-plan of the Jessop Road school, LB Lambeth (LCCAD, 1937) was chosen partly to allow the retention of the old school during construction.²⁵

Standardisation and specialisation

An understanding of the organisation of large architectural practices during this period gives useful insights into the design of state schools. Many large offices during this period, including those of local educational authorities such as the LCC, were hierarchical bureaucracies divided into divisions for schools, housing, special projects, and so on. The task of completing large, highly-regulated building programmes within tight budget and time constraints gave rise to two related efficiencies in design, specialisation and standardisation.

Specialisation in this context might mean anything from the adoption of collaborative working methods to a Fordist model. The production-line approach had one individual designing elevations to a school whose plans may have been designed by his colleague or another department. Percy Johnson–Marshall dubbed the Middlesex County Council Architect's Department, at which he briefly worked, the 'plan factory':



Fig. 21: Lady Banks School, Dawlish Drive, Ruislip, Middlesex (W.T. Curtis & H.W. Burchett, 1936).
(© Steve Cadman).

'It was all done in a totally mechanical way. [H.W. Burchett, the schools architect] produced a complete set of plans. I said 'But it's already been designed.' So he said, 'I don't want you to design them, I want you to do some elevations'.²⁶

It would be stating the obvious to comment that this practice led to a misleading disparity between plan and elevation. At Middlesex, the result was the same, inflexible axial plans, dressed in a superficially-asymmetrical Dudokian garb, as at Lady Banks School, Ruislip (1935-36, grade II; quadrangle), De Bohun School, Enfield (1936, grade II; U-plan), and Greenford County Secondary School, Ealing (1937, quadrangle). The Dutch architect Willem Marinus Dudok (1884-1974), director of public works in Hilversum, Netherlands, was particularly influential on English local educational authorities at this time.

Standardisation here refers to any homogenising practice, from the prescription of certain materials or construction techniques to the use of model plans, pattern books or a house style. Both specialisation and standardisation influence the balance between the creative latitude of the individual designer and the corporate identity of the office. The autonomy of the job architect was further eroded by the strict policy of anonymity enforced upon many architects in public service: almost every LCC building was credited to the omniscient architect to the council, whose 'signature' was stamped onto thousands of design drawings. E.P. Wheeler (Architect to the LCC 1934-39) reformed the traditional departmental policy of anonymity, encouraging job architects to be credited when schools were featured in the architectural press.²⁷

Standardisation of room sizes and 'type plans' had been introduced to London schools by T.J. Bailey in late 19th century.²⁸ The practice was perpetuated by the LCCAD, the largest architect's department in Britain, with around 850 staff by 1939.²⁹ A standard planning scheme was adopted by the department in 1917 for new elementary schools, based on the unbuilt plan for the 'Stowage school', Deptford, LB Greenwich.³⁰ This model formed the basis of many LCC elementary schools in the 1920s and '30s (see Appendix 4).³¹ The LCC schools planning standard was updated in 1934 to give more spacious accommodation, specialist classrooms and to incorporate new educational ideas.³² Standardisation also embraced projects outside the mainstream elementary school programme, such as open-air schools, which were arrangements of standardised components such as the open-air pavilion classroom.

Construction

The employment of novel construction techniques and materials in the inter-war period can be summarised as a faltering transition from the permanence of the board school to the light framing techniques of the post-war schools. Conventional school building construction in 1918 comprised load-bearing, cavity-brick walls with steel beams and joists supporting a floor formed from in-situ reinforced concrete. Where a greater glazed area was required the wall could be refined into a series of piers which carried the ceiling beams.



Fig. 22: Infants' Department of Athelney Road School, LB Lewisham (LCCAD, 1920-23) nearing completion. The octagonal hall is of rendered brick, and the flanking classroom wings are timber-framed (LMA:SC/PHL/02/0233-11; City of London, London Metropolitan Archives).

Such a solid mode of building was soon criticised for its inflexibility: it simply outlasted the educational practices it embodied. For the first time, the expendable, impermanent school was advocated; to a generation well-acquainted with Nissen huts, the disposable building was an obvious solution. Sargent and Seymour commented in 1932, 'if some dispensation of providence would destroy the greater part of our school buildings every 25 years, it might be on balance not entirely regrettable'.³³ 'Semi-temporary' buildings on short loan periods had been recommended as early as 1911 by the departmental Committee on the Cost of School Buildings.³⁴ Iron- and timber-framed buildings were perceived as cheap to erect and maintain, easy to alter and extend, and having a high salvage value. Building regulations were revised accordingly in 1914 and schools exempted from local authority building by-laws—and within the County of London, the London Building Acts—although they were still subject to approval from the Board of Education. Open-air schools, such as the Deptford school built by the McMillan sisters in 1917, were often ephemeral in nature, making use of light, prefabricated shelters erected on temporary building licences.

Experiments with new materials and construction techniques such as prefabrication were one answer to the 'housing question' that was posed in the years after 1918. Despite the high cost of labour and building materials, remarkably few schools were built in this way, although it was not for want of trying. In 1920, the LCCAD intended to build the classrooms of some of their cottage-estate schools 'in some form of slab construction rough-casted on the face'.³⁵ The Department's constructional division consulted with two concrete specialists about how reinforced concrete would lent itself to their

standard one-and-two storey plans.³⁶ The LCCAD eventually opted for timber-framed construction at the junior and infants' department of Huntingfield Road, LB Wandsworth of 1920-22 (dem.), and Athelney Road, LB Lewisham of 1920-23 (classrooms largely rebuilt). The job architect for these schools was J.M. Scott (1877-1956).

By 1935 the education authority of Hendon, with the local builders Haymills, were constructing 'semi-permanent' timber schools with a twenty-year life expectancy.³⁷ Like other authorities, the LCC expressed an interest in the Hendon schools and other forms of light construction, but in practice found it difficult to move away from traditional modes of construction: the design process had become standardised and construction reliant on established economies of scale and contract labour.³⁸ Innovation was stifled by inertia and conservatism, intrinsic to large bureaucracies. The report of the Baines committee, appointed in 1925 and including the Architect to the LCC George Topham Forrest, concluded that brick remained the cheapest and most suitable building material for schools.³⁹ After visiting the Ilmington Road senior school, Selly Oak, Birmingham (H.T. Buckland, 1934), J.E. Richardson of the LCCAD concluded that the cost of timber construction was no cheaper than brick, whilst heating costs were higher.⁴⁰

It was not until the school-building boom of 1936-39 that sustained progress was made with light and dry construction. This period saw the first experiments with new construction techniques such as steel-framed schools with light curtain walls. At the West Sussex schools of Sidlesham (1936), Selsey (1937), North Lancing (1938), Rustington (c.1939) and Littlehampton (c.1939), the county architect Cecil George Stillman (1894-1968) used a light, cold-formed plate steel system developed by a local caravan manufacturer to produce rows of single-storey classrooms on an 8'3"



Fig. 23: Sidlesham, West Sussex (C.G. Stillman, 1936), one of the first schools to utilise 'light and dry' construction (© Elain Harwood).

module.⁴¹ Stillman's schools were quick to erect and dismantle, economic and flexible, and prefigured a number of aspects of post-war school building, namely prefabricated, proprietary, 'standard unit' construction. At least three schools were built in Slough in Buckinghamshire on the unit system (the first of which was the Manor Park school) by Buckinghamshire county architect C.H. Riley.⁴²

After the permanence of the LCC's elementary schools was questioned in the House of Commons in 1938, the Architect's Department again investigated new construction techniques.⁴³ The chief impediment was again the multi-storey school. The LCCAD procured a quotation from Stillman's contractors to construct a two-storey school on the 8'3" module at White City, but it was judged too expensive and the project abandoned.⁴⁴ The existence of a patent on part of the West Sussex framing system was also a deterrent. An experimental two-storey steel-framed school for 700 places at Whitefoot Lane on the Downham estate also stalled. The design had columns at 12' centres, pre-cast concrete floor slabs and non-load bearing brick cavity walls. The LCC's brief demanded a high level of flexibility: the building was to be capable of being dismantled and re-erected on a different site, and future conversion from a junior mixed and infants to a senior school. The cost was acceptable at 5% more than the normal LCC construction, but the war intervened.⁴⁵ The LCCAD eventually opted for a two-storey variant of the Hills 8'3" system in 1950.⁴⁶

Elsewhere, with rather more success, the young architect Denis Clarke Hall (1910-2006) was investigating standardised steel frames with light cladding, designed for a 40-year lifespan. He produced a substantial report as part of his 1937 winning entry for an architectural competition held by the *News Chronicle*. The report and his extended article in the *Architects' Journal* were to be as influential as the built version of the entry, which followed in 1938 as the Richmond Girls' High School in North Yorkshire. Stillman and Clarke Hall went on to influence post-war school design; they were the two architect members of the Wood committee, which shaped the 1944 Education Act.

Site

The layout of urban schools was frequently dictated by restricted and irregularly shaped plots and planning regulations constraining height, density and building lines. But architects also responded to the grain and character of the wider urban setting, if only through the economic mechanisms of density and plot ratios. The West Kensington Central School, LB Hammersmith and Fulham, was partially rebuilt by the LCC in 1936, respecting the curve of the adjoining street, Cumberland Crescent. A suburban environment, such as that of the LCC cottage estates, permitted single-storey buildings and the exploration of looser, more informal plans.

The greatest innovations in integrating the school into its landscape setting were made at the open-air schools, where outdoor rest, nature study, exercises, and creative play were key tenets. At the LCC's Aspen House Open-Air School, LB Lambeth, trees from the orchard formerly on the site were retained, and shrubs and bulbs were added to provide interest for the children. Formal intervention was kept to a minimum, limited to small paths, sheltering hedges and the activities of the children themselves. At Stowey House,



Fig. 24: Gardening at Bentworth Road School, LB Hammersmith & Fulham. (LMA: SCIPHL/02/0234-29;; City of London, London Metropolitan Archives).

LB Lambeth, pupils built concrete maps with raised coastlines, allowing water to form the oceans.⁴⁷ The open-air school dissolved the boundaries between indoors and outdoors through open-fronted classrooms and shelters, informally grouped in gardens. The Rachel McMillan Open-air was described by one of its teachers in 1923:

‘The Open-Air School is a garden, around the walls of which are built long, low shelters. The garden belongs to the children, and in planning it we must sweep away all our own grown-up, pre-conceived ideas.’⁴⁸

At the LCC, such thinking gradually diffused from the open-air schools, which were run from the Special Education Section as something of a continuing experiment, to the mainstream elementary schools. Isolated attempts made to avoid the unrelieved seas of tarmac surrounding most maintained schools. Schools serving suburban housing estates tended to have larger sites, but landscaping, and gardens still remained comparatively rare. Occasional exceptions may have been due to the initiative of individual headmasters and teachers rather than LCC policy. A formal ‘Dutch garden’ was originally laid-out at Athelney Street elementary school, LB Lewisham of 1921-23, children maintained a vegetable plot at the Avenue School, LB Southwark of 1937-38, and gardens at Bentworth Road, LB Hammersmith & Fulham (1929), and Huntingfield Road, LB Wandsworth (1922, 1925, 1931).

Elsewhere, high land values and problems with land acquisition left cramped urban sites. On occasion, the Council was able to expand a school site through compulsory purchase of neighbouring properties—as at Hanover Street, LB Islington of 1931-32.⁴⁹ In 1937, the LCC was forced to acquire more land and redesign the Dog Kennel Hill school, LB Southwark (1937, Superintending Architect H.F.T. Cooper), after the Board of Education rejected the ‘cramped’ initial design for a one-acre site. The subsequent school included

a spacious playground with retained mature trees.⁵⁰ The importance of play and physical health in infant development, long advocated by the voluntary play centre movement and the Playing Fields Association, was first recognised in private schools such as Susan Isaacs' Malting House school, Cambridge, where jungle gyms, swings or sandpits were provided. Maxwell Fry followed suit at the Kensal House Day Nursery, **LB** Kensington & Chelsea (1936-38). Some playgrounds were opened to provide evening recreation: from 1935-39, a total of 80 'games centres' were established in London playgrounds.⁵¹

Style

In non-state maintained schools, the architectural appearance of a school was less the inclination of its architect than a carefully considered message from the governors or managers of a school to its students and parents, catchment area and competitors. The predominance of such a client in the choice of architectural style can be seen in the way architects occasionally adopted differing idioms to suit each commission. W.G. Newton's 1933 science block for Marlborough College, Wiltshire (grade II) is a response to the headmasters brief for an 'elegant factory', and presents a contrast to Newton's contemporary neo-Georgian Merchant Taylors' School, Middlesex.



*Fig 25: Science block, Marlborough College (W.G. Newton, 1933).
(© Elain Harwood).*

The Gothic Revival, much favoured by public and grammar schools in the 19th century, had lost its moral force by 1902, but this did not stop building committees pressing the style into service until well into the 1930s. The huge Bolton School, Lancashire, of 1918-29 was designed in the perpendicular style to the designs of C.T. Adhead with funding from W.H. Lever, with no fewer than three quadrangles. Tudor was the order of the day at Eastbourne College, East Sussex, where the architect Geoffrey Wilson was briefed in 1921 to provide 'all the points regarded by the committee as essential, viz: a central tower, cloisters and oriel windows'.⁵² As late as 1938, the otherwise modernist Middlesex County Council could not resist a symmetrical quadrangle, dressed in a heavy Tudor, for their Tottenham Grammar School.⁵³ The northern extension to the Sir Walter St John's



Fig 26: Entrance gates to the Roan School, LB Greenwich (Fletcher & Dannatt, 1926-28). DP070345.



Fig 27: Entrance portico to the Woolwich County Secondary School, LB Greenwich (1927, LCCAD). DP070346.

Grammar School For Boys, Battersea was built in a stripped Tudor to the designs of Denny and Baker in 1937-38.

Instead, most non-provided and independent schools were built in assorted forms of neo-Georgian, the orthodox style for civic buildings in the inter-war years. The style developed out of the Queen Anne revival, popularised by E.R. Robson of the London School Board from around 1874 and adopted after 1902 by the new local education authorities. Neo-Georgian consciously presented a contrast with the Gothic of the church school, representing the secular, liberal movement to enfranchise the education of the working class.⁵⁴

Neo-Georgian came in several varieties. It could be 'archaeologically correct' in proportion and detailing, as in Eagling Road Nursery School, LB Tower Hamlets of 1923 by C. Cowles Voysey, grade II; the Roan School, LB Greenwich, of 1926-28 by Sir Banister Fletcher and Percy Dannatt (grade II); Queen Mary School, Lytham St Annes, Lancashire, by Thomas T Rees and Richard Holt of 1930, grade II; and the rendered Dartington Hall School, Devon of 1931-2 by Oswald P Milne, grade II. The 'stripped classical' mode did away with mouldings and ornament, impressing instead by the discipline of implied orders and proportion, or failing that, sheer bulk. An example is Woolwich County, LB Greenwich of

1928 by LCCAD (job architect W.E. Brooks). A rather more mannerist tendency emerged in 'free' interpretations of neo-Georgian such as the monumental Manchester Grammar School of 1931 by Percy Worthington and Francis Jones.

The style of a school could connote the social status and aspirations of its pupils. Historicist styles spoke of the antiquity of a foundation, or a quadrangle plan evoked the

collegiate air of a preparatory school. Style was employed by the endowed schools to emphasise their pedigrees and traditional syllabi, in response to the growing numbers of senior elementary and modern schools appearing after 1918. A contributor to the *Architectural Review* said of the 1933 Merchant Taylors' School, Middlesex, 'it would obviously be a very shocking thing to most of the old boys if the new school buildings looked like those of a modern municipal secondary school [...] Buildings designed in a purely functional way run that risk'.⁵⁵ As in housing, style was thus the signifier of distinctions between the private and public sector, and ultimately gradations of social class.

For these reasons, the 'council schools' were under less pressure to adopt a formal or historicist appearance, although some did so in imitation of public schools. The architectural pretensions of state schools were always a highly visible and politically charged symbol of public perception of expenditure on education, and local authorities tended to subscribe to one of two schools of thought: schools were either self-conscious and lavish statements of civic pride intended 'to carry high the flag of education', or strove to reassure the ratepayer through their workmanlike and Spartan appearance.⁵⁶ The functional, plain and unpretentious schools of the **LCCAD** tended toward a Lethabite asceticism more through choice than necessity (see page 43).

Overtly formal or axial plans were increasingly criticised by progressive educationalists and architectural modernists, for engendering a monumentality increasingly seen as inappropriate for the school. The Director of Education for Wiltshire wrote in 1936, 'Symmetry is associated with [the] acceptance of a given order of things. Nowadays we hold that children should as far as possible construct their own order.'⁵⁷ The Board of Education did not share such progressive views, and even contemporary flat-roofed, metal-windowed schools could betray their *beaux arts* origins.

From 1932, William Thomas Curtis (b.1879), Architect to Middlesex County Council adopted an asymmetrical Dudokian idiom for the schools of their rapidly-developing 'Metroland' suburbs, such as Oakington Manor, Wembley, **LB Brent** (1934); Headstone Lane, **LB Harrow** (1936), and Locket Road, **LB Harrow** (1937). The Turnham school, **LB Lewisham** (1935, superintending architect H.F.T Cooper with A.M. Peart) was perhaps the **LCC**'s first foray into concrete roofs, horizontal windows and curved corners. The Dudok style proper arrived surprisingly late in London, with the 1936 Burlington School for Girls, **LB Hammersmith and Fulham**, by Burnet, Tait and Lorne (grade II). Occasionally the 'battle of the styles' of the 1930s resulted in stalemates, such as the conflation of a Dudokian tower and neo-Georgian fanlights at the Cowley school, **LB Lambeth (LCCAD, 1936)**; Crittall windows, pantile roof and Victorian clocktower at Northfields School, Bedfordshire of 1936 by Oswald Milne; or the choice of an Odeon style for Pickering Road Junior and Infant School, Hull of 1934 and Whickham View Schools, Newcastle of 1936-8 by F. W. Harvey (grade II).⁵⁸

Contemporary commentators criticised the style-led approaches common to historicist and moderne approaches for their 'repackaging' of a conventional plan. This was perhaps to be expected in the large architect's departments of local education authorities, where in response to large building programmes, a division of labour was applied to the design



Fig 28: Bavinck School, Hilversum (W.M. Dudok, 1921-22). (Reproduced courtesy of Roosje Hoogenhout; Copyright acknowledged).



Fig 29: De Bohun School, LB Enfield (W.T. Curtis & H.W. Burchett, 1936). (© Elaine Harwood).



Fig 30: Turnham School, LB Lewisham (LCCAD, 1934-35). (LMA:SC/PHL/02/0254-27; City of London, London Metropolitan Archives).



Fig 31: Cowley school, LB Lambeth (LCCAD, 1936). (LMA:SC/PHL/02/0238-2; City of London, London Metropolitan Archives).

of plans and elevations.⁵⁹ But this essentially superficial approach was also evident in small, private practices such as that of J.E.K. Harrison, who at Battersea Grammar, LB Lambeth of 1936 clothed a plan of Edwardian origin in the fashionable dress of horizontal metal-framed windows and moderne detailing.

With some notable exceptions, there were few points of convergence between new ideas in health and education and the 'new architecture'. The return to first principles promised by the emerging International Style was taken up only by a handful of progressive independent schools. At Dartington Hall School, Devon, founded by Leonard and Dorothy Elmhirst in 1926, the Swiss-American architect W.E. Lescaze built the headmaster's house, a gymnasium, and three boarding houses/classroom blocks (1933-35; grade II*). Whittingehame College, Brighton of 1936 by Amnon Vivian Pilichowski (1907-1982) was a large welded, steel-framed complex, finished in white render. In 1938-40



Fig 32: Junior school classrooms at King Alfred School, LB Barnet (E.C. Kaufmann, 1934-36).
(RIBA Library Photographs Collection: RIBA17182)



Fig 33: Nursery school at Dulwich College Preparatory School, LB Southwark (Samuel and Harding, 1936).
(RIBA Library Photographs Collection: RIBA8037)



Fig 34: Dance School, Dartington Hall School, Devon.
(RIBA Library Photographs Collection: RIBA25098).

came two models for post-war schools in the form of Gropius and Fry's Impington Village College, Cambridgeshire (grade I; see page 15) and Denis Clarke Hall's Richmond Girls' High School, Yorkshire (grade II). The load-bearing stone walls of Richmond hinted at the development of British modernism from a purist machine aesthetic towards vernacular materials and a sensitivity to context.

In London, the modernist school *par excellence* was Maxwell Fry's semi-circular nursery school at Kensal House, **LB** Kensington and Chelsea (grade II*; see page 54). A few small ancillary buildings to independent schools, long-since demolished, were unduly influential at the time, being well published in the architectural journals and educational publications. These includes a single-storey junior school at the rear of the King Alfred School, Hampstead, **LB** Barnet (E.C. Kaufmann, 1934-36; dem.) and a nursery school at Dulwich College Preparatory School, **LB** Southwark (Samuel and Harding, 1936; dem.). These buildings remain amongst the most architectural significant of the period, and prefigure the widespread adoption of the modernist idiom by the welfare state after 1944.

Education through architecture

Those who resisted the calls for cheaper and temporary buildings, and the resultant lowering of architectural expectations, could argue that a well-designed school would inculcate an appreciation of good design and aesthetics into its pupils. The design education movement, chiefly represented by Frank Pick's Council for Art and Industry (**CAI**), advocated of the role of design and the aesthetics of the school environment in the wider education of children.

Pick's report of 1935, *Education for the Consumer* evidently had some influence, for by 1937, the *Architects' Journal* could write 'much more attention should be paid to form, design and colour in school surroundings in order that elementary good taste will not

remain a “book-learnt” conception’. The Spens Report of the consultative committee (1938) also drew special attention to ‘taste in design in schools’, suggesting that architects ‘should not overlook the powerful influence in the aesthetic training of the pupils that is exerted by the design and decoration of the premises in which they work day by day’.⁶⁰

In 1935, Pick convinced the leader of the LCC, Herbert Morrison, to put these ideas into practice by commissioning the CAI to design a ‘junior mixed school’ for around 900 pupils on a site in Lyndhurst Grove, LB Southwark. The LCC financed the project as a one-off, despite the protestations of the Board of Education, on the condition that the school cost no more than an in-house design. Pick chose Oliver Hill, who was, like his favoured architect Charles Holden, the exponent of a very English strain of modernism grounded in Lethaby and the Arts and Crafts tradition. Paraphrasing Le Corbusier, Hill promised ‘an essentially practical machine for teaching in’ and that its beauty should emerge from its fitness for purpose.⁶¹

Hill’s two-storey design, dated September 1936, would have occupied the full length of a constrained site abutting a railway cutting. On the ground floor he placed assembly halls for the infants’, girls’ and boys’ departments, the latter two paired and separated with a sliding partition, and equipped with a cinema projection room. The classrooms were placed on the upper floors to shelter them from the noise of the playground and the railway. Open ramps replaced stairs on ground of safety, their presence whimsically

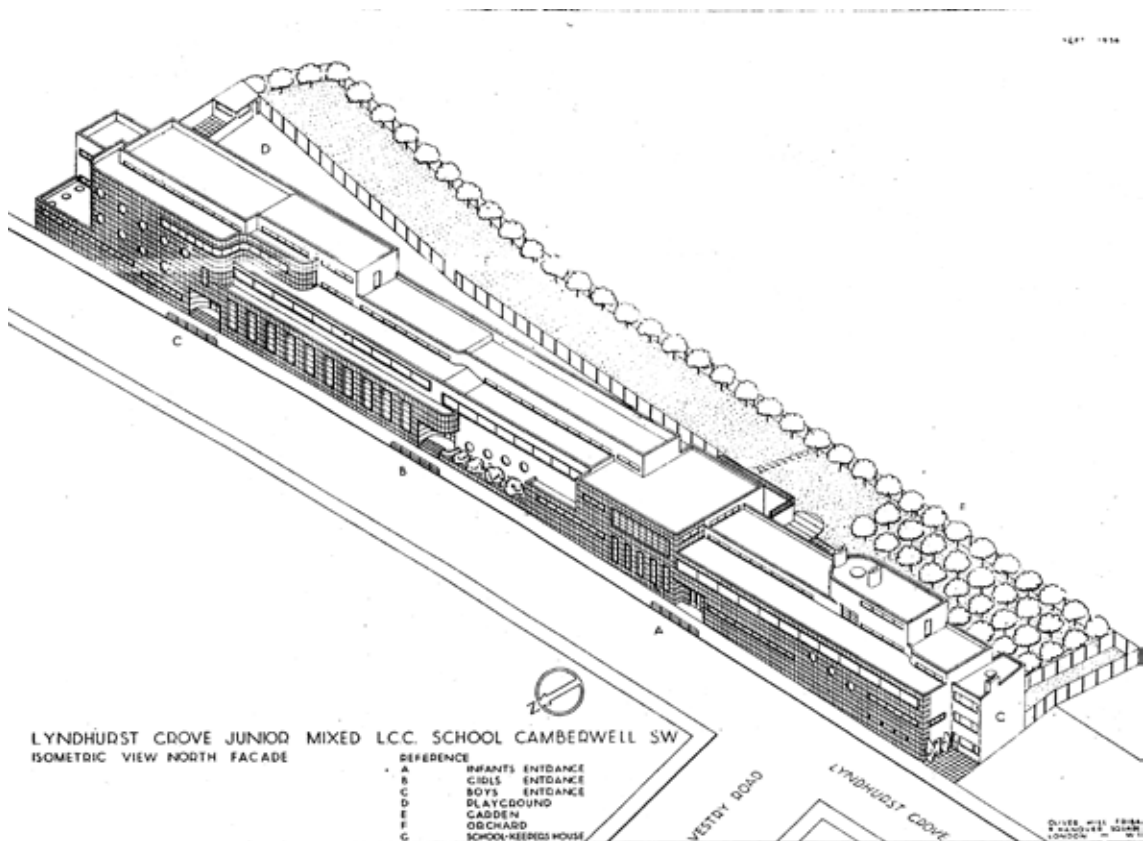


Fig 35: At Lyndhurst Grove, LB Southwark, Oliver Hill attempted to mitigate an unsatisfactory site through a functionalist approach, underscored by the isometric projection of this 1936 drawing. (Reproduced from the Builder, 5 February 1937, p308).

signalled by rows of ascending porthole windows on the north elevation. The row of south-facing classrooms were to be of the 'open-air' variety, fitted with full-height, sliding window units. These opened onto a continuous cantilevered balcony, terminating in an elegant stair which wound down to the playground. Craft and modelling rooms for messy work were included. Hill specified a variety of façade treatments for the reinforced concrete structure; the north elevation was to be faced with light blue faïence and the south elevation colour washed. It must have been to the relief of the LCCAD that the project stalled, and was eventually abandoned on the grounds that the Council could not acquire a portion of the site from Southern Railways.⁶²

Another way of enriching the state school environment was by commissioning artists to do so. The first of two notable inter-war examples are the murals in Brockley County School, executed by four students of the Royal College of Art (Charles Mahoney, Evelyn Dunbar, Mildred Eldridge and Violet Martin) between 1933 and 1936. The paintings, which illustrate Aesop's *Fables*, adorn the school hall, housed in a 1913-14 LCCAD extension; the school is listed at grade II* on the strength of the murals. The project came about on the initiative of the headmaster after the principal of the RCA, William Rothenstein appealed for commissions for his students in a 1931 radio broadcast.⁶³ When finally given the chance to build a school, Oliver Hill commissioned John Skeaping (1901-80) to adorn it. At Whitwood Mere Infant School, Castleford, W. Yorks of 1938-39 (Grade II), Skeaping made a long ceramic frieze, with life-size outlines of leaping deer incised on rectangular jade green faïence slabs.⁶⁴

Although the CAI and others failed to stimulate large-scale uptake of their principles, they are notable for anticipating Herbert Read's *Education Through Art* of 1943 and the practice, encouraged after the war in counties such as Hertfordshire, of budgeting art into their projects to enrich the school environment with bold colours, fabrics and commissioned artworks.

LCC schools

When, in 1904, the LCC succeeded the London School Board as educational authority for the County of London under the London Education Act, it gained responsibility over a larger number and variety of schools than its predecessor body. This included the regulation of non-provided schools, such as denominational schools. The LCC Education Committee was empowered by statute, although it required special authority to raise rates or borrow money. The committee of 50 comprised 38 members of the LCC and 12 co-opted for reasons of special expertise or experience; they met fortnightly.⁶⁵ From 1910, educational work was planned in triennial programmes which permitted a more strategic approach than annual budgets would have otherwise permitted.

The average age of the architects of the LCCAD Schools Division in 1925 was 51.⁶⁶ The longest-serving architects of the Division during the period 1918-44 were survivors of a band of progressive and idealistic architects who entered LCC service around the turn of the century, choosing social architecture and public service over private practice. It is significant that the key figures in the inter-war schools division, James Rogers Stark (b.1870) and Herbert Francis Thomas Cooper (1874-1944) were the first generation



Fig 36: Herbert Francis Thomas Cooper (1874-1944)



Fig 37: William Edward Brooks (1879-1945)



Fig 38: James Maxwell Scott (1877-1956)



Fig 39: Edwin George Goodson Bax (b.1881)

*Figs. 36-39: Four inter-war schools architects of the LCC
(LMA:GLC/AR/DA/02; City of London, London Metropolitan Archives).*

of architects working in the 'Housing for the Working Classes' Division, designing the social architecture of LCC tenement blocks and early cottage estates. William Edward Brooks (1879-1945) and Edwin George Goodson Bax (b.1881) started their careers in the celebrated fire brigade branch under Owen Fleming and Charles Winmill. Others started their careers in the School Board for London or the Metropolitan Board of Works. This generation were Arts and Crafts men, followers of W.R. Lethaby, Philip Webb and Norman Shaw, and members of the Art Workers' Guild. In her study of early LCC housing schemes, Susan Beattie commented that the LCCAD were 'compelled for economic reasons to look long and hard at the relationship between form and function



Fig. 40: The Beachcroft Buildings, Cable Street, LB Tower Hamlets (LCCAD, 1892-93; dem.). These early LCC tenement blocks were products of the Housing for the Working Classes Act of 1890 and pre-dated the formation of the Housing of the Working Classes branch of the Architect's Department in 1893 (LCC photograph reproduced in Beattie 1980).



Fig. 41: North elevation of London Fields School, LB Hackney (LCCAD, 1921-23). A similar view was published in the LCC's *The London Education Service*, captioned 'A return to a simple style'. The stark corridor elevation, with its widely-spaced windows, was chosen over the more generous fenestration of the classroom elevations. (DP070347).



Fig. 42: The Juniors' and Infants' Department of Huntingfield Road, LB Wandsworth (LCCAD, 1920-25; dem.). A single-storey, pavilion-plan school, for the LCC Roehampton estate and designed by J.M. Scott (DP070359).



Fig. 43: A more informal, vernacular-inflected mode was attempted at the contemporary Mellitus School, LB Hammersmith & Fulham (LCCAD, 1921-22). (DP070348)

in building and to abandon elaborate tricks of style, [bringing] English architecture as close as it ever came to the radicalism of W.R. Lethaby'.⁶⁷

The schools designed under George Topham Forrest, Architect to the LCC from 1919-35, continued this tradition of making virtue out of necessity: it is possible to see the LCC 'triple-decker' elementary school as a board school deliberately stripped of its baroque detailing and silhouette. London Fields School (1921-23) was illustrated in the LCC publication *The London Education Service* as an example of 'the modern schools where a return has been made to a severe and simple style. Here everything is sacrificed to utility and comfort'.⁶⁸ *The Architect* noted that the building was 'quite distinct from the usual type of school building in London', from which Forrest was 'evidently determined to break away'.⁶⁹ It is unclear to what degree Forrest was directly involved with schools, and how much autonomy was enjoyed by the divisional architect. Nevertheless, *The Architect's* observation holds: the flat-roofed corridor elevations of London Fields and its

contemporaries, with their widely spaced windows, reveal an austerity whose lineage can be traced to the LCC tenement blocks at Cable Street (1892-93) and Yabsley Street (1894).⁷⁰

The visual language subsequently developed by the schools division, of yellow stock brick, squarish cross-windows and tiled, hipped or half-hipped roofs with low eaves pierced by tall classroom windows, relate more to tenement blocks and cottage estates than to the board schools.⁷¹ The estate schools were also designed to complement, rather than dominate their surroundings. The department stated that the single-storey Rangefield School (LB Lewisham; 1925-26, job architect J.M. Scott) had been 'designed on plain and simple lines to harmonise with the surrounding cottages'.⁷² The planning and appearance of Derbyshire schools, under George Henry Widdows, were undoubtedly a major influence on the LCCAD also, although it was scarcely admitted.

Detailing, where it is to be found, tended towards a domestic and free late-Georgian. A contrast is occasionally set up between the flat, symmetrical classroom fronts and a massing of stair towers and ancillary accommodation, picturesque in the 1920s schools, Dudokian in those of the following decade. Occasionally, the touch of an individual designer breaks through the corporate mode, such as the half-hipped vernacular of Elfrida School, LB Lewisham (1924-25, job architect possibly E.C. Nisbett) and a 1930s outbreak of Italianate towers with pyramidal roofs.⁷³



Fig. 44: Wandsworth Secondary County School, LB Wandsworth (LCCAD, 1927). The school was constructed as a 'feeder school' to the Wandsworth Technical Institute, built the previous year. The scientific, technical and art bias of the curriculum is manifested in the large windows and high ceilings of the building, which cost £70,000 (LMA: SC1PHL10210277-26; City of London, London Metropolitan Archives).



Fig. 45: Detail of south elevation of the King's Park School, LB Greenwich (LCCAD, 1934). The tower separates girl' and boys' classrooms wings (LMA: SC1PHL10210245-25; City of London, London Metropolitan Archives).

The greatest achievements of the LCC in the period was the realisation of an open-air school building programme along the lines, and on the scale it had promised in the Edwardian decade. This introduced 'separate block planning' to London, along with a greater appreciation of the value of existing sites and landscapes in both the planning of

schools and in the curriculum itself. The Council also introduced 'open-air classrooms' to its mainstream elementary schools, including multi-storey schools where this presented a constructional challenge. The single-storey schools serving the LCC estates were influenced by the planning reforms introduced to English schools by Hutchings and Widdows, including single-banked classroom wings and the butterfly plan. All this the Schools Division endeavoured to build within tight budgets and with little deviation from an austere neo-Georgian idiom.

ENDNOTES

- 1 On the abolition of the **LCC** in 1965, its successor the Greater London Council delegated responsibility to the Inner London Education Authority (**ILEA**), a 'special committee' comprising **GLC** members from the inner London Area. When **ILEA** was itself abolished in 1990, the inner London boroughs became education authorities, which remains the present situation.
- 2 The General Purposes Committee had earlier recommended this course of action to the Council in 1907, and the motion was put to vote but lost. Report of General Purposes Committee in **LCC** Minutes of 2 November 1909, pp.820-22.
- 3 This point owes much to discussion with Andrew Saint.
- 4 Foreword by Education Officer E.R. Rich to the 1935 **LCC** Annual Report.
- 5 Maclure 1990, 127.
- 6 Ringshall *et al* 1983, 39. This figure presumably includes extensions and alterations to existing schools.
- 7 **LCC** minutes 5.3.1912, pp.502-06.
- 8 Single- and double-banked classrooms are defined in Stillman and Cleary 1949, 67-68; although the terminology was in use in the inter-war period (see, for example, letter of 27.3.1935 from J. Wilkie of the Board of Education to E.P. Bennett of the Education Department of the **LCC**, in **LMA:AR/CB/1/67**).
- 9 Seaborne and Lowe 1977, 117.
- 10 Board of Education 1931, 12.
- 11 Seaborne and Lowe 1977, 84. This is possibly a reference to the Frimley Sanatorium of the Brompton Hospital for Consumption, Surrey by E.T. Hall of 1901-5, also of a double-butterfly form.
- 12 **LCC** 1920, 61.
- 13 Separate-block planning had previously been employed at the Uffculme Open-Air School, Birmingham of 1909-11 by Barry F. Peacock of Cossins, Peacock and Bewlay (Châtelet 2008 , 114). This important school survives unlisted, although no longer in educational use.
- 14 Saint 1987, 46.
- 15 Morrison 1999, 98, 103-04.
- 16 Myles Wright and Gardner-Medwin 1938, 15.
- 17 Report of the **LCC** Education Officer entitled Conference—School Buildings, dated 22.4.1925. **LMA:AR/CB/1/66**.
- 18 The 'Derbyshire type' is illustrated in Stillman and Curtis 1949, 13.
- 19 De la Mare Norris 1929, 8.
- 20 Board of Education 1931, 13.
- 21 Board of Education 1925 and 1939b.
- 22 **LCC** minutes of 3.7.1934, p.12.
- 23 Board of Education 1931, 14.
- 24 Sargent and Seymour 1932, 8.
- 25 **LCCAD** plans held at the school.
- 26 Saint 1987, 39.

- 27 Obituary in *RIBA Journal*, April 1944.
- 28 Saint 1995.
- 29 Goulden 1965, 598.
- 30 LCC Education Committee minutes 3.4.1917 and 27.1.1920; Stevinson 1927, 55. The Rachel McMillan school was instead built on the site.
- 31 LCC Education Committee minutes 14.10.1919.
- 32 LCC minutes 30.10.1934, pp. 457-60 (elementary) and pp.463-65 (secondary).
- 33 Sargent and Seymour 1932.
- 34 Seaborne and Lowe 1977, 109.
- 35 LCC 1920, 61.
- 36 Memo of 29 May 1920 from the Education Officer to the Architect (LMA:AR/CB/1/65).
- 37 Harwood forthcoming a.
- 38 The LCC architect E.P. Wheeler wrote to the Hendon Corporation for information on their timber-framed schools in December 1937 (LMA:AR/CB/1/70).
- 39 Seaborne and Lowe 1977, 118.
- 40 Report of visit 26.11.1934, in LMA:AR/CB/1/70.
- 41 Saint 1987; Harwood forthcoming b.
- 42 Letter of 10.5.1938 from D.E. Cooke to E.M. Rich (LMA:AR/CB/1/70).
- 43 Extract from the London Evening Standard, 26.7.1938, in LMA:AR/CB/1/70.
- 44 Minutes of the LCC Elementary Education subcommittee, 13.11.1938.
- 45 Letter of 23.12.1937 from F. Jackman, assistant architect to the Board of Education to E.P Wheeler, Architect to the LCC (LMA:AR/CB/1/70).
- 46 Harwood forthcoming b.
- 47 LCC annual report 1937.
- 48 Stevinson 1927, 24.
- 49 LCC minutes 21.1.1930, p.42.
- 50 Seaborne and Lowe 1977, 130. Mature trees were also retained at Cephass Street, LB Tower Hamlets, 1928; and Dunraven, LB Lambeth, 1934.
- 51 LCC 1939.
- 52 Seaborne and Lowe 1977, 138.
- 53 *The Builder*, 18.2.1938, pp351-52.
- 54 Saint 1995, 34.
- 55 Seaborne and Lowe 1977, 141.
- 56 Charles Booth, quoted in Saint 1995, 36.
- 57 Seaborne and Lowe 1977, 126.
- 58 *Architects' Journal* 19.3.1980, p566.
- 59 Saint 1987, 39. There is evidence that the LCCAD employed a similar approach.

- 60 Board of Education 1938.
- 61 Saler 1999.
- 62 Hill went on to design three further schools, only one of which was built. Two entirely different designs were produced for Middle Park Junior school, Eltham, **LB** Greenwich in 1938-39, but war intervened. The Senior School at Methely near Rotherwell was one of two schemes for the West Riding Educational Authority. Whitwood Mere Infant School (Grade II), like the first Eltham design, has a curved plan out of which a fan-shaped hall develops (Powers 1989, 46-48).
- 63 Powers 1987 and English Heritage report of December 1991 by Andrew Saint entitled *Hillyfields Sixth Form Centre*; copy in the Historians' Files, English Heritage London Region, file reference **LEW50**.
- 64 Powers 1989, 47 and <http://www.lynnpearson.co.uk/Yorkshire.pdf>.
- 65 **LCC** 1939.
- 66 Working list of Schools Division architects compiled from **LCCAD** files held at the **LMA**. Biographical data from **BAL** biographical files, Brodie et al 2001 and **LMA:GLC/AR/DA/02**.
- 67 Beattie 1980, 17.
- 68 **LCC** 1927, 31-32.
- 69 *The Architect*, 15.4.1921, p268.
- 70 Beattie 1980.
- 71 The breaking-up of the eaves line by classroom windows ran contrary to the edicts of the Board of Education, who discouraged them as a false economy (1932, 5).
- 72 *The Builder*, 26.11.1926, p.874.
- 73 Cooper's Lane of 1936, Fox, Cubitt and King's Park of 1937 and Glengall of 1939. The Superintending Architect of King's Park and Cubitt schools was H.F.T. Cooper (1874-1944). An **LCC** photograph of Elfrida taken shortly after completion of construction shows an **LCC** information board on which Nisbett's name can be made out (Photograph in an uncatalogued album held in the **LMA** entitled '**LCC** schools section photographs').

PART III: SCHOOL TYPES

The nursery school

Case studies:

- *Columbia Market Nursery School, Bethnal Green, LB Tower Hamlets. LCCAD, 1929-30; unlisted.*
- *Old Church Road Nursery School, Mile End, LB Tower Hamlets. LCCAD, 1929-30; unlisted.*
- *Kensal House Day Nursery, LB Kensington and Chelsea. Maxwell Fry (executive architect), 1936-38; grade II*.*

Nursery schools were the only educational field in the period 1918-44 in which progressive architecture and progressive educational thought swiftly coincided. A young building type offered the chance to work at different scales, with little of the baggage of the past.

A nursery school could be a separate institution on its own site, or otherwise integrated into an infants' school or infants' department of an elementary school. The former conformed to the prevailing ideal that nursery and infant provision were separate stages of education, with separate building types. Where numbers did not warrant a separate nursery school, the alternative, adopted by the LCC and Bradford County Council amongst others, was termed the nursery-infant school: 'babies' classes' in infants' schools. The babies' class was something of a perpetuation of the common practice of working mothers of leaving their under-fives at elementary schools. Infant schools could be extended to include freestanding nursery buildings, such as that of Samuel and Harding at Dulwich College Preparatory School, LB Southwark, of 1936 (dem). Their design included open-air classrooms with sliding windows, and a glazed canopy, above which was clerestorey lighting.

The decision of the LCC of 1920 to establish six experimental nursery schools, three attached to infants' departments and three separate, was suspended on financial



Fig. 46: *Columbia Market Nursery School, Bethnal Green, LB Tower Hamlets (LCCAD, 1929-30). DP070349.*

grounds. In lieu of this they grant-aided and directly funded the extension of the Rachel McMillan school, LB Greenwich (see page 74).¹ In 1928, the Council resolved to build two experimental detached nurseries of 150 places each on two Tower Hamlets sites in their possession: the result was Columbia Market Nursery School and Old Church Nursery School. The single-storey schools were informally planned around a courtyard, with

the courtyard-facing classroom elevations open to a veranda. Construction is mostly of timber frame with large timber casement windows and weatherboarding of exteriors and corridors. Both the open-air classrooms and 'semi-permanent' construction show the influence of the Board of Education and wider trends in school design.



Fig. 47: Quadrangle at Old Church Road Nursery School (LMA:SC/PHL/02/0258-7; City of London, London Metropolitan Archives).

Each school was planned with two large and two small classrooms, drying, lavatory and bathing rooms, medical inspection room, kitchen, staff rooms and stores. Staffing arrangements and hours of attendance were based on the practice of the Rachel McMillan school. The plans were modified to include roof lights at the suggestion of the Board of Education.² Both schools were opened on the same day in August 1930. The open verandas were soon found unsatisfactory; they were first covered with curtains and soon after (judging from the joinery) glazed in.³ The Columbia Market school in particular is otherwise little altered and in good condition. The joinery is of good quality, and the delicate neo-Georgian detailing of the canted bay window and entrance porch of the south range is unusual in the *oeuvre* of the LCC schools; perhaps the experimental status of the nursery schools freed the designers from the standardised routine of the elementary school building programmes.



Fig. 48: Old Church Road Nursery School, Mile End, LB Tower Hamlets (LCCAD, 1929-30) (LMA:SC/PHL/02/0258-10; City of London, London Metropolitan Archives).

The most widely-published purpose-built nurseries of the period were not in London and not built by local education authorities. Two exemplars were built in Chester in 1934: Donald Gibson and C. W. Lemmon's Hilary Haworth Nursery School at Lache, Cheshire was realised with the support of the Nursery Schools Association. Leslie Martin and Sadie Speight's school at nearby Hartford (grade II) vividly anticipates the post-war schools. Both were light-weight, timber-framed structures with asbestos-cement sheet cladding and large metal-framed windows. The Nursery Schools Association commissioned Ernö Goldfinger in 1934 to produce a cheap, standardised school on a three-foot module capable of expansion, which resulted in two timber-framed

designs, the second of 1937 with Mary Crowley (later Medd) and Gerald Flower for the manufacturers Boulton and Paul.

Notwithstanding, most urban nursery schools made use of older houses, such as the Chelsea Open Air Nursery School. The remodelling of a Victorian villa in Holland Park for the 1936 Hampden Nursery School, **LB** Kensington & Chelsea by Wells Coates, assisted by the young Denys Lasdun, demonstrated that even the smallest nursery could benefit from modern design.

Nursery schools and crèches could also be integrated into social housing schemes, the best example of which is the Kensal House Day Nursery, **LB** Kensington and Chelsea, of 1936-38 (grade II*) with Maxwell Fry (1899-1987) as executive architect. Fry positioned the school on part of the site of an old gasholder, from which it derives its curve. The school, for 60 children, was kept as low as possible, to avoid compromising views from the adjoining flats, and to acknowledge that, in Fry's words, 'babies pass their lives surprisingly near the floor'.⁴ The school routine, and the open-air aspect of the design, owed much to the McMillan method.

The school is steel-framed with an asphalt roof, metal-framed windows and rendered brick infill. The three 'playrooms' have intervening **wcs** and lockers. The classrooms are insulated by a corridor to the north, and heated by over-head radiant heaters with concealed heating pipes. The inner, south-facing elevations have folding and sliding French windows over a blue-tiled sill. The windows are sheltered by a boldly cantilevered canopy 'so that windows can be kept open in spite of rain', and above that a glazed clerestory to induce cross-ventilation. The playrooms opened on to a terrace edged by concrete planting boxes, beyond which was a play area containing a paddling pool, sand pit and jungle gym.



*Fig. 49: Herbert Felton photograph of the Kensal House Day Nursery, **LB** Kensington and Chelsea; Maxwell Fry, 1936-38 (NMR:CC47102796).*

The maintained elementary school

Case studies:

- *Sumner Road Elementary School* (now occupied by the NHS Southwark Primary Care Trust), Peckham, **LB Southwark**. *LCCAD*, 1921-22; unlisted.
- *Webb Street Elementary School* (now Grange Primary School), Bermondsey, **LB Southwark**. *LCCAD*, 1922; unlisted.
- *Hanover Street Elementary School*, **LB Islington**. *LCCAD*, 1931-32; unlisted.
- *North Hammersmith Central* (initially named *Wormholt Estate Central*; now *Hammersmith Secondary School*), **LB Hammersmith & Fulham**. *LCCAD*, 1930-31; unlisted.
- *Henry Fawcett Elementary School*, **LB Lambeth**. *LCCAD*, 1937; unlisted.

New elementary schools in the state sector were either rebuildings of London Board schools or served the new LCC cottage estates. The renewal programme was necessitated by the Board of Education's planning standards and the LCC's '40 and 48' scheme, adopted in 1912 in agreement with the Board, in which class sizes maxima of 48 juniors and 40 seniors was set. As it was seldom possible to extend the site, the replacements were by necessity 'triple-deckers'. The rebuilt schools followed a standard plan adopted by the LCC in 1917 (known as the 'Stowage plan'; see Appendix 4). This is a compact multi-storied plan, with double-banked classrooms flanking a central hall. The resultant double-pile structure is in two hipped ranges with an intervening top-lit corridor. Separate entrances/stair bays for infants, girls and boys are placed on, or near to, the short ends.



Fig 50: *Sumner Road School*, **LB Southwark**. (*LCCAD*, 1921-22). (DP070350).

Webb Street School of 1920-22 and Sumner Road School of 1921-22 (both **LB Southwark**) were amongst the first wave of post-war Board school rebuildings, under George Topham Forrest.⁵ The accommodation schedule at Sumner Road necessitated the addition of two classrooms at the south end. At Webb Street (job



Fig 51: *Webb Street School*, **LB Southwark**. (*LCCAD*, 1922). (DP070351).



Fig. 52: Webb Street School elevation, drawn by Chevalier Worby Beaumont and checked by W. Brown. One of a number of LCCAD drawings held by the school (DP070352).

architect probably W. Brown, formerly of the SBL), the axial plan is reflected by symmetrical 15-bay elevations of yellow brick, relieved by the sparing use of ashlar dressings.⁶ The classrooms are lit by wide cross-windows, comprising centre-hung lights above double-hung units. Windows of conventional sash proportions (with the occasional oeil-de-boeuf window) light the projecting and pedimented entrance bays and the central five-bay hall. The contemporary Sumner Road school is of similar appearance,

but with double-transomed windows and a bold eaves cornice of artificial stone. The roof playground is shielded by a high blind parapet, pierced by semicircular openings.

The period c.1925-35 saw the LCCAD making an earnest attempt to incorporate open-air classrooms into their elementary schools, although they declared their intention to do so as early as 1920.⁷ South-facing classroom elevations typically comprise a series of folding screen doors with centrally-pivoted clerestorey windows. Corridors were sometimes replaced by open-air verandas, greatly increasing the cross-ventilation. The innovation of the LCC, faced with small urban plots, was to introduce the open-air classroom to its multi-storey schools. The use of balconies and galleries can be seen at its boldest at Ealdham Square, LB Greenwich of 1929, 'an experiment in the application of open-air principles to a three-storey elementary school'.⁸ Here the load-bearing construction



Fig. 53: Ealdham Square School, LB Greenwich (LCCAD, 1929). Left: south elevation, showing open air classrooms. Right: north elevation, with gallery access (LMA: SC/PHL/02/0240-39 (left), SC/PHL/02/0240-40; City of London, London Metropolitan Archives).

of the classroom range is pared down to a series of brick piers which separate series of French windows. The architectural integrity of this important school has been compromised by unsympathetic window replacements.

Hanover Street School, **LB** Islington of 1931-32 is again a rebuilding of a triple-decker Board school on a cramped site between the Regent's Canal and Noel Road (then Hanover Street). The site was enlarged through the demolition of twelve houses adjoining to the west, which allowed the new school lower-density classroom accommodation. The new school was for infants and juniors only, reflecting the influence of the Hadow reports (see page 13). Its appearance, judged 'most unusual' by Bridget Cherry, is a response both to the limited site and the LCC policy of open-air classrooms.⁹ The central classroom block is single-banked, and the hall and practical workshops sited on angled blocks located at



Fig 54: South elevation of Hanover Street School, LB Islington, (LCCAD, 1931-32), overlooking the Regent's Canal. (LMA:SCI/PHL10210243-6; City of London, London Metropolitan Archives).

each end. All three storeys have open air elevations to the south, with full-width French windows opening onto balconies overlooking the canal, and centrally-pivoted windows over. A roof playground is carried on full-height piers which project forward of the corridor elevation to present something of a portico to the street. The elevations of the end-blocks mix the giant order theme with art-deco brick detailing.

'Semi open-air classrooms' were also incorporated at the North Hammersmith Central School, **LB** Hammersmith and Fulham of 1930-31, which accommodated 400 children from the contemporary Wormholt estate. It is a two-storey school of U plan, with a single-banked, south-facing classroom block flanked by a hall, workshops and ancillary accommodation. The first-floor classrooms were originally accessed by an open gallery or covered way supported on brick piers. The ground-floor open-air classrooms have two pairs of French windows with clerestory windows over. Teachers and educational inspectors soon staged a backlash against 'draughty classrooms', and in subsequent classrooms French windows were replaced by a large area of fixed glazing. With a few years of construction, the LCC infilled open verandas and covered ways at several schools.¹⁰



Fig. 55: North Hammersmith Central School, , LB Hammersmith and Fulham (LCCAD; 1931). The 'veranda' corridors, shown in this 1932 photograph (left), had been infilled by 1937 (right). (Left: LMA: SC/PHL/02/0267-21; City of London, London Metropolitan Archives. Right: DP070353).

Horizontal windows, soon followed by flat roofs (assisted by the functional argument of rooftop playgrounds) were introduced to LCCAD schools under Forrest's successor Edwin Paul Wheeler (1935-39). Many of these late schools were credited to H.F.T. Cooper (1874-1944), the Divisional Architect for schools from 1934-39:

Turnham	LB Lewisham	1934-35
King's Park	LB Greenwich	1934
Cooper's Lane	LB Lewisham	1936
Credon Road	LB Southwark	1936
Henry Fawcett	LB Lambeth	1936-37
Dog Kennel Hill	LB Southwark	1937
Cubitt Town	LB Tower Hamlets	1937
Middle Park	LB Greenwich	1937
Dalston County Secondary	LB Hackney	1939 (dem.)

A younger generation of designers were responsible for the introduction of these elements, often juxtaposed with mildly Art Deco or Dudokian brick decoration. The superficiality of this approach was betrayed by the reluctance of the LCC to depart from timber windows: it is instructive to compare the LCC out-county schools with their more progressive neighbours in Middlesex, Sussex, Essex and Kent, some of which are steel framed.¹¹

The Henry Fawcett Elementary School, LB Lambeth, is typical of the development of the LCC elementary school up to the outbreak of war. The three-storey building occupies the north and western perimeter of the site to gain maximum solar exposure. Its butterfly plan has two single-banked classroom blocks radiating from a central hall. Classroom elevations are highly glazed with large horizontal timber windows, but most of the windows are fixed, marking a retreat from the flirtation with open-air classrooms. Areas of stack bond between windows introduce a horizontal banding effect, offset by the vertical proportions of the windows to the corridors and stairs. The rooftop playground was in common use by the LCC for multi-storey schools.¹² The entrances were singled

out for the *jeux d'esprit* of art-deco brick detailing and triangular-headed windows. The Bowling Green street entrance has tall hexagonal piers surmounted by stone sculptures of heraldic beasts.



Fig 56: Home time at the Henry Fawcett Elementary School, LB Lambeth (LCCAD, 1936-37). (LMA: SC/PHL/02/0243-38; City of London, London Metropolitan Archives).

The secondary school

Case studies:

- *Eltham Hill Secondary School for Girls*, **LB Greenwich**. **LCCAD**, job architect Chevalier Worby Beaumont (1875-1933), 1925-27; unlisted.¹³
- *The Roan School (Upper School)*, Maze Hill, **LB Greenwich**. Sir Banister Flight Fletcher (1866-1953) and Percy Boothroyd Dannatt (1879-1968), 1926-28; grade II.
- *Honor Oak School for Girls*, Homestall Road, **LB Southwark**. **LCCAD**, 1930-31; unlisted.
- *Burlington Secondary School for Girls*, Wood Lane, **LB Hammersmith and Fulham**. Burnet Tait & Lorne, 1935-36; grade II.

The courtyard plan remained the most common type for both maintained and non-provided secondary schools, aided by its scholarly connotations of cloister and Oxbridge quadrangle (see Appendix 4). Quadrangular layouts encouraged single banking, with outward-facing classrooms overlooking playing fields and circulation along each range of the quad, sometimes via covered ways. The entrance, and communal functions such as the assembly hall, kitchens and library (commonly situated about the central entrance, as at the Roan school), were disposed along the central axis. The **LCCAD** chose quadrangle plans for the Wandsworth County School (**LB Wandsworth**, 1927), the Henry Thornton school (**LB Lambeth**, 1929; dem.), Honor Oak School for Girls (**LB Southwark**, 1930-31) and the Dalston County Secondary School (**LB Hackney**, 1939; dem.).



Fig 57: *Eltham Hill Secondary School for Girls*, **LB Greenwich** (**LCCAD**, 1925-27).
(LMA: SC/PHL/02/0271-28; City of London, London Metropolitan Archives).

At Eltham Hill Secondary School for Girls, a sloping site precluded the usual axial plan. The result was an asymmetrical aggregation of elements—including single- and double-banked classrooms and larger volumes such as hall, kitchen and gymnasium, concealed behind a series of symmetrical façades. A disjunction between plan and elevation is not surprising, when it is considered that they were often designed separately (see page 30). The domestic façade treatment recalls a rambling English country house given a series of Georgian fronts. The lively detailing introduced by job architect C.W. Beaumont included rusticated brick quoins, circular windows, Diocletian windows and oriels, executed in the austere yet freely-proportioned neo-Georgian house style of the LCCAD. The school was designed for 400 girls, with small class sizes of 30. The accommodation schedule included science and craft rooms, a well-appointed library, separate gymnasium and outdoor sports facilities, and indicates an aspiration to offer as broad and academic a secondary curriculum as the independent sector.

The double-quadrangle plan of the Roan School for Boys (1926-28, Fletcher and Dannatt) lent itself to the long, low, symmetrical, neo-Georgian idiom of brick and ashlar dressings. Disposed about its central axis is the entrance lobby (with library over), a double-height hall with gallery, and kitchens to the rear. The main staircases are accessed from the entrance hall, and there are secondary stairs at the junction between the covered ways and the lateral wings. Classrooms and first-floor laboratories (the latter placed on the north-west wing) are ranged around two playgrounds, probably for junior and senior boys. These have since been infilled by later buildings. External access from the quadrangles to the school grounds is via a colonnaded walk. The gymnasium is housed in a detached building to the rear.

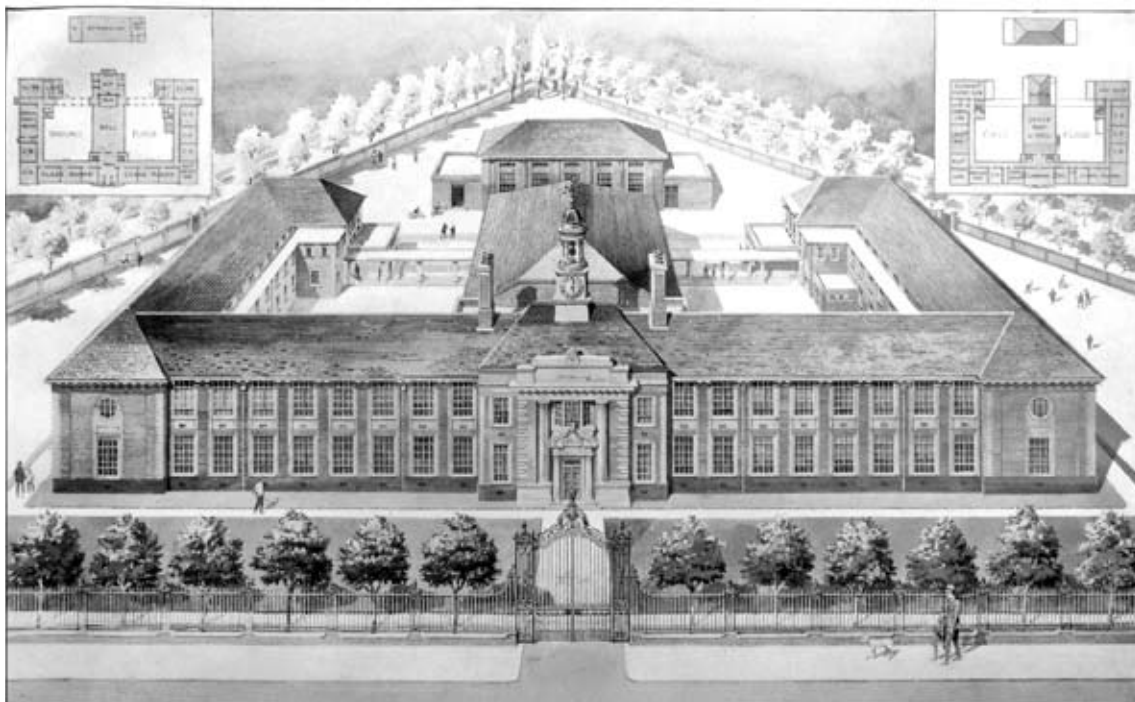


Fig 58: Birdseye perspective of the Roan School, redolent of the late 17th topographical views of Jan Kip and Leonard Knyff. (LMA: 44421031011101007; City of London, London Metropolitan Archives).



Fig 59: Maze Hill elevation to the Roan School, LB Greenwich (Fletcher & Dannatt, 1926-28). (LMA: 4442/03/01/10/009; City of London, London Metropolitan Archives).

The architectural treatment, a sober but well-detailed neo-Georgian, is hardly surprising given the scholarly credentials of its architect and the school's desire to express its heritage. Like the LCC schools, the oversized windows have the proportions of sashes, but are in fact metal-framed casements, with 'hopper' top-opening lights above and below. There are rubbed brick voussoirs and dressings, and a dentilled eaves course. The principal front is of 21 bays, with a central three-bay entrance and end bays breaking forward as pavilions. The central entrance is elaborately treated and detailed in ashlar. Doric columns are surmounted by a pediment broken by the school crest. Above, a canted bay window lights the library and board room. The architrave is flanked by double-height columns of the same order and rusticated brick quoins. Above the entablature is an heraldic bird, with a clock and cupola in the style of Wren. Fletcher turned the end classrooms 90°, enabling the end bays to terminate the long elevation with an expanse of brick. The first-floor *oeil de boeuf* windows here provide a reminder of Fletcher's training at the *École des Beaux Arts*.

The planning owed much to the luxury—rare in the capital—of a large, 'greenfield' site, which must have presented a striking contrast with the tall, narrow proportions of most of the surrounding schools. The Roan school can be compared with non-provided schools in marginal and semi-rural locations such as the Birmingham Blue Coat School (designed 1913, completed 1930, J.L. Ball and HW Simister), the King George V Grammar School, Southport, Monkwearmouth Grammar School, Sunderland (c1925, grade II), Bilston Girls High School, (1929-30, Col G.C. Lowbridge, grade II) and High Storrs School, Sheffield (1933, WG Davies and JL Womersley, grade II).

The E-plan of the Woolwich County Secondary School, LB Greenwich (1927, LCCAD, job architect W.E. Brooks) stresses a formal approach to the principal, south-facing front. The central entrance section, highlighted by stripped-classical detailing in ashlar, is set within a single-banked classroom range with an axial hall to the rear. A gymnasium and practical workshop is set at the ends of cross wings. At Battersea Grammar School of 1936 by J.E.K. Harrison, the same axial plan is reprised in moderne styling, including a flat roof and metal windows separated by lighter-coloured bricks, to create horizontal emphasis.

The Honor Oak school, LB Southwark (1930-31, LCCAD) is a two-storeyed secondary school designed for 450 girls. It is planned around a rectangular courtyard rather than the traditional square quad. The hall, kitchen and gymnasium are located in a separate, single-

storey, double-height block to the north of the courtyard. The hall and gymnasium were separated by a folding partition enabling a single large space to be created if necessary. These double-height spaces had to be top-lit, because of the adjoining, south-facing covered way. The hall breaks forward from the block and is also distinguished by its round-headed windows. Opposite is the south-facing, single-banked classroom range. It is symmetrical with a central entrance and first-floor library.

Honor Oak was the only inner-London secondary school to be built with open-air classrooms. Each classroom is fitted with full-width, glazed folding doors which overlook the playing fields. Bottom- and centre-hung casements enable the classrooms to be ventilated during inclement weather. Large windows in the courtyard-facing walls open onto a two-storey veranda supported on brick piers. The veranda continues around the quadrangle at ground floor level, and the first-floor 'gallery' access to the classrooms terminates in stairs located within the short west and east ranges. Piecemeal additions to the site detract from the setting of the original building, especially the principal elevation.

For the constrained site of the Burlington Secondary School for Girls, Burnet Tait & Lorne chose an end-hall plan (see appendix 4). The dining and assembly hall is set perpendicular to the single-banked classroom range to shield it from the busy Wood Lane. The gymnasium is set at the south end. The strong vertical emphasis of the central pupils' entrance and stairs, with its distinctive corner glazing, separates the four-storey classroom block from the three-storey laboratory block. The laboratory block originally had a playground roof, but has since been heightened, albeit in a sympathetic manner. An open flight of steps to a first-floor foyer provides a 'ceremonial entrance' directly from Wood Lane.



Fig 60: Honor Oak School, LB Southwark (LCCAD, 1930-31).
(LMA: ACC135601017; City of London, London Metropolitan Archives).

Burlington is the foremost London example of the use of a 'Dutch modern' style for a school. Each element is articulated in the layout, making a reading of each function easy. But at the western, street-facing elevation, a rather more arbitrary and contrived visual sense predominates: volumes are piled up to create a composition of masses. Other decorative touches—the nautical porthole windows and ocean-liner handrails—betray Tait's Art Deco leanings. His principal influence at this time was Dudok, whom Tait

admired 'more than any other architect of the time'.¹⁴ The Dutch architect reputedly repaid the compliment by visiting the Burlington School.¹⁵ Burlington is one of Thomas Tait's earlier essays in the Dudok manner, and follows the nearby Royal Masonic Hospital at Ravenscourt Park, Hammersmith (1929-33). Tait was not above directly quoting from Dudok's oeuvre: the motif of a cantilevered entrance canopy 'supported' by a ball has an origin in Dudok's Dutch Pavilion at the Cité Universitaire in Paris (1926) and Multatuluschool, Hilversum (1930-32).¹⁶



Figs 61-63: The photogenic Burlington Secondary School for Girls, Wood Lane, LB Hammersmith and Fulham (Burnet Tait & Lorne, 1935-36). Top: the Wood Lane frontage (DP070354). Left: Formal entrance, showing cantilever and ball motif (Herbert Felton NMR:CC47/03379). Right: Pupils' entrance and stair tower separating science laboratory and classroom blocks (Herbert Felton NMR:CC47/03355).

The denominational school

Case study:

Bygrove Primary School (formerly Holy Child Catholic Primary School), Bygrove Road, Poplar, LB Tower Hamlets. Thomas Henry Birchall Scott (1872-1945), 1926.

The Dual System in the Inter-war Years

In the inter-war period, denominational, i.e. Jewish and church schools, comprised nearly a third of the schools in England and Wales.¹⁷ They differed from the maintained schools mainly in providing denominational religious instruction and the way in which the school was managed. But it was their funding problems that shaped the appearance of the school buildings. The 1902 Education Act had reaffirmed the so-called 'dual system', that is the co-existence of state and denominational schools, and further formalised it. Under its terms, the religious body had the right to give denominational instruction and control the appointment of teachers. In return, it provided the building, kept it in good repair and made any necessary alterations and improvements; while the local authority would repair any damage caused by 'fair wear and tear'.¹⁸

While this extended much-needed financial support to existing denominational schools, these provisions remained virtually unchanged during the inter-war period, and soon became insufficient. Many denominational authorities struggled financially, particularly to provide new premises or to update old ones.¹⁹ The Hadow reorganisation, the raising of the school-leaving age, and the need to provide for expanding populations and new suburbs, all added further pressures. Building costs soared, while donations for church schools dwindled, due to a relative decline in church attendance and religious adherence, as well as economic depression and unemployment.²⁰

The perceived financial injustice of having to raise funds from donations, while state schools were built with ratepayers' money, occupied the church school sector throughout the inter-war years. The mood, particularly with the Catholic bishops, was defensive, fighting to save denominational schools and their particular ethos in the face of proposals to abolish them. In 1918, the dual system in Scotland came to an end, when all denominational schools were handed to the state, while continuing existing religious instruction by teachers approved by the individual denomination.²¹ During the following years, H.A.L. Fisher, President of the Board of Education, proposed a number of solutions to the dual system in England, some of them along the lines of the 'Scottish solution', i.e. transferring all non-provided schools to the local authorities, which had to provide opportunities for denominational instruction at the parents' request.²² However, while some church bodies were in favour, no agreement could be reached. Rather, compromises were achieved at local level where many authorities followed the solution found in 1924 in Cambridgeshire where, in consultation with the church bodies, a non-denominational religious syllabus was drawn up which could be applied to provided and transferred schools.²³

As an emergency measure attempting to address the unbalanced financial situation of denominational schools, the Education Act of 1936 offered (for the first time) Exchequer

grants in the form of building subsidies. These were to provide 50-75% of the cost of erecting new senior non-provided schools made necessary by the reorganisation of the elementary system and the raising of the leaving age. The grants, limited to the years 1936-39, still depended on the support of the local authorities and required the denominations to give up their right to appoint teachers.²⁴ Within the three years specified, 519 proposals were submitted, 289 by the Catholic authorities and 230 by the Anglicans.²⁵ Due to the outbreak of war, most of these never materialised and many, particularly Catholic, elementary schools were only reorganised after 1945.²⁶

The Education Act of 1944, in trying to resolve the problems of the denominational schools rather than abolishing them, established two new types of denominational schools. These combined varying degrees of independence with state support: The first was fully denominational or 'aided' schools, where the church body controlled teacher appointments and paid for equipment and running costs; these were eligible for grants covering 50% (later 75%) of building costs. The second category comprised partially denominational or 'controlled' schools which had been surrendered to the local authority but maintained denominational religious instruction.²⁷

Inter-war Denominational Schools in London

While Anglican and Catholic schools formed the majority of denominational schools in England and Wales, inter-war building projects in London were predominantly Catholic schools, rather than Church of England, Nonconformist and Jewish schools.

Due to the 'shifting pattern of London Jewish migration', long-established Jewish schools were underpopulated by 1939, and, it would appear, only one purpose-built school, Bayswater Jewish School (1928-30, **LB** Kensington and Chelsea) was erected in London during the inter-war years, after the school moved to a new site.²⁸ Likewise, a single Nonconformist school was built (Mount Zion Baptist School, **LB** Islington; 1929-30).²⁹

The Church of England built few schools and, on a national level, between 1902 and 1938 closed or surrendered to the state each year about 100 schools (both elementary and secondary).³⁰ In inner London, they increasingly retreated from the elementary sector: according to Board of Education lists of elementary schools (the so-called List 21), no new Church of England elementary schools were opened in London between 1918 and 1944, while two were rebuilt, twelve closed and one transferred to the local authority. For the Catholic schools, this relationship was almost the inverse: with ten newly-opened schools (albeit not all purpose- or newly-built), three rebuilt and only two closed.³¹ The elementary sector seems to have been the main focus for Catholic education provision, as no new secondary schools were built and only a few extended or altered during the study period.

Instead of providing new schools, the Church of England authorities focused on extending and updating existing schools, as well as moving existing schools away from overcrowded and unsuitable city centre premises. The latter was achieved in the case of three endowed Church of England foundations in partnership with the **LCC**, by a variety of means. In addition to building grants, these included the provision of an **LCC**-built school

(St Clement Danes' Grammar School, opened 1928, LB Hammersmith and Fulham), assistance in finding and securing a new site (Archbishop Tenison's Grammar School, opened 1928, LB Lambeth) and using the services of the LCC Architect to provide a design (St Martin's in the Fields High School, opened 1928, LB Lambeth).³²

These three cases were praised by Lord Eustace Percy, President of the Board of Education, as proving 'that the old conflict between public controlled and voluntary schools was not an insoluble one, but that both partners could work together smoothly and flexibly'.³³ Yet, all three were ancient foundations which were able to contribute funds from their endowments, as well as the money raised from the sale of their city-centre sites.

The Catholic authorities provided the largest number of new schools premises during the inter-war years, particularly in the East End, the South East and on LCC estates in outer London. The schools tended to be located beside the local Catholic church whose dedication they generally shared. As far as is known, the architects were all Roman Catholics who specialised in the design of both churches and church schools.

While the LCC was sometimes praised for its funding of Catholic schools, financial constraints strongly influenced their architectural appearance, as the Catholic Church in England and Wales, re-established with bishops in 1850, lacked historic endowments.³⁴ They were generally plain brick buildings, with mere hints at historical styles, such as stripped Gothic revival, neo-Tudor or neo-Georgian. In some schools of the 1930s the architects dispensed with historicist details and treated the brick façades in a more modernist idiom with vaguely Dudokian overtones (for example, St Thomas More Catholic School, 1929-1934, LB Greenwich).

A more radically modern example was St Mary and St Michael's Catholic School on Lucas Street (later Lukin Street), Stepney (1933, destroyed by bombing in 1945), designed by John Sterrett and built at a cost of £10,059 10s. Lettering in the parapet and stylised angel figures at the corners – both modelled in brick – were the only details relieving the starkly functional appearance of the building. The school, which was the 100th Catholic school to be opened in London since the establishment of the LCC in 1889,

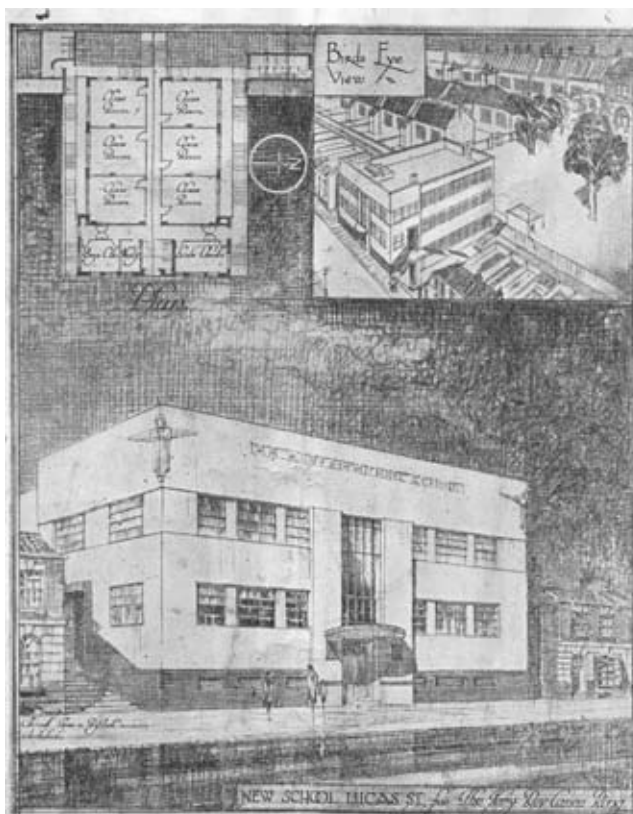


Fig. 64: St Mary and St Michael's Catholic School, Stepney (John Sterrett, 1933), destroyed by bombing in 1945. (Reproduced from Maynard 2007, 274, courtesy of Jean Maynard).

accommodated 440 junior children in twelve double-banked classrooms on two floors; the hall was probably on the lower ground floor. A flat roof with high parapet served as a rooftop playground.³⁵

However, the majority of Catholic schools was smaller and only one storey in height. The former Holy Child Catholic School (now Bygrove Primary School) is typical in this regard. It was built in 1926 at a cost of £14,000 to the plans of the architect and surveyor to the dioceses of Westminster and Brentwood, Thomas Henry Birchall Scott. Scott was the architect who designed the largest number of new schools and school extensions in inner London.³⁶



Fig. 65: Holy Child Catholic School, Poplar, LB Tower Hamlets (Thomas Henry Birchall Scott, 1926) in 1947. (LMA: SCIPHL/02/0322-0323-22; City of London, London Metropolitan Archives.)

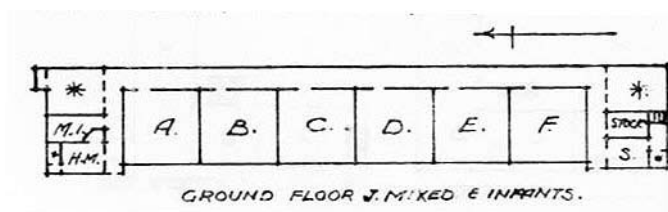


Fig. 66: Plan of Holy Child Catholic School, as published in LCC 1931, 43 (non-provided schools section).

Holy Child School is a long, low and linear building of brown-purplish brick with a hipped roof. It had six classrooms opening off a spinal corridor, accommodating 264 infants and junior children in total, with offices and service rooms at either end.³⁷ While the school had no hall, partitions between the classrooms could be

opened to use the whole length of the building for assembly.³⁸ The classrooms had large metal windows with concrete sills, looking on to the playground.³⁹ Pairs of windows were framed by pilaster strips. Internally, smaller windows lit the lower-height corridor, above whose roof clerestorey windows provided additional lighting and cross-ventilation for the classrooms. The only external decoration was a small copper-clad lantern and two short cross roofs, the gables of which were flanked by extended pilasters capped with stone dressings decorated with crosses. The gables featured another cross modelled in brick underneath a shallow arch.⁴⁰

Like many other Catholic schools, its limited accommodation, and in particular the lack of a hall, made extensions and alterations in the post-war years necessary.⁴¹ The hall,

which the managers of the school had hoped to build on adjoining land a few years after opening the main building, was built as part of an extension in the late 1960s.⁴²

In many cases, the original plan provided for future extensions, to be built when additional funds were available.⁴³ For example, St Thomas More Catholic School was initially built as a single-storey structure with an infants' classroom, a hall, cloakrooms and lavatories. The hall was used for fundraising events like plays, concerts, dances and the showing of films to pay for the church building and the second storey of the school.⁴⁴ Equipped with a temporary sanctuary behind a roller shutter, the hall also served as a place of worship, until the nearby church was finished.⁴⁵ This prioritisation was not unusual: on the LCC estates of Bellingham and Downham (LB Lewisham), the Catholic churches were built as temporary structures (and rebuilt in more permanent form in the 1960s), while the initial fundraising efforts were directed towards providing schools.⁴⁶

In general, the plans of inter-war Catholic schools vary widely and are difficult to categorise. This is also true of other denominational schools built in the period, which only occasionally overlap with the plan types used by the LCCAD (see Appendix 4). Most Catholic schools had single-banked classrooms, based on contemporary thinking about improving cross-ventilation and lighting. Apart from the linear plan, L-shaped layouts were also common, with the hall positioned either in the angle of the two wings (Our Lady of Grace Catholic School, LB Greenwich, opened 1925), off one wing (St Augustine's Catholic School, LB Lewisham, 1928) or in the lower ground floor of a two-storey building (St Aloysius' Catholic Junior School, LB Camden, c1928). Other plan forms include U- and H-shapes with separate wings for the senior and junior departments.

Few schools had specialist classrooms, which tended to be a lesser priority, relegated to possible future extensions.⁴⁷ Some had flat roofs with roof playgrounds (e.g. Dockhead Catholic School, 1933, demolished; St Mary and St Michael's Catholic School, 1933, demolished).

The open-air school

Case studies:

- *Aspen Open-Air school, later The Orchard Centre, Christchurch Road, LB Lambeth. LCCAD, 1925; grade II.*
- *Geere House Open-Air school, Stepney Green, LB Tower Hamlets. LCCAD, 1927; unlisted.*
- *Rachel McMillan Nursery School, Creek Road and Stowage, Deptford, LB Greenwich. School architect: Edwin Unwin. Existing buildings of 1918-19, 1921, 1927, 1928, 1931-32, 1933, 1935-36 with minor later additions and alterations. The 1918-19 buildings and a memorial to Margaret McMillan are grade II.*

Although the first English open-air schools were opened in the Edwardian decade, the heyday of the movement in London was the 1920s, when both maintained and non-provided schools were built. The open-air school movement originated in Berlin in the 1890s with an investigation into the living conditions of workers with tuberculosis. This led to the creation of open-air cure stations, some exclusively for children (*Kindereholungsstätte*). It was thought that health and welfare could be enhanced through exposure to sunlight, natural ventilation and a regime of physical exercise.⁴⁸ The initial emphasis was on healthcare treatment, but soon an educational programme was found necessary. Influenced by a nearby cure station, the educational councillor Hermann Neufert (1858-1935) opened a *Waldschule* (forest school) in 1904 at the Berlin suburb of Charlottenburg. Supported by the Prussian government, this was the origin of the idea of outside teaching, exercise, solid meals and afternoon rest, and was adopted by many European countries over the following decade.⁴⁹

Charlottenburg and other *Waldschulen* were studied and visited in early 1907 by the Assistant Educational Advisor to the LCC, Dr Frederick Rose, and the LCC subsequently opened an experimental open-air school between July and October 1907, the first in England.⁵⁰ This was located in the recreational grounds of the Royal Arsenal Cooperative Society in Bostall Wood, LB Greenwich.⁵¹ The following year, teachers from Bostall Wood made up the staff of new open-air schools at Birley House, Forest Hill, LB Lewisham; Montpelier House, Upper Holloway, LB Islington and Shrewsbury House, Shooter's Hill, LB Greenwich. The pupils had been selected by the Schools Medical Officer as 'delicate', i.e. under-weight or under-nourished children, or those suffering from anaemia or asthma. The London open-air schools were all coeducational.

Unlike Bostall Wood, where the buildings were reused, the 1908 open-air schools of the LCC were purpose-built. The LCC hired rectangular Doecker sheds (developed as field hospitals) from the German prefabrication specialists Christoph und Unmack; they had previously been used at Charlottenburg.⁵² These were open-fronted on one side and ventilated by louvres. The Doecker sheds were soon accompanied by square 'pavilion classrooms', lightly framed and raised off the ground on wooden posts. They were open to the air on all sides above dado level, and sheltered by a widely-overhanging pyramidal roof.⁵³



Figs. 67 & 68: Two tenets of open-air education. Top: Open-air classes at the first English open-air school, Bostall Wood, LB Woolwich (LCCAD, 1908). Bottom: Rest at the Holly Court Open-Air School, LB Westminster (LCCAD, 1927). (LMA:SC/PHL/02/0428-2 (top); LMA:SC/PHL/02/0428-50; City of London, London Metropolitan Archives).

The pioneering efforts by the LCC were soon followed by open-air schools in Barnsley, Birmingham, Bradford, Bristol, Darlington, Halifax, Kettering, Liverpool, Norwich, Northumberland and Sheffield.⁵⁴ What started as an experiment was supported after 1917 by the LCC's new architect George Topham Forrest, who had constructed open-air schools in his role as County Architect for Northumberland. Open-air schools, for the first time open twelve months of the year, became a major element of the LCC's special educational service. The simple and economical buildings encouraged this policy: the

three open-air schools opened by the LCC in 1919-20 are virtually the sum total of all LCC school-building activity in the period.

The post-1918 LCC open-air schools comprised a mixture of square pavilion classrooms and rectangular, gabled rest and dining shelters. They differed from their continental models in making use of the grounds of 18th and 19th century villas for their pavilion classrooms and dining and rest shelters, whilst adapting the old houses to include a kitchen, bathing and drying rooms, medical room, staffrooms, storage and sometimes wet-weather classrooms.⁵⁵ Spacious grounds provided the location for lessons devoted to nature study, physical exercises, gardening and creative play. At Stowey House, Sir Henry Gauvain (1878-1945), the Council's consultant on tuberculosis, commenced 'sunlight classes' in 1923.⁵⁶

Aspen House, Brixton Hill, LB Lambeth (listed grade II), is a typical LCC open-air school. The $\frac{3}{4}$ acre site of the former Aspen House, including its surviving stable range, was purchased by the LCC in 1920 and plans for the new open-air school approved in 1924; the school opened in November 1925. The site comprised four pavilion classrooms and a rectangular rest and dining shelter 'of improved design', all unheated; and the stable block provided administrative accommodation.⁵⁷ The classrooms are raised off the ground on timber posts with distinctive diagonal bracing, with a door entered up a flight of steps. The classroom was originally open to the elements above dado level (the area above was glazed in the 1950s). The open hipped roof is clad in felt and incorporates deeply overhanging eaves to limit the penetration of direct sunlight and throw rainwater clear of the perimeter walkway.



Fig 69: Pavilion classroom at Aspen House Open-Air School, LB Lambeth (LCCAD, 1925) (DP0703455).

The late 1920s saw the greatest interest in open-air schools: by 1929 there were 60 schools accommodating 6,211 children. The LCC opened eight open-air schools between 1927 and 1930, combining a group of pavilion classrooms (sometimes in a diamond formation) a rest shelter, and usually masonry ancillary buildings, often converted from existing houses. At Holly Court, the rest and dining shelter and one of the nine classrooms were built within a wooded portion of the site, as at Charlottenburg. An LCC open-air school with four classrooms and accommodating 130 children cost approximately £5,000 to build and £4,600 to maintain annually.⁵⁸

Springwell House	LB Wandsworth	1919	TB	3C, R, A	dem.	
Stormont House	LB Hackney	1919	TB	3C, A	dem.	
Stowey House	LB Lambeth	1920	DC	9C, R, A	dem.	
Bow Road	LB T. Hamlets	1922	?DC	5C, ?R, ?A		dem.
Aspen House	LB Lambeth	1925	DC	4C, R, A	grade II	
Coram's Fields	LB Camden		DC	3C	dem.	
Brent Knoll	LB Lewisham	1927	DC	5C, R, A	dem.	
Geere House	LB T. Hamlets	1927	TB	2C, R	unlisted	
Holly Court	LB Westminster	1927	DC	7C, ?R	dem.	
Nightingale House	LB Southwark	1928	TB	?6C, R, A		dem.
Woodlands	LB Lewisham	c.1928	TB	4C, R, A	dem.	
Wood Lane	LB Ham. & Ful.	1929	TB	4C, R, A	dem.	
Charlton Park	LB Greenwich	1929	DC	4C, R, A	dem.	
Downham	LB Lewisham	1930	DC	3C	dem.	

Table 1: LCC open-air schools, 1918-44

[Key: DC—delicate children, TB—tuberculous children;
C—classrooms, R—rest and dining shelter, A—ancillary accommodation]



Fig 70: Interior of pavilion classroom at Aspen House (DP070356).



Fig 71: The buildings of the Geere House Open-Air school in 2009. The classroom pavilions are to the left and part of the dining/rest shelter can be made out at the right (DP070357).

With the exception of Aspen House, the only other surviving LCC open-air school is Geere House. This was a small school in the garden of 37 Stepney Green, then used as educational offices. Its two pavilion classrooms accommodated 25 children each; there was also a rest shelter. The total cost was £3,525, and the school opened in April 1927.⁵⁹ Geere House closed at the beginning of the war and its pupils billeted in South Ascot, Berkshire.⁶⁰ The buildings continued in educational use until at least 1964.⁶¹ They are now vacant.⁶²

Most of the open-air schools closed in 1939 and their number was reduced by bombing or post-war redevelopment. Other sites re-opened after the war, and open-air schools were sometimes rebuilt, as at Bow Road, which became Farquharson & McMorrans Phoenix School of 1951-52. The development of an antibiotic treatment for tuberculosis

in the 1940s made the extremes of open-air teaching increasingly redundant, and the LCC glazed many of its pavilion classrooms in the 1950s.



Fig 72: Rest/dining shelter at the Geere House Open-Air school, Stepney Green, LB Tower Hamlets (LCCAD, 1927). (LMA: SCI/PHL10210428-45; City of London, London Metropolitan Archives).

Despite the early start made by the LCC, the most influential English model for open-air education started as a non-provided school. In 1914 the McMillan sisters Rachael (1859-1917) and Margaret (1860-1931) opened an open-air nursery in Deptford. By the 1930s it was

the largest nursery school in England, with 272 pupils. The site, known as the Stowage, was originally earmarked for an elementary school but was temporarily granted by the LCC to the McMillan sisters. Initially described by them as a 'camp school', it comprised of a number of self-contained timber and asbestos-sheet shelters (said to be designed by Rachel) standing in a garden; these do not survive. The south walls were highly glazed with folding doors. Shelters built in the later 1920s were largely glazed and described by Margaret as 'like a greenhouse'. The shelters each accommodated 35-50 children and were self-contained, having separate cloakrooms, bathrooms and sanitation.⁶³

The McMillan sisters espoused small, cheap and temporary buildings, saying 'fine school buildings are really unsuited to our needs', a stance which has been described as 'anti-architecture'.⁶⁴ Their shelters were erected on three-year licences granted by the LCC, so they could continually be rebuilt and reconfigured with ease as needs and numbers changed. A number of small buildings also gives the greatest 'surface area' and hence more natural lighting and ventilation than a single school and could also enjoy a closer and more permeable relationship to the site, here described by Margaret:

'The form of the open-air Nursery School is not one large building, but many small shelters...each one self-contained. Each has its own bathrooms and offices [toilets] and is an open-air place which can be turned into a nursery or dormitory at will'.⁶⁵

The persuasive powers of the McMillan sisters become apparent when their modest site and makeshift buildings are compared with the recognition and assistance they received from the educational authorities and from an influential circle of politicians and aristocrats. Brick offices were added in 1918-19 with funds provided by the Board of Education; these are now the oldest part of the school to survive. Three years later the LCC commenced grant-aid to the school, renamed the Rachel McMillan school after the death of its co-founder in 1917. By 1921, the school was recognised by the Board of Education as a Training Centre for certified teachers.⁶⁶ The same year, the LCC funded a large extension accommodating more than a hundred children, which was opened by Queen Mary in November 1921. An agreement was reached with the LCC that a state and a voluntary school would be run on the same site, with the whole reverting to the Council on Margaret's death. Several additions were made in the 1930s by the architect to the school Edward Unwin (1896-1936), including rooms for the teaching and domestic staff, and a mothers' meeting room followed in 1934. In 1936 it was found more economical to rebuild the earliest shelters entirely.



Fig 73: Inter-war classrooms at the Rachel McMillan Nursery School, LB Greenwich (© Elain Harwood).

As Frederick Rose predicted in 1908, open-air schools exerted a considerable influence on mainstream school architecture, although it is hard to separate from earlier influences, such as the 'pavilion planning' of Staffordshire and Derbyshire and the 'double veranda' model provided by North Wingfield school in Derbyshire, designed by Widdows in 1910, and taken up after 1918 at Lincolnshire, London and elsewhere.⁶⁷ The 1931 Hadow report *The Primary School* recommended, 'the more closely the primary school approaches that of the open-air school the better'.⁶⁸ Of the private open-air schools in London, the Chelsea Open-Air School at Glebe Place, LB Kensington and Chelsea, established in 1929 by Susan Isaacs, employed Grey Wornum to adapt a cottage by 'the knocking out of walls to make rooms open air'. A covered playground and office space was added in 1937 by Ernst Freud.⁶⁹

Open-air conditions seem spartan now (Aspen House staff received an extra allowance in 1926 in lieu of 'rooms, fuel, light and water'), but the open-air school was at the forefront of new educational ideas.⁷⁰ The stimulating teaching, with its accent on self-awareness and discovery, stressing the importance of the open air and landscape, was advanced for its time. It formed part of a wider movement for fresh air and informal teaching methods which was only widely developed after 1944.

The architecture of the open-air schools was deliberately modest. With the exception of the 1938 Swinton and Pendlebury open-air school, Lancashire: by Sir Hubert Bennett and the Newman School, Rotherham, South Yorkshire of 1939 by local authority architect Geoffrey Raven (grade II) there was no convergence between open-air teaching and an emergent Modern Movement—such as at the open-air schools of Suresnes, Paris by Eugène Beaudoin and Marcel Lods of 1934-35 and Cliostraat, Amsterdam, Holland by J. Duiker of 1930. The LCCAD schools were nevertheless notable in introducing separate-block planning to the capital, and were the first London schools to reject permanent construction in favour of light, framed buildings. In these senses, they anticipate post-war schools.



Fig. 74: A rare English example of a modern movement open-air school: the Newman School, Rotherham, South Yorkshire (Geoffrey Raven, 1939). (Photograph kindly supplied by the Newman Special School).



Fig. 75: The marriage of continental modernism and open-air principles: Cliostraat, Amsterdam, Holland by J. Duiker of 1930 (© Elain Harwood).

The special school

With the exception of the open-air schools (see pages 70-76) the LCC did not build new special schools during this period, opting instead to reuse existing special schools and elementary schools which became available through reorganisation. In addition to this the LCC maintained or funded a number of out-county residential schools.

Special education provision for physically-disabled children was established by the Elementary Education (Blind and Deaf Children) Act of 1893, which obliged every school authority to provide education for blind and deaf children between the ages of 7 and 16 in certified schools. The Elementary Education (Defective and Epileptic Children) Act of 1899 empowered local authorities to train physically and mentally 'defective' and epileptic children. The first LCC open-air schools were established the following decade under this legislation. In the inter-war period, the open-air schools became significant aspects of the LCC's provision of special education to weak and tuberculous children.

The 1914 Elementary Education Act, the 1918 Fisher Act and the consolidatory 1921 Education Act made provision compulsory, requiring the local education authority to provide 'special schools', to be inspected by the Medical Branch of the Board of Education. In 1924 the Wood Committee on Mental Deficiency was set up. It reported in 1929, recommending that a larger group of 'retarded' children join the 'defective' category and be educated, without certification, in a 'helpful variant of the ordinary school'.

The LCC special education service had a greater capacity than that provided by other urban authorities: in 1929 the LCC estimated that their provision presented approximately half the total number of special school places in England and Wales. By 1939, the LCC categorised special educational needs in the following way:

	No of Pupils
Blind	100
Partially-sighted	550
Deaf	450
Partially-deaf	150
'Mentally deficient'	3,100
'Physically deficient'	3,100
'Anaemic, debilitated, or pre-disposed to Tuberculosis'	2,600
Total	10,050⁷¹

Vocational training of physically disabled children was provided in the form of 'manual work with a vocational bias', mainly provided between the ages of 13 and 16 at a mixture of day and residential schools.⁷²

Due to small class sizes and the policy of out-county dispersal in residential schools (see below), the LCC chose not to build new special day schools during the period, instead adapting obsolete SBL elementary schools, such as the school at Gideon Road,

LB Wandsworth, by providing 'rooms for trade instruction in woodwork, metalwork and tailoring, equipped with electrical machines, a medical inspection room and a school kitchen'.⁷³ An exception is the single-storeyed Webber Row school, **LB** Southwark (grade II) for physically-disabled children of 1916, which lies amongst an enclave of Peabody and **LCC** tenement blocks, although its catchment area much have been considerably larger.

By 1931 the **LCC** ran seven residential special schools, mostly older, purpose-built schools for the blind, such as Linden Lodge, **LB** Wandsworth and Elm Court, **LB** Lambeth, and converted houses.⁷⁴ Another aspect of the special education service was the dispersive policy of shipping a large number of their disabled and convalescent children to out-county premises. The **LCC** maintained several residential open-air schools, such as the King's Canadian School, Bushy Park; Barham House, St Leonard's on Sea; and Wanstead House, Margate. The Council also sent children to residential institutions in the country which whom they had agreements.⁷⁵ These premises were invariably converted from large Victorian villas or earlier houses.

POSTSCRIPT: WAR AND THE BUTLER ACT

Between 1-3 September 1939, 1,500,000 children were swiftly evacuated from inner London and the surrounding boroughs. The months that followed saw the occupation of school buildings by the Air Training Corps, the Women's Royal Naval Service, fire patrols and other civil defence bodies.⁷⁶ Instead, the immediate educational need was for school accommodation, principally for nurseries for evacuees and the children of women working in the munitions factories. Amongst various proposed schemes for the rural 'reception areas' Birkin Haward's design for a residential nursery of 1940 for the Association of Architects, Surveyors, and Technical Assistants was architecturally the most radical, based on pre-cast concrete arches over brick cross-walls and reminiscent of Le Corbusier's *Maison le Week-end* of 1935.⁷⁷

Although the Board of Education announced an embargo on school building in late September 1939, it would be a mistake to conclude that thought about the organisation and large-scale construction of schools ceased during the war.⁷⁸ Post-war educational reforms were first considered long before victory could be forecast with any confidence. The Board of Education published *Education after the War* in 1942, which formed the basis for the organisational changes of introduced by the Butler Act of 1944.

In January 1942, the Board established a committee, chaired by Robert Wood, to consider standardised construction and layouts for the immediate post-war period of rebuilding. That the post-war reconstruction agenda was set by those occupied by pre-war reform can be seen from the choice of the two architects on the committee, Denis Clarke Hall and C.G. Stillman. In 1944 the newly-formed Ministry of Education, eager to demonstrate an alternative to temporary huts, discussed building a prototype in Kent but were thwarted by the governmental ban on building following the 'little blitz' of that year.⁷⁹

By the end of the war, 25% of London's schools had been demolished or seriously damaged, 27% had received moderate damage and the whole stock had been virtually

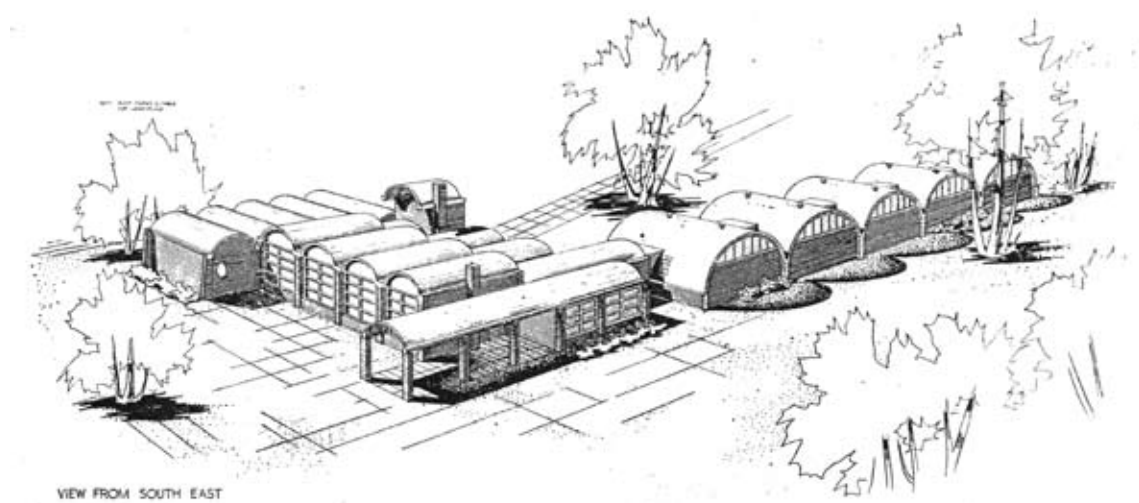


Fig 76: Birkin Haward's 1940 design for a 20-place residential nursery school (reproduced in the *Builder*, 27 September 1940, p.302).

without maintenance for the duration of hostilities.⁸⁰ This prompted a wider, and often critical, reappraisal of the school stock, which lumped in board schools and the recent council schools alike: C.G. Stillman, from 1945 the county architect of Middlesex, pronounced them an ‘odd collection of old and obsolete schools, largely over-crowded, incapable of improvement and hopelessly inefficient in every way’.⁸¹ Denis Clarke Hall recalled in 1999, ‘the Butler Act of 1944 made pretty well every school in the county out of date’.⁸² The *London School Plan* of 1947 adopted the same *tabula rasa* tone: ‘neither sites nor buildings, even of the best and most recent secondary schools, reach the standards set by the Minister’s regulations’.⁸³

The post-war challenges faced by those in the Ministry of Education and the local authorities who found themselves undertaking school rebuilding programmes were ‘unprecedentedly great’.⁸⁴ These included the educational demands of the Wood report, a near-bankrupt economy, and a significant rise in nursery and infant places (the child population rose sharply from 1942 to 1948 for the first time since 1901).⁸⁵ The answers sometimes came from unexpected quarters, such as the war-time experience of Stirrat Johnson-Marshall (1912-81) and David Medd (1917-2009) researching, designing and implementing decoys for the Camouflage Development and Training Centre at Farnham Castle, which influenced their postwar work at Hertfordshire and later the Research Unit at the Ministry of Education.⁸⁶

But the solutions taken forward after 1944—light and dry construction, prefabrication, standardisation of parts and separate-block planning—did not entirely emerge from the expediences of wartime improvisation. Lightly prefabricated construction was in use in London’s open-air schools from c.1908, and separate-block planning first employed around the same time at Uffculme, again an open-air school. Those involved in the post-war school-building programme had a tendency to downplay the progressive inter-war precursors, which in fact offered tried-and-tested prototypes which could be economically developed on a large scale. The 1930s West Sussex schools of C.G. Stillman (see page 33) were the basis of the post-war schools built on the 8’3” bay module, including Stillman’s Middlesex schools and the LCC schools of the 1950s under Deputy Architect Leslie Martin.



Fig 77 (left): Charlton Park Open-Air School, LB Greenwich (LCCAD, 1929; dem.).

Fig 78 (right): The ILEA special school which replaced it in 1964-66 retained the separate-block layout.

(Ordnance survey plans of 1954 and 1970.

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The LCC open-air policy briefly continued with new designs for pavilion classrooms built at Wood Lane and Aspen House, and Farquharson & McMorrans's Phoenix School of 1951-52. Separate-block planning remained in favour with post-war educational architects such as Lyons, Israel and Ellis and the Education Division of the LCCAD (and later ILEA), who liked its capability to generate clustered forms and a clear architectural expression of the programme.⁸⁷ And the Butler Act itself owed much to the inter-war educational reformists, codifying the new thinking on pedagogy and realising the enfranchisement of secondary education along the tripartite lines advocated by Hadow some twenty years earlier.

ENDNOTES

- 1 LCC minutes 17.7.1928, p.153.
- 2 LCC minutes 12.11.1929, p.618.
- 3 LCC minutes 12.5.1935, p.618.
- 4 Fry 1938, 59.
- 5 It was LCC practice to retain the boundary gates, entrances and railings of the old schools.
- 6 Attribution on the basis of Brown's initials as Examining Architect of plans retained at school.
- 7 LCC 1920, 61.
- 8 *The Builder*, 2.5.1930, p860.
- 9 Cherry and Pevsner 1998, 673.
- 10

Downderry Road	LB Lewisham	1927
Old Church Nursery	LB Tower Hamlets	1930
Columbia Road Nursery	LB Tower Hamlets	1930
Ealdham Square	LB Greenwich	1930-31
North Hamm. Central	LB Hamm. & Fulham	1930-31
Botolph Road	LB Tower Hamlets	1932.
- Agenda of the LCC Elementary Education sub-committee of 8.6.1937 (**LMA:AR/CB/1/68**).
- 11 LCC schools were not built with metal-framed windows until after the war, on grounds of cost (memo of 10.7.1934 in **LMA: AR/CB/1/67**). Metal casements had been used by the LCC 40 years earlier at the Central School of Arts and Crafts and at the Westminster School of Art and Technical Institute (Goulden 1965, 597).
- 12 Memo of 5.6.1937 from E.M. Rich, Education Officer to E.P. Wheeler, architect, in **LMA:AR/CB/1/68**.
- 13 Source: undated newspaper clipping held by school: [http://www.elthamhill.greenwich.sch.uk/ehtc.net/_archive/Ceremonial%20Opening%20\(1927\)/NewspaperClippings1927a.jpg](http://www.elthamhill.greenwich.sch.uk/ehtc.net/_archive/Ceremonial%20Opening%20(1927)/NewspaperClippings1927a.jpg).
- 14 Rothery 1991, 196.
- 15 Jeremy Gould (pers.comm. to Elain Harwood).
- 16 Jeremy Gould (pers.comm. to Elain Harwood).
- 17 Murphy 1968, 28.
- 18 Murphy 1971, 93.
- 19 Unsurprisingly, twice as many non-provided schools than provided ones featured on the Board of Education's so-called 'black list' for 1931, a list of schools with defective premises. Cruickshank 1963, 123.
- 20 Murphy 1968, 27; Murphy 1971, 104.
- 21 Cruickshank 1963, 117.
- 22 Cruickshank 1963, 115.
- 23 Cruickshank 1963, 121.
- 24 Cruickshank 1963, 132.
- 25 *Education Reconstruction* (Education White Paper, 1943) as quoted by Cruickshank 1963, 134. The proposals had to be submitted by 1 April 1938 and the schemes had to be completed by 1

- September 1940. The London Diocesan Board of Education, *Education Act, 1936* [circular] (**LMA: DRO/54/82/16**).
- 26 Murphy 1971, 111.
- 27 Murphy 1968, 29.
- 28 Black 2003, 157. The school had opened in 1867 as Paddington Bayswater Jewish School. It was later known as Kensington Bayswater Jewish School and Solomon Wolfson Jewish School. The building is now an office building called London Lighthouse. Black 2003, 91.
- 29 The school was later renamed Angel Baptist School. Temple (ed.) 2008, vol. 47, 215.
- 30 Many schools were transferred to the local authority under a compromise similar to the Cambridgeshire solution. Dennis 2001, 9.
- 31 Board of Education, *Public Elementary Schools and Certified Efficient Schools in England and Monmouthshire [List 21]*, HMSO, various dates (1920, 1923, 1927, 1933, 1934, 1936, 1939).
- 32 St Clement Danes' Grammar School was also sometimes called Holborn Estate Grammar School after the charity who founded it. Their **LCC**-built premises were called Ducane Road School before they were allocated to St Clement Danes' Grammar School. St Clement Danes Grammar School, Proposed Removal to Hammersmith, Report presented to the **LCC** Higher Education Sub-Committee in 1927 (**LMA: LCC/EO/PS/3/307**); Archbishop Tenison's School, Minutebook 1915-1954, Minutes of a Special Meeting, 4.5.1925, p. 120 (**LMA: ACC/2692/019**); Thomas 1929, 105; St Martin's High School for Girls, Removal from Charing Cross Road to new premises at Tulse Hill, Memo of 11.12.1924 from **LCC** Education (Higher Education Sub-) Committee to the Finance Committee (**LMA: LCC/EO/PS/3/326**).
- 33 *The Times*, 13.11.1928.
- 34 For example, when the Board of Education discontinued some of its grants, the **LCC** stepped in and provided the promised sums. *The Tablet*, 28.8.1926; 17.11.1928.
- 35 Maynard 2007, 233-243, 274; Board of Education, Accommodation Schedule [n.d., c1933] (**TNA: ED161/13461**).
- 36 Porter (ed.) 1994, vol. 43, 209-210; Brodie *et al* 2001, vol. 2, 563-4.
- 37 **LCC** 1931, non-provided schools, 43.
- 38 Letter of 20.7.1925 from **LCC** assistant education officer to the Board of Education (**TNA: ED 21/35096**).
- 39 The **LCC** had suggested using French windows, which the managers of the school had refused as 'unsuitable in view of the character of the neighbourhood'. However, the plans for the school were amended according to the Board of Education's suggestions to increase the proportion of opening lights. Letter of 20.7.1925 from **LCC** assistant education officer to the Board of Education; letter of 24. 8.1925 from C.E. Sykes, Board of Education, to the **LCC** education officer (**TNA: ED 21/35096**).
- 40 While the lantern survives, the gables have been removed.
- 41 Another school without a hall was St Alban's Catholic School (1928, demolished), for which a dining hall was built in c1955, which also served as a hall for public meetings. St Alban's Catholic School, Herring Street, Observations from the **LCCAD** Building Regulation Division on Proposed New Dining Hall, 1955 (**LMA: GLC/AR/BR/07/6067**).
- 42 Letter of 20.7.1925 from **LCC** assistant education officer to the Board of Education (**TNA: ED 21/35096**); Porter (ed.) 1994, vol. 43, 209-210.
- 43 This was also the case with Bayswater Jewish School, where the architects, Messrs. Joseph, had planned a second-floor extension containing a social centre, a kitchen and two small service rooms. **LCC** 1931, non-provided schools, 29.

- 44 Catholic Hall, Appleton Road, Eltham, various licensing applications and correspondence, 1929-1934 (**LMA: GLC/AR/BR/07/3756**). During the post-war years, the second storey appears to have been modified and further extended.
- 45 Catholic Hall, Appleton Road, Eltham, Report dated 3.12.1929 by the **LCC** Architect to the Theatres and Music Halls Committee (**LMA: GLC/AR/BR/07/3756**); *Kentish Independent*, 9.11.1934.
- 46 Both the Church of the Good Shepherd, Downham, and the Church of the Annunciation and St Augustine, Bellingham, were rebuilt in the early 1960s. *Kentish Mercury*, 22.9.1961; *Lewisham Borough News*, 4.9.1964.
- 47 Dockhead Catholic Selective Central School had a practical room, a laboratory and an art room. Letter of 12.10.1932 from Gee, **LCC** assistant education officer, to the Board of Education (**TNA: ED 21/35096**).
- 48 De la Mare Norris 1929, 2.
- 49 Châtelet 2008.
- 50 Saint 2003, 73.
- 51 English Heritage report of April 1999 by Elain Harwood; copy in the Historians' Files, English Heritage London Region, file reference **LAM178**.
- 52 Saint 2003, 75.
- 53 The term 'pavilion classroom' was in use by 1914 to describe freestanding, open-air classrooms (Egerton 1914, 96). The exact origins of the square, open-air pavilion classroom are uncertain. In 1908, the **LCC** Schools Architect T.J. Bailey had plans for an open-air classroom drawn up from the sketches of Dr Frederick Rose, Assistant Educational Advisor, who had in mind a well-ventilated, timber building, 'at the same time [...] as symmetrical and artistic as possible'. Around the same time Barry F. Peacock realised a similar structure at the Uffculme school, Birmingham. Hugh Broughton described a classroom at Birley House designed by the headmaster A.J. Green and built by the older boys for a cost of £10 (1914, 30). It was a light wooden-framed structure about 15' (c.4.5m) square with removable side panels and a canvas roof. Lastly, the park bandstand may have influenced the design of the purpose-built pavilion classroom, which was sometimes alternatively known as the 'bandstand type' (de la Mare Norris 1929, 12). By 1913, some 23 bandstands had been pressed into part-time use as open-air classrooms (Cruickshank 1977, 67 and Clarke 1999).
- 54 Saint 2003, 75.
- 55 Stevinson 1927.
- 56 These were based on the practice of Dr Auguste Rollier (1874-1954), the Swiss physician of Leysin, whose Heliotherapy was published in Britain in 1923. De la Mare Norris 1929, 6.
- 57 de la Mare Norris 1929, 7.
- 58 de la Mare Norris 1929, 12.
- 59 **LCC** minutes, 23.3.1926.
- 60 Source: <http://www.bbc.co.uk/ww2peopleswar/stories/04/a7190804.shtml>
- 61 **LMA: LCC/EO/DIV5/GEE/LB/3**— log book from 1955-64.
- 62 35-37 Stepney Green were sold off by **LB** Tower Hamlets in the 1990s and reverted to separate properties, with the land at the rear (containing the buildings of the former open-air school) a separate parcel of land.
- 63 English Heritage report of April 2002 by Elain Harwood; copy in the Historians' Files, English Heritage London Region, file reference **GREI35**.
- 64 *Ibid.*

- 65 Quoted in Bradburn 1989, 180.
- 66 A nursery training college was built adjacent to the school in 1929-30 and extended in 1937 and 1950, to the designs of Victor Wilkins.
- 67 'The educational and hygienic experience gained in many open-air recovery schools will prove of the greatest value in ordinary elementary schools. This may lead in later years to the establishment of schools similar in position, buildings, equipment and instruction, for ordinary elementary children'. Dr F. Rose, quoted in the report of the LCC education committee, LCC minutes 26 May 1908, p1215. For the 'double veranda' model, see Clay 1929, 27. Clay illustrates the Henderson Avenue School, Crosby, Lincolnshire, by H.G. Gamble of 1925.
- 68 Board of Education 1931, 17.
- 69 Davies 1939.
- 70 Quoted in English Heritage report of April 1999 by Elain Harwood; copy in the Historians' Files, English Heritage London Region, file reference LAM178.
- 71 LCC 1939, 66.
- 72 LCC 1939, 67.
- 73 LCC Annual Report 1937: Forward to Vol. 5 by E.M. Rich, Education Officer.
- 74 LCC Education Service Particulars, 1931.
- 75 LCC 1929, 100.
- 76 LCC Education Committee minutes 21.2.1940.; Ministry of Information 1941, 4.
- 77 Haward (1912-2002) had first-hand experience of continental modernism, having worked for Mendelsohn and Chermayeff from 1934-36. After the war he joined the Ipswich firm of Johns and Slater and went on to design many schools in East Anglia.
- 78 Board of Education circular 1477 of 26.9.39.
- 79 Bullock 2002, 184.
- 80 LCC 1954, 17.
- 81 Stillman and Cleary 1949, 18.
- 82 Clarke Hall 2007, 76.
- 83 LCC 1947, 12.
- 84 Saint 1987, 57.
- 85 Harwood forthcoming a.
- 86 Saint 1987.
- 87 See, for example Lyons Israel and Ellis's Parkhouse Mixed Secondary School, Sheffield, of 1964; Wokingham Mixed Secondary School, Berkshire, of 1965 and David Lister Higher School, Humberside of 1965. The LCCAD employed separate-block planning at the Chesterton Primary School, Park Road, Dagnall Street, LB Wandsworth of 1963, in which 14 square classrooms are arranged in a chequerboard formation.

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Appendix I: Gazetteer of extant purpose-built schools in inner-London, 1918-44

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	
Hampstead & North St Pancras							
Children's Day Nursery	Royal Free Hospital Staff Day Nursery, 27 and 29 Pond St	Camden	NP	N	1928	W.E. Riley and Glanfield	Key
William Ellis Secondary	William Ellis School, Highgate Rd	Camden	NP	Se	1937	HPG Maule	
St Aloysius' RC	St Aloysius' Catholic Junior School, Aldenham St, Camden	Camden	NP RC	E	1928-29	THB Scott	LCC London County Council
Burrage Grove	Greenwich Community College, Burrage Grove	Greenwich	LCC	E	1874; R1922	LCCAD	NP Non-provided
Charlton Manor	Charlton Manor Primary School, Indus Rd	Greenwich	LCC	E	20.4.31, Ex1936	LCCAD	RC Roman Catholic
Woolwich County	Shooter's Hill Post-16 Campus, Red Lion Ln, Woolwich	Greenwich	LCC	Se	5.1928	LCCAD: W.E. Brooks	CE Church of England
Ealdham Square	Ealdham Primary School, Ealdham Sq	Greenwich	LCC	E	21.1.29	LCCAD	J Jewish
Haimo Road	Haimo Primary School, 11 Haimo Rd, Bexley	Greenwich	LCC	E	B24.8.26; I2.2.25	LCCAD	Ba Baptist
Henwick Road	Henwick Primary School, Henwick Rd, Eltham	Greenwich	LCC	E	29.10.30 & 6.1.31	LCCAD	N Nursery
John Roan	The John Roan School, 141 Maze Hill, Blackheath	Greenwich	NP	Se	1926-28	P.B. Dannatt & Sir B. Fletcher	E Elementary
King's Park	Greenwich Community Coll., King's Park Centre, Eltham Palace Rd	Greenwich	LCC	E	I23.5.34, S1937	LCCAD: H.F.T. Cooper	Se Secondary
Sherington Road	Sherington Primary School, Sherington Rd, Greenwich	Greenwich	LCC	E	1.11.22	LCCAD	Sp Special
Thorntree Road	Thomtree Infants' School, Pound Park Rd	Greenwich	LCC	E	26.4.27	LCCAD	
Westhorne	Briset Primary School, Briset Rd	Greenwich	LCC	E	1936	LCCAD	R Rebuilt
Middle Park	Middle Park School, 85 Gregory Crescent, Greenwich	Greenwich	LCC	E	1937	LCCAD: H.F.T. Cooper	A Altered
Eltham Hill Secondary	Eltham Hill Technology College for Girls, Eltham Hill	Greenwich	LCC	Se	1925-27	LCCAD: C.W. Beaumont	Ex Extended
Blessed Thomas More RC	St Thomas More Catholic Primary School, Appleton Rd, Eltham	Greenwich	NP RC	E	1929-1934	James O'Hanlon Hughes, Thomas Stott	D Demolished
Our Lady of Grace RC	Our Lady of Grace Catholic Primary School, 145 Charlton Rd	Greenwich	NP RC	E	c1925-29	Walters and Sons: Edward John Walters	Dates refer to opening dates
Cronall Street	St John the Baptist C of E Primary School, Cronall St	Hackney	LCC	E	23.8.27	LCCAD	I Infants
London Fields	Fields Primary School, 2 Westgate St, Tower Hamlets	Hackney	LCC	E	1874; R1921-23	LCCAD	J Junior
Mount Pleasant County Secondary	Harrington Hill Primary School, Mount Pleasant Ln	Hackney	LCC	E	1935	LCCAD: W.E. Brooks	S Senior
Orchard	Orchard Primary School, Holcroft Rd, Hackney	Hackney	LCC	E	12.1.26	LCCAD	B Boys'
Bentworth Road	Bentworth Primary School, Bentworth Rd	Hammersmith & Fulham	LCC	E	27.8.29	LCCAD	G Girls'
Burlington School for Girls	Burlington Danes School, Wood Ln	Hammersmith & Fulham	NP	Se	1935-36	Sir John Bumet Tait & Lome	M Mixed
Lena Gardens	Lena Gardens Primary School, 32 Lena Gardens, Hammersmith	Hammersmith & Fulham	LCC	E	31.10.28	LCCAD	
Mellitus	Old Oak Primary School, Braybrook St	Hammersmith & Fulham	LCC	E	1921-22	LCCAD	
Wormholt Estate Central	The Bryony Centre, 61 Bryony Rd	Hammersmith & Fulham	LCC	E	14.4.1931	LCCAD	
West Kensington Central	St James Independent Schools, Earsby St	Hammersmith & Fulham	LCC	E	1875; R1936	LCCAD	
Wormholt Park	Wormholt Park Primary School, Bryony Rd	Hammersmith & Fulham	LCC	E	7.6.22	LCCAD	
Barnsbury Boys' Central	Sacred Heart Catholic Primary School, Georges Rd	Islington	LCC	E	28.10.31	LCCAD: ?A.A. Carder	
Robert Blair	Robert Blair Primary School, Brewery Rd Islington,	Islington	LCC	E	1876; R1923-24; Ex1931	LCCAD	
Brecknock	Brecknock Primary School, 11 York Way	Islington	LCC	E	1881; R1928-29	LCCAD	
Drayton Park	Arvon Rd	Islington	LCC	E	R23.8.27	LCCAD	
Hanover Street	Hanover Primary School, 11 Noel Rd, Islington	Islington	LCC	E	1877; R1931-32	LCCAD	
Highbury Hill High	Highbury Fields School, Highbury Hill, Islington	Islington		Se	1928		

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	Key
Mount Zion Chapel	The Association of Grace Baptist Churches, 7 Arlington Way	Islington	NP	B	1929-30	Herbert A Wright, builder J Webb & Son	Key
Avondale Park	Avondale Park Primary School, Sirdar Rd	Kensington & Chelsea	LCC	E	R1928.	LCCAD	LCC London County Council
Bevington Road	Bevington Primary School, Bevington Rd Ladbroke Grove	Kensington & Chelsea	LCC	E	7.1.30	LCCAD	NP Non-provided
Fox	Fox Primary School, Kensington Place	Kensington & Chelsea	LCC	E	1937	LCCAD	RC Roman Catholic
Kensal House Day Nursery	Kensal House Day Nursery, Ladbroke Grove.	Kensington & Chelsea	LCC	N	1936-38	Maxwell Fry and Grey Womum	CE Church of England
Lycée Français	The French Institute, 35 Cromwell Rd	Kensington & Chelsea	NP	Se	1937-39	A.J. Thomas, Patrice Bonnet	J Jewish
Wornington Road	Kensington & Chelsea College, Wornington Centre, Wornington Rd	Kensington & Chelsea	LCC	E	R1938	LCCAD	Ba Baptist
Kensington Bayswater Jewish	Lighthouse (offices), 111-117 Lancaster Rd	Kensington & Chelsea	NP	J	1928-30	Mssrs Joseph	N Nursery
Aspen House Open Air	The Orchard Centre, 11 Christchurch Rd,	Lambeth	LCC	Sp	23.11.25	LCCAD	E Elementary
Battersea Grammar	Streatham Hill and Clapham High School, 42 Abbotswood Rd	Lambeth	NP	Se	1936	J.E.K. Harrison	Se Secondary
Cowley	Mostyn Gardens Primary School, Cowley Rd, Kennington	Lambeth	LCC	E	21.4.1936	LCCAD	Sp Special
Dunraven	Dunraven Secondary School, 82-100 Leigham Court Rd	Lambeth	LCC	E	10.4.34	LCCAD	
Granton Road	Granton Primary School, Granton Rd	Lambeth	LCC	E	28.8.28	LCCAD	R Rebuilt
Henry Fawcett	Henry Fawcett Primary School, Clayton St	Lambeth	LCC	E	1936-37	LCCAD	A Altered
Jessop Road	Jessop Primary School, Lowden Rd, Heme Hill	Lambeth	LCC	E	1876; R1937	LCCAD	Ex Extended
Loughborough Central	Loughborough Infant School, Minet Rd, Lambeth	Lambeth	LCC	E	17.4.28	LCCAD	D Demolished
Sudbourne	Sudbourne Primary School, 11 Hayter Rd, Lambeth	Lambeth	LCC	E	4.2.27	LCCAD	Dates refer to opening dates
Carnac Street Central	Elm Wood Primary School, Carnac St, West Norwood	Lambeth	LCC	E	17.4.28	LCCAD	
Woodmansterne Road	Woodmansterne Primary School, 11 Stockport Rd	Lambeth	LCC	E	11.6.30	LCCAD	I Infants
Archbishop Tenison's Grammar	Archbishop Tenisons School, 55 Kennington Oval	Lambeth	NP	CE Se	1928	Arthur Heron Ryan-Tenison	J Junior
St Martin in the Fields High	St, Martin-in-the-Fields High School for Girls, 155 Tulse Hill	Lambeth	NP	CE Se	1928	LCCAD	S Senior
							B Boys'
							G Girls'
Adamsrill Road	Adamsrill Rd Primary School, Adamsrill Rd, Lewisham	Lewisham	LCC	E	10.1.22	LCCAD	M Mixed
Athelney or Athney Street	Athelney Primary School & Nursery, 11 Athelney St	Lewisham	LCC	E	1922-23	LCCAD: J.M. Scott	
Cooper's Lane	Cooper's Ln Primary School, Grove Park, Lewisham	Lewisham	LCC	E	1934-36	LCCAD: H.F.T. Cooper	
Dalmain Road	Dalmain Primary School, Grove Close	Lewisham	LCC	E	1874; R1928	LCCAD: W.E. Brooks	
Downderry Road	Downderry Primary School, 11 Downderry Rd, Lewisham	Lewisham	LCC	E	23.8.27	LCCAD	
Elfrida	Elfrida Primary School, Elfrida Crescent	Lewisham	LCC	E	BG6.1.25, 117.3.24	LCCAD: ?E.C. Nisbett.	
Kender Street	Kender Primary School, Kender St	Lewisham	LCC	E	1874; R1930	LCCAD	
Marvels Lane	Marvels Ln Primary School, Riddons Rd	Lewisham	LCC	E	M27.8.29; 129.4.30	LCCAD	
Rangefield	Rangefield Primary School, 11 Glenbow Rd, Lewisham	Lewisham	LCC	E	1925-26	LCCAD	
Sydenham Central	84 Kirkdale, Sydenham	Lewisham	LCC	E	26.4.27	LCCAD	
Turnham	Turnham Primary School, Turnham Rd	Lewisham	LCC	E	27.8.35	LCCAD	
Ballamore Road	Merlin Primary School, 72 Ballamore Rd, Bromley	Lewisham	LCC	E	127.8.29; 130.9.29	LCCAD	
Churchdown	Churchdown School, Churchdown Downham Bromley	Lewisham	LCC	E	30.10.29; Ex1931	LCCAD	
Pendragon Road	Pendragon School, Pendragon Rd, Downham, Bromley	Lewisham	LCC	E	1929	LCCAD	
Launcelot Road	Lancelot Primary School, Lancelot Rd, Downham, Bromley	Lewisham	LCC	E	1928	LCCAD	
The Good Shepherd RC	Good Shepherd Catholic Primary School, Moorside Rd, Bromley	Lewisham	NP	RC E	1930; Ex1933, 1935, 1936	LCCAD	
St Augustine's RC	St, Augustine's Catholic Primary School, Dunfield Rd, Bellingham	Lewisham	NP	RC E	1928		
St Philip's RC	Our Lady and St Philip Neri Primary School, 208 Sydenham Rd	Lewisham	NP	RC E	c1935	Walters and Sons (Edward John Walters)	
Dog Kennel Hill	Dog Kennel Hill School, Dog Kennel Hill, East Dulwich	Southwark	LCC	E	1937	LCCAD: E.P. Wheeler and A.F.T. Cooper	

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	Key
Hollydale Road	Hollydale Rd, Southwark	Southwark	LCC	E	1877; R1931	LCCAD	
Sumner Road	Sumner House, Sumner Rd, Southwark	Southwark	LCC	E	1876; R1921-23	LCCAD	
Webb Street	Grange Primary School, Webb St	Southwark	LCC	E	1880; R1920-22	LCCAD: ?W. Brown with Chevalier Worby Beaumont	LCC London County Council
Honor Oak Nursery	Chelwood Nursery School, St Norbert Rd, Brockley	Southwark	LCC	N	13.2.1939	LCCAD	NP Non-provided
Honor Oak	Harris Girls' Academy East Dulwich, Homestall Rd	Southwark	LCC	Se	1906; R1930-1931	LCCAD	RC Roman Catholic
Kintore Way	Kintore Way Nursery School, Grange Rd, Southwark	Southwark	LCC	N	10.1.39	LCCAD	CE Church of England
Southampton Way	Camberwell Centre, Southwark College, Southampton Way	Southwark	LCC	E	1874; R1917-21	LCCAD	J Jewish Ba Baptist
Botolph Road	St Agnes Primary School, Rainhill Way	Tower Hamlets	LCC	E	1876; R1932	LCCAD	
Cephas Street	John Scurr Primary School, Cephas St	Tower Hamlets	LCC	E	31.10.28	LCCAD	N Nursery
Columbia Market	Columbia Market Nursery School, Columbia Rd, Bethnal Green	Tower Hamlets	LCC	N	26.8.30	LCCAD	E Elementary
Cubitt Town	St Luke's Church of England Primary School, Saunders Ness Rd	Tower Hamlets	LCC	E	1891; R1937	LCCAD: HFT Cooper	Se Secondary
Eagling Road	Childrens House Nursery School, 92 Bruce Rd, Bow	Tower Hamlets	NP	N	1923	C. Cowles-Voysey	Sp Special
Geere House Open Air	35-37 Stepney Green	Tower Hamlets	LCC	Sp	26.4.27	LCCAD	
Glengall	Cubitt Town Infant School, Glengall Gr	Tower Hamlets	LCC	E	1876R1939	LCCAD	R Rebuilt
Old Church Road	Old Church Nursery School, Walter Terrace	Tower Hamlets	LCC	N	26.8.30	LCCAD	A Altered
Our Lady of Assumption	Our Lady's RC Primary School, Copenhagen Place, Limehouse	Tower Hamlets	NP RC	E	1926		Ex Extended
Pritchards Road	Pritchards Rd Centre, Tower Hamlets	Tower Hamlets	LCC	E	1875/78; R1927	LCCAD	D Demolished
Roman Road	Old Ford Primary School, Wrights Rd	Tower Hamlets	LCC	E	c1937	LCCAD	Dates refer to opening dates
Upper North Street	Mayflower School, Upper North St	Tower Hamlets	LCC	E	1882; R1928	LCCAD	
Wellington Rd	Wellington Primary School, 11 Wellington Way Tower Hamlets	Tower Hamlets	LCC	E	31.10.28	LCCAD	I Infants
Wilmot St	Hague Primary School, Wilmot St Tower Hamlets	Tower Hamlets	LCC	Se	1873; R1931-32	LCCAD	J Junior
Holy Child RC	Bygrove Primary School, Bygrove St, Poplar	Tower Hamlets	NP RC	E	c1926	Thomas HB Scott	S Senior B Boys' G Girls' M Mixed
Allfarthing Lane	Allfarthing Primary School, Allfarthing Ln, Wandsworth	Wandsworth	LCC	E	10.1.22	LCCAD	
Furzedown	Furzedown Primary School, Beclands Rd	Wandsworth	LCC	E	17.4.28	LCCAD	
Magdalen Road	Beatrix Potter School, Magdalen Rd	Wandsworth	LCC	E	23.8.27	LCCAD	
Raywood Street	Newton Prep School, 149 Battersea Park Rd	Wandsworth	LCC	E	1882; R1926	LCCAD	
Wandsworth County	Sutherland Grove	Wandsworth	LCC	Se	9.1927	LCCAD	
Buckingham Gate Central	Westminster College, Castle Ln	Westminster	LCC	E	R1936	LCCAD	
Portman Day Nursery	The Portman Early Childhood Centre, 12 Salisbury St	Westminster	NP	N	1937	Howard Robinson	

TOTAL 104 schools

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	Key	
Appendix 2: Gazetteer of extensions and alterations to schools in inner-London, 1918-44							LCC	London County Council
Burghley Central Girls' University College School (Junior Branch)	Brookfield Primary School, Chester Rd	Camden	LCC	E	1914; Ex1936	LCCAD		
All Souls CE Hall	Junior Branch, 11 Holly Hill, Hampstead All Souls C.E., Fairhazel Gdns., Belsize Rd, ?Crossfield Rd school	Camden	I		A1926-28	Sir John Simpson	NP	Non-provided
Haberdashers' Askes' Boys' Hampstead Parochial	Moreland Hall, Holly Bush Vale, Hampstead	Camden	CoE		A1927		RC	Roman Catholic
St Peter's Italian Church RC	Central School of Ballet, 10 Herbal Hill, Clerkenwell Rd	Camden	I		Ex1935, 1938		CE	Church of England
			I		Ex1931	Noel D. Sheffield	J	Jewish
					A1938	Ashley & Newman	Ba	Baptist
			NP	RC				
City of London School for Girls	76 John Carpenter St,	City of London	NP	Se	Ex1937	TB Whinney, son and A.Hall with HJ Franklin	N	Nursery
							E	Elementary
							Se	Secondary
							Sp	Special
Rachel McMillan Nursery	Rachel McMillan Nursery School, Deptford Church St, Deptford	Greenwich	LCC	N	Ex1917; 1921; c.1934	LCCAD		
Eltham Central	Deansfield Primary School, 11 Dairsie Rd, Bexley	Greenwich	LCC	E	1905/1916; A17.4.28	LCCAD		
Powis	Union St, Woolwich	Greenwich	LCC	E	1884; A1922	LCCAD	R	Rebuilt
Wickham Lane	St Paul's RC Secondary School, Wickham Ln	Greenwich	LCC	E	1903; Ex1936	LCCAD	A	Altered
John Roan Girls'	Devonshire Drive, Greenwich	Greenwich	NP	Se	1877 A1936-37	Percy B. Dannatt	Ex	Extended
Greenwich Park Central	King George St, Greenwich	Greenwich	LCC	E	1914; Ex1926, 1931	LCCAD	D	Demolished
St Ursula's Convent School	St Ursula's Convent School, 70 Crooms Hill	Greenwich	NP	RC	1926			Dates refer to opening dates
Eltham CoE	Eltham C of E Primary School, Roper St	Greenwich	NP	CE	Ex1933			
							I	Infants
Berkshire Road Special Clapton	Gainsborough Primary School, Berkshire Rd Clapton Girls Technology School, Laura Place	Hackney Hackney	LCC	Sp	Ex7.1.30 1914-16 Exc.1920-25	LCCAD LCCAD	J	Junior
							S	Senior
							B	Boys'
St Paul's Girls' Latymer Upper	Brook Green King St	Hammersmith & Fulham Hammersmith & Fulham	I		1904-07; A1933 A1930		G	Girls'
						J.M. Kellet	M	Mixed
Chelsea Open Air Carlyle	51 Glebe Place Carlyle Building Hortensia Rd London	Kensington & Chelsea Kensington & Chelsea	NP	N	A1928; 1937	Grey Wornum, Ernst Freud		
			LCC	Se	1908; Ex1937	LCCAD		
Stonhouse Street	Clapham Manor Primary School, Belmont Rd Clapham	Lambeth	LCC	E	1881; A1928	LCCAD		
Peckham Rye	Whoriton Rd London	Lambeth	LCC	E	1884; Ex1926	LCCAD		
Hitherfield Road	Hitherfield Rd,Streatham, London	Lambeth	LCC	E	Ex1921	LCCAD		
Frankham Street	Tidemill School, Frankham St, Deptford	Lewisham	LCC	E	G&I R1927-8	LCCAD		
Baring Road	Baring Primary School, Linchmere Rd	Lewisham	LCC	E	1883; A1929	LCCAD		
Brockley County Secondary	College House, Hilly Fields, Adelaide Avenue,	Lewisham	LCC	E	1884-5; Ex1913-14, 1921	LCCAD		
St Saviour and St Olaves	St Olave's Church of England School New Kent Rd, London	Southwark	NP	Se	Ex1928			
James Allen's Girls	James Allen's Girls' School, East Dulwich Grove, London	Southwark	NP	Se		J.E.K.Harrison		
Mary Datchelor	17 Grove Ln	Southwark	NP	Se	1926	W. Curtis Green		
St Saviour and St Olaves	Rd	Southwark	NP	CE	1903; Ex1928			

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	
Alywin	Aylwin Secondary School, 55 Southwark Park Rd	Southwark	LCC	Se	1906; Ex 9.1936	LCCAD	
Coopers' and Coburn	Bow Rd and Harley Grove	Tower Hamlets	I		A1931	George Elkington & Son	Key
Stewart Headlam	Stewart Headlam Primary School, Tapp St Stepney	Tower Hamlets	LCC	E	1881; A1923	LCCAD	
Coopers' Company	29-30 Bow Rd	Tower Hamlets	I		Ex 1937		LCC London County Council
St Mary and St Joseph RC	Holy Family Catholic Primary School, Wade's Place	Tower Hamlets	NP RC	E	Ex 1922, 1929	1929: Thomas H B Scott	NP Non-provided
St Patrick's RC, Wapping		Tower Hamlets	NP RC	E	Ex c1926		RC Roman Catholic
St Bernard's RC Central	Oaklands Secondary School, Old Bethnal Green Rd	Tower Hamlets	NP RC	E	A c1929; Ex c1930, 1935	THB Scott	CE Church of England
Sir Walter St John's Grammar	Battersea High St, Battersea	Wandsworth		Se	Ex 1937-38	T. Denny and Baker	J Jewish
Belleville Road	Belleville Junior and Infants School, Belleville Rd, Battersea	Wandsworth	LCC	E	1877; A1922	LCCAD	Ba Baptist
St Clement Danes'	St Clement Danes Church of England Primary School, Drury Ln	Westminster			1907-08; Ex 1927-28		N Nursery
Wilberforce	Wilberforce Primary School, Beethoven St	Westminster	LCC	E	Ex 1930	LCCAD	E Elementary
Francis Holland	39 Graham Terrace, Belgravia	Westminster			1883-84; Ex 1919-22	Victor Wilkins	Se Secondary
St Clement Danes'	St Clement Danes C of E Primary School, Drury Ln	Westminster	NP CE	E	1907-08; Ex 1927-28		Sp Special
TOTAL 45 schools							R Rebuilt
							A Altered
							Ex Extended
							D Demolished
							Dates refer to opening dates
							I Infants
							J Junior
							S Senior
							B Boys'
							G Girls'
							M Mixed

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	
Appendix 3: Gazetteer of demolished purpose-built schools in inner-London, 1918-44							Key
Haverstock Hill	Haverstock Hill London.	Camden	LCC	E	R1916-20	LCCAD	LCC London County Council
Coram's Fields Open Air	Guildford St., Camden	Camden	LCC	Sp		LCCAD	NP Non-provided
King Alfred	King Alfred School, Manor Wood, North End Road,	Camden	NP	E	Ex1934-36	Eugene Charles Kent Kaufmann	RC Roman Catholic
Creek Road	Creek Road	Greenwich	LCC	E	R1938	LCCAD	CE Church of England
Charlton Park Open Air	Charlton Park Road	Greenwich	LCC	Sp	2.12.29	LCCAD	J Jewish
Stoke Newington Central		Hackney	LCC	E	2.11.27	LCCAD	Ba Baptist
Stormont House Open Air	Downs Park Road	Hackney	LCC	Sp	8.9.19	LCCAD	N Nursery
Upton House Open Air	Urswick Rd, Hackney	Hackney	LCC	Sp	23.4.28	LCCAD	Se Secondary
Harwood	Harwood Road, Fulham	Hammersmith & Fulham	LCC	E	17.4.28	LCCAD	Sp Special
Wood Lane Open Air	Du Cane Road	Hammersmith & Fulham	LCC	Sp	17.6.29	LCCAD	R Rebuilt
St Clement Danes Boys Grammar	Du Cane Road	Hammersmith & Fulham	NP	CE	1928; D2004	LCCAD: W.E. Brooks	A Altered
Newington Green	Newington Green Primary School. Matthias Road, London	Islington	LCC	E	11.2.84; A1939	LCCAD	Ex Extended
St Jude's District CE	SS Jude's and Paul: 10 Kingsbury Rd	Islington	NP	CE	Ex ?c1926		D Demolished
Hampden Nursery	14 Holland Park, Kensington	Kensington & Chelsea	NP	N	1936	Wells Coates	Dates refer to opening dates
Trinity Church of England	Holy Trinity Church of England Primary School Upper Tulse Hill	Lambeth	CoE	E	1923		I Infants
Bradmede	Thessaly Rd, Wandsworth Rd	Lambeth	LCC	E	1874; R1927		J Junior
Effra Parade	Barnwell Road, Brixton	Lambeth	LCC	E	R1937	LCCAD	S Senior
Springfield	Crimsworth Road	Lambeth	LCC	E	1882; R1928	LCCAD	B Boys'
Stowey Open Air	Stowey House School, 46 South Side Clapham	Lambeth	LCC	Sp	14.6.20	LCCAD	G Girls'
Henry Thornton	Henry Thornton Secondary School 45 Southside, Clapham Common	Lambeth	LCC	Se	1894; R1.1929	LCCAD	M Mixed
Durham Hill	Durham Hill, Bromley	Lewisham	LCC	E	28.8.28	LCCAD: W.E. Brooks	
Brockley Central	Wallbutton Rd Lewisham	Lewisham	LCC	E	17.4.28; D2003	LCCAD	
Forest Hill Central	Brockley rise later Dacres Road, Forest Hill	Lewisham	LCC	E	17.4.28 D c2007	LCCAD	
Brent Knoll Open Air	Mayow Road, Sydenham	Lewisham	LCC	Sp	26.4.27	LCCAD	
Downham Open Air	Rangefield Primary School 11 Glenbow Rd, Lewisham	Lewisham	LCC	Sp	26.5.30	LCCAD	
Woodlands Open Air	Shroffield Road, Bromley	Lewisham	LCC	Sp	c.1928	LCCAD	
Downham Central	Goudhurst Road	Lewisham	LCC	E	27.10.26; D1997	LCCAD	
St Winifred's Convent of the Ladies of Mary	Mayow Road, Sydenham	Lewisham	NP	RC		?	
Reddins Road	Reddins Rd	Southwark	LCC	E	A1931	LCCAD	
Nightingale House	Fort Road	Southwark	LCC	Sp	10.1.28	LCCAD	
Credon Road	Credon Rd Southwark	Southwark	LCC	E	R1936	LCCAD:H.F.T Cooper	

Original name	Present Name & Address	London borough	Status	Stage	Date	Architect	Key
Lomond Grove Dulwich College Preparatory Nursery	Dulwich College Preparatory School, 42 Alleyn Park,	Southwark	LCC	E	B&G R1927	LCCAD	
St Alban's RC	Herring St, Camberwell [site now part of Burgess Park]	Southwark	NP RC	E	c1928	G.H. Samuel & V. Harding	LCC London County Council
Dockhead RC	Dockhead, Bermondsey	Southwark	NP RC		c1933	Adrian Gilbert Scott	NP Non-provided
Walworth Central	Mina Rd Southwark	Southwark	LCC	E	1905; R,Ex1936	LCCAD	RC Roman Catholic
Bermondsey Central Avenue	Rolls Road John Ruskin St	Southwark	LCC	E	1939 R1937	LCCAD	CE Church of England J Jewish Ba Baptist
Old Palace	Old Palace JM & I School, Leonards St	Tower Hamlets	LCC	E	1896; Ex1925, 1931	LCCAD	
Holy Family RC	Holy Family Catholic School Wades Place, Poplar	Tower Hamlets	NP RC	E	Ex1922, 1929	1929: Thomas H B Scott	N Nursery
Alton Street	Alton St Tower Hamlets	Tower Hamlets	LCC	E	1883; ?A1926	LCCAD	E Elementary
Millwall Central	Janet Street, Poplar	Tower Hamlets	LCC	E	17.4.28	LCCAD; J.R. Stark	Se Secondary
St Paul's Road	St Paul's Way Community School 16 Shelmerdine Close	Tower Hamlets	LCC	E	1873; R1927	LCCAD	Sp Special
Bow Road Open Air	Phoenix School 49 Bow Rd	Tower Hamlets	LCC	Sp	30.1.22	LCCAD	
Our Lady of the Assumption RC	Our Lady's Catholic Primary School, Copenhagen Place, Limehouse	Tower Hamlets	NP RC	E	1926	E. Bower Norris	R Rebuilt
St Edmund's RC	St Edmund's Catholic Primary School, 297 Westferry Rd, Poplar	Tower Hamlets	NP RC	E	Ex1928-9	Thomas H B Scott	A Altered
St Mary and St Michael RC	Lucas St (later Lukin St), off Commercial Rd, Stepney	Tower Hamlets	NP RC	E	c1933	John Sterrett	Ex Extended
Emanuel	Wandsworth Common Battersea Rise	Wandsworth	Pu		Ex1937		D Demolished
Bec Secondary	Ernest Bevin College, Beechcroft Rd	Wandsworth	LCC	Se	9.1926; D c2000	LCCAD	Dates refer to opening dates
Huntingfield Road	Roehampton	Wandsworth	LCC	E	Ex1931	LCCAD	I Infants
Waldron Road	Waldron Rd, Wandsworth	Wandsworth	LCC	E	1905; I A1927	LCCAD	S Senior
Broadwater	Broadwater School House Broadwater Rd Wandsworth	Wandsworth	LCC	E		LCCAD	B Boys'
Springwell House Open Air	Parkgate House School, 80 Clapham Common Northside	Wandsworth	LCC	Sp	1.4.19	LCCAD	G Girls' M Mixed
St Marylebone Grammar	Lisson Grove	Westminster	LCC	Se	Ex c.1938	LCCAD	
North Paddington Central	Kilburn Lane, Kensal Green	Westminster	LCC	E	24.8.25	LCCAD	
Richard Cobden Central	Camden St	Westminster	LCC	E	1910; R1939	LCCAD	
Holly Court Open Air	Merton Lane	Westminster	LCC	Sp	18.7.27	LCCAD	

TOTAL 57 schools

Appendix 4: A typology of school plans in use in London, 1918-44

Few classifications of English school plans are apparent from a survey of the literature. Identifying groups of related schools is more than a taxonomical game: it is key to understanding the transmission of influence, the use of models, and processes of standardisation and development in the organisation of school buildings. The value of a classificatory approach was demonstrated by Andrew Saint's 1991 paper on board schools, in which a detailed typology primarily based on analysis of elevations was proposed.¹ The following miscellany of plan types employed in the period 1918-44 is biased towards the elementary schools of the LCC, for the simple reason that their plans are more readily available than other types of school.² Unless otherwise specified, the schools were designed in the Architect's Department of the LCC.

- **The Stowage plan** is a compact, multi-storied, axial design, in which double-banked classrooms flank a projecting (and usually north-facing) central hall. The entrances and stairs are either on the short ends or adjoin the hall. The plan was employed on a number of occasions by the School Board for London, Peckham Park, LB Lambeth of 1876 being an early example. This plan was adopted as the principal model for elementary schools in 1917, named after a planned but unbuilt school at the Stowage, Deptford, LB Greenwich.³ A similar model for central schools was named after Fort Road, LB Southwark of 1915.⁴ The Department modified the design so no classrooms communicate directly with the hall. The Archbishop Tenison's Grammar school of 1928 by A.H. Ryan Tenison is an example of a non-provided school built to the Stowage plan. Representative LCCAD examples include:

Burrage Grove	LB Greenwich	1922
Adamsrill Road	LB Lewisham	1922
Webb Street	LB Southwark	1922
North Paddington Central	LB Westminster	1925
Raywood Street	LB Wandsworth	1926
Frankham Street	LB Lewisham	1927-28
Lena Gardens	LB Ham. & Fulham	1928

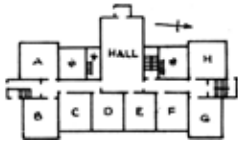
A later variant developed cross-wings containing additional classrooms and stairs, giving an H plan. This has an origin in Vauxhall Street, LB Lambeth of 1914, and went on to be employed at:

Bradmede	LB Lambeth	1927	dem.
Brockley Central	LB Lewisham	1927	dem.
Cephas Street	LB Tower Hamlets	1928	

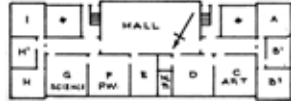
The Stowage model was further modified by the incoming divisional architect H.F.T. Cooper to open up the hall. By omitting the flanking classrooms, the ventilation and lighting of the corridor was also increased. This can be seen at:

King's Park	LB Greenwich	1934
Dunraven	LB Lambeth	1934
Charlton Manor	LB Greenwich	1936
Coopers Lane	LB Lewisham	1936

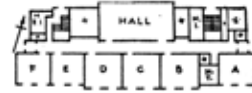
THE STOWAGE PLAN



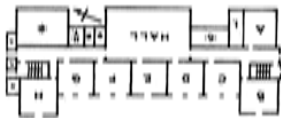
Peckham Park, 1876.



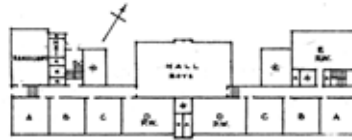
North Paddington Central, 1925.



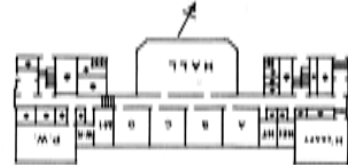
Lena Gardens, 1928.



Bradmede, 1927.



King's Park, 1934.

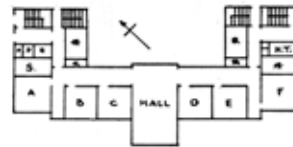


Cooper's Lane, 1936.

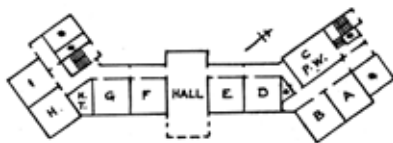
THE HILLBROOK PLAN



Hollydale Road, 1877.



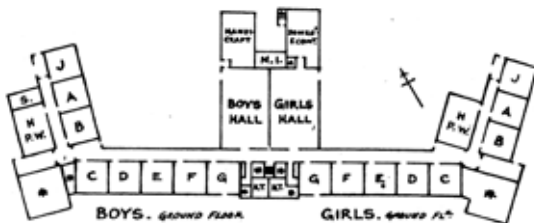
Burghley Central Girls', 1914.



Lewisham Bridge, 1914-15.



Hillbrook Road, 1916.



Elfrida, 1924-25



Athelney Street, Junior Department 1922-23

- **Hillbrook plan.**⁵ An elongated, axial plan, with a single row of classrooms off a corridor and a projecting central hall. This is an early example of single banking, where classrooms open off a corridor on one side only, enabling cross ventilation and improved corridor lighting. The entrances can be located at the ends or centrally, for ease of access to the hall and emergency egress. Stairs are housed in projecting rear cross-wings. The plan has its origins in the **SBL**: with the exception of the central hall, these elements are present at Hollydale Road, **LB** Southwark of 1877. The plan was also employed by the Municipal Borough of Wimbledon (eg. the Durnsford Elementary school of 1910).⁶

The **LCC** had adopted the plan by 1912, which is when the Council approved the designs for the Lewisham Bridge elementary school:⁷

Burghley Central Girls'	LB Camden	1914	dem.
Lewisham Bridge	LB Lewisham	1914-15	
Senior Street	LB Westminster	1915	
Ravenstone	LB Wandsworth	1915	
Hillbrook Road	LB Wandsworth	1916	
Althelney Street	LB Lewisham	1922-23	
Elfrida	LB Lewisham	1924-25	
Cron dall Street	LB Hackney	1927	
Churchdown	LB Lewisham	1929	

As central halls became less popular, the plan later fell out of use. The 1,124 place junior school at Athelney Street, which served the Bellingham estate, is particularly long, having seven classrooms to each wing and double halls. The plan was also employed at provided schools such as the Battersea Grammar School, **LB** Lambeth (J.E.K. Harrison, 1936).

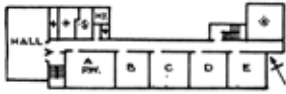
- **End Hall.** In the late 1920s the **LCCAD** sought an alternative to the central hall and double-banking of the Stowage model. The motives were probably a desire for a cross ventilated classroom, to replace the corridor with open veranda or gallery and to open up the hall and insulate the classrooms from its noise. The result was an asymmetrical, elongated plan with single-banked row of classrooms terminating in stairs and a hall. Ancillary accommodation was added to the north of the corridor. The first tentative steps, Upper North Street, **LB** Tower Hamlets and Haimo Road, **LB** Greenwich (both of 1928), betray their origins in the Stowage model plan (*cf*). The design emerges more clearly at:

Durham Hill	LB Lewisham	1928	dem.
Ealdham Square	LB Greenwich	1928	
Hanover Street	LB Islington	1931-32.	

In the years of the 'mini boom' in school building, end-halls were built at the Burlington School for Girls, **LB** Hammersmith and Fulham (Burnet, Tait and Lorne, 1936) and by the **LCCAD** at:

Cowley	LB Lambeth	1936	
Effra Parade	LB Lambeth	1937	dem.
Cubitt Town	LB Tower Hamlets	1937	
Wormington Road	LB Ken. & Chelsea	1938	

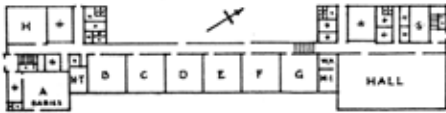
THE END HALL PLAN



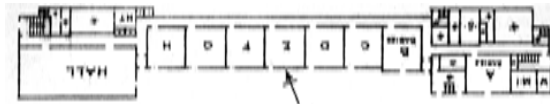
Upper North Street, 1928.



Ealdham Square, 1928.

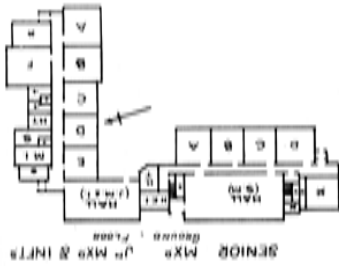


Effra Parade, 1937

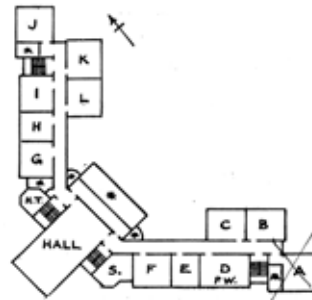


Glengall, 1939.

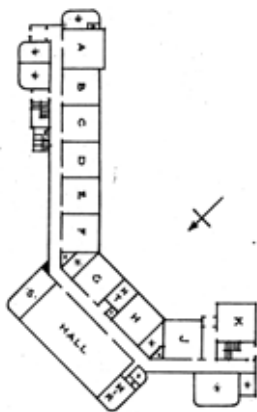
THE L PLAN



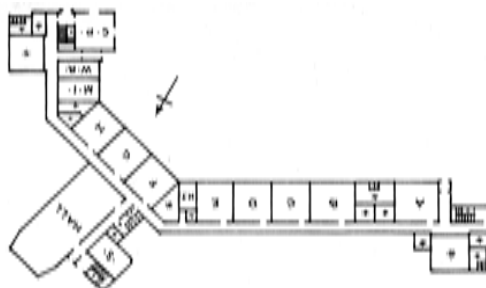
Sudbourne, 1927



Vernon Square 1915.



Turnham, 1935



Middle Park, 1937

Bermondsey Central	LB Southwark	1939	dem.
Glengall	LB Tower Hamlets	1939.	

- The **L plan** comprises two perpendicular classroom wings with the hall at the intersection or end. **LCCAD** examples include:

Stoke Newington Central	LB Hackney	1927	dem.
Sudbourne	LB Lambeth	1927	
Brecknock	LB Islington	1928-29	
Marvels Lane	LB Lewisham	1929-30	
Creek Road	LB Greenwich	1938	dem..

Joining two wings of equal length with a diagonal 'chamfer' gave something related to a butterfly plan (cf) at:

Vernon Square	LB Islington	1915
Turnham	LB Lewisham	1935
Jessop Road	LB Lambeth	1937
Middle Park	LB Greenwich	1937.

- In the **Butterfly plan** (also known as the suntrap or V plan), non-orthogonal wings radiate symmetrically from a central hall and administrative accommodation. Variants included the double-butterfly or X plan (Old Oak, **LB** Hammersmith and Fulham, 1920-22, built in two phases; the science block of Marlborough College, Wiltshire by W.G Newton of 1933) and the Y plan (Magdalen Road, **LB** Wandsworth, 1927). The plan is influenced by late 19th century sanatoria such as isolation and TB hospitals. Early schools include Vittoria Place, **LB** Islington (**SBL**, 1879) and the Glebe Elementary School, Bolsover, Derbyshire (George Henry Widdows, 1911) and Creswell School, Derbyshire (George Henry Widdows, 1912). The plan was employed by H.G. Crothall, Middlesex County Architect at two secondary schools of 1910: Western Road Secondary Girls' School, Southall and the Harrow County Boys School. The fully-glazed Kingsley Open-Air Recovery School in Kettering of 1913 by R.J. Williams is also of butterfly form.⁸

The **LCC** used butterfly planning in their single-storey designs of c.1920 for the **LCC** elementary schools for the Bellingham, Roehampton and Old Oak estates. The **LCC** described them as 'of a pavilion type, which approximates [...] to the lines of a sanatorium'.⁹ The 1920 designs were realised as:

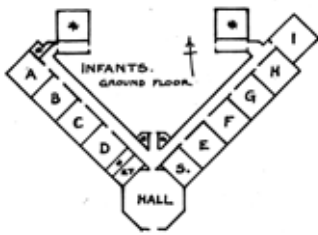
Athelney Street (infants)	LB Lewisham	1920-23
Huntingfield Rd (jr & ifts)	LB Wandsworth	1920-22 dem.
Old Oak	LB Hamm. & Fulham	1920-22 ¹⁰

Butterfly plans were later employed at:

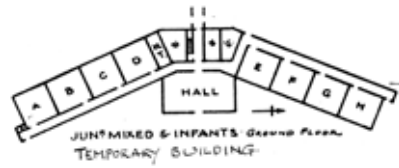
Furzedown	LB Wandsworth	1928
Westhorne	LB Greenwich	1936
Henry Fawcett	LB Lambeth	1936

The butterfly plan influenced other plan types: Lewisham Bridge (**LB** Lewisham, 1914-15) and Elfrida juniors' department (**LB** Lewisham, 1924-25) are examples of the Hillbrook plan (cf) with wings skewed at 45°.

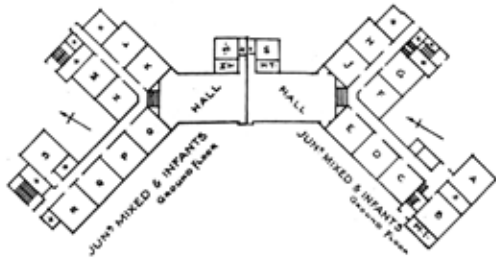
THE BUTTERFLY PLAN



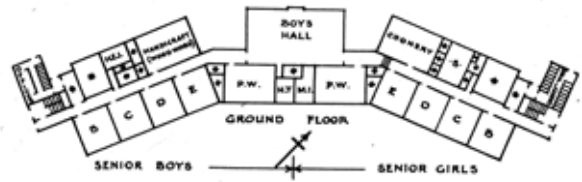
Athelney Street (infants), 1920-23



Huntingfield Rd (jr & ifts), 1920-22

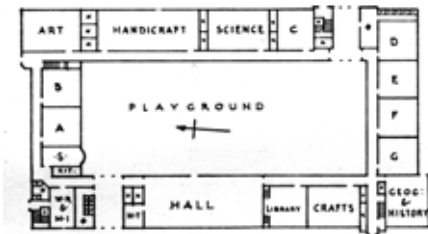


Old Oak, 1920-23

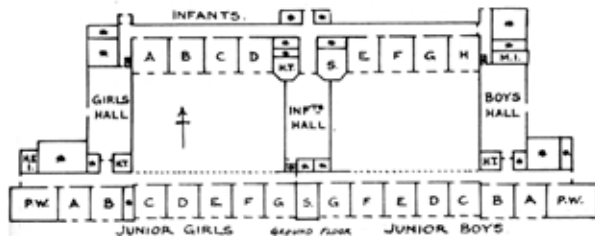


Westhorne, 1936

QUADRANGULAR PLANS



Credon Road, 1936

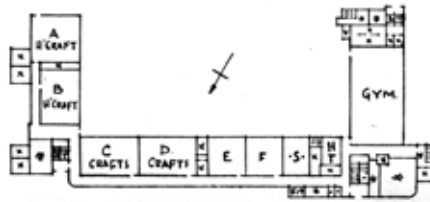


Downderry, 1927.

THE U PLAN



North Hammersmith, 1931



Avenue, 1937

- The **Quadrangle plan** is characterised by outward-facing classrooms with corridors or verandas ranged around four sides of a quad. It is an axial type with a central entrance, which tends towards formality. It was favoured for secondary schools, such as the John Roan School for Boys, **LB** Greenwich (Fletcher and Dannatt, 1926-28), Honor Oak, **LB** Southwark of 1931 and Sawston Village College, Cambridgeshire of 1927-30 by H.H. Dunn. Widdow's Derbyshire secondary schools at Ilkeston (1914) and New Mills (1915) are notable rethinkings of the quadrangle; the central garth is occupied by an octagonal hall, linked to the ranges by covered ways.

Post-Hadow, the plan was used to organise both infant, junior and senior departments (Woodmansterne Road, **LB** Lambeth of 1930) and schools solely for over-elevens (Credon Road, **LB** Southwark of 1936, dem.). The type proved relatively unamendable to later alteration.

The **Double quadrangle** variant has paired courtyards, usually separated by a hall. The plan enabled segregation of boys from girls or juniors from seniors, as well as side-lit, outward-facing classrooms and corridors laid out cloister-fashion around the quadrangles. This plan was mostly employed at large non-provided and public schools:

Prince Henry's Grammar, Otley, W. Yorks; 1922
 King George V Grammar, Southport, Merseyside; Julian R. Leathart & W.F. Grainger, 1924
 Burton-on-Trent School for Girls, Staffs; W. and T.R. Milburn, 1924
 King's Norton Girl's Secondary, Birmingham; 1925
 Westcliffe School for Boys, Essex; H.H. Thompson, 1926
 Middle Crofts Mixed School, Derbyshire; G.H. Widdows, 1926
 Brighton School for Girls, Sussex
 William Ellis, **LB** Camden; HPG Maule, 1937

The plan was employed by the **LCC** at the large Donderry school, **LB** Lewisham which opened in August 1927. An infants' hall separates the quads, which are flanked by girls' and boys' halls. The timber-framed Ilmington Road senior school, Selly Oak, Birmingham (H.T. Buckland, 1934) was also of this type.

A **Triple quadrangle** was used at the very large secondary school known as the Bolton School (designed 1918, completed 1929, C.T. Adshead, Grade II) and at the Dollis School, Middlesex (1942, J.W. Gilmour Wilson), planned for erection in two phases.

- The **U-plan** is a single-banked type enclosing three sides of a courtyard. The hall was usually located at the end of a wing, with workshops and specialist rooms in the opposing wing. It gives the choice of inward-facing classrooms as at Avenue (dem.) and Dog Kennel Hill, both of 1937 and in **LB** Southwark, or outward-facing, as at North Hammersmith Central, **LB** Hammersmith & Fulham of 1931. The latter variant encouraged the substitution of the corridor with an open veranda.

This generic plan was independently employed at all school types (including nurseries), with no evidence of a model being followed.¹² The Clapton County Secondary School for Girls, Laura Place, **LB** Hackney of 1916, still with double-banked classroom wings, was highlighted by the Education Officer as an exemplar of this type.¹³ The Badsley Moor Lane School, Rotherham, of 1925 is symmetrical with a central hall.¹⁴

- **Separate-block planning** refers to the organisation of a school into clusters of separate, freestanding blocks, connected by a path or covered way. It was developed in hospitals and workhouses as a means of improving ventilation and inhibiting contagious disease, and was introduced to the design of the LCC's open-air schools, where it had the added advantage of noise insulation and immersion in a mature landscape. Each form is associated with a specific activity: teaching, dining, resting, and the whole is informal, diffuse and less 'institutional'; there are no entrances in an open-air school, for example. An early instance of separate-block planning is Uffculme Open-Air School, Birmingham of 1909-11 by Barry F. Peacock of Cossins, Peacock and Bewlay (unlisted).

ENDNOTES

- 1 Andrew Saint's 1991 typology was preceded by a 1972 classification of Board Schools by Dr Susan Beattie of the **GLC**.
- 2 The principal source is **LCC** 1931, which contains layout plans of each **LCC** elementary school. The **LCC**'s collection of school plans was inherited by the **GLC** and **ILEA** in turn before being dispersed to the respective London boroughs in 1990. No borough-by-borough survey has been undertaken as to the survival and location of plans. Occasionally, schools have been found to possess original copies of **LCC** plans.
- 3 **LCC** minutes 21.1.1920.
- 4 **LCC** minutes 21.6.1920.
- 5 The **LCC** education officer Sir Robert Blair cited Hillbrook Road as a representative example of this type (**LCC** memorandum from the education officer to the architect's department, 13.3.1922), and it was illustrated in **LCC** (1920).
- 6 Seaborne and Lowe 1977, 89.
- 7 The school must have been designed by July 1912, when the Council sanctioned £16,377 for the rebuilding (**LCC** minutes 1912, p.1203).
- 8 Supplement to the *Architects' and Builders' Journal*, 26.12.1917, p37.
- 9 **LCC** 1920, 61.
- 10 Built to a modified design.
- 11 *The Builder*, 27.12.1942, p457.
- 12 For a U-plan nursery, see the Lee Royd Nursery School, Accrington of 1936 (Seaborne and Lowe 1977, 127).
- 13 **LCC** 1920 and Memo of 24.3.1922 from George Topham Forrest to Sir Robert Blair, probably composed by J.R. Stark (**LMA:AR/CB/1/65**).
- 14 Seaborne and Lowe 1977, 128.

Appendix 5: Glossary of school types and related terms in use 1918-44

Central school (sometimes termed intermediate, modern and, after the 1944 Butler Act, secondary modern school): a post-primary maintained school (cf) offering courses of vocational or practical instruction for older and more intelligent children who could not afford, or gain admittance into a grammar school (cf). Central schools, so-named because their intake was from the surrounding elementary schools, had a lower leaving age (14) than other types of secondary schools and a less academic curriculum biased towards commercial or technical subjects. Some (although not all) central schools were selective, choosing on the basis of entrance examinations, vocational aspirations and/or parental choice.

Church school: see denominational school.

Continuing education: see further education.

Continuation school: see day continuation school.

Council school: see maintained school.

County school: see maintained school.

Day continuation school: a school providing half-time elementary education to the age of 16 or 18, the pupils attending one to two days a week. Instituted by the 1918 Fisher Education Act, but few schools were built due to the adverse economic situation after 1918.

Denominational school (sometimes termed church school): a non-provided school (cf) providing denominational religious instruction (Anglican, Catholic, non-conformist or Jewish), under the terms of the 1902 Education Act. Control was apportioned between the sponsoring denominations and the local education authority, representatives of both being on the boards of managers. The provision of new buildings remained a church responsibility.

Dual system: the provision of church and state schools alongside each other, as established by the 1870 Forster Education Act.

Elementary school: an all-age maintained school providing a basic and standard of education for children from five to the statutory school leaving age (14 in 1918). In practice, many working mothers left their under-fives at elementary schools also. Many children ceased attending full time at 12, when they were permitted to work half-time. The elementary schools were the direct result of the extension of the educational franchise through the 1870 Forster Act, and influenced by the Third Grade schools of the class-delineated system advocated by the Taunton Commission of 1864-69.¹

Endowed school (sometimes termed foundation school): an independent school wholly or partly maintained by means of an endowment.

Foundation school: see endowed school

Further education (sometimes termed continuing education): Formal post-compulsory educational provision, including vocational, technical trade and adult education. Further educational institutions (such as evening classes) were sometimes based at schools.

Grammar school: in the 1918-44 period, a highly selective maintained secondary school, with a liberal or academic curricula oriented towards university entry.

Independent school: (sometimes termed public school): a school funded wholly from private sources, usually in the form of school fees. Public schools were designed by architects in private practice.

Intermediate school: see central school.

Maintained school (sometimes termed council, provided, state or county school): built, owned and managed by the local education authority from public funds. Maintained schools were usually designed by architects working within the local education authority.

Modern school: the preferred term of the Hadow consultative committee for a central school (cf).

Provided school: see maintained school.

Non-provided school (sometimes termed voluntary school): a school built and run by a non-governmental body in receipt of public funding (under the 1902 Education Act, non-provided schools were subsidised by the local educational authority from public monies). Buildings, sites and structural alterations were to be provided for out of private funds, although the local education authority was responsible for upkeep and maintenance. Non-provided schools were usually designed by architects in private practice, although occasionally the design was supplied by the architect's department of the local education authority.

Preparatory school (sometimes shortened to prep school): an independent primary school (cf), preparing children up to the age of eleven for secondary independent schools. Whilst many prep schools prepare their students for entry to a range of senior schools, some are closely associated with a single school. Most British prep schools are primarily day schools, but many also take boarders.

Primary school: a school where the first stage of compulsory education takes place, with pupils leaving at the age of 11. This term was increasingly used in place of elementary school, partially as a result of the 1926 and 1931 reports of the consultative committees of the Board of Education.

Public school (see independent school).

Secondary school: (1) in the broadest sense, a school where the final stage of compulsory education takes place, from the age of 11 onwards. This usage became

increasing popular after the 1926 and 1938 reports of the consultative committees of the Board of Education. (2) Prior to the 1926 Hadow report, the term secondary school was also used in a more restricted sense, as a synonym for grammar school (cf).²

Secondary modern school: term for central school (cf), used in the 1944 Butler Act.

State school: see maintained school.

Tripartite system: a division of universal secondary educational provision (cf) into three types of school, offering different curricula to students of different abilities. These comprised grammar, modern and technical schools (cf). Proposed by the 1926 'Hadow' report of the Consultative Committee of the Board of Education.

Village college: An educational institution, usually serving rural communities, which combined the functions of an all-age school with adult educational or recreational facilities. Village Colleges were first proposed in 1925 by Henry Morris, Education Officer for Cambridgeshire County Council. A village college would be located in a large village, serving a large catchment area comprising around ten smaller villages with a combined population of around 10,000.³

Voluntary school: see non-provided school.

ENDNOTES

- 1 Seaborne and Lowe 1977, 58.
- 2 Board of Education 1926.
- 3 Rowntree and Lavers 1951, 325.



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