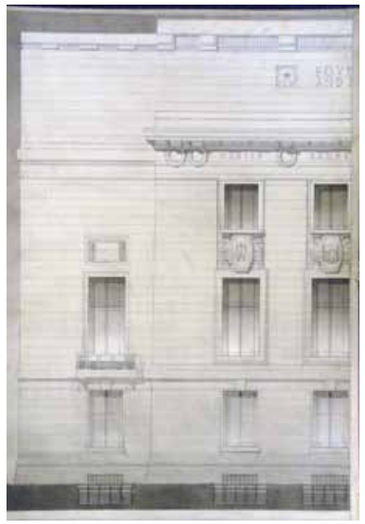
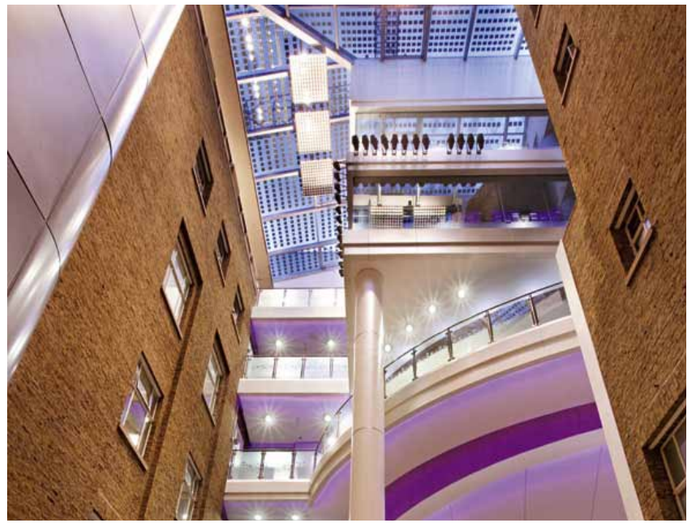
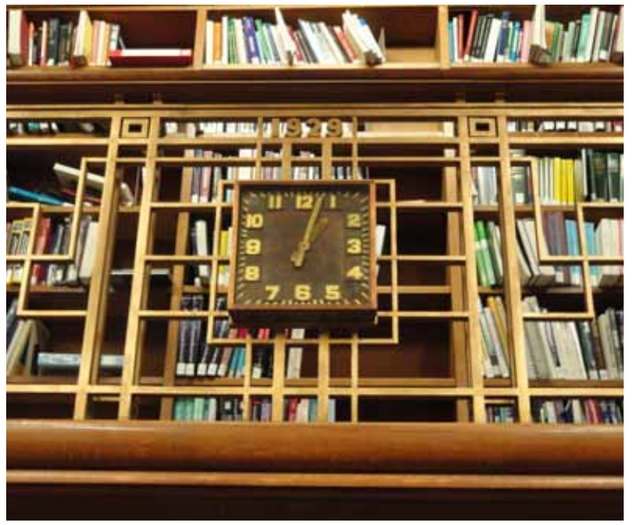
RICHARD GRIFFITHS ARCHITECTS

The London School of Hygiene & Tropical Medicine







Conservation Management Plan

Draft 4: August 2013

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Introduction

The London School of Hygiene and Tropical Medicine was established in 1924. It grew out of the London School of Tropical Medicine which had been set up in 1899 by Sir Patrick Manson. The main building of the school is a purpose designed facility located in Keppel Street in Bloomsbury. It was built between 1926 and 1929 following an architectural competition won by Percy Morley Horder with the likely assistance of Verner O Rees. The building was Grade II listed in March, 1982 and now lies within the Bloomsbury Conservation Area within the London Borough of Camden.

The creation of the London School of Hygiene and Tropical Medicine and the design of the Keppel Street building were two aspects of a single process and this link between the institution and its building continues today. The building contains laboratories, technical facilities, teaching spaces and offices as well as grand spaces which reflect the international eminence of the LSHTM within its field. The location of the building in the centre of Bloomsbury and its continuing attractiveness, are key aspects of the School's identity and its ability to attract students, researchers and funding from all over the world. Maintaining the character of the building into the future is therefore a key issue for the School's corporate direction.

In November 2012, Richard Griffiths Architects were appointed to prepare a Conservation Management Plan for this main building of the school. The overall aim in commissioning the Plan was to help retain the significance of the heritage asset in any management, repair, alteration or new development projects. The plan has been commissioned at a point in time when various alterations to the building are under consideration.

The Brief for this Plan was based on the Heritage Lottery Fund's Model Brief for a Conservation Plan. The first part contains a detailed history of the School and its building, followed by an assessment of its architectural and historical significance, summarised as a Statement of Significance and supported by a room by room gazetteer as well as 'significance plans' which show the level of significance and sensitivity attributed to the fabric and spaces. Significance has been assessed in terms of historical, evidential and aesthetic values and also the communal values people hold for the School.

The second part of the Conservation Management Plan is designed to summarise the risks and opportunities for the building, both now and in the future. Along with the statement of significance, these serve to inform the Conservation Policies for the building (Section 6) which will help to provide a framework for decision-making and for the evaluation of proposals affecting the significance of the building.

The history of the School and its building

The origins of the school

The London School of Hygiene and Tropical Medicine was established in 1924. It grew out of the London School of Tropical Medicine which, at the beginning of the twentieth century brought together teaching, research and clinical work in its specialist field. The School had been set up in 1899 as an adjunct to the Seaman's Hospital at the Albert Dock in east London, itself a Branch of the Dreadnought hospital at Greenwich, run by the Seamen's Hospital Society. Patrick Manson (1844-1922) had been appointed physician to the Branch Hospital in 1892, and Medical Officer to the Colonial Office in 1897 and he was the key figure in the setting up of the School at Albert Dock in 1899. The addition of the term "hygiene" to the title of the School in 1924 denoted an expansion of its remit. The use of the term in this context is unfamiliar to us today but it is interchangeable with the phrase "public health". The changed title involved both an expansion of the range of the School's studies and also a geographical expansion to include the home country as well as the Colonies and other overseas locations. It therefore denotes a major organisational change to a body which already had a complex range of teaching, clinical and research responsibilities. The Keppel Street building provided a new home for the School in which it could carry out its expanded responsibilities. Organisational change and the design of the building were closely inter-related and the combined process occupied a lengthy period, roughly from 1920 when the idea of an expanded remit for the School began to take shape, until 1928 when further design changes were closed off, perilously close to the opening date in July 1929. In this section of the Plan we deal with the organisational and political aspects of the School's re-launch to embrace both public health and tropical medicine. In the following sections we examine key issues of design and siting. But in reality these are two aspects - architectural and organisational - of a single process.

In 1905 the specialist work of the London School of Tropical Medicine enabled it to be admitted as a School of the University of London. However it appears that the ambitions for the School could not be fully realised in its location at the far reaches of east London. By 1919 "it was clear that some move would have to be made to rescue the School from isolation and thereby enhance its standing within the University of London." An appeal was launched by Sir Austen Chamberlain and Lord Milner and The Royal Red Cross Society, which had a substantial surplus as a result of wartime fund-raising, responded with a grant of £100,000. [1] This allowed the School and its associated Hospital for Tropical Diseases to move to central London. It took over the former Endsleigh Palace Hotel, Gordon Street, which had operated as an army hospital during the last three years of the War. Manson-Bahr, the chronicler of the early years of the LSHTM, is frank about the deficiencies of the building and its makeshift conversion. It was cramped and poorly-serviced, but the overall aim of re-locating the School within the growing academic precinct in Bloomsbury had been achieved, for example facilitating links with the Wellcome Institute. [2]

Fig 1. The Seamen's Hospital, Albert Dock

Fig 2. The London School of Tropical Medicine, Albert Dock

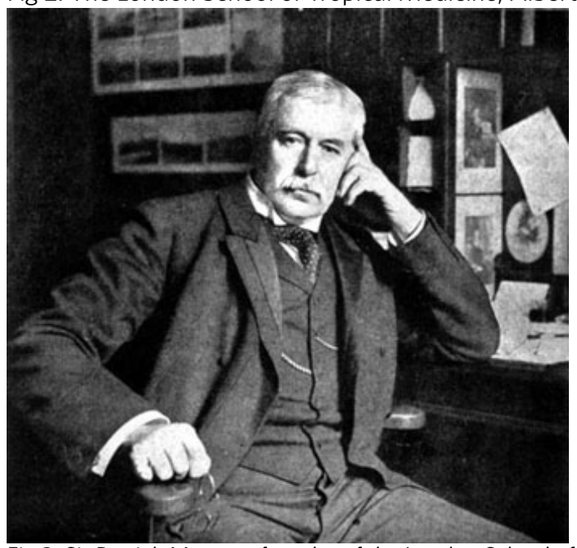


Fig 3. Sir Patrick Manson, founder of the London School of Tropical Medicine

The School's move to the new building in Keppel Street (the hospital stayed at Endsleigh Gardens until 1939) arose primarily out of a process of organisational change rather than simply the desire to provide better facilities for the School. There were two impulses behind the process of change. The first arose from the discussions between staff of the School and the Rockefeller Foundation on areas of shared interest in medical research and public health. These had developed before the First World War, on the topic of hookworm, which was of particular concern to the Rockefeller Foundation and one where they were keen to work with British colonial authorities. [3] After the War discussions resumed between the two organisations, with Professor R.T.Leiper as the crucial intermediary. The Foundation eventually provided the capital funding for the Keppel Street building and its equipment. The study of tropical medicine was however only one of their interests and they had a larger agenda in mind, a "quest for global public health as not only an immediate benefit to humanity, but also as a social investment in the longer term". [4] The Foundation had already developed this approach in the setting up the International Health Board in 1913 and the Johns Hopkins School of Hygiene and Public Health three years later.

The second impulse towards organisational change came from the desire of the British government to improve and consolidate education in public health. By the early twentieth century the various medical schools in London ran programmes on public health, but each one was small and therefore unable to sustain a core of teachers and researchers. Investigation of the issue formed part of the work of the Athlone Committee, established by Christopher Addison, the Minister of Health, in January 1921. Its remit was " to investigate the needs of medical practitioners and other graduates for further education in medicine in London, and to submit proposals for a practicable scheme for meeting them". [5] The Committee's report, in May 1921, recommended that "an Institute of State Medicine should be established by the University of London in which instruction should be given in Public Health, Forensic Medicine, industrial Medicine, and in medical ethics and economics". [6] This established the commitment to a unified School of Public Health. In June 1921 the Colonial Office held a conference on Tropical Diseases, at which the conclusions of the Athlone report were welcomed, thus providing the basis of support for a combined School which would cover both tropical medicine and public health ("hygiene") more generally.

The Rockefeller Foundation were consulted by the members of the Athlone Committee as well as by Prof. Leiper and other representatives of the School for Tropical Diseases. The Foundation had made clear their willingness to provide a grant of $2m for the establishment of a new institution, so these consultations were of great importance in ensuring that the needs and wishes of the three sides – the Ministry of Health, The Rockefeller Foundation, and The School of Tropical Medicine – could be met. By February 1922 The Foundation had confirmed its offer of financial support and in April 1922 made an offer of £52,000 for the site. [7] Discussions about the detailed organisational structure of the new School continued through 1923 and its Charter was approved on 1 April 1924.

Fig 4. The School of Tropical Medicine at Endsleigh Gardens, 1920-29


Fig 5. Sir Andrew Balfour, first director of LSHTM

The site

The site on which the LSHTM now stands was part of a development area created by the Bedford Estate's demolition and redevelopment programme at the beginning of the twentieth century. This involved the clearance of the blocks of houses between Montague Place and the lower end of Torrington Square; the replacement of Keppel Mews North by Malet Street; and the replacement of some of the housing blocks that faced Gower Street. At the time such redevelopment programmes were a common feature in central London, as leases fell in for terraces of houses built in the early nineteenth century. However Gower Street and the area to the north of the British Museum presented a particular problem for the Bedford Estate. Gower Street was notorious for its "soul-destroying monotony" and the area had become susceptible to "lodging-house rot": a decline in status, and a consequent transition from respectable houses and apartments to short-term rentals and cheap hotels. [8] The Bedford Estate had a number of tactics in attempting to revive the fortunes of the area: they included the re-facing of houses in Russell Square with elaborate terra cotta decoration, adding new doorcases to houses in Gower Street, as well as the large-scale programme of demolition in Keppel Mews North and nearby.

Just to the north of the site Warwickshire House - a hostel for shop workers at Bourne and Hollingsworth - had been built in 1912, and other blocks of apartments and student residences followed on sites further north. In 1910 James Rossdale was granted a lease for the building of a three-storey hotel on the future LSHTM site. Nothing came of his plans and in 1913 the National Theatre Committee, which aimed to build a "Shakespeare Memorial Theatre" resolved to purchase the site. The War meant that their plans had to be suspended and they leased the site to the YMCA who erected "The Shakespeare Hut" for the entertainment and reception of soldiers.

In the event the Shakespeare Memorial committee were unable to raise funds for the construction of a new theatre. The site was an appropriate one for the newly-formed LSHTM. The University of London had obtained an option from the Bedford Estate for the adjacent redevelopment site that extended north from the British Museum to the south end of Torrington Square. The newly-created School could therefore be established at a most convenient location, achieving the practical aims for improved accommodation while also asserting the prestige and importance of the study of Public Health within the University.

The process of design and building can be traced in the Minutes of the LSHTM Board of Management and its Building Committee. These records begin in the middle of 1924 However there is evidence in other records held by the School of preliminary design work taking place at an earlier stage.

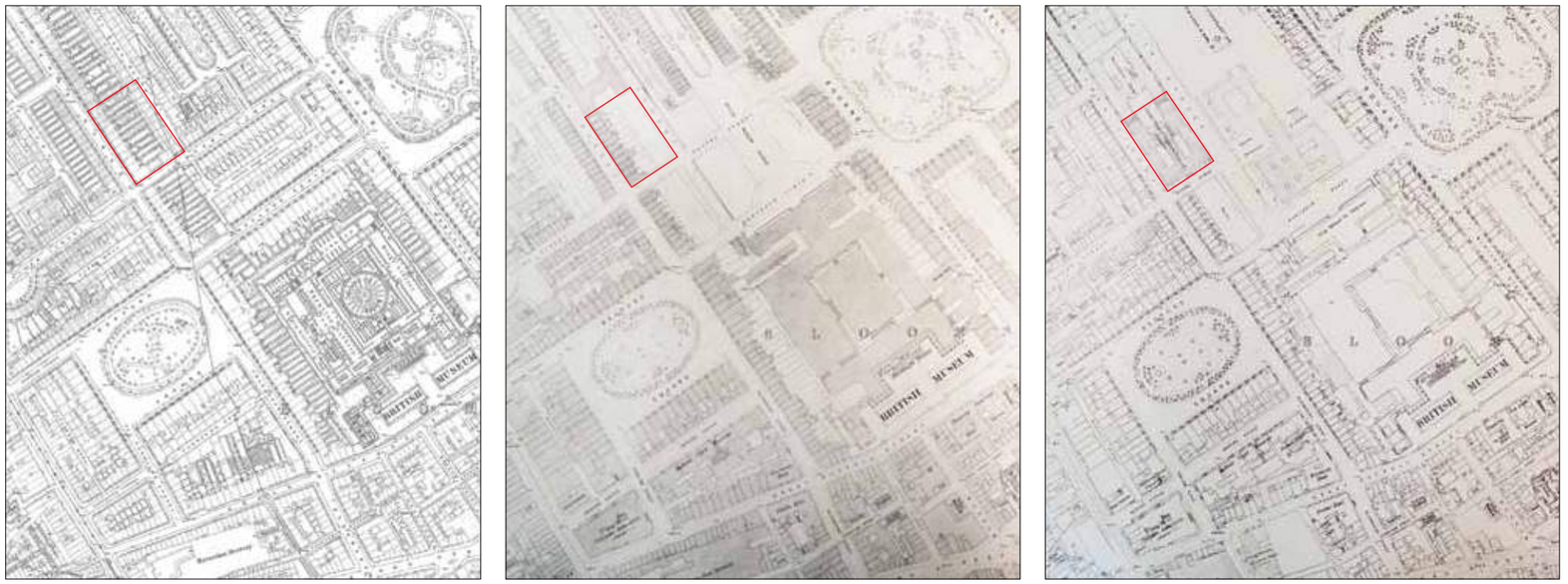


Fig 6. The site of LSHTM in 1873, 1911 and 1939

The University of London scheme for Bloomsbury, 1922

One set of records in the LSHTM's possession, dating from May 1922, is an incomplete binder of drawings produced as part of a report by Thompson and Walford, Architects, for the redevelopment of the Bloomsbury "Central Site" for the University of London. [9] This is the site extending northwards from Montague Place to Torrington Square, part of the Bedford Estate's redevelopment plans referred to earlier. In the early years of the twentieth century the Estate had cleared the existing houses in preparation for redevelopment and a new road had been made – British Museum Avenue – linking Montague Place and Torrington Square.

There had been a previous attempt to acquire the site for London University, brokered in 1911-12 by Lord Haldane in the course of his chairmanship of the Royal Commission on the future of the University. Haldane gained government support for purchase but failed to get the backing of important constituencies in the University and the proposal was voted down. [10] On a second attempt, in 1921 the government succeeded in buying "the Central Site" from the Duke of Bedford for £425,000, fulfilling a commitment that the Treasury had made in 1899 to fund the development of the University. The University duly appointed William J. Walford to advise on the site, layout and style of the new development and it is reasonable to assume that the drawings in the LSHTM's possession are the output of their commission. Walford's proposals include an "Institute of Hygiene", of similar size and plan form to what was eventually built. However it is placed on the block just south of the one that was eventually developed for the LSHTM building: just south, rather than north, of Keppel Street. The current LSHTM site is shown as occupied by the Officer's Training Corps, the Appointments Bureau and the Union Society. In fact the proposed sites for the Institute of Hygiene and the OTC etc. lie outside the limits of the site that had been purchased for the University: evidently the architects considered that the site was too small to accommodate all the specific buildings that were needed and also to provide space for Kings College and other institutions.

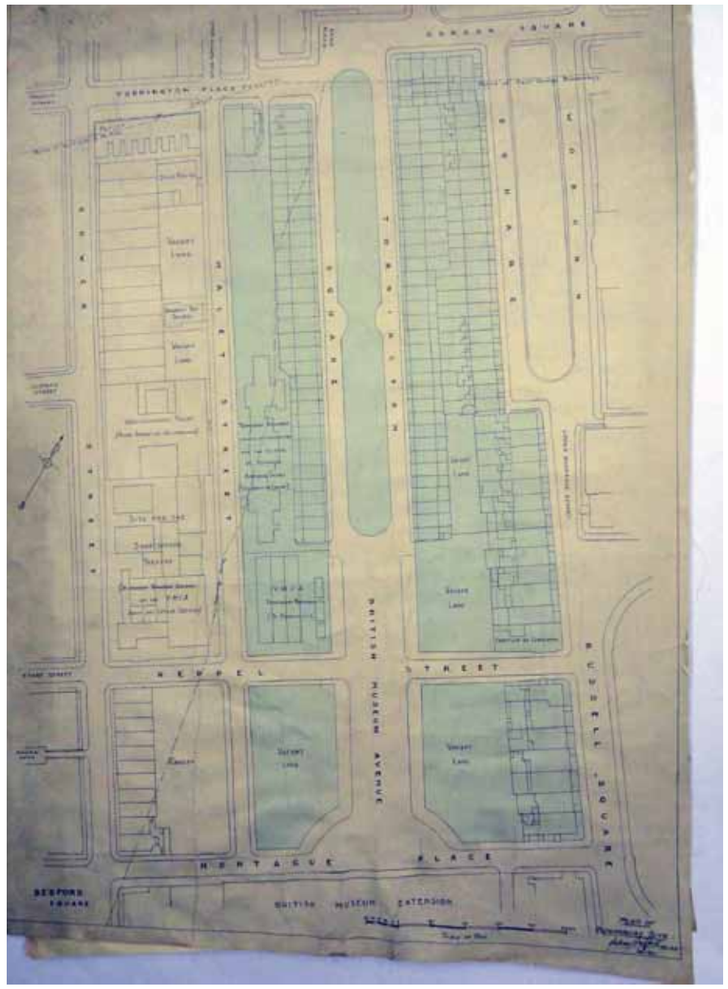


Fig 7. The "Central Site" of the University of London

Fig 8. The William Walford proposed scheme for the University in Bloomsbury

As we have seen, the Athlone Committee had recommended that the University of London establish an "Institute of State Medicine". The Walford proposals give the Institute a prominent position in the proposed Bloomsbury campus, and they give it generous floor area. There are no surviving plans of the interior of the proposed School of State Medicine, as there are for the Ceremonial Hall and General Offices, and they may not have been prepared. However the University must have had knowledge of the outline space requirements for the building and they evidently saw the Institute as one of its crucial central functions.

In the event the Walford proposals came to nothing. Just as in 1911-12 it proved impossible to get agreement among the many elements of the University on the development of the "Central Site". The University's option on the site lapsed and in 1926 it reverted to the Bedford Estate. It was rescued a third time, with the powerful backing of William Beveridge, in 1929. Senate House was completed shortly before the second world war and the "Central Site" continued to be developed by Birkbeck College, The University of London Union, and The Warburg Institute, through the 1950s and 60s. It was very fortunate that the School of Hygiene had its own source of funds, via the Rockefeller Foundation. If it had been dependent on the University its building may have been delayed until the late 1930s, and may not have been built at all.

The Office of Works scheme for the School of Hygiene, 1922

A further set of drawings in the possession of LSHTM comprises a set of drawings for a proposed School of Hygiene, dated 1922 and produced by H.M. Office of Works. [11] They show floor plans and sections (but no elevations) of a building on the present site. It has essentially the same kind of accommodation and a similar overall form and mass as the built scheme, with two light wells and vehicle access at the north end. One significant difference from the built scheme is that the entrance is on Gower Street and not Keppel Street. The proposals are obviously based on a detailed schedule of rooms, floor areas, technical equipment etc., and on clear assumptions about the departmental structure of the School. The accommodation is colour coded in the following categories:

- Sanitation and public health administration
- Tropical diseases bureau
- Medical zoology
- Bacteriology and immunology
- Applied physiology
- Epidemiology and statistics
- Chemistry and biochemistry

The detail and extent of design work involved suggests that briefing discussions must have taken place during late 1921 and early 1922. A plausible starting point for the discussions is the joint committee of the Ministry of Health and Colonial Office that began work after the Colonial Office Conference of June 1921 where the decisive government commitment had been made to the School. [12] The committee was appointed in July 1921 by Sir Alfred Mond, Christopher Addison's successor as Minister of Health. The brief of the committee was "to work out the details of a practical scheme for the new Institute of State Medicine". Its membership was drawn from the Ministry of Health, the Colonial Office, the Medical Research Council, the University Grants Commission and members of the various deputations to Rockefeller Foundation conferences. The committee produced its detailed proposals on 11 August 1921. They were duly transmitted to the Rockefeller Foundation who in February 1922 made their formal offer of $2m. towards the capital cost of the project. It is likely that the Office of Works (the government department responsible for public buildings) became involved in the project after August: once the organisational framework for the School had been set, then matters of space allocation could begin to be discussed. What is certain is that great deal of briefing work had been done by the Office of Works by the spring of 1922. When the process of finding an architect and setting a detailed brief started in earnest in 1924, it could take advantage of this previous phase of work.

The Office of Works scheme for the School of Hygiene, 1922

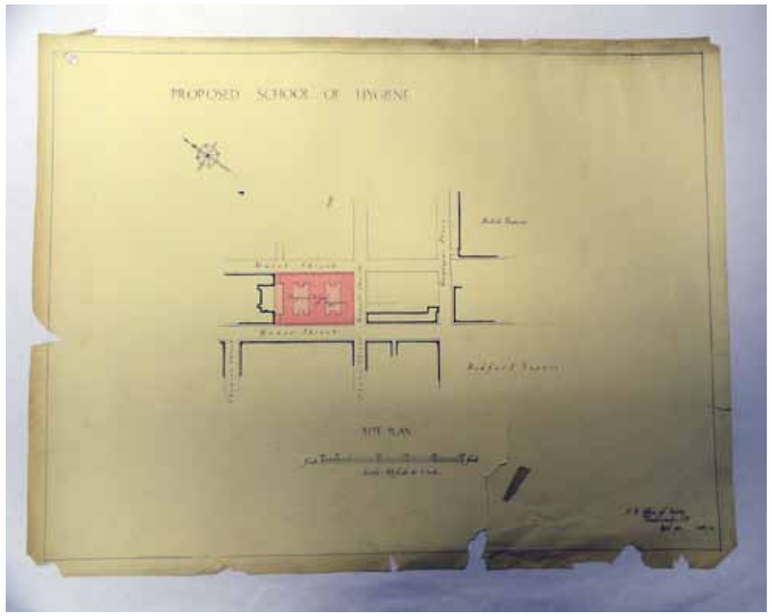
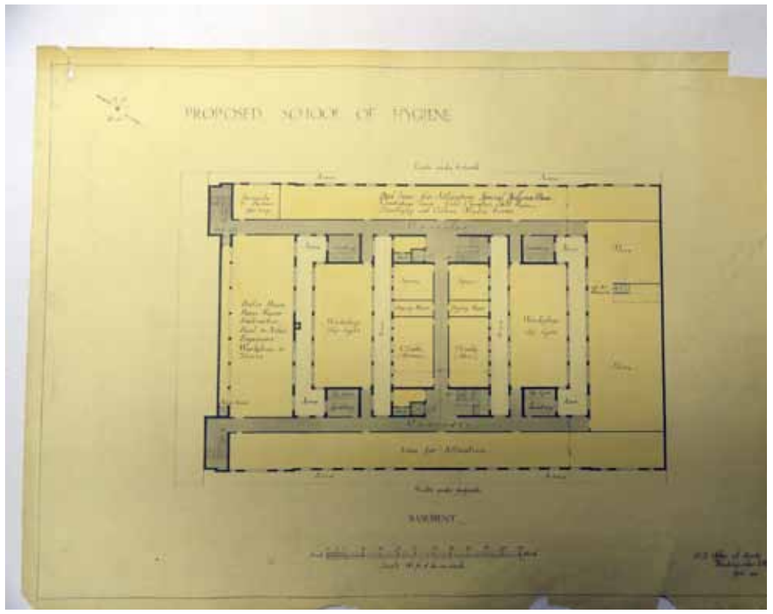


Fig 9.



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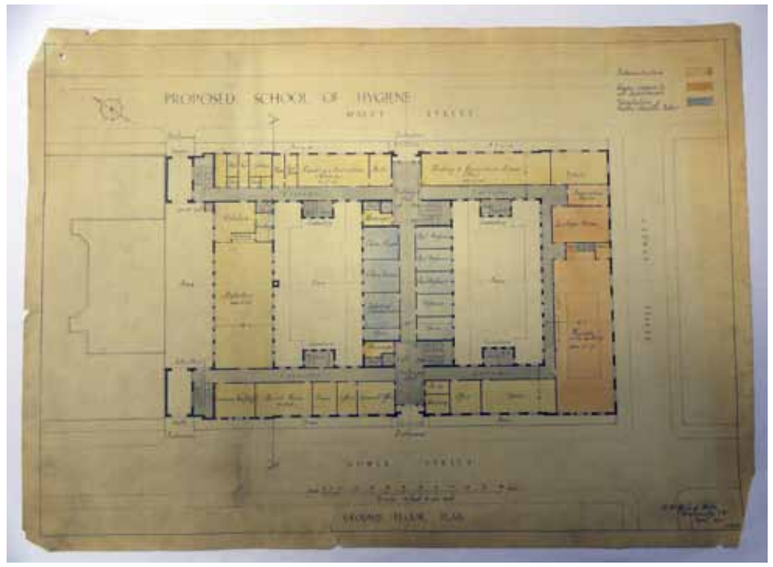

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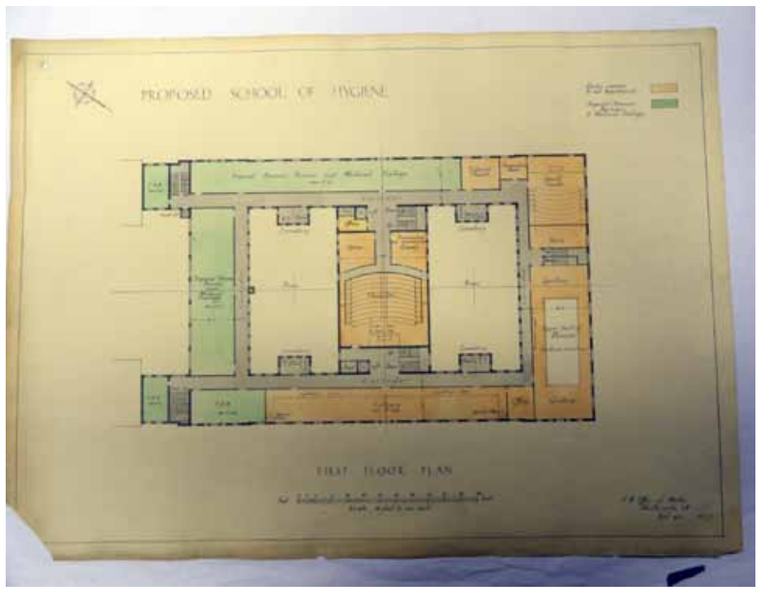

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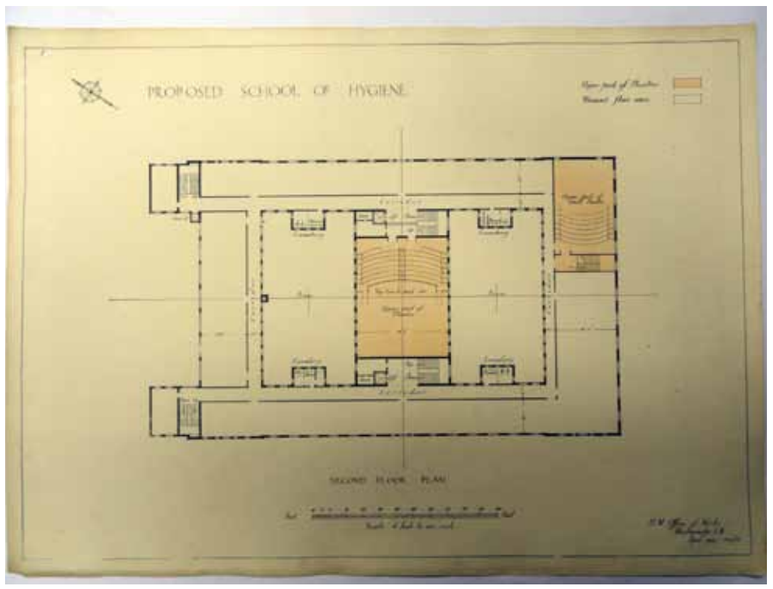

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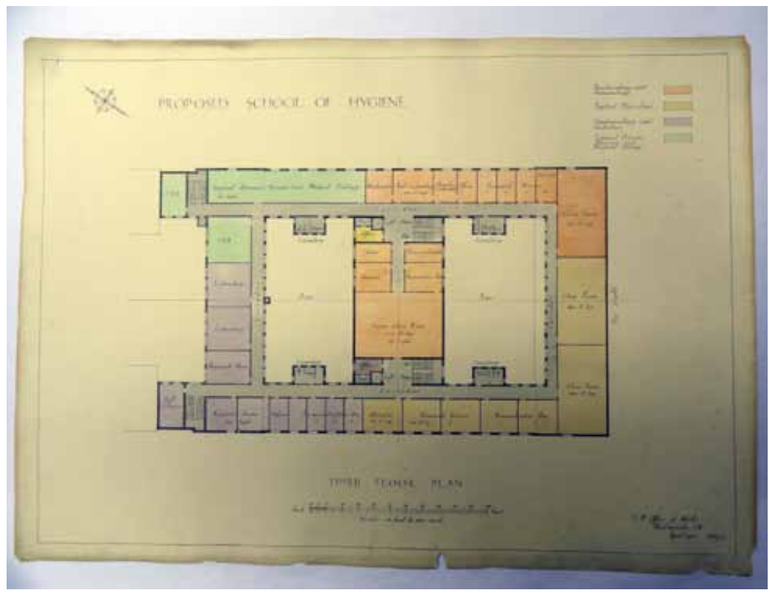

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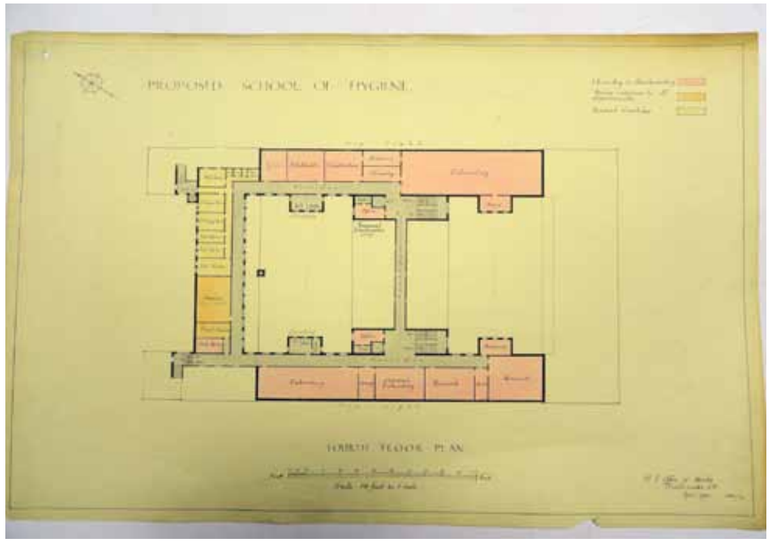

PROPOSED SCHOOL OF HYGIENE
THIRD FLOOR PLAN

Fig 15.

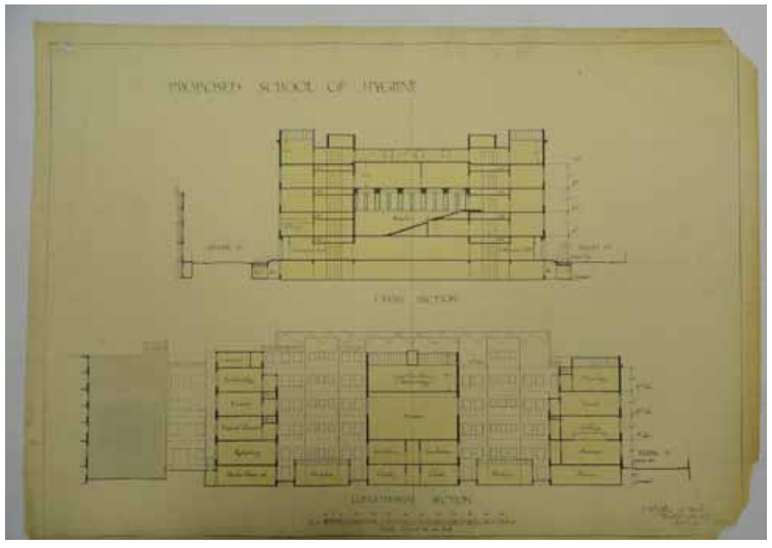

PROPOSED SCHOOL OF HYGIENE

Fig 16.

Choosing the architect

The Minutes of the first meeting of the Building Committee on August 7 1924 record that there had been correspondence and discussions with Sir Frank Baines of the Office of Works on the practicality of modifications to plans "which had appeared to be necessary". These plans may have been the outline scheme discussed above. In fact Baines is recorded as playing a crucial role in the early stages of the procurement of the new building and it may be that he was involved in some detail from 1922 in developing the brief and outline proposals. At the Building Committee meeting on October 23 1924 the terms of his involvement were summarised:

- to draft the conditions for an architectural competition
- to provide a list of architects to compete
- to assist in judging the submissions
- to advise generally on tenders

The following list of competitors was noted, "having regard to the fact that the Committee had laid down that experience in laboratory construction was essential":
A.W. Cross
S.H. Hamp
P.H.Morley Horder
Alan Munby
F.W. Newman
G.W. Oatley
A. Thornley
W.J. Walford

On 10 December the Building Committee agreed the competition conditions (see appendix 1). The submissions were received on 30 April 1925 and at its meeting on 19 June 1925 the Committee noted that it was "satisfied as to the outstanding merits of Design 'P' " and recommended its acceptance by the Board of Management.

Design 'P' was the submission of Percy Morley Horder. It is likely that Verner O Rees worked with him on the design competition. The two men appear to have been in partnership by the autumn of 1925, when the preliminary drawings are attributed equally to both. Rees begins to be mentioned in the Building Committee minutes from November 1925 and clearly takes a larger role as the project progresses. By the end of the project it is clear that the partnership with Horder has been dissolved, since drawings (April 1929) are stamped "Verner Rees, Laurence and Mitchell".

Percy Morley Horder (1870-1944) [13] was the son of a Congregationalist Minister with family connections into a late-Victorian world of prosperous and serious-minded businessmen. The RIBA archive possesses a letter written by John Ruskin to the schoolboy Horder. He trained in the office of George Devey [14] and set up his own practice in 1890. He designed his first Congregationalist church in 1891 and by 1902 he had designed 4 more new churches and 4 extensions to existing buildings. The connection with the Congregationalists continued into later decades, for example with the design of the church at Muswell Hill (1911) and of Cheshunt College Cambridge (1913). Horder's pre-first world war workload was dominated by the design of houses in town and country and Peter Davey remarks that he "was a darling of the Studio", his work having similarities with Voysey's, but "more lush and jumbled". [15] His obituary in the RIBA Journal notes that he "was one of the now diminishing band of architects who carried the Morris tradition into its aristocratic Edwardian phase". [16]

Fig. 17 Cheshunt College Cambridge, completed 1913, designed by Percy Morley Horder

Fig 18. Nottingham University, completed 1928, designed by Percy Morley Horder

After the First World War Horder's practice extended into larger institutional projects, notably the complex of buildings at the centre of the new campus for Nottingham University. On completion of the project in 1928 The Builder noted:

"Experts of academic buildings who visited Nottingham last Tuesday were full of praise for the well-lighted lecture-rooms and laboratories. Sir Jesse Boot, to whose munificence both parks and buildings are due, is inspired with the desire that modern science should be studied in all its branches in order to serve British industry, and for that reason the architect had to design a number of laboratories of various kinds". [17]

The Nottingham campus would only have been in its design phase when Horder was placed on the list for the LSHTM competition, but evidently the work gave Sir Frank Baines sufficient assurance of Horder's "essential experience" in laboratory construction. Baines was himself a product of the Arts and Crafts movement having been a pupil of C R Ashbee. As chief architect at the Office of Works he had responsibility for the conservation of ancient buildings as well as sponsoring new construction for contemporary needs, and there would have been an affinity of outlook between him and Horder.

At the personal level Horder was evidently a striking character, "the very model of a modern architect, darkly handsome, with chiselled, intense Edwardian features. Everything about him bore the mark of thwarted perfectionism refined into good taste. He was at once theatrical and puritan". [18] "He was that creature whom few dramatists have in fact cared to portray, the stage architect. What made him a fascination to family, friends and clients, in the end made him a desperation for them all. In his last years temperament and talent exploded into the frustration of mental illness, but the memory remained of great fascination". [19] His artistic connections were extensive, including G.K.Chesterton, Augustus John, Eric Gill, Sean O'Casey, and the Frys , and complemented his links with leading industrialists, most notably Jesse Boot. [20] However clients, acquaintances and employees could all agree on the aptness of his nickname: "holy murder". [21] Horder carried out few commissions after the mid-30s, perhaps because his abrasive way with clients could not be sustained on large corporate projects. The London School of Hygiene and Tropical Medicine is therefore one of his later works.

Verner Rees (1887-1966) worked for Caroe and Passmore and in 1910 became assistant to Edwin Lutyens. He attended the Royal Academy Schools in London, winning a travelling scholarship in 1910 and the silver medal for design in 1911. In 1912 he went to New York to gain further experience. He served in the Artists' Rifles during the First World War and taught at the Architectural Association School 1921-25, returning to become Vice-Principal to Sir Howard Robertson from 1929 to 1933. He served on the AA Council and was president 1938-39. In 1925 he won (with G.H.Holt) the competition for the British war memorial at Soissons, and in the same year worked with Morley Horder on the successful entry for the LSHTM building. [22]

Fig 19. Soissons war memorial. Design competition 1925, built 1928, Verner O Rees with Eric Kennington and Allan Howes, sculptors.

John Brandon-Jones, interviewed about his experience as a student at the Architectural Association school in the late 1920s and early 30s, compared Rees with Charles Holden (the architect of Senate House and today much more highly regarded than Rees):

"I did not get to admire Holden until much later. He was not a strong influence at the AA in my time, but Rees was. Verner Rees and de Soissons were brought in as Vice-principals and gave lectures and crits. Rees gave some good lectures on the practical side of planning but he had a terribly diffident manner; he always spoke facing his blackboard and was often inaudible. He was very strong on the Golden Cut and theories of proportion. You can see this in the School of Tropical Medicine in Gower Street, where the size and shape of every block of stone was controlled by a grid of magic angles" [23] Rees's diffident personality – the opposite of Horder's vivid and abrasive manner – was noted in his obituary in The Times: "Rees was a shy and retiring man whose hesitant manner belied a lively mind and great strength of character ... ". [24]

The consensus of opinion is that Rees should be given most of the credit for the design of the LSHTM building. For example Clark and Mackintosh praise the manner in which Rees responded to the School's desire for a well-lit building: "... we went back to the Book of Genesis and wrote "Let there be light". I know that everyone is agreed that in the magnificent structure which with its museums, classrooms, and laboratories, is a lasting tribute to the genius of its architect, Verner O. Rees, this first consideration, light, has received its

full measure of attention and the result is a standing glory". [25] In their history of the School Wilkinson and Hardy state that "The plans were the work of the junior partner, Verner Rees, who consulted Balfour, and newly appointed staff members, in order to make those plans fit the requirements of the teaching and research scheduled to take place there once the building was finished ". [26] The Oxford Dictionary of National Biography entry for Horder states that "Much of the credit for the design ... however, must be ascribed to his collaborator Verner Owen Rees ". Obituaries of Rees continue the theme: "Rees's particular contribution to post-1918 architecture was to simplify the somewhat ornate neo-Classicism of the time, a particularly successful example of his work being the School of Hygiene and Tropical Medicine... ". [27] "Rees's great ability as a planner shows in all his work. His admiration for progressive tradition in nineteenth and twentieth century French architecture is reflected in his earlier work, particularly in his splendidly confident and monumentally "moderne" Portland stone front of the London School of Hygiene in Malet Street ". [28]

Clyde Binfield, who has written extensively on Horder's life and career, accepts the general point, but shares the credit and praise between the two architects, noting that although the School building is chiefly attributed to Verner Rees: "... those who know its library will recognise the hand and mind that designed Nottingham University Library; and the reticently monumental good manners of this otherwise unpardonable intrusion into Bloomsbury, which makes for so acceptable a transition from Gower Street to the gigantism of Charles Holden's Senate House, must surely be Horder's". [29] Binfield's remark about the design of the Library is of interest because we know that it was Rees who took part in detailed discussions with the staff of the Library on the possibility of it having a dual use, as both reading room and on occasion a room for official receptions. [30]

The Horder and Rees competition scheme, 1924

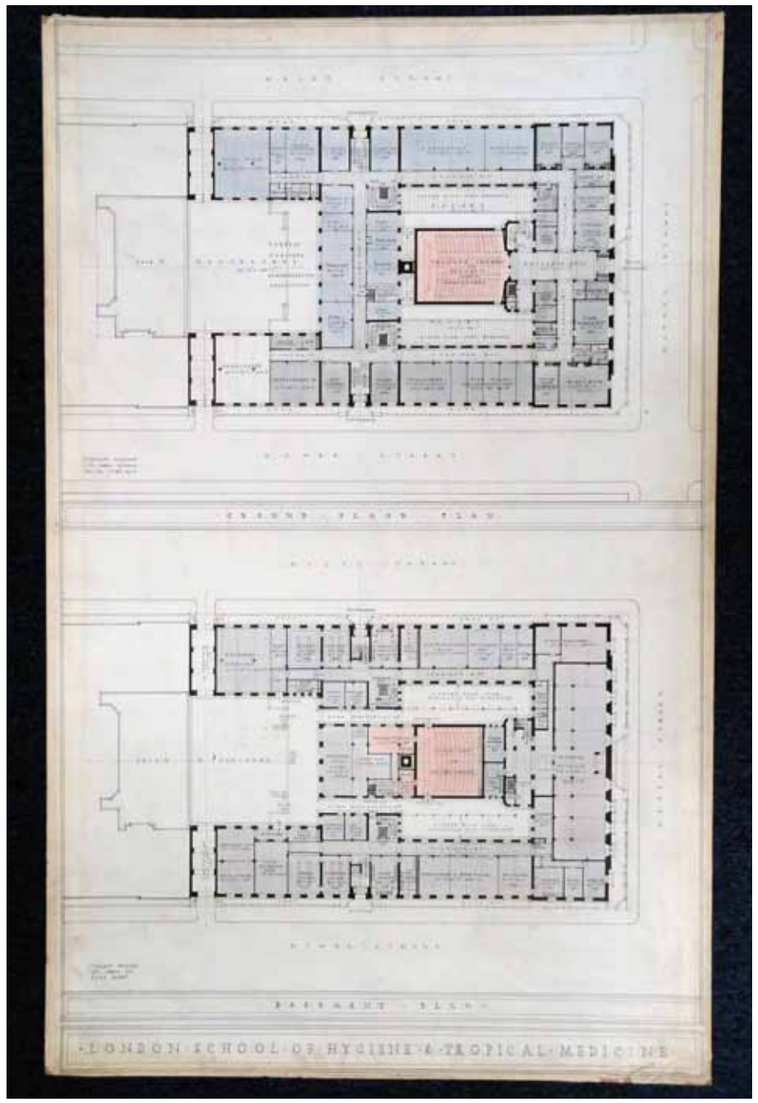


Fig 20. Ground and basement floor plans

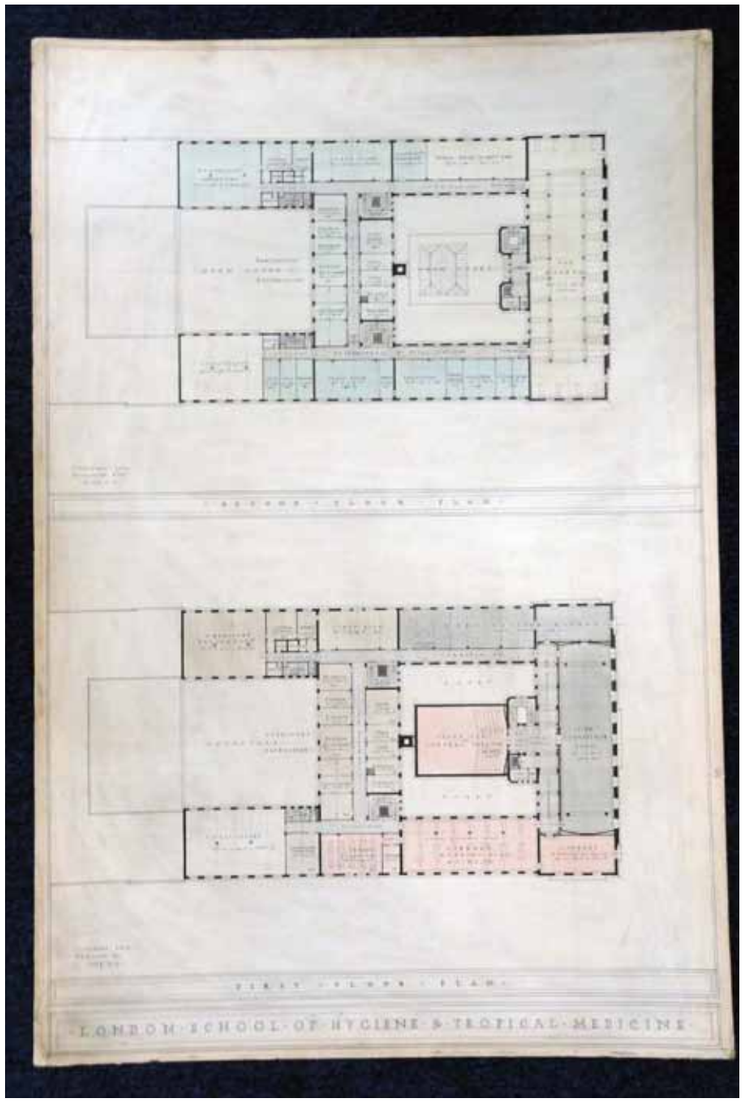


Fig 21. Second and first floor plans

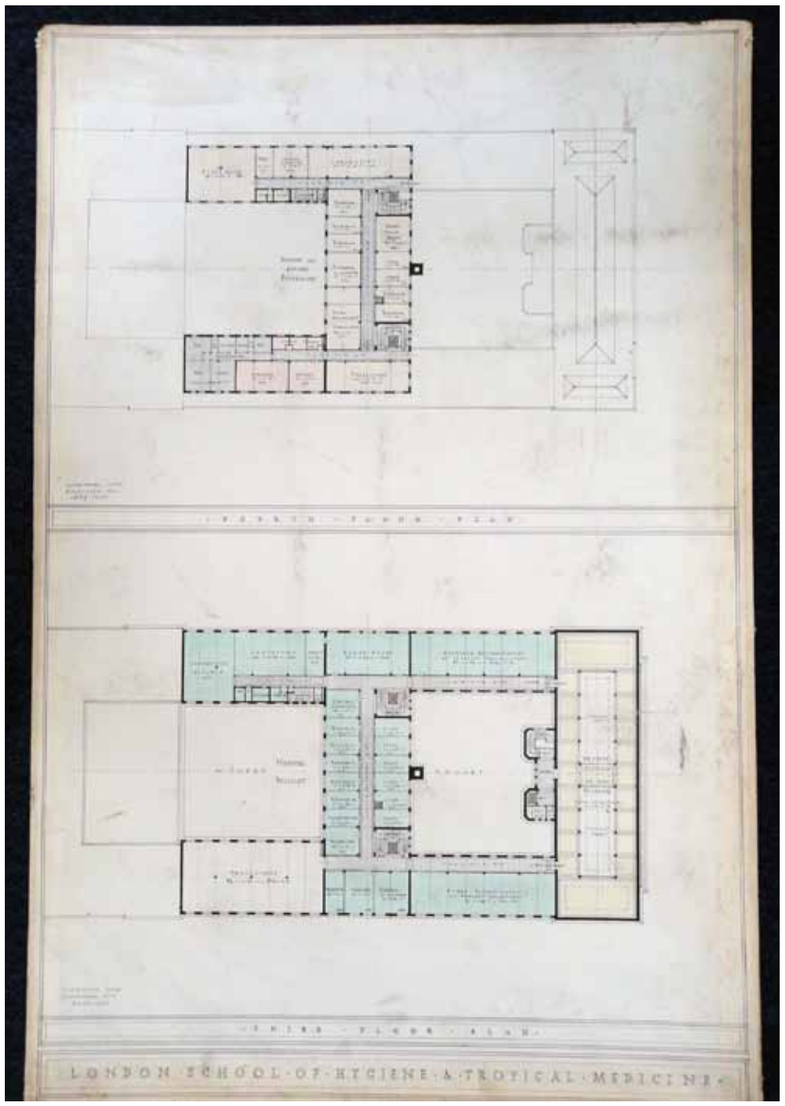


Fig 22. Fourth and third floor plans

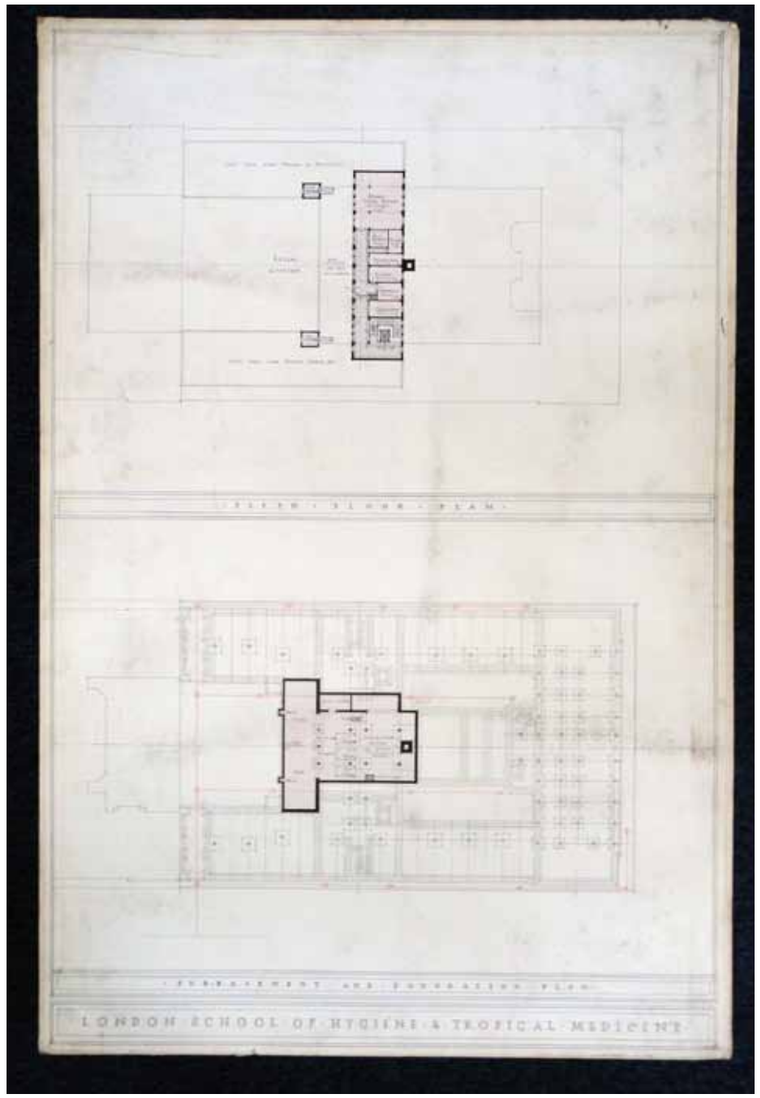


Fig 23. Fifth floor and basement plans

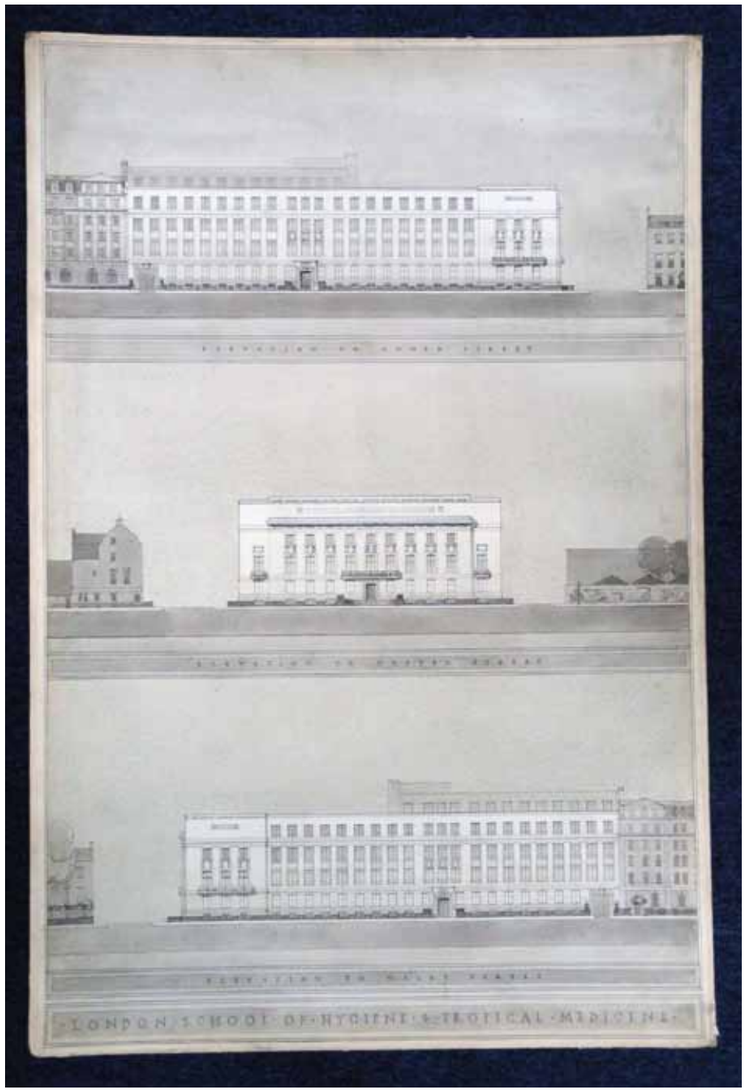


Fig 24. Elevations

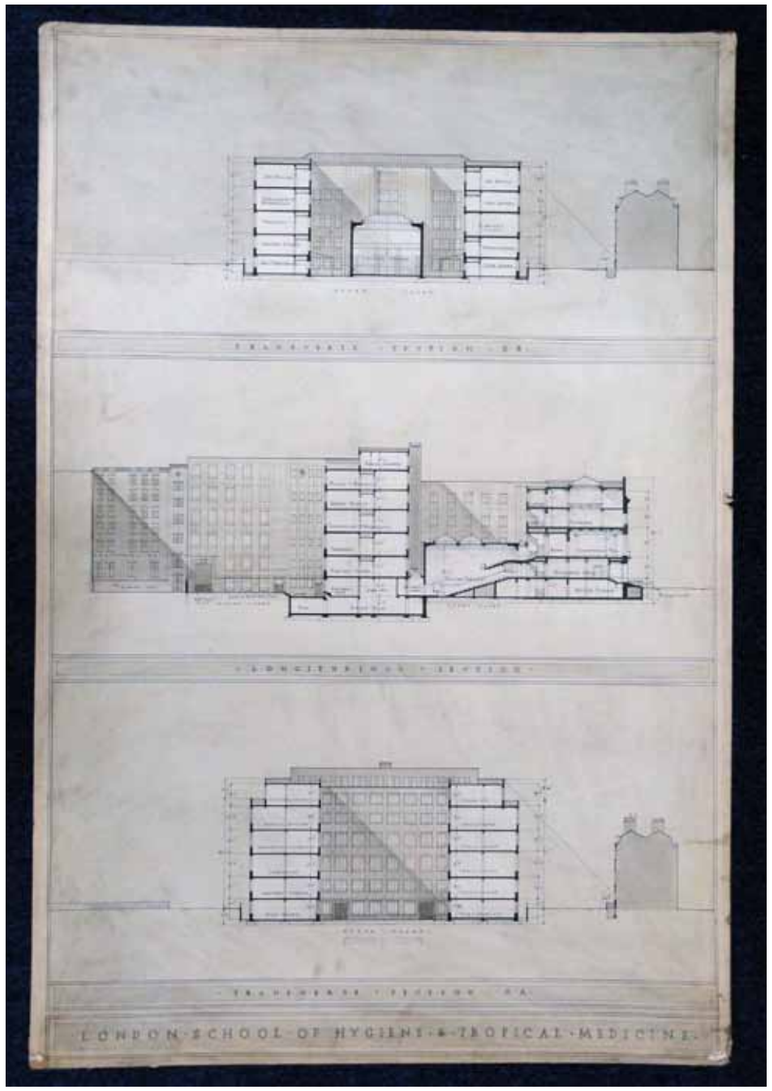


Fig 25. Sections

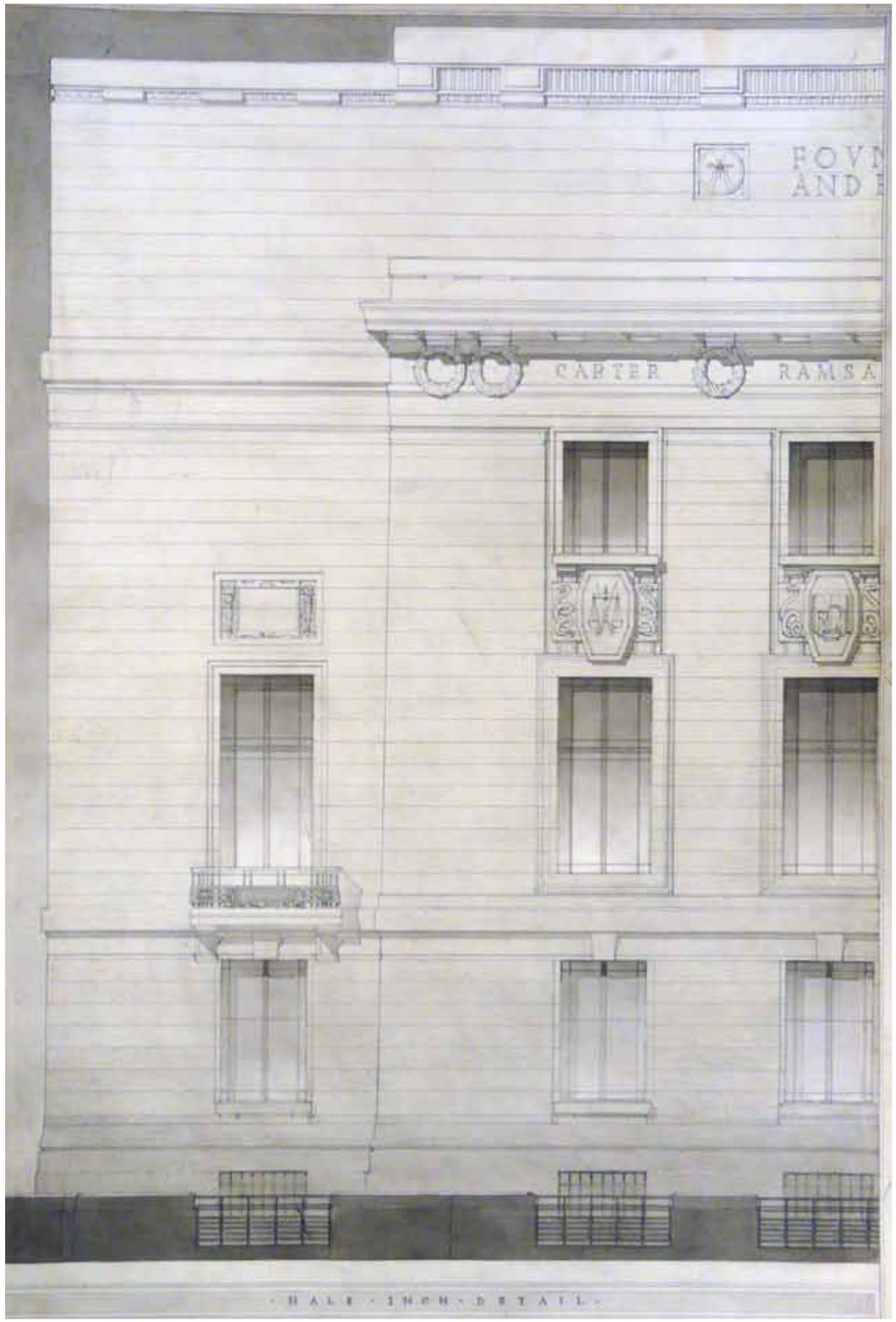


Fig 26. Keppel Street elevation study

Designing and building

The Building Committee met on 35 occasions between August 7th 1924 and 11th June 1929. By the end of September 1925 the other key members of the design team had been appointed: T.J.R.Kiernan as Consulting Engineer; Horder and Wells Quantity Surveyor, and F.Milton Harvey as Clerk of Works. The foundations contract was agreed on 9 December 1925 and the steelwork tender was agreed on 7 June 1926. James Carmichael was appointed as the general contractor on 18 February 1927. The building was opened by the Prince of Wales on 18 July 1929, although some fitting out remained to be done.

The Building Committee Minutes show that the detailed design of the building was being continually modified between July 1925, when Horder first attended a meeting, and June 1928. At the very beginning of the design process the need for future flexibility and change was understood. For example the Building Committee meeting on 8 July 1925 reported that "the architect said that the question of the possibility of the building having to carry a complete 4th floor at some later date would be fully borne in mind." The design discussions reported in the Minutes cover every aspect of the building: the balance of space between laboratories, classrooms and other functions, the provision of animal houses, the design of heating and other services, the design of the library, the design and construction of laboratory benches etc. These practical matters were part of the general process of defining a new role and organisational structure for the School, one which was led by its Director, Andrew Balfour. The importance of the architects' contribution to this process was noted by Sir Alfred Mond in his speech at the foundation laying ceremony on July 7 1926. He noted that the twelve months of discussions which had already taken place "had shown that the design of the architects was so simple and elastic that it had readily adapted itself to meeting the considerable and perhaps exacting requirements" of the School. "The architects had shown themselves as elastic as these plans, and the Board were grateful to them for the way in which they had co-operated throughout the course of their discussions ". [31]

In fact these discussions continued for another two years until June 1928 when Verner Rees finally made clear to the Building Committee that design changes could no longer be made: "The architect explained that the whole of the plans had been examined and revised in detail at intervals between the architect and the engineer and the heads of Divisions and Departments. He urged very strongly, and the Building Committee agreed, that the plans must now be regarded as final, and said that the point had been reached, if indeed it had not already been passed, at which delay in completion of the building would be involved. The plastering work, which should have commenced three or four weeks earlier, was held up because the engineering services were not completed, and these in turn had been seriously delayed by the numerous changes requested in the planning and purpose of rooms by the various departmental heads". [32]

Erection of the steel frame was delayed by the impact of the 1926 General Strike and the Mineworkers strike which continued after the settlement of the General Strike. The Building Committee Minutes for June 7 1926 reported that the steelwork contractor's (Archibald Dawnay) programme dates "were, subject to the settlement of the coal dispute, three weeks for providing and fixing the grillages, and twenty-one weeks for the completion of the structure". The date of settlement of the coal strike was taken as the end of December 1926. The resumption of steel production allowed steel erection to begin in the middle of March 1927 and it was complete by the end of the year. Shortages of British steel evidently continued and the structural engineer conceded that continental steel could be used in some locations.

At the meeting on 4 January 1926 a model of the façade was shown to the Committee and the question of the sculptural programme for the exterior of the building was discussed: "a matter to be left to the architects, subject to a later discussion with regard to any question of emblems or names forming a decorative feature of the building". The Education Committee were given the task of assembling an appropriate list of names for inscription on the façade, and they reported to the Board of Management on 11 May 1927, with the following names, to be arranged in chronological order according to the dates of birth, from west to east: Mead, Pringle, Lind, Jenner, Chadwick, Farr, Simon, Parkes, Pasteur, Lewis, Koch, Manson, Laveran, Reed, Biggs. The choice of sculptor – Allan Howes ARBS – was agreed at the meeting on 29 November 1927.

The Minutes contain no record of the appointment of a second sculptor, Eric Kennington, to make a sculpture to be placed over the entrance of the School. Verner Rees had collaborated with both Kennington and Howes on the Soissons Memorial. [33] Howes contributed the decorative sculpture to the Memorial but it is Kennington's giant composition of soldiers, depicted in the ordinary garb of wartime, that dominates the centre of the monument. Kennington's biographer presents the episode of his involvement with the LSHTM project as follows:

"He executed a large low-relief in plaster for the Library of the University of London School of Hygiene and Tropical Medicine formally opened in 1929. The rectangular panel depicts a mother and child being protected from the attentions of a fanged serpent by a nude, bearded, knife wielding father with a touch of Zeus about him. The panel was originally to have been placed above the main entrance of the school in Keppel Street. However while the architect had no objection to Kennington's nude male figure prominently displaying his genitals, the trustees were far less enthusiastic. When Kennington vigorously refused to modify the design by providing the male figure with an appropriate loin cloth, it was decided that the panel should be placed inside the building, over the entrance to the Library." [34]

The Board of Management Minutes do however record the Board's hesitancy about the sculpture, even when it had been re-located to the safety of the interior of the building. In its final walk around the building on 10 July 1929 it was noted that: "In the course of the inspection the question was specifically considered whether the sculpture over the library main door was to remain, and the Board decided to take no action". [35]

If Kennington's account is correct the School must have commissioned a second sculptor to execute the design that was eventually placed over the entrance doors (and which remains there) and the task may have reverted to Allan Howes. However no documentary evidence has been found for Howes' appointment in place of Kennington. There is also no documentary reference to the commissioning of the gilded creatures which are such a striking feature of the balconies around the building.

Summary list of contractors, sub-contractors and suppliers

	tender sum
Foundations: James Carmichael	£13,642
Steelwork: Archibald Dawnay	£25,486
Superstructure: James Carmichael	£293,375
Panel heating, ventilation for theatre, fume cupboards: Haden and Sons	£9,453
Hot water, steam, cold water, gas: Cash and Co.	£8,678
Electric light: Cash and Co.	£9,991
Lifts: Aldous and Co.	£1,705
Refrigeration: J&E Hall	£415
Electric clocks: Synchronome	£524
Telephones: Siemens Bros.	£1600
High pressure hydraulic main: London Hydraulic Power Company	£60
Floors: Kleine Patent Fire Resisting Floor Syndicate Ltd.	£27,252
Metal sashes, lantern lights etc.: H.Hope and Sons	£13,625
Sanitary plumbing and drainage: Bevan and Sons Ltd.	£7,225
Electricity supply: Metropolitan Electric Supply Company	
Iron railings for library and main entrance door: J. Starkie Gardner Limited	£3,019
Glassware and hardware: R.B.Turner and Co.	£2,958
Board room chairs: Chiswick Guild	(no tender sum recorded)
10 street lamps designed by architect: (supplier not recorded)	

Fig 27. The site, looking north-east from Keppel Street, before construction

Fig 28. Steelwork under construction, 1926

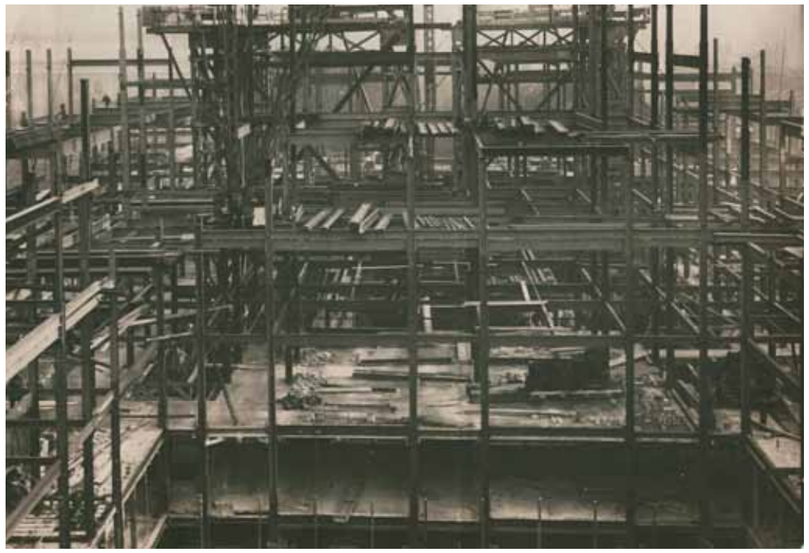


Fig 29. Steelwork under construction, 1926

Fig 30. The building completed, seen across the University of London "Central Site"

The building as completed in 1929

There were five storeys of accommodation across the site generally, with a basement plant room at a lower level and animal rooms on two further floors above the central block that separated the two courtyards.

The treatment of the elevations conformed closely to the competition design: the window grid was the same and the window openings had the same generous proportions. However in the competition design the first and second floors were expressed as a combined grand order; in the realised scheme all the windows were treated as single openings in the wall, giving a greater simplicity to the façade. The treatment of the entrance elevation on Keppel Street was also similar in both the competition and the as-built schemes. The façade was set forward from the main block in order to emphasise its primacy and the third floor had no windows (the upper floor of the museum behind this façade is top-lit), giving a sense of massiveness to the façade. But again there was simplification in the detailing and a bolder treatment of decoration. In the as-built scheme the entablature was simplified, losing some of its classical details. The inscription and decoration (an image of a mosquito is shown in a roundel) on the third floor façade was also omitted and the inscriptions below the entablature were given much bolder treatment. Roman lettering was replaced by boldly sculpted sans-serif and the wreaths were carved with greater assurance and boldness.

The external sculptural programme for the building therefore fell into three categories. The first was the composition over the main entrance, a modern interpretation of a classical theme. The second was the array of names, with their attendant wreaths, executed in an up-to-date blocky style. The names are not precisely those reported to the Board of Management on May 11, 1927. The third was the depictions of insects and other creatures, in gold-painted cast-iron or bronze, which enliven the first floor balconies.

The entrance to the building was from Keppel Street, in the centre of the short axis of the rectangle formed by Keppel Street, Gower Street and Malet Street. There were two courtyards, one entirely enclosed by the School building, the other open on one side to the light well at the side of Warwickshire House. There was an octagonal entrance hall, from which corridors lead off to right and left and straight ahead to the lecture hall. A grand stair led up to the library and museum on the first, second and third floors. Circulation between the floors of laboratories, teaching rooms and offices therefore depended on the two stairs set part way along the corridors on the Keppel Street and Malet Street frontages. These stairs were also at the junction of the cross-corridor which joined the two long sides of the building, and their lobbies allowed for fire escapes to the outside. The circulation was simple and economical and it defined a series of eminently flexible and blocks of well-lit space. Generously-proportioned windows and roof lights to the fourth floor laboratory contributed further to the extent of natural light in the building.

The building had a steel frame, the grid of which was coordinated with the circulation system, again contributing to the simplicity and flexibility of the plan. The facades were of solid brickwork faced with Portland stone and with steel casement windows. There were risers for services in the front two corners of the first courtyard, with angled brickwork on the outside; and on the two lateral corridors, just beyond the main escape stairs. The same joinery details were used consistently for the riser throughout the building. Horizontal service routes were provided in lowered ceilings along the corridors.

There was a hierarchy of finishes, starting from the main entrance on Keppel Street. The entrance hall was entirely lined with stone and terrazzo on walls and floor. Terrazzo wall finishes up to dado level extended along the front corridor. The main stair to the library, and the main escape stairs, were entirely clad in terrazzo and had wrought-iron balustrades in a geometrical pattern.

In the lateral corridors terrazzo gave way to plastered walls and herringbone parquet floors. The main joinery at the entrances, the fire escapes to Gower Street and Malet Street and to the most important rooms (the Director's suite, the library, entrances to the museum) were of ebonised hardwood, with geometrical glazing patterns. Doors to the corridors were oak, to a consistent design, generally with glazing in the upper half, with fanlights of consistent pattern.

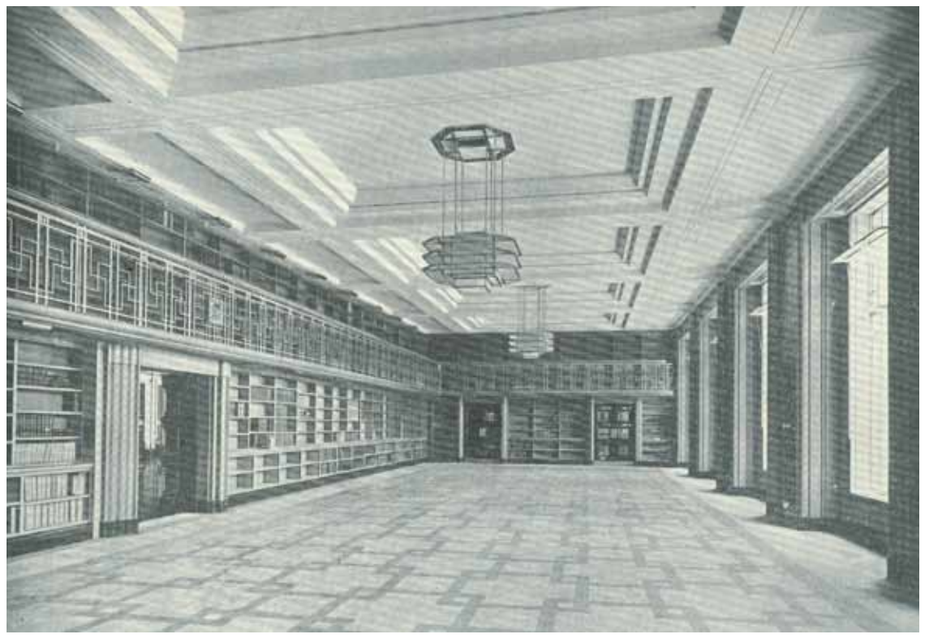
The library, including both the main space and its subsidiary rooms, was carefully detailed in oak, with a wrought-iron gallery balustrade of geometrical design. The original clock remains today, as does some of the library furniture. However the lighting – originally large glazed pendant fittings – has been replaced by fluorescent fittings at ceiling level. The original board room and staff room on the south-west corner of the ground floor were also fitted with high-quality oak panelling and door joinery, which remains.

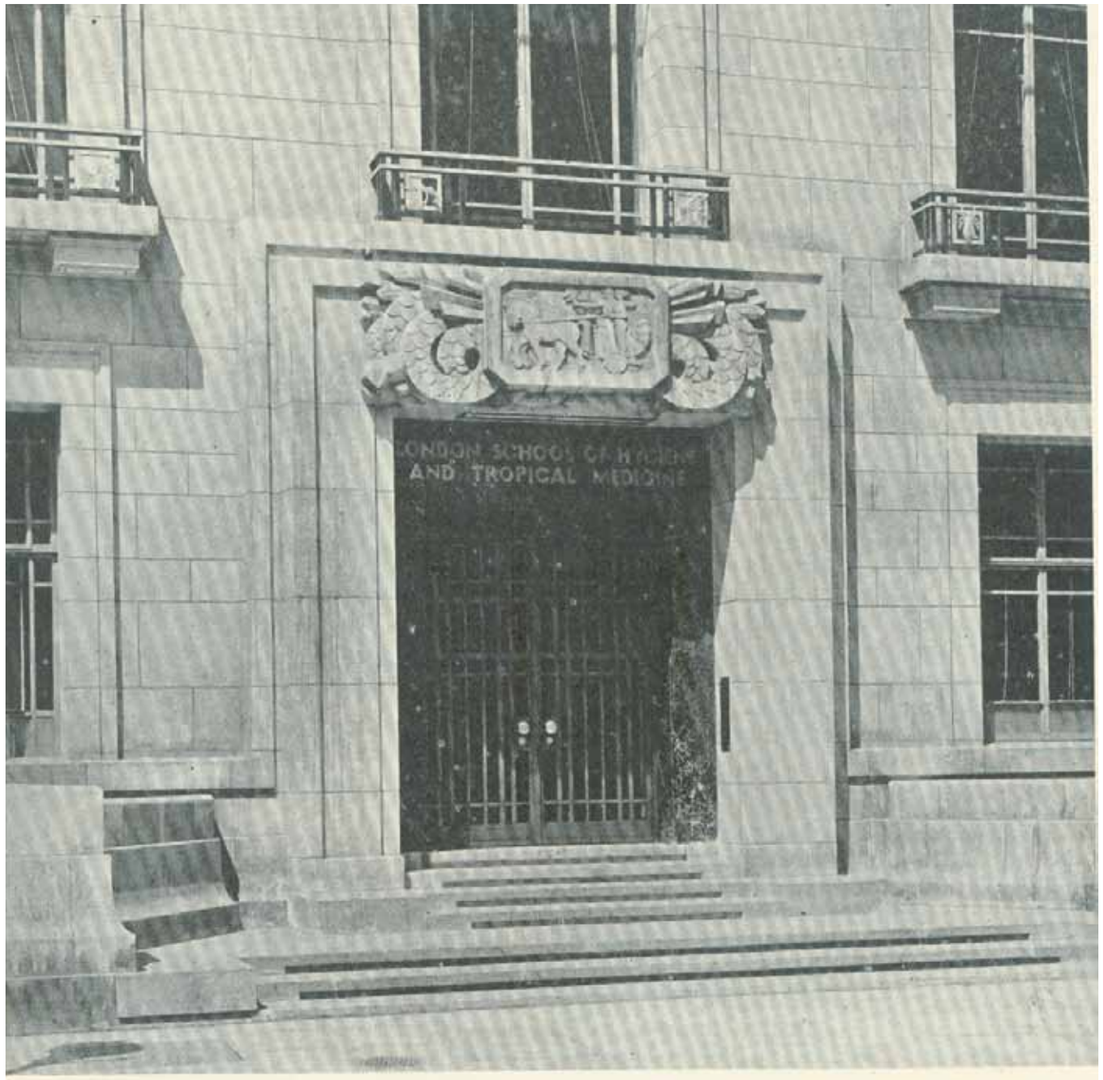
Ironmongery, much of which remains, was of a simplified modern design: chrome lever handles and pull handles on double doors.

The M&E installations were described in some detail in The Heating and Ventilating Engineer September 1929 p63 and the key points were as follows. The engineering systems were designed by T.J.R. Kiernan and carried out by G.N.Haden. There were three heating boilers, by Hartley and Sugden of wrought-iron sectional "Metropolitan" type. Heating was a radiant panel system with pipes or coils generally in the ceilings, and embedded in the entrance hall floors and walls. In the lecture theatre the panel heating was supplemented by air filtered, humidified and heated, supplied from a plenum above the ceiling, with extract through grilles in the risers. The circulating mains were taken direct from the boiler house to the roof where they were carried horizontally on the parapet walls, protected with non-conducting composition and suitably painted. The whole of the drop mains throughout the building were in chases in the walls, well protected to ensure the highest efficiency being obtainable without loss of heat at the panels. Centrifugal pumps accelerated circulation. Two wrought iron tubular steam boilers served two calorifiers.

London School of Tropical Medicine.] [Verner O. Rees and P. Morley Horder, Associated Architects.

A general view of the Gower Street (left) and Keppel Street façades. The librarian's department, on the first floor, and the museums on the second and third floors, extend the whole length of the main Keppel Street front. Along the upper elevations are carved the names of men world-famous for their investigations in hygiene and medicine.



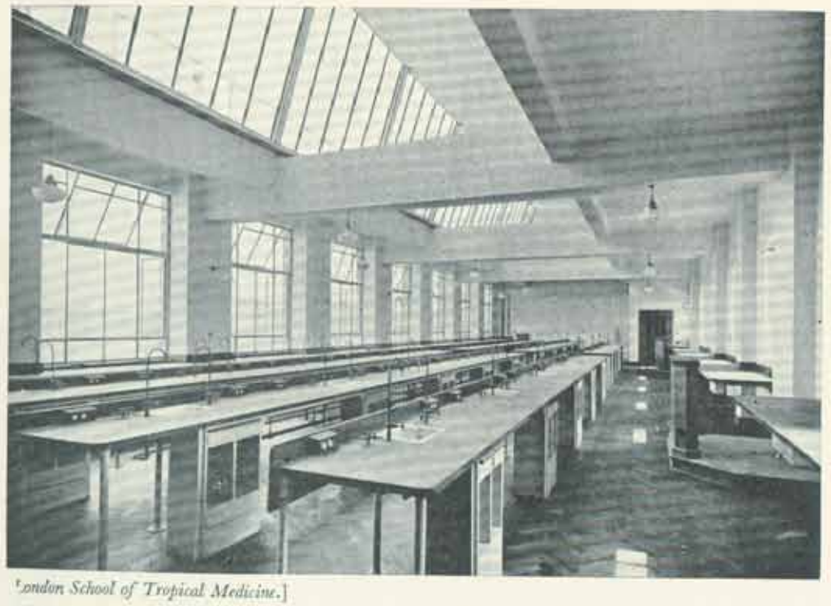


The London School of Hygiene and Tropical Medicine will be opened by the Prince of Wales tomorrow. It stands on a corner site in Bloomsbury, bounded by Keppel Street, in which is the main entrance shown above, Gower Street, and Malet Street.

Figs 31. Images from the Architects Journal of July 17, 1929

The board room, like every other part of the building, has received the personal attention of the architects. Even the clocks and electric light fittings are made from their designs.

In the lecture hall the cinema apparatus has been so devised that slow-motion pictures may be shown, or the film stopped at any event or action needing special emphasis.



London School of Tropical Medicine.]

This view of the medical zoological laboratory is typical of the fitments and the arrangements of the rooms for research work. In this instance ample daylight is obtained from top lights and windows.

[Verner O. Rees and P. Morley Horder : Associated Architects.

A corner of the upper museum. The "wells" are used to help light the museum beneath. The board room, lecture hall, library and museums are easily accessible from the main entrance.

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Figs 31 cont'd. Images from the Architects Journal of July 17, 1929

As built drawings of LSHTM building, 1929

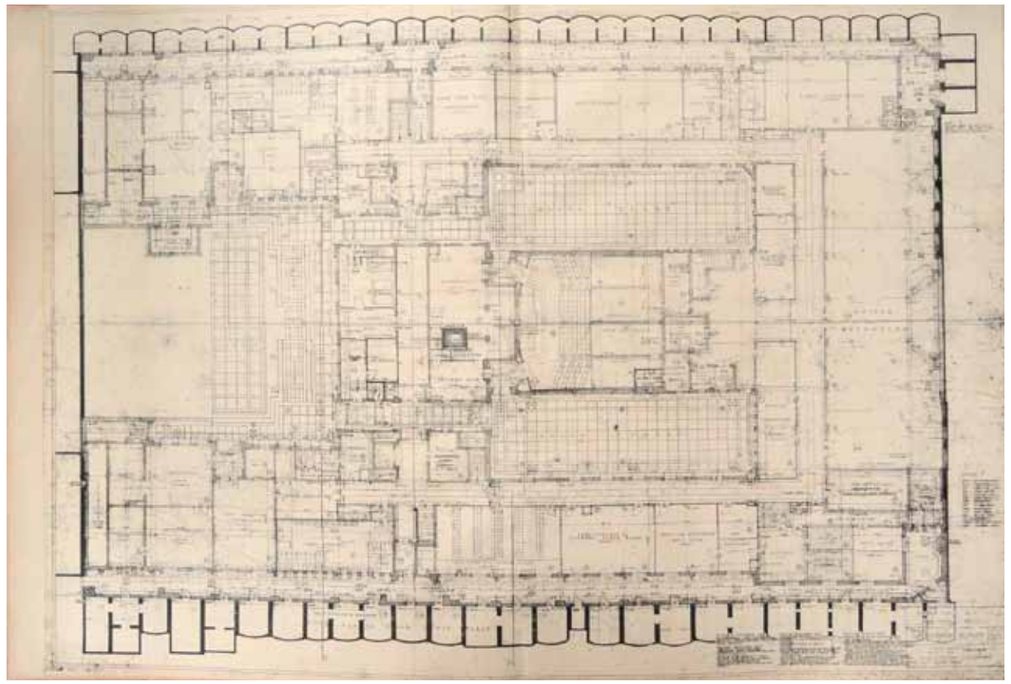


Fig 32. Lower ground floor

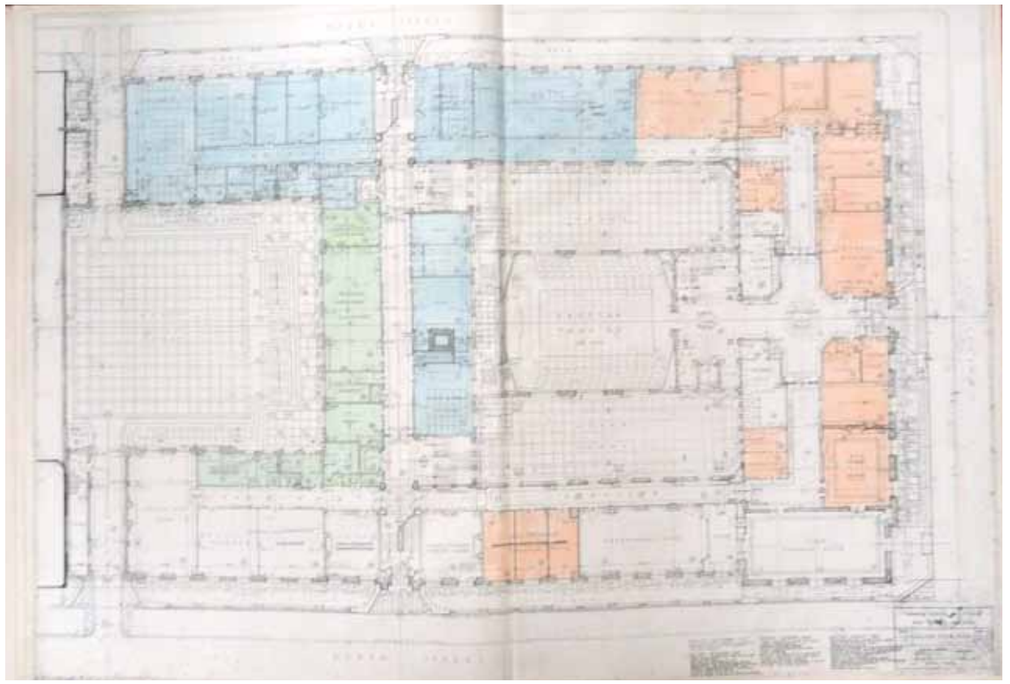


Fig 33. Ground floor

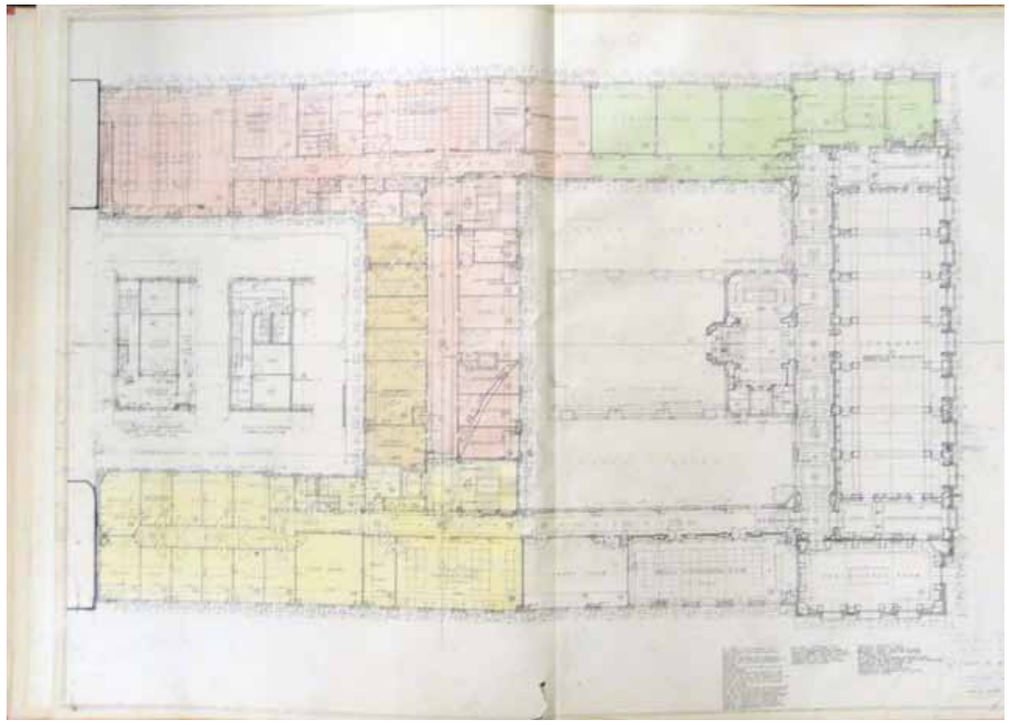


Fig 34. First floor

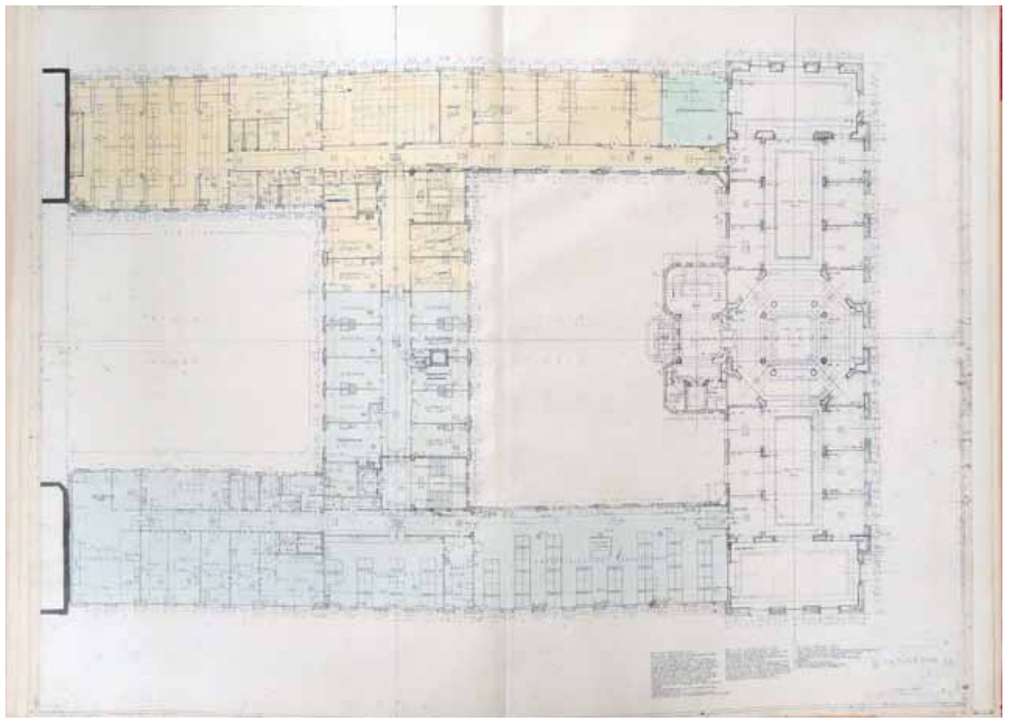


Fig 35. Second floor

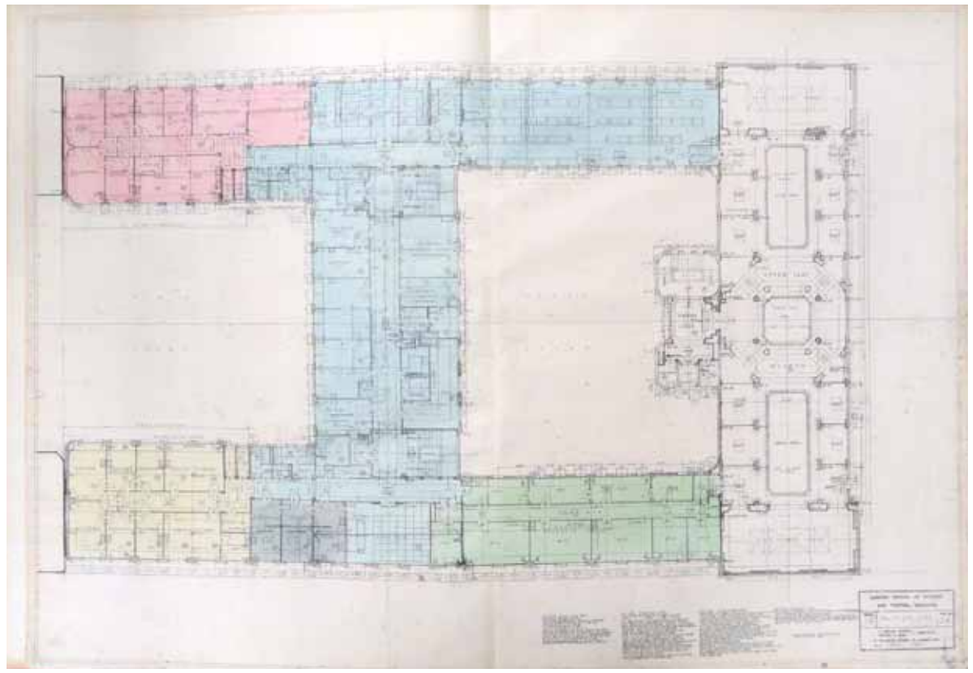


Fig 36. Third floor

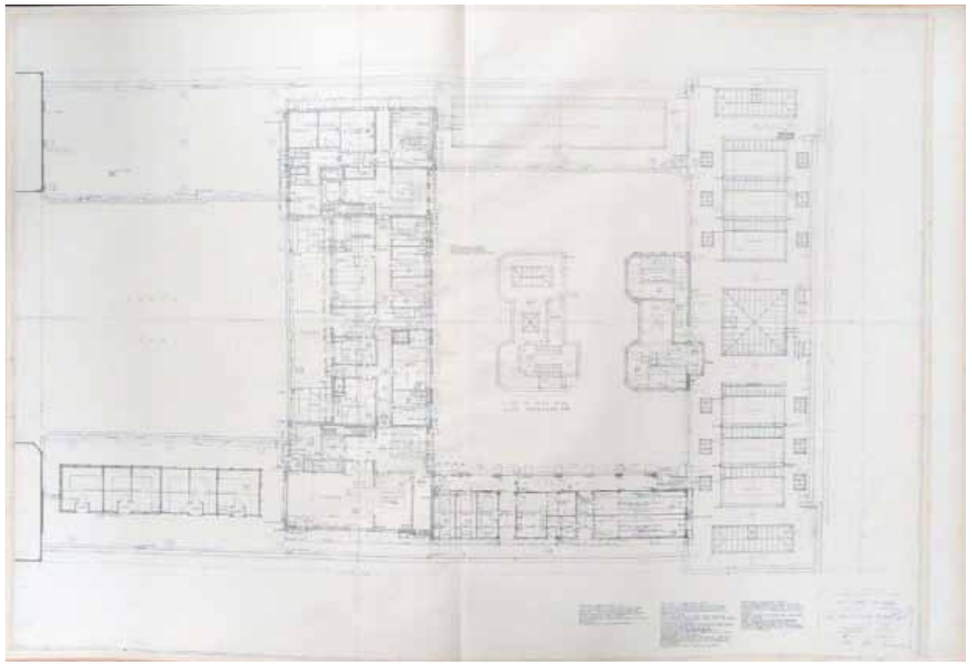


Fig 37. Fourth floor

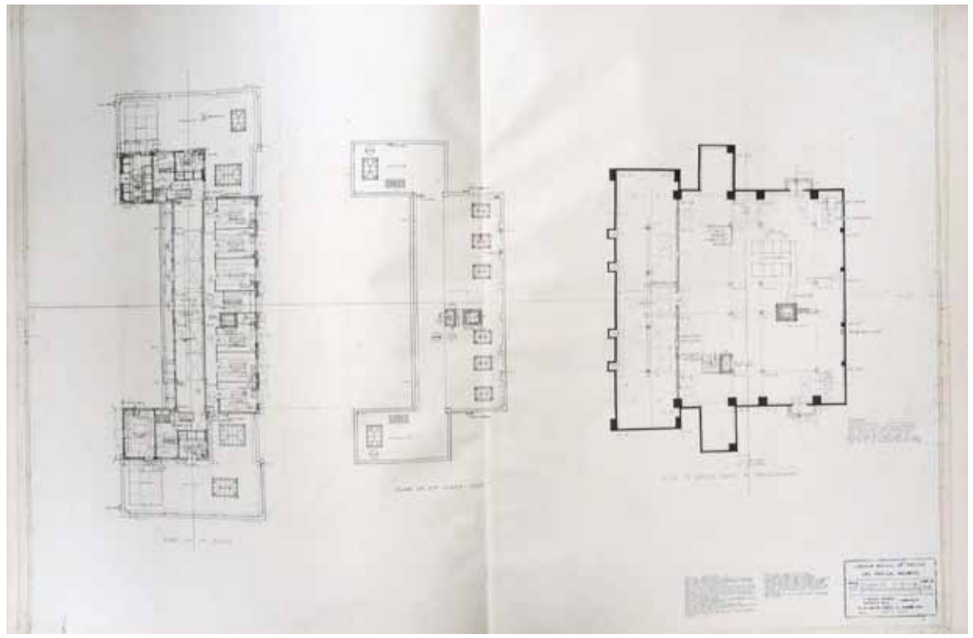


Fig 38. Fifth floor and basement

Changes after 1929

The street facades below the parapets of the 1929 building appear largely unchanged. After air raid damage in May 1941 part of the north end of the Malet Street façade was rebuilt, but the repair work matches the original exactly and it is almost impossible to identify the rebuilt area. In 1967 modifications were made at each end of the Keppel Street façade, providing windows to the offices built in the formerly blank wall of the museum gallery. This was part of the building project, described below, which added an additional floor to the Keppel Street Wing, and transformed the former museum into offices and laboratories. The work was done to match the detail of the original windows: there is some loss of the apparent solidity of the original design, but there is no visible evidence that the interventions were made after the building was first built.

Internally, and at the upper levels above the original parapet, the picture is quite different. From our reading of the School's Minute Books from 1926 to 1975 it is clear that there have been virtually continuous programmes of adaptation and modification to the building and its services and fittings. It is outside the scope of this Conservation Plan to document every change that has taken place and therefore in this section of the Plan we aim to describe the key programmes of extension and adaptation.

1934: Changes to insectaries

The insectaries on the fourth floor were replaced by animal houses. The insectaries had been framed structures with mesh infilling, located on the flat roof of the Gower Street block. They were replaced by brick structures to provide additional space for animals. These have subsequently been demolished and the space is now occupied by the fourth floor plant room.

1945-53: War damage reconstruction

The north end of the Malet Street Wing was badly damaged by bombing in the air raid of 10 May 1941 and was unusable for the duration of the war. Repairing the damage was a lengthy process.

Quotations were received for preliminary repairs in 1945 but the rebuilding work only began in April 1948. The structural shell was complete by October 1949, but internal work was still delayed by the need to gain University Grants Committee approval for increased costs. By February 1950 a new building licence and steel allocation had been approved and work recommenced. It was finally completed in 1951 after further building licences had been issued. The structure and façade were replaced to match the original, but the split level area at lower ground floor level (now occupied by Premises and Procurement offices) was introduced as part of the rebuilding work.

Financial negotiations with the War Damage Commission continued after the work was completed and the School received a final payment of £20,355 from the Commission in November 1953. The total cost of the war damage repair work was £94,147 of which £85,976 was recovered from the Commission. The Minutes of the Finance and

Fig 39. animal houses on Gower Street, 4th floor, built 1934

Fig 40. top right: Malet Street facade after May 1941 bombing

Fig 41. bottom right: interior after May 1941 bombing

General Purposes Committee note that "The success of the School's claim was largely due to the efforts of Mr P.E.Middleton, the Quantity Surveyor, and as a result of the personal interest he had taken in the matter the Commission had admitted claims for a number of items of which the School might otherwise have had to bear the cost". [36]

Additional and refurbished Lecture Theatres

In 1956-57 a scheme was prepared for building further accommodation on top of the original main lecture theatre. It aimed to provide an additional 100 seat lecture theatre (the Manson lecture theatre) and new teaching rooms. F.G.Minter was appointed Contractor, with a tender of £14,558 and the work was carried out in 1957-58. [37]
Proposals by Philip Laurence, then the School's architect, for the upgrading of the main lecture theatre (to be re-named the Goldsmiths lecture theatre) were first discussed in 1971. However the project was in abeyance until 1975 and finally carried forward by P.Hubbard, a partner in the architectural division of Cluttons Surveyors. [38]
These adaptations have in turn been demolished, as part of more recent (and more radical) projects to provide accommodation in the former courtyards.

The Courtyards

The School were aware of the potential usefulness of the courtyard spaces from 1945 onwards, discussing the possibility of covering the west inner courtyard to make more library space and additional space for the refectory and student common rooms. [39] In the event the repair of war damage and the retrieval for the School of space that had been temporarily occupied by other organisations, were more pressing matters.
The question of the courtyards was put in the larger context of the School's accommodation needs in a 1951 report: "There is a general plea for more space for every department of the School and indeed the stage was reached long since when progress in every direction was very seriously handicapped by cramped conditions ... The only possibilities for extension in the existing School premises are by building an extra storey above the main lecture theatre or by filling in some of the wells. It is exceedingly unlikely that under existing circumstances any such work could be carried out in the coming quinquennium." [40]

A minor change was made in 1960 with the approval of a concrete ramp between the main courtyard and the south-west internal courtyard, providing additional car parking, but more radical transformations of the courtyards had to wait another forty years.

In 2001-04 the project to infill the north courtyard went ahead. It provides research, office and meeting room spaces, and an area for informal encounters. Access is via a series of bridge links, together with a freestanding scenic lift and an enclosed spiral stair. The building was funded by the Wolfson Foundation and the Science Research

Fig 42. Roof space as built in 1929

Fig 43. Roofspace after 1967 extension and conversion of Museum to offices

Fig 44. Roofspace after 1970 extension on Malet Street roof

Innovation Fund. It was designed by Devereux Architects, built by WIllmott Dixon, and opened by Archbishop Desmond Tutu in February 2004.

The aim of the design was to create a new "heart" for the school, with a freestanding structure set against the original brickwork of the courtyard, and with the maximum possible use of daylight from above and from the north end of the courtyard.

In 2009 the south courtyard was infilled. The main lecture theatre, and its subsequent additions (discussed above) were originally located in this courtyard.. These were demolished and replaced by the new Manson and John Snow lecture theatres. Offices are provided on the east side of the ground floor level and above the lecture theatres. Social spaces link the west side of the ground floor to the refectory at lower ground floor level.

The scheme was designed by Devereux Architects. It has a number of low- and zero-carbon design features, including chilled beams cooled from geothermal boreholes, natural ventilation, a mini-wind turbine and photovoltaic cells incorporated into the glass roof.

Adapting the Museum spaces

The closure of the Museum and the re-use of its spaces for teaching and research offered an appealing way of meeting the School's accommodation needs. The 1941 bombing had destroyed the Museum's collection - a "godsend" in the view of one of the School's historians: "The public health museum was a curious collection of milk bottles through the ages, pictures of Broad Street, some hideous wax models of the ideal diet for an expectant mother that would have given her morning-sickness for life, and much else besides". [41] Piecemeal adaptations were made in 1952 and 1963, [42] but the conversion of the Museum became part of a larger project to radically re-order and extend the Keppel Street Wing of the School.

Transforming the Keppel Street Wing

In 1961 it was agreed that a new ICT 1400 Computer, to be shared between the School and Birkbeck, should be installed in the basement of the Keppel Street Wing, in space previously used for book storage. A Finance and General Purposes Committee Report in July 1963 outlined the proposed conversion of the 2nd and 3rd floors, for building a 4th floor above it, and for transferring the refectory to the basement. The Wolfson Foundation had offered a grant of £80,00 for the work. Tenders were accepted for the new Refectory in May 1964 and plans for the conversion of the 2nd and 3rd floors and the addition of a fourth, were discussed in September 1964. The project now included the provision of new bookstacks above the ceiling of the ante-library, to accommodate books and periodicals then stored in basement rooms. This aspect of the work was part funded by a grant from the Wellcome Trust. [43] The University Grants Committee approved expenditure of £86,400 for the Keppel Street Wing [44] and the work was carried out by Holloway Brothers in 1965-66.

The windows of the third floor rooms (with the exception of the corner rooms described above) are behind the projecting entablature of the main façade and cannot be seen from the street. The new fourth floor is set further back, on the flat roof of the former museum.

The Malet Street Extension

Design work for a fourth floor extension was carried out in 1967-68 to provide accommodation for the Department of Occupational Health, largely funded by the Trades Union Council. A contract of £161,795 was let to Jarvis and Sons Ltd and the work was carried out in 1969-70. [45] A cost increase of £15,000 was reported, a result of additional structural and services work and the need to provide a temporary roof. [46]

Rusting steelwork and high alumina cement

In 1972 cracks were observed in façade stonework and a report was commissioned from Cluttons Surveyors. The survey work showed that in some situations water was making its way through masonry and brick cladding and rusting the structural steelwork. This was an example of a type of building defect that was becoming widespread, earning the description Regents Street Disease, from its prevalence on its twentieth century steel facades. Some remedial work, and further surveys, were carried out. [47]
A different type of constructional problem caused concern in 1974. The Malet Street extension included concrete beams made of High Alumina Cement, a technique which was subsequently shown to cause a risk of drastic structural failure. Shoring was duly installed and investigation work carried out, but happily the structural engineers were able to conclude that the beams were not at risk. [48]

Entrance hall alterations

Alterations were made to the entrance hall and porters lodge, as part of the 1962 building programme.. Further changes were made to the entrance hall as part of the courtyard infill scheme of 2001-04. However the original overall form of the space, and in particular the floor decoration, remain.

Old and new building fabric today (original fabric shown red)

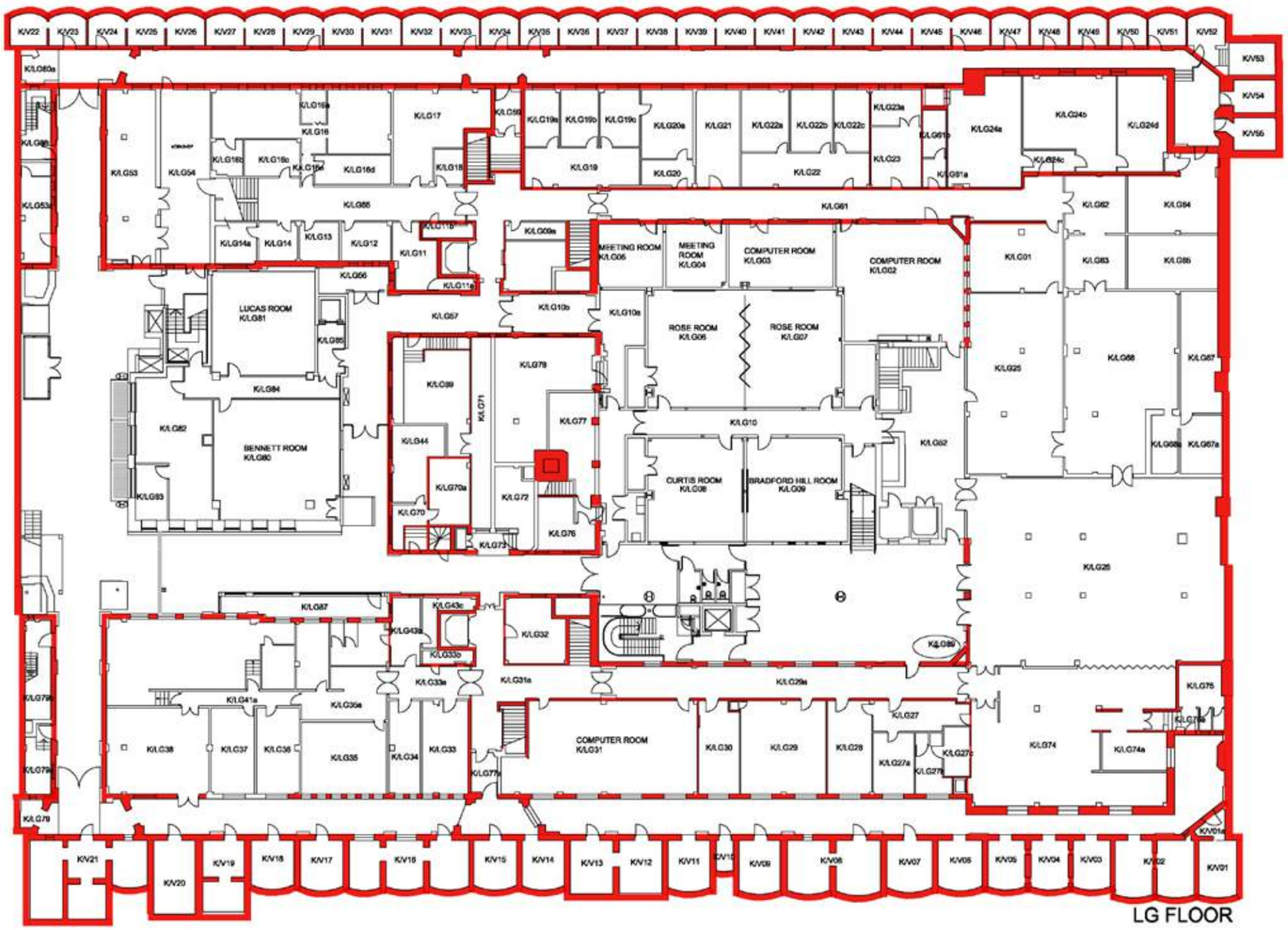


Fig 45. Lower ground floor

Old and new building fabric today (original fabric shown red)

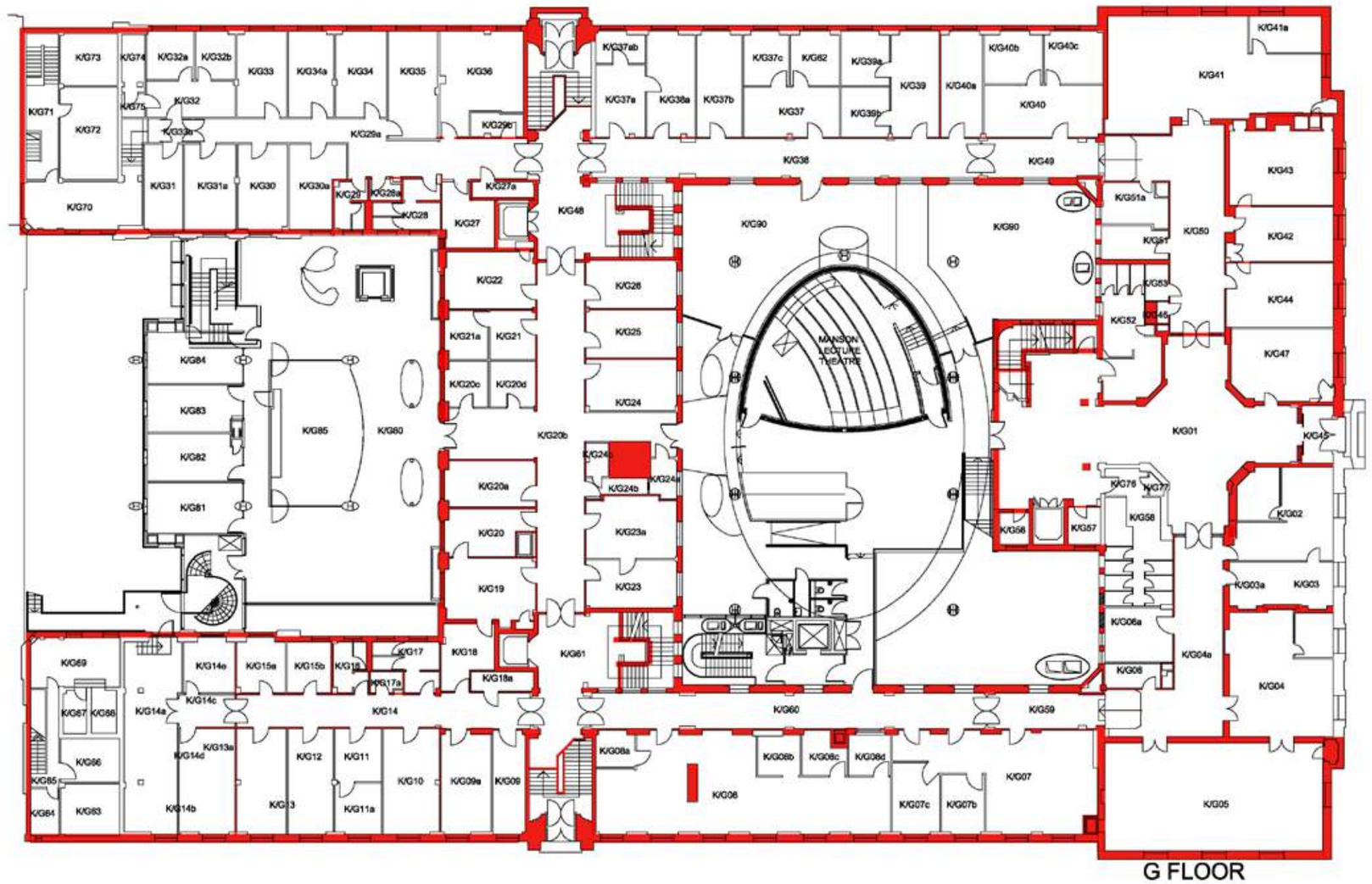


Fig 46. Ground floor

Old and new building fabric today (original fabric shown red)

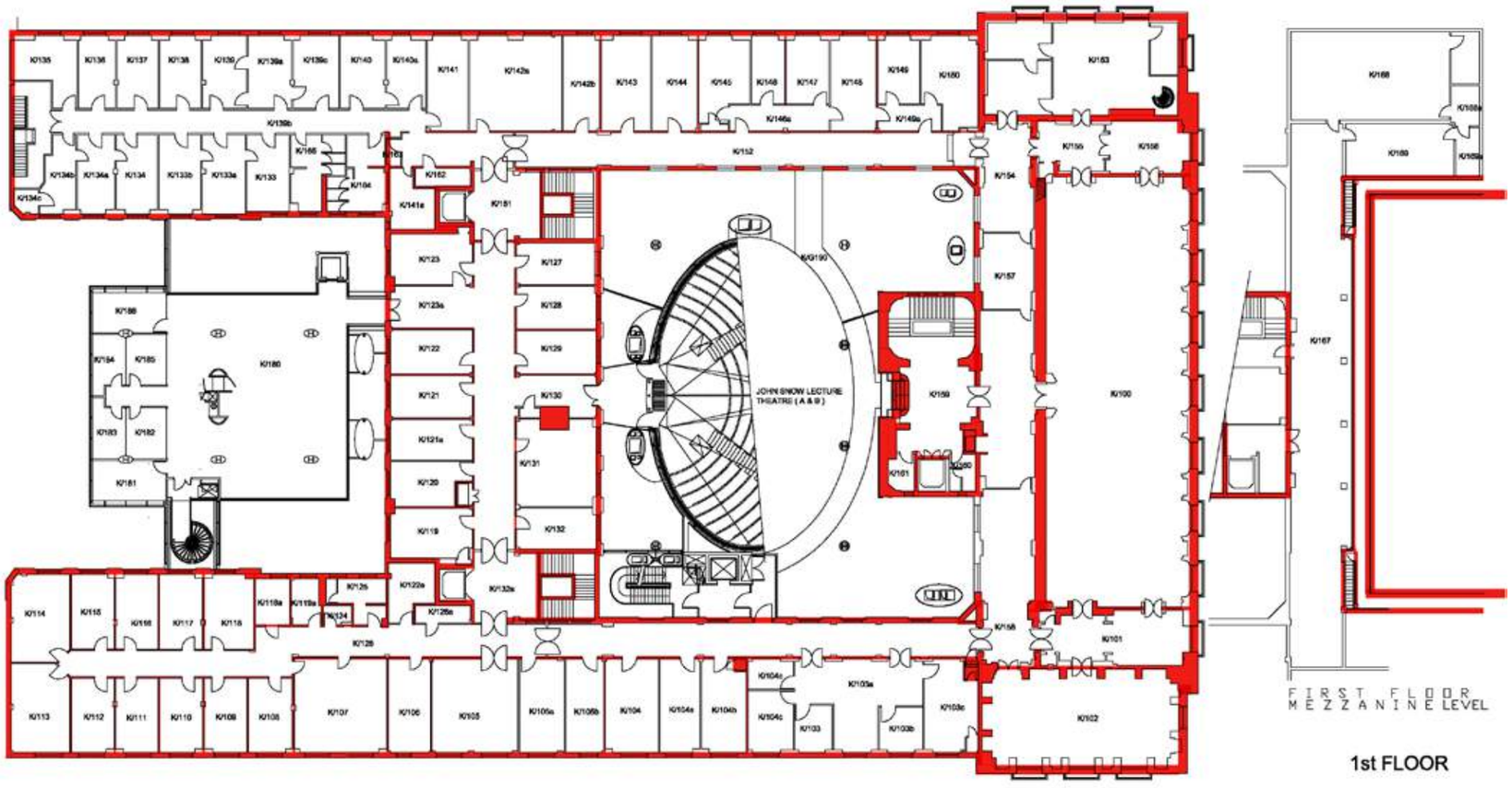


Fig 47. First floor

Old and new building fabric today (original fabric shown red)

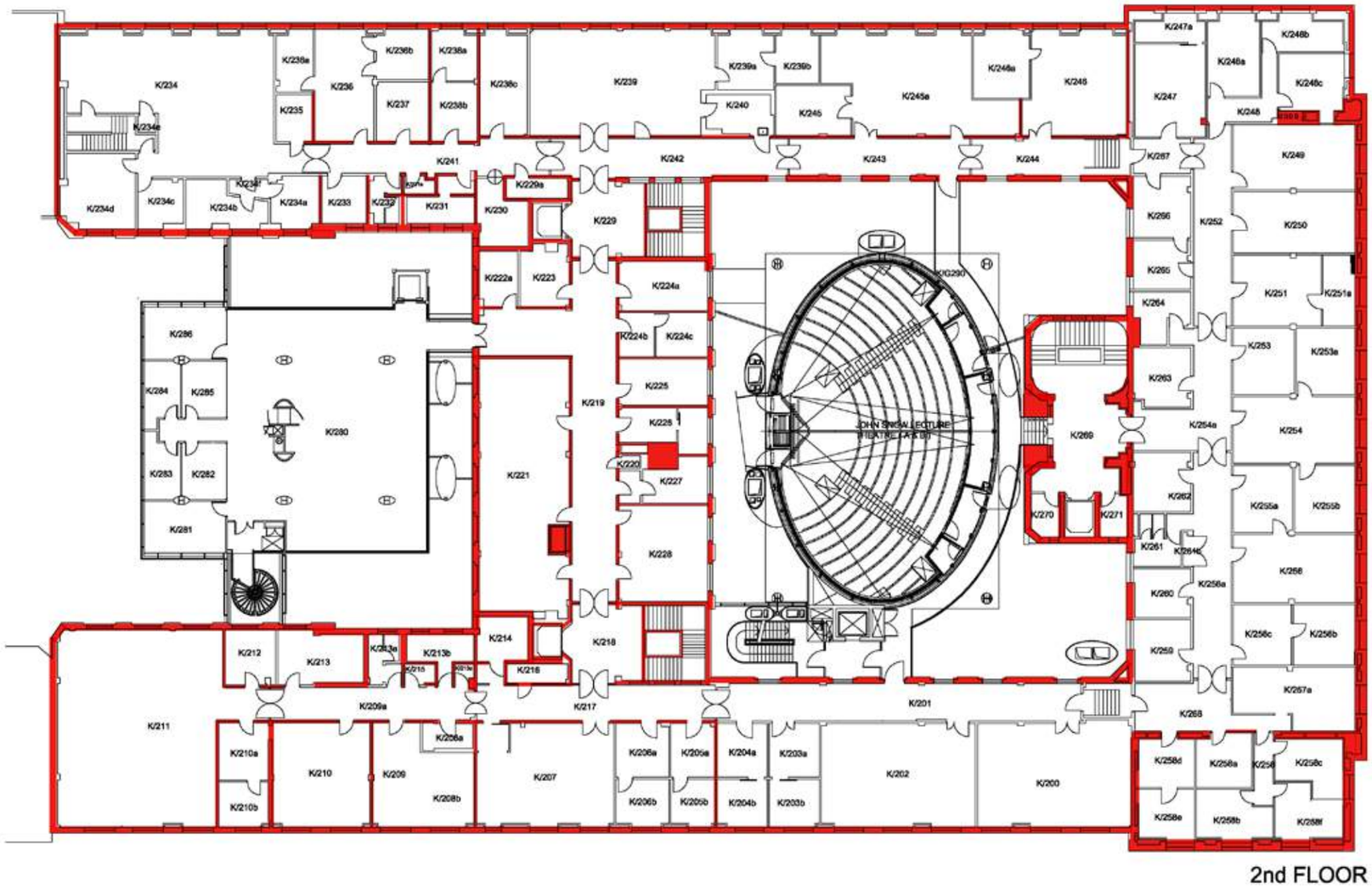


Fig 48. Second floor

Old and new building fabric today (original fabric shown red)

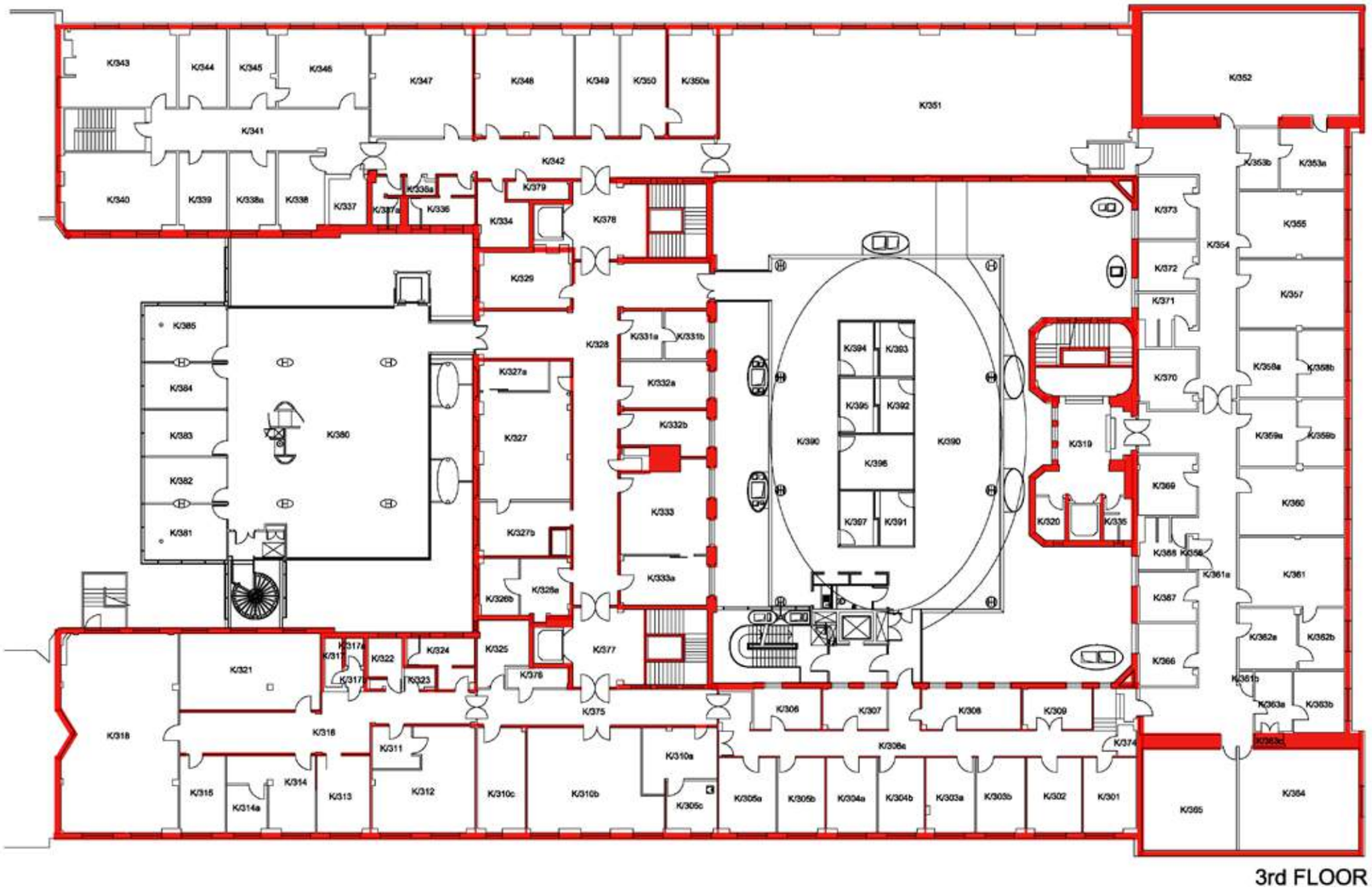


Fig 49. Third floor

Old and new building fabric today (original fabric shown red)

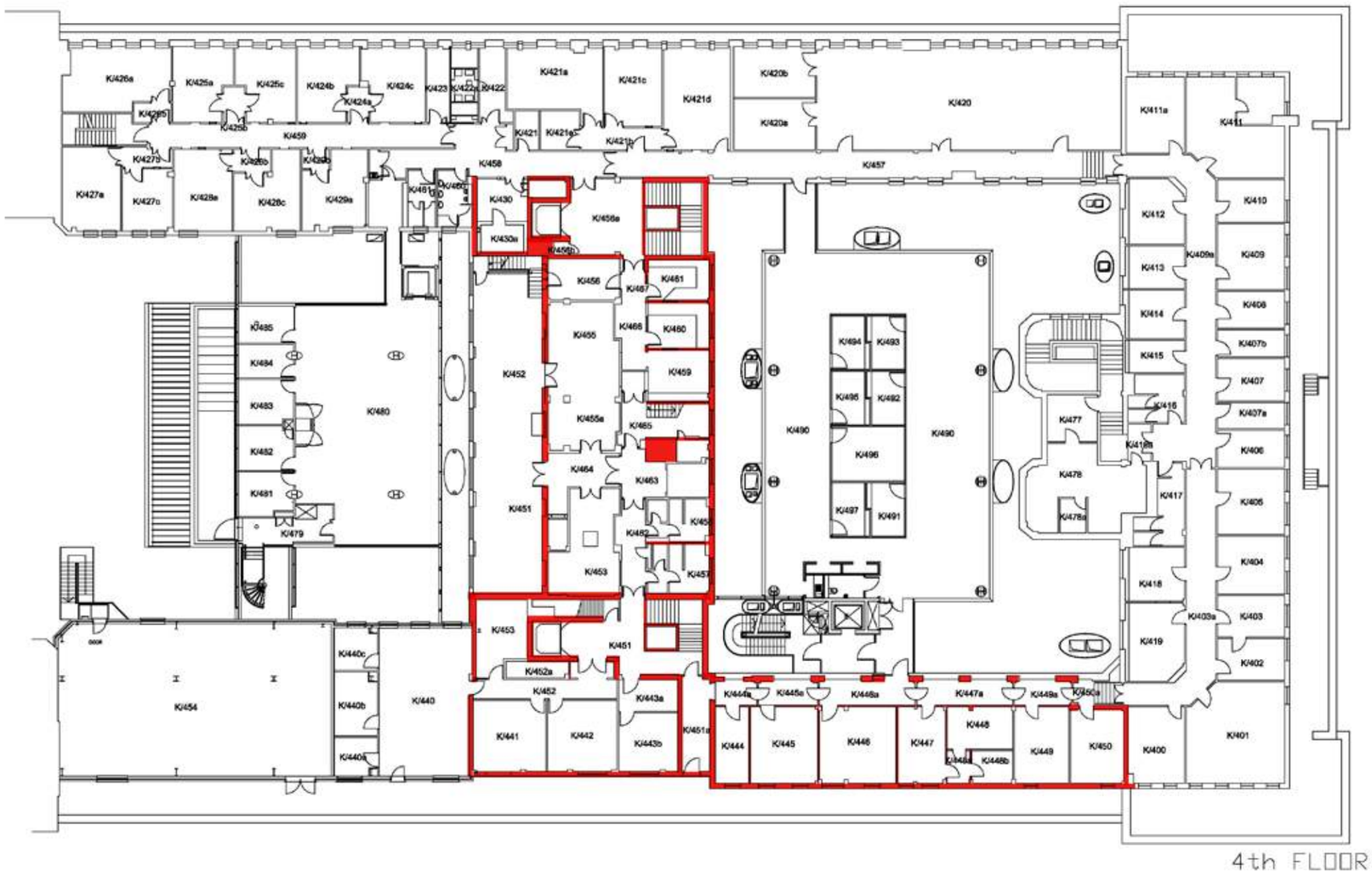


Fig 50. Fourth floor

Old and new building fabric today (original fabric shown red)

Fig 51a. Fifth floor

Fig 51b. Sixth floor

The School today

Outline of the School

The School is a world-leading centre for research and postgraduate education in public and global health.

Part of the University of London, the London School is the largest institution of its kind in Europe with a remarkable depth and breadth of expertise encompassing many disciplines. It is one of the highest-rated research institutions in the UK.

There are almost 4000 students from 100 plus countries following 22 taught masters courses delivered either in London (around 650) or through distance learning (around 2700), and undertaking research degree training (around 400). Over 40% of these students are from non-European countries. The largest growth has been in distance learning students (more than 40% over 3 years), though the London-based student population (where accommodation limits growth) is at its highest-ever level. Alumni are working in more than 180 countries. The School has about 1300 staff drawn from over 60 countries.

There are research collaborations with over 100 countries throughout the world, utilizing our critical mass of multidisciplinary expertise which includes clinicians, epidemiologists, statisticians, social scientists, molecular biologists and immunologists. At any one time over 100 School staff are based overseas, particularly in Africa and Asia. We have a strong commitment to partnership with institutions in low and middle income countries to support the development of teaching and research capacity.

The School has expanded greatly in recent years. Its research funding now exceeds £M60 per annum, much of it from highly competitive national and international sources such as the UK Research Councils, the Wellcome Trust, the UK Department for International Development, the UK Department of Health, the Bill & Melinda Gates Foundation and the European Commission. The commitment of staff to methodological rigour, innovative thinking and policy relevance will ensure that the School continues to occupy a leadership position in national and global health, adapting quickly to new challenges and opportunities.

Research
The School is one of the highest-rated research institutions in the UK, and was recently cited as one of the world's top universities for collaborative research. Collaborative research programmes extend across the world, and at any one time there are over 100 members of staff living and working outside the UK. London-based staff are involved in extensive collaborative activities in the UK, the rest of Europe, and globally.

The School works in close partnership with institutions in low- and middle-income countries. There are a number of long-term, well-established major collaborations with institutions where a senior member of LSHTM staff has been based for more than five years. LSHTM research degree students also work in many locations, including in the students' home institutions; many partnerships and research projects have developed from these links and alumni.

The School is committed to working in equitable partnership with its collaborators, and is involved in many capacity strengthening projects and consortia including the Wellcome Trust African Institutions Capacity Building Consortia, the Public Health Foundation of India, and through clusters of Commonwealth Commission scholarships for distance learning.

Senior Leadership Team
The members of the Senior Leadership Team are:

The Director and Professor of Global Health, Professor Baron Peter Piot

Vice Director for Academic Affairs, Anne Mills

Dean of Faculty of Epidemiology and Population Health, John Edmunds

Dean of Faculty of Infectious and Tropical Diseases, Simon Croft

Dean of Faculty of Public Health and Policy, Richard Smith

Dean of Studies, Sharon Huttly

Secretary and Director of Resources, Richard Benson

Chief Operating Officer, Andrew Young

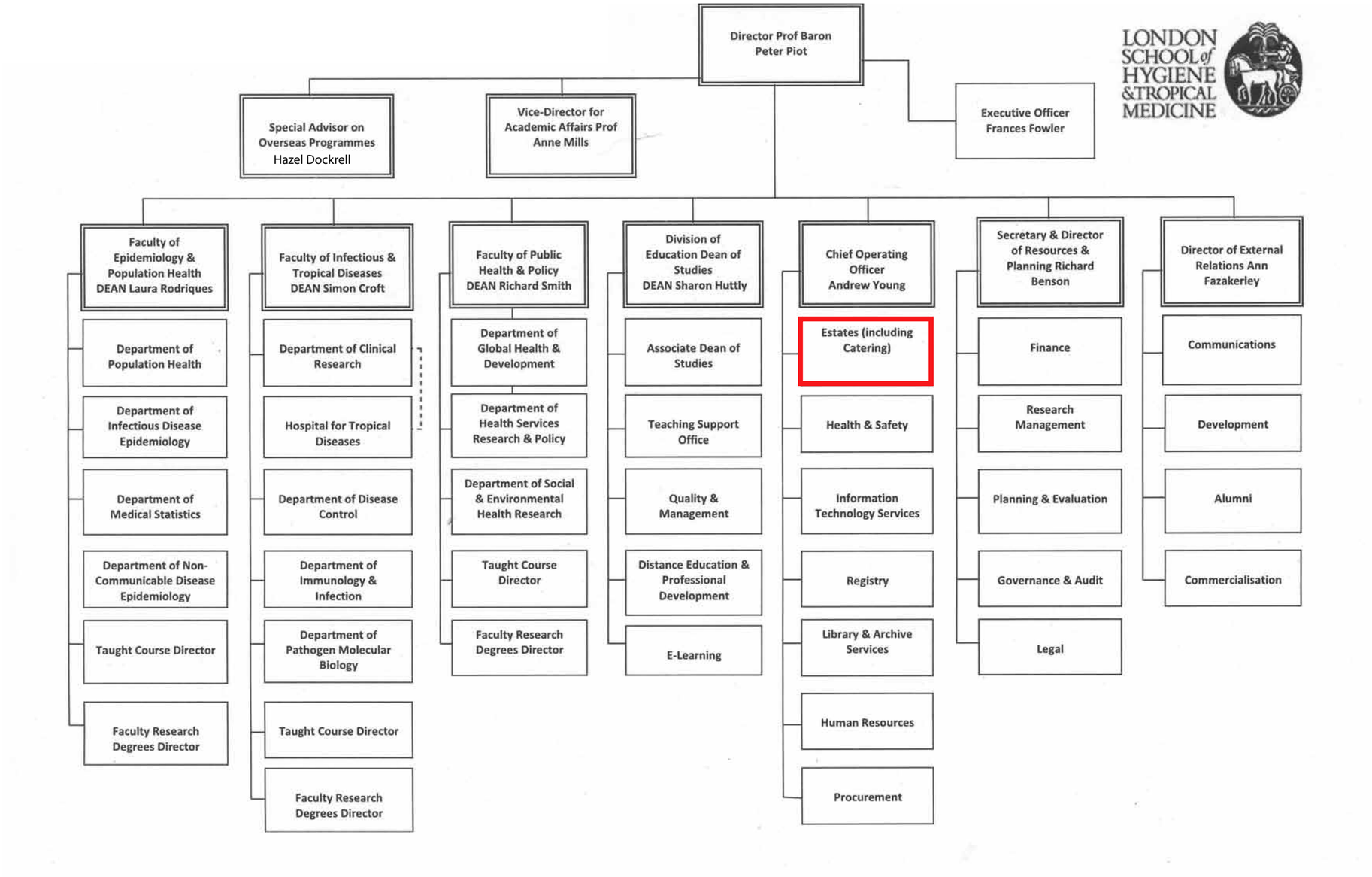
Director of External Relations, Ann Fazakerley

Executive Officer, Frances Fowler

Organisational Overview

Fig. 52 overleaf shows the organisational structure of the School as a whole, including the Estates department, which has responsibility for the maintenance and development of the School's buildings, at Keppel Street and at other sites.

Fig 52. Organisational overview



Statement of Significance

Background

This section of the Plan is based on our understanding of heritage significance as discussed in current Conservation policy guidance[37]. This guidance provides a wide conceptual framework in order to allow the widest possible range of heritage assets to be evaluated. In the case of LSHTM we believe that it is appropriate to use the two well-established concepts of "architectural" and "historical" significance.

Heritage significance is not necessarily restricted to the original fabric of a building: modifications, adaptations and additions may have significance in their own right. In the case of LSHTM modifications and adaptations have been numerous. They tell us a great deal about the potential and limitations of the original building, and its changing programmatic and technical context, but in themselves these changes have been of little heritage significance. Our discussion therefore concentrates on the significance of the original 1929 scheme.

Significance needs to be discussed both at the level of the building as a whole and at the level of its constituent parts. The building has been surveyed in detail and its elements and spaces are appraised in the following gazetteer. At the detailed level, set out in the gazetteer, the issues are about architectural elements, details, finishes etc, particular physical parts of the building. At the level of the building as a whole, historical and architectural significance are more conceptual matters and need not necessarily be located at a single physical point in the building. For example architectural style which may affect the overall impact of the building and the relationship of its parts , as well as the design of individual elements. Similarly, historical significance may inhere in the entire building and the circumstances of its commissioning, and not in any specific parts. In the following discussion we deal with overall significance first and then the significance of individual parts in the context of the detailed gazetteer.

Overall significance

Architectural significance

1. The LSHTM building is significant in the development of classicism in twentieth century British architecture, for the following reasons:

- It uses a highly simplified repertoire of classical details compared with the "Edwardian Baroque" version of classicism that was characteristic of commercial and institutional building in the first two decades of the twentieth century. The presentation of abstract forms takes precedence over decorative elaboration of the elements of the building.
- The move towards abstracted versions of classicism is associated with the work of Edwin Lutyens in the early twentieth century. Verner Rees had worked with Lutyens and would have had direct personal knowledge of the design philosophy that lay behind Lutyens' work.
- Abstracted monumental classical forms are also characteristic of many of the memorials built after the first world war. Rees had used such forms for the Soissons war memorial and in the LSHTM building he developed them further.
- Rees (according to the testimony of John Brandon-Jones) appears to have had an interest in the use of "the golden section". This was an aspect of the neoclassical revival of the early 1920s, which was of international importance.
- The building may have influenced Charles Holden in the development of the style of stripped classicism that he employed at London University Senate House.

2. The building contains laboratories, technical facilities, teaching spaces and offices, as would be expected for a major academic building. However it also contains grand spaces (including the library, board room, director's suite and staff common room) which reflect the fact that LSHTM was an international institution eminent in its field, and which express its pride and confidence.

3. The interior of the building provides an extremely coherent and well-preserved example of the hierarchies of detail and decoration that were characteristic of public buildings in the 1920s. For example:

- Stone and terrazzo are used in a hierarchy extending throughout the walls and floors of the building and notably in the stairs.
- Ebonised hardwood and plain oak are used in a hierarchy of joinery for doors, panelling etc.
- Geometrical patterns are highly developed in the library gallery and employed in simpler forms elsewhere in the building, for example on stair balustrades.
- A range of chromium ironmongery is used consistently throughout the building

4. The building contains a unique range of sculptural and decorative iconography, highly significant in British architecture of the period. For example;

- The inscription of names of scientists on the façade follows a tradition of celebrating famous precursors. However the work of Allan Howes, with its blocky forms and sans-serif lettering, is a distinctive modern interpretation of this form of commemoration.
- The controversy over Eric Kennington's sculpture for the entrance is an example of the clash of taste between avant-garde sculptors and clients that was typical of the early twentieth century in Britain (most notably in the work of Jacob Epstein).
- The gold-painted decorative creatures on the balconies are an example of the use of sculpture to identify the use and significance of the building. In the early years of the twentieth century there are other significant examples of the use of animal sculptures and effigies in public debate and controversy, and the LSHTM examples may form part of this trend.

Historical significance

1. The building is evidence of the reform of medical education following the appointment of the Athlone Committee of 1921. It provided a unified centre for the teaching and study of public health at a time when other aspects of medical education remained in the traditional centres of the teaching hospitals.

2. The building is evidence of the continuing importance of Britain's colonial territories in the post first world war period. The bringing together of public health and tropical medicine reflects the range of activities in which the British government had a direct interest.

3. The building is an important example of the work of the Rockefeller Foundation in promoting the concept of "global public health". It is also an example of the Foundation's wider involvement in academic funding in Britain, for example at the University College Anatomy Building (1923) and Senate House (1928).

Fig 53A. Abstracted classicism: Edwin Lutyens Thiepval Arch

Fig 53B. Abstracted classicism: Verner Rees Soissons Memorial

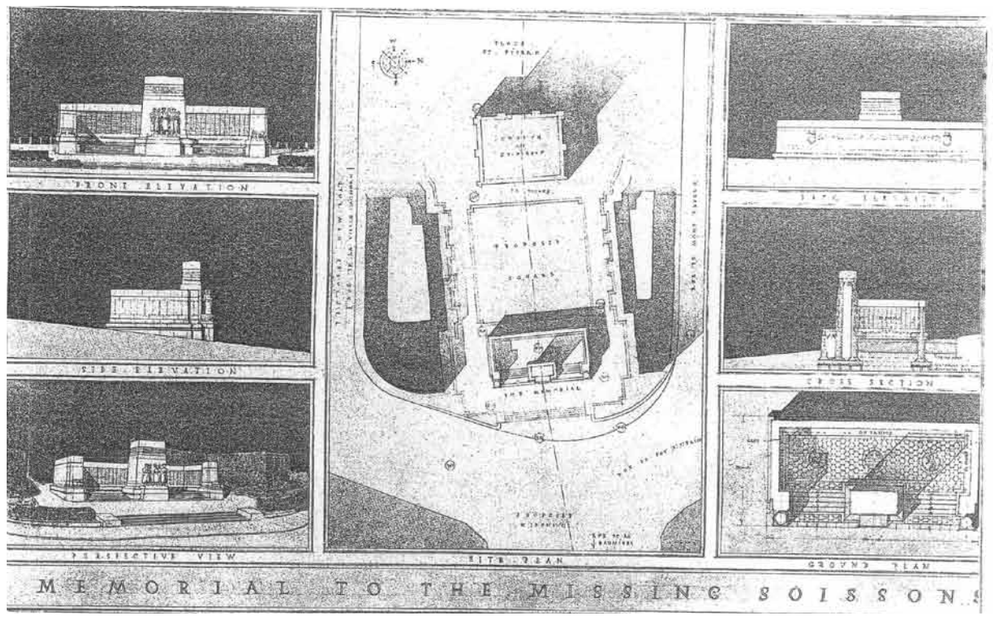


Fig 53C. Iconography of empire and animals: Africa House Kingsway

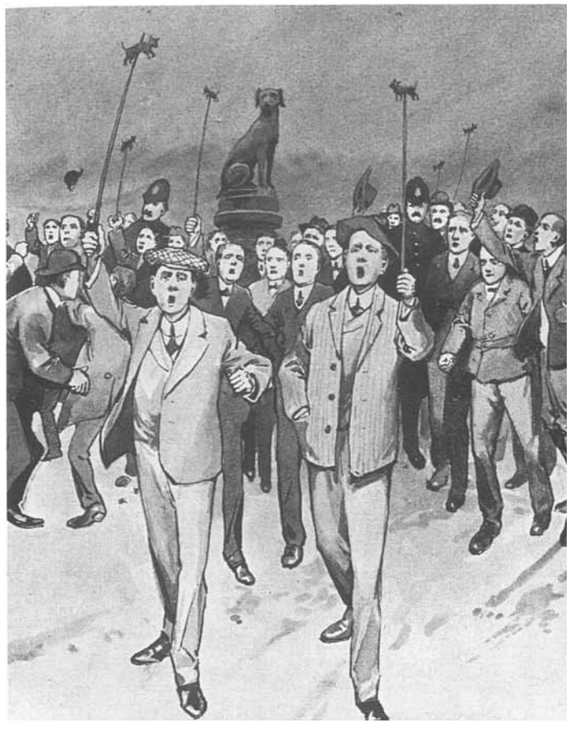


Fig 53D. Animal effigies and protest: the "Brown Dog" riots, 1907

Fig 53E. Ceremonial burning of vermin as part of anti-slum campaign of Somers Town Housing Association, 1931

Fig 53F. Decoration at LSHTM

Gazetteer

In the following section of the Plan we set out the draft gazetteer for individual spaces within the building. Spaces have been categorised as "highly significant", "significant" or "neutral".

- Highly significant spaces are those where the 1929 fabric is wholly or largely intact. Such areas should be conserved and original features repaired or replaced to match as closely as possible.

- Significant spaces are those where some elements of the 1929 fabric are intact. In such areas original elements should be conserved and repaired wherever possible.

- Neutral spaces are those where no elements of 1929 fabric remain.

In the Policies section of the Plan we propose ways in which the needs of conservation can be balanced against the School's need to adapt and modify its building in the future.

In the accompanying floor plans we show the distribution of the three categories of "significance" across the building.

Heritage significance

Fig 54. Lower ground floor

Heritage significance

Fig 55. Ground floor

Heritage significance

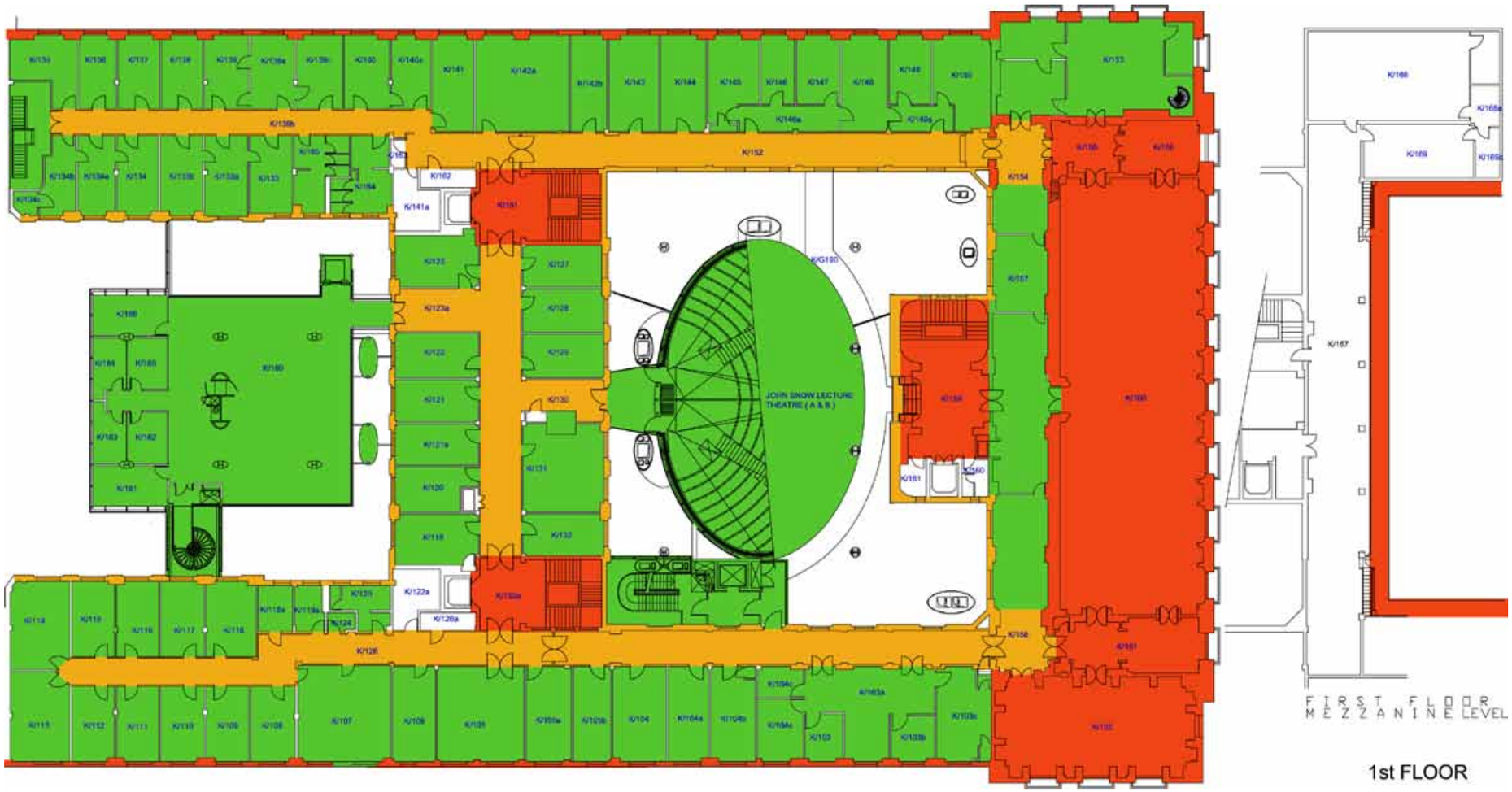


Fig 56. First floor

Heritage significance

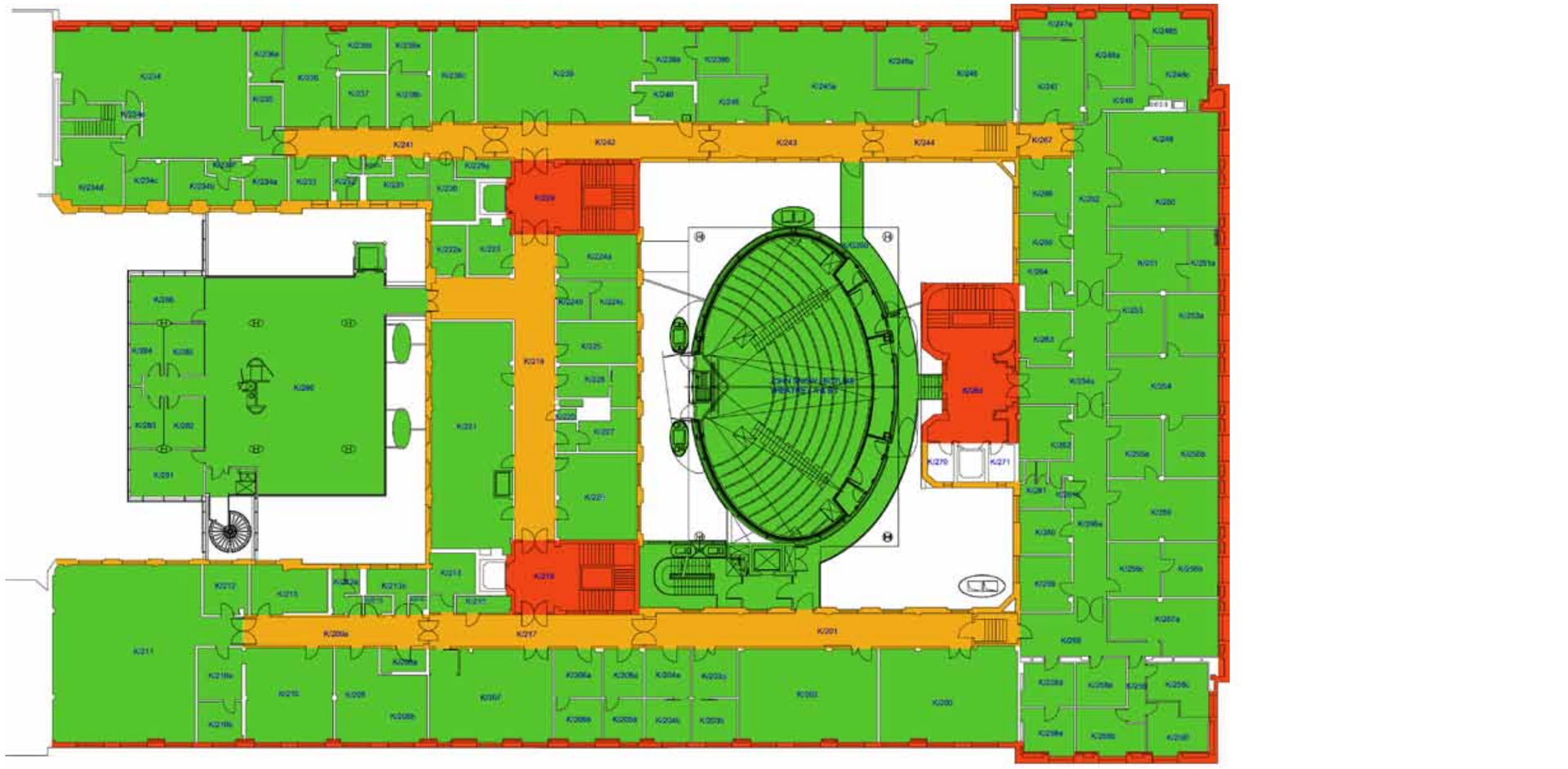


Fig 57. Second floor

Heritage significance

Fig 58. Third floor

Heritage significance

Fig 59. Fourth floor

neutral

significant

highly significant

Heritage significance

Fig 60. Fifth floor

Fig 61. Sixth floor

Gazetteer of heritage significance

Location	Significance	Original use	Current use	Notes
Basement				
B 01-13	no access			
B14-19	neutral	stores ?	Offices and workshops. These appear to have been rebuilt at a lower level after second world war damage.	See GA1
Vaults				
V01 -15	neutral	vaults	No access	See GA2
V16-32	neutral	vaults	insectaries	See GA3
V33-55	neutral	vaults	services	See GA4
Lower ground floor				
LG 01-10	neutral	former courtyard and lecture theatre	Admin, meeting and teaching. Refurbished as part of south courtyard project	See GA5: computer room LG02, part of south court refurbishment.
LG 11-18	neutral	Toilets, lockers, laundry etc.	Labs, WCs, stores	See GA 6: original riser cupboard
LG 19-24	neutral	Photography, X-ray, constant temperature rooms	Admin and academic offices	
LG25	neutral	Museum extension	Common room	
LG 26	neutral	Museum extension	restaurant	See GA 7
LG 27-31	Neutral	Lockers, publications, amenity rooms	Offices, stores, computer room, corridor	
LG 31a	significant	Stair hall	Stair hall	
LG 32-33	Neutral	Toilets and services	No access	
LG 34-35	neutral	Toilets	Offices and toilets	
LG 35a	significant	corridor	corridor	
LG 36-38	neutral	Services, workshops	Admin and academic offices and meeting rooms	
LG 43abc	neutral	Toilets	Toilets	See GA 8: original wash basins ?
LG 52	Highly significant		Stair hall	
LG 53-54	Neutral	Stores ?	Procurement office and delivery bay. These appear to have been rebuilt at a lower level after second world war damage	
LG 55	significant	coridor	corridor	See GA 9: original joinery and riser
LG 56 -57	neutral	External space	Corridor and store	Part of north courtyard refurbishment. Note art installation in this area.
LG 61	significant	corridor	corridor	Retains original doors and joinery
LG 62-65	neutral	X-ray room and museum extension	plant	
LG 67-68	neutral	X-ray room and museum extension	WCs and stores	
LG 70-73	No access	Plant		
LG 74-75	No access	Kitchen	Kitchen	
LG 76-77	No access	Laboratory and lecturer's room		
LG 78-79	No access	Not known	Not known	
LG 80	neutral	courtyard	Admin, teaching and meeting spaces	Refurbished as part of north courtyard refurbishment
LG 81-85	neutral	courtyard	Admin, teaching and meeting spaces	Refurbished as part of north courtyard project
LG 89	neutral	courtyard	Lobby to restaurant	Refurbished as part of north courtyard project
Ground floor				
G 01	Highly significant	Entrance, stair and lift hall	Entrance, stair and lift hall	Modifications to reception desk, entrance lobby and entrance to original lecture theatre, but the basic form of the space and its finishes are unaltered.
G 02	Significant	Reception and accountant	Reception desk and office	Altered to enlarge reception area and reduce size of accountant's room
G 03	Significant	Accountant	office	See GA 10 with original shelving in niche at side of fireplace
G0 4-05	Highly significant	Board room and staff common room	offices	Panelling and doors remain. GA11, GA12 show double door to staff room and doors to corridor
G 04a	Highly significant	coridor	corridor	Original terrazzo wall finishes and skirting details remain: see GA13
G0 07-08	Neutral	Refreshment room, servery	offices	Dumb waiter shafts remain from basement kitchen . See GA 14
G 09- 18	neutral	??	Offices and WCs	Note original "private" sign on door G17a: see GA15
G 19-20	neutral	??	offices	
G 20b	significant	corridor	corridor	Original floor and joinery remain.
G21-29	neutral	??	offices	
G 29a	neutral	corridor	corridor	
G 30-37	neutral	??	offices	
G 38	significant	corridor	corridor	Original floor and joinery remain
G 39-41	neutral	??	offices	
G 42-44	Highly significant	Director's offices	Director's offices	Original finishes and fittings remain: see GA 16-26
G 45	Highly significant	Entrance porch	entrance porch	Original outer doors remain but curved sliding doors added
G 46	neutral	cupboard	cupboard	
G 47	Highly significant	General office	office	Office subdivided from original larger room. Joinery details remain, including blanked-off door to entrance hall : see GA27-28
G 49	Highly significant	corridor	corridor	Original joinery, flooring (?) and ironmongery remain: see GA 27
G 50	Highly significant	corridor	corridor	Original details, joinery and finishes remain
G 51	neutral	toilets	offices	
G 52-53	neutral	toilets	toilets	
G 56	neutral	services	Store/services ?	
G 57	neutral	services	Store/services ?	
G 58	neutral	toilets	toilets	
G 59	Highly	corridor	corridor	Original details, joinery and

	significant			finishes remain
G 60	significant	corridor	Corridor	Original details, joinery and finishes remain
G 61	Highly significant	Stair hall	Stair hall	Original details and finishes remain
G 63-64	neutral	No access	offices	
G 65	neutral	No access	stairs	
G 66-69	neutral	No access	offices	
G 70	neutral	??	office	Mezzanine constructed in post-war rebuilding
G 71	neutral	stairs	stairs	
G 72	neutral	??	office	Mezzanine constructed in post-war rebuilding
G 73	neutral	??	office	Mezzanine constructed in post-war rebuilding
G 74-75	neutral	??	office	Mezzanine constructed in post-war rebuilding
G 80	neutral	Open courtyard	breakout	Part of north courtyard refurbishment
G 81-84	neutral	Open courtyard	offices	Part of north courtyard refurbishment
G 85	neutral	Open courtyard	meeting	Part of north courtyard refurbishment
G 90	neutral	Open courtyard	office	Part of south courtyard refurbishment

First floor				
100-102	Highly significant	library	library	Original finishes and fittings remain: see GA30-56 and photos 13 01 29
103-119	neutral	??	offices	See GA 59, 61
120- 123	neutral	??	offices	
123a	significant	corridor	corridor	Original finishes and joinery remain
126	significant	corridor	corridor	Original finishes and joinery remain: see GA 60, 62
127-132	neutral	??	offices	
132a	Highly significant	Stair hall	Stair hall	Original details and finishes remain
133-138	neutral	??	offices	
139b	significant	corridor	corridor	Original finishes and joinery remain: see GA 57
140-153	neutral	??	offices	
152	significant	corridor	corridor	Original finishes and joinery remain: see GA 58
151	Highly significant	Stair hall	Stair hall	Original details and finishes remain
154	neutral	services	services	
155-156	neutral	toilets	toilets	
160 and 170	Highly significant	Stair hall	Stair hall	Original details and finishes remain
161-162	neutral	library	library	Original arrangement, finishes etc. altered
163-164	Highly significant	??	library	Original joinery and finishes remain, though some areas altered: see GA 28-29
165	Highly significant	library	library	Original scheme of finishes, joinery and decoration largely intact: see photos 13 01 29
166-168	Highly significant	library	library	Original joinery and finishes remain
169	neutral	library	library	Original arrangement, finishes etc. altered
171-172	neutral	??	Library mezzanine	Modified 1970s, date TBC
180-186	neutral	North courtyard	offices	Part of north courtyard refurbishment

Second floor				
200	neutral	laboratory	laboratory	
201	significant	corridor	corridor	Some original details remain
202-209	neutral	??	?	
209a	significant	corridor	corridor	Some original details remain
213 a-c	neutral	??	services	
214	neutral	??	?	
215	neutral	??	?	
216	Neutral	Services riser ?	services riser ?	
217	significant	corridor	corridor	Some original details remain
218	Highly significant	Stair hall	Stair hall	Original details and finishes remain
219	neutral	corridor	corridor	
220	neutral	services	Services ?	
221-228	Neutral	??	Offices ?	
229	Highly significant	Stair hall	Stair hall	Original details and finishes remain
229a	neutral	services	services	
230-240	neutral	laboratories	Laboratories and offices	
241	significant	corridor	corridor	Some original details remain
242-244	significant	corridor	corridor	Some original details remain
245-251	neutral	Research rooms and museum	Laboratories and offices	247-251 are part of refurbishment of former museum
252	neutral	museum	corridor	
253-254	neutral	museum	Offices ?	
254a	neutral	museum	corridor	Entrance doors to museum remain: see GA63
255-256	neutral	museum	offices	
256a	neutral	museum	corridor	
257-260	neutral	museum	Offices ?	
261	neutral	museum	toilets	
262	neutral	museum	Office ?	
263-264	neutral	museum	offices	
264b	neutral	museum	Services ?	
265-266	neutral	museum	offices	
267	significant	museum	corridor	Some original details remain
268	significant	museum	corridor	Some original details remain
269	Highly significant	Stair hall	Stair hall	Original details and finishes remain
270-271	neutral	services	services	
280-286	neutral	North courtyard	offices	Part of north courtyard refurbishment
290-296	neutral	South courtyard	Lecture theatre and support spaces	Part of south courtyard refurbishment

Third floor				
301-315	neutral	??	Offices/labs	
316	significant	corridor	corridor	Some original details remain
317	neutral	toilets	Toilets ?	
318	neutral	?	?	
319	Highly significant	Stair hall	Stair hall	Original details and finishes remain
320	neutral	services	services	
321	neutral	?	?	
322-324	neutral	toilets	toilets	
325-334	neutral	?	Laboratories	
335		?	?	
336-340	neutral	?	laboratories	
341-342	significant	corridor	corridor	Some original details remain
343-353	neutral	Museum	Laboratories and academic	Part of refurbishment of former museum gallery
354	neutral	museum	corridor	Part of refurbishment of former museum gallery. For prize board see GA45
355	neutral	Museum	offices	Part of refurbishment of former museum gallery
357-361	neutral	Museum	offices	Part of refurbishment of former museum gallery
361a	neutral	Museum	corridor	Part of refurbishment of former museum gallery. For prize board and door to Stair hall see GA 64-66
362-367	neutral	Museum	offices	Part of refurbishment of former museum gallery
368	neutral	Museum	toilets	Part of refurbishment of former museum gallery
369-370	neutral	Museum	?	Part of refurbishment of former museum gallery
371	neutral	Museum	toilets	Part of refurbishment of former museum gallery
372-373	neutral	Museum	offices	Part of refurbishment of former museum gallery
377-378	Highly significant	Stair halls	Stair halls	Original details and finishes remain
380-385	neutral	North courtyard	offices	Part of north courtyard refurbishment
390-397	neutral	South courtyard	offices	Part of south courtyard refurbishment

Fourth floor				
400-402	neutral	Flat roof over museum	offices	1967 extension on roof of museum
403a	neutral	Flat roof over museum	corridor	1967 extension on roof of museum
404-409	neutral	Flat roof over museum	offices	1967 extension on roof of museum
409a	neutral	Flat roof over museum	corridor	1967 extension on roof of museum
410-415	neutral	Flat roof over museum	offices	1967 extension on roof of museum
416-417	neutral	Flat roof over museum	toilets	1967 extension on roof of museum
418-419	neutral	Flat roof over museum	office	1967 extension on roof of museum
420	neutral	Flat roof over Malet Street wing	Lab ?	197? extension on roof of Malet Street wing
421-429	neutral	Flat roof over Malet Street wing	Labs ?	197? extension on roof of Malet Street wing (except 421-422)
430			?	
440-443	neutral	Insectaries and animal houses	Offices ?	Rebuilt in various phases
444	neutral	animal houses	office	Converted to offices and laboratories: see GA51-53 for views of roof terrace on Gower Street
444a	neutral	animal houses	corridor	Converted to offices and laboratories
445	neutral	animal houses	office	Converted to offices and laboratories
445a	neutral	animal houses	corridor	Converted to offices and laboratories
446	neutral	animal houses	office	Converted to offices and laboratories
446a	neutral	animal houses	corridor	Converted to offices and laboratories
447	neutral	animal houses	office	Converted to offices and laboratories
447a	neutral	animal houses	corridor	Converted to offices and laboratories
448-449	neutral	animal houses	offices	Converted to offices and laboratories
449a	neutral	animal houses	corridor	Converted to offices and laboratories
450	neutral	animal houses	office	Converted to offices and laboratories
450a	neutral	animal houses	corridor	Converted to offices and laboratories
451	highly significant	Stair hall	Stair hall	Original details and finishes remain
452-453		animal houses	BSF	No access
454	neutral	insectaries	Plant room	Plant room added 1970s)date TBC): see GA67
455-456a	no access	animal houses	BSF	
457-467	no access	animal houses	BSF	
480-485	neutral	North courtyard	offices	Part of north courtyard refurbishment

Fifth floor				
533	significant		Stairs and landing	Part of extension of centre block towards Malet Street. Date ? See GA 54-55
Remainder of fifth floor		animal houses	BSF	No access to BSF. For roof level plant see GA55-60
Sixth floor				
603-604	significant		Stairs and landing	Part of extension of centre block towards Malet Street.
remainder				No access

Fig. G1 workshop, room B16

Fig. G2 vaults 1-15, Gower Street

Fig. G3 entrance to vaults 22-32, Malet Street

Fig. G4 vaults 39-51, Malet Street

Fig.G5 computer room LG02

Fig. G6 original riser, LG11

Fig. G7 restaurant, LG26

Fig. G8 original wash basins in LG43

Fig. G9 lower ground floor corridor

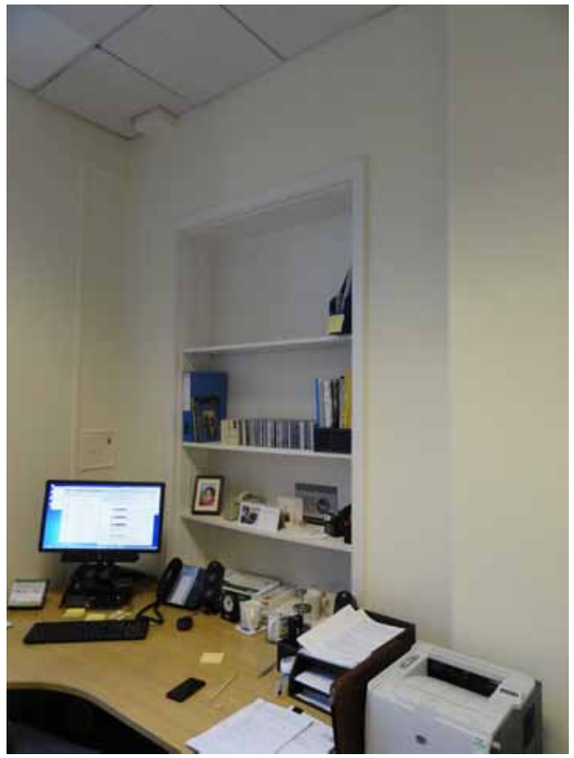


Fig. G10 accountant's office (G03), wirh original shelving niche

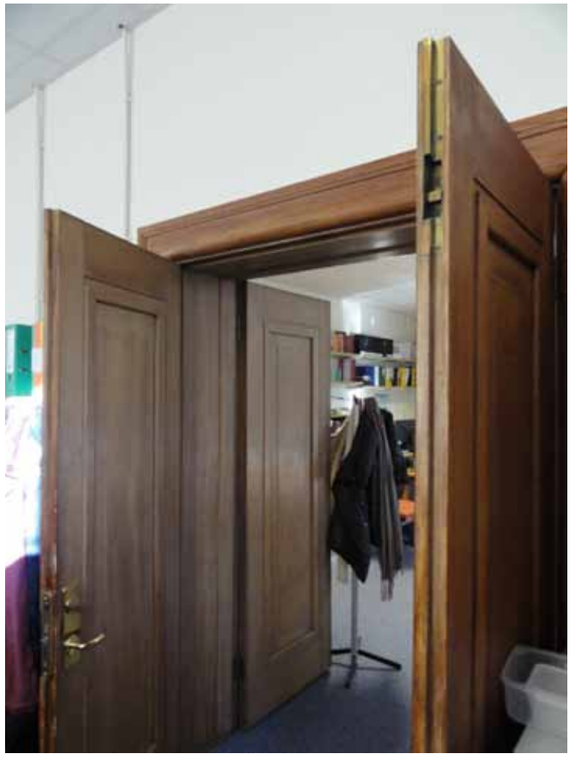


Fig. G11 doors between original board room and staff common room (G04-5)

Fig. G12 doors from original board room (G04) to corridor

Fig, G13 terrazzo wall finish in corridor G04a

Fig. G14 corridor G60

Fig. G15 sign on door to G17a

Fig, G16 Director's offices

Fig. G17 Director's offices

Fig. G18 Director's offices

Fig. G19 Director's offices

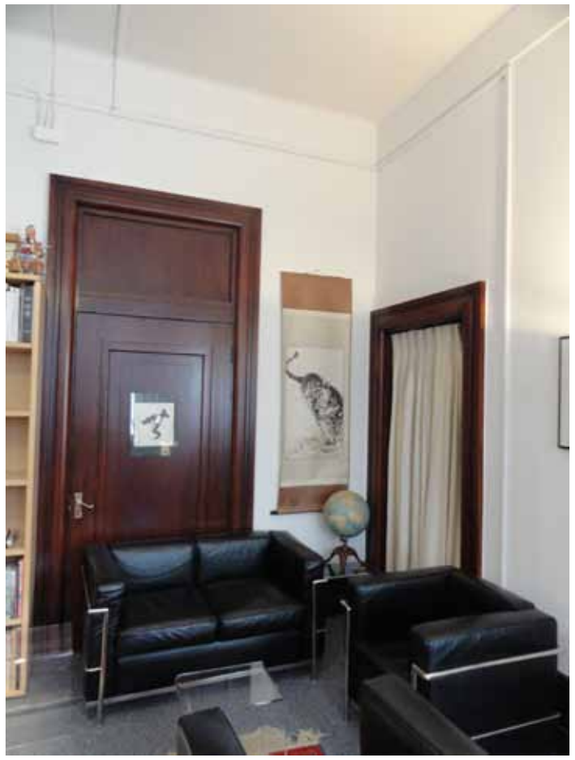


Fig. G20 Director's offices

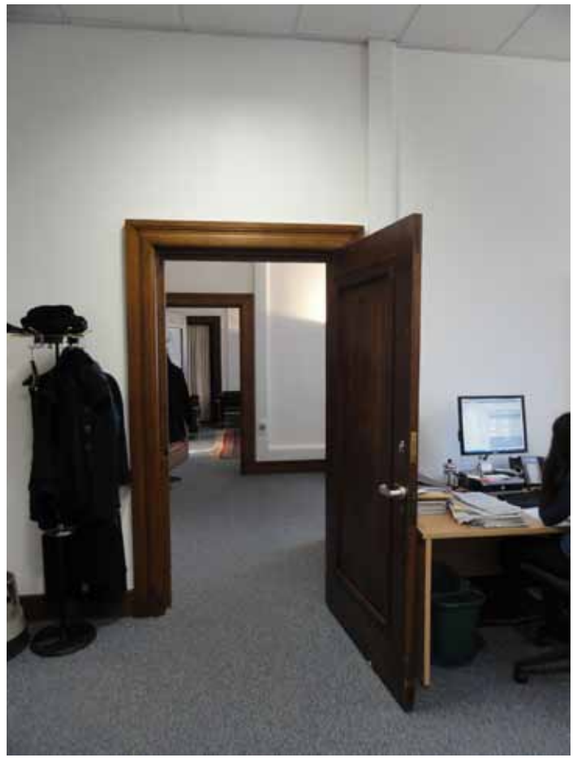


Fig. G21 Director's offices

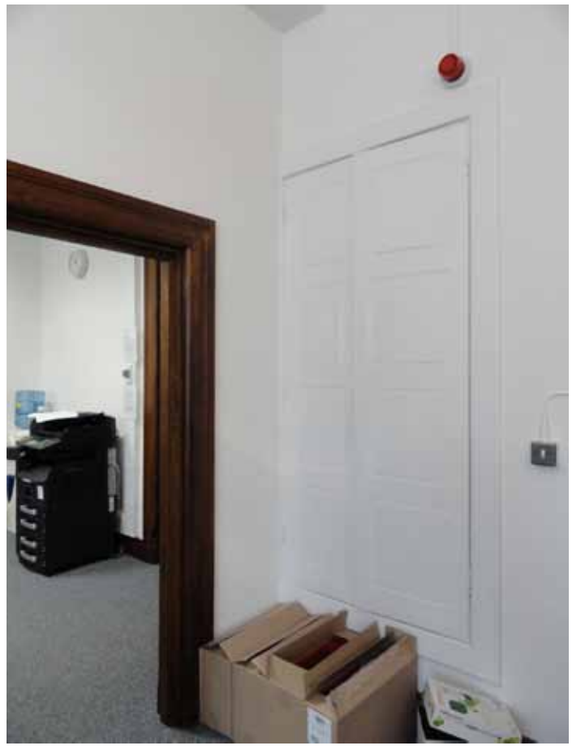


Fig. G22 Director's offices

Fig. G23 Director's offices

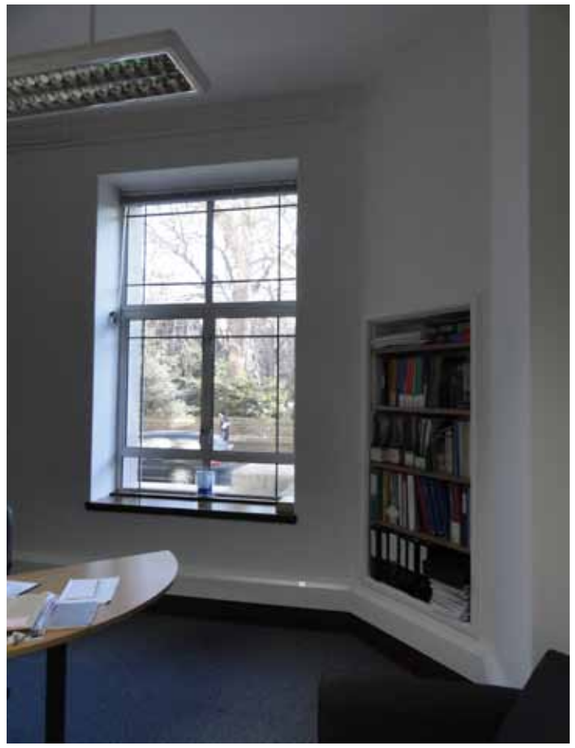


Fig. G24 Director's offices

Fig. G25 Director's offices

Fig. G26 Director's offices

Fig. GA 27 original ironmongery in corridor G49

Fig. GA 28 Original doors to Library at room 163

Fig. GA 29 Original doors to Library at room 163

Fig. GA 30 Library details

Fig. GA 31 original library signage

Fig. GA 32 original doors and added services in room 163

Fig. GA 33 Library room 102

Fig. GA 34 Library room 102

Fig. GA 35 Library room 102

Fig. GA36 original library signage

Fig. GA 37 Library room 102

Fig. GA 38 Library room 101

Fig. GA 39 Library room 101

Fig. GA 40
Library room 101

Fig. GA 41
Library lobby
168

Fig. GA 42 Library
room 100

Fig. GA 43 Library room 100

Fig. GA 44 Library room 100

Fig. GA 45 Library room 101

Fig. GA 46 Library balcony and the original clock

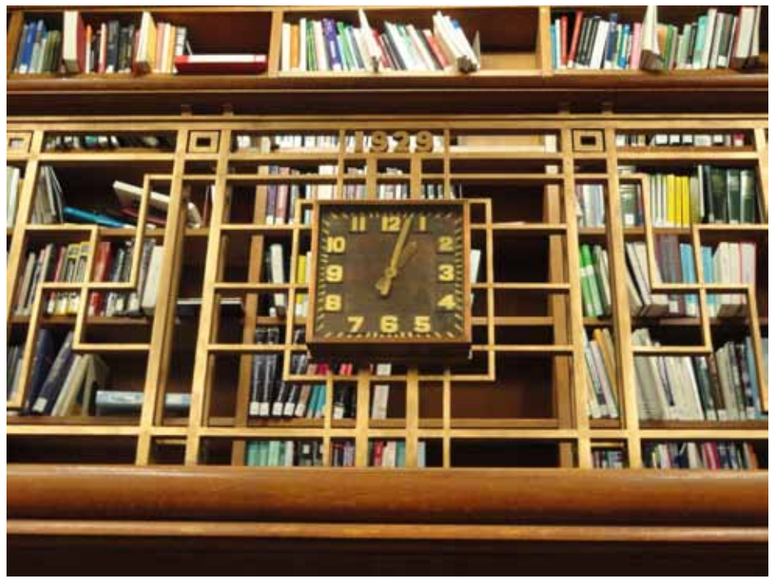


Fig. GA 47 original library doors room 100

Fig. GA 48 Library windows to Keppel Street

Fig. GA 49 Library room 100

Fig. GA 50 Library room 100, original flooring

Fig. GA 51 Library room 100, original flooring

Fig. GA 52 Original library furniture

Fig. GA 53 Original library furniture

Fig. GA 54 Original library furniture

Fig. GA 55 possibly original library desk

Fig. GA 56 original library furniture

Fig. GA 57 corridor 139b

Fig. GA 58 original services riser in corridor 152

Fig. GA 59 original doors to room 103

Fig. GA 60 corridor 126

Fig. GA 61
room 105

Fig. GA 62 corridor 126

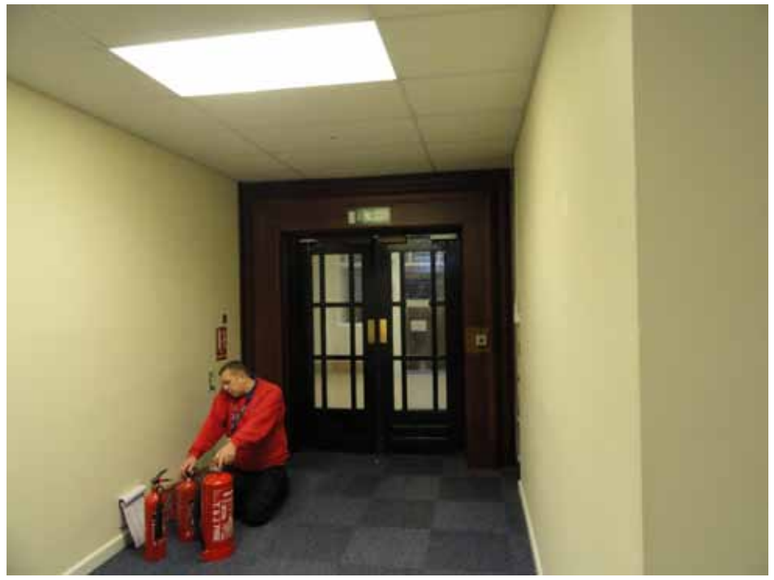


Fig. GA 63 entrance doors to former museum room 254a

Fig. GA 64 Honours board corridor 354

Fig. GA 65 Honours board corridor 361a

Fig. GA 66 entrance doors to former museum gallery room 361

Fig. GA 67 Plant room 454

Fig. GA 68 roof over third floor, Gower Street

Fig. GA 69 roof over third floor Gower Street south end

Fig. GA 70 roof over third floor Gower Street south end

Fig. GA 71 roof level plant Malet Street

Fig. GA 71 roof level plant looking west from Malet Street

Fig. GA 72 roof level plant Gower Street looking north

Fig. GA 73 roof level plant Gower Street looking north

Fig. GA 74 roof level plant looking north along Gower Street

Risks and opportunities

The creation of the London School of Hygiene and Tropical Medicine and the design of the Keppel Street building were, as we have seen, two aspects of a single process. The link between the institution and its building continues today. The location of the building in the centre of Bloomsbury and its continuing attractiveness, are key aspects of the School's identity and its ability to attract students, researchers and funding from all over the world. Maintaining the character of the building into the future is therefore a key issue for the School's corporate direction. In the following notes we discuss this issue in more detail.

1. Making more space

It is unlikely that any more space can be created within the Keppel Street building. Following the infill of the two courtyards there is no potential space for expansion within the plan of the building. In theory the building could be made taller but there are two major problems:

Firstly, the current top floor is an addition to the original structure and would probably need to be replaced to allow for further floors. The existing services installations at roof level would also need to be removed and replaced. All this would involve great disruption to the use and running of the School.

Secondly, an additional storey or storeys would be visible from the surrounding streets and would unbalance the composition of the block. The Malet Street and Gower Street facades are already higher than the 1929 scheme and some of the clarity of the original form of the building has been lost. Adding more floors would increase this problem. This is an issue for the surrounding area as well as for the LSHTM building. Senate House was designed in an idiom which closely matches that of the LSHTM building. Adding more floors would upset this shared townscape as well as the appearance of the LSHTM building itself, and it is probable that the planning authority would consider it as involving a serious loss of heritage significance.

2. Adapting existing spaces

We consider that this combination of practical difficulties and planning constraints makes it unlikely that proposals will be developed for adding more floors to the building. Future projects are more likely to involve:

- Replacing one use by another, within individual parts of the building. So for example individual offices may be combined to make shared workspaces, and vice versa. Laboratories may be replaced by offices and teaching rooms, and vice versa.

- Upgrading facilities and services in the building.

The Statement of Significance shows the extent of areas of "neutral" significance: in these areas modifications can be made without prejudicing the building's overall heritage significance. In fact the "neutral" areas are externsive and cover most of the building. Areas of significance or high significance are restricted to the following:

- The main entrance

- Corridors at lower ground, ground, and first and second floors, and part of the third floor

- The stairs (the main stair and the two subsidiary stairs) and their associated lobbies

- The ground floor rooms facing Keppel Street, including the Director's suite, the former accountants room, boardroom and staff room

- Main Library Room

- Library Gallery

There is a considerable degree of freedom in modifying, adapting and upgrading the neutral areas:

- Existing rooms be subdivided into smaller rooms, within the constraints of the window grid, and assuming that the proportions of narrow high-ceilinged rooms can be satisfactorily treated.

- Existing small rooms could be combined into large spaces.

- Vertical services risers could go from one floor to another of neutral spaces, bearing in mind the need to allow for flexibility in the future.

The constraints on this freedom are:

- Many neutral spaces open off "significant" or "highly significant" corridors, the joinery and finishes of which should be conserved and where necessary restored. Door joinery, fanlights, ironmongery details etc. belonging to the corridor will also extend into these neutral spaces.

- Most neutral spaces have outer walls that are part of the overall pattern of highly significant facades and their window detailing. The details of existing windows and cills therefore need to be conserved or restored, constraining the range of design solutions for adapting individual rooms.

- In the original design of the building the suspended ceilings in the corridors were the chief means of accommodating horizontal service runs. The basic configuration of these suspended ceilings can be kept, but it may be necessary to make more frequent access points. This would need to be designed in a consistent way, sympathetic to the original design.

Risks and opportunities (cont'd)

3. Maintaining heritage significance

Much of the historic fabric of the building has been carefully maintained and where necessary repaired in a sympathetic manner. This is particularly true of door joinery, fanlights etc.: the original 1929 pattern has been repaired, relocated or re-made on many occasions to suit changes to the building. The 1929 chrome ironmongery is fortunately very robust and much remains, sometimes repaired and adapted.

However there have been losses, for example:

- The entrance hall and the main stair have lost some of their original details as a consequence of the refurbishment of the south courtyard and the re-arrangement of circulation to the main lecture theatre, although this re-instated the original traffic patterns to the building.
- Adaptations to secondary areas of the library have led to a loss of original details and the obscuring of the original interior design by re-lighting, cabling and other services.
- Re-use of the original boardroom and staff common room as offices has obscured the high quality panelling and joinery in these rooms.
- Wiring and other services have been added to the significant and highly significant stairs and corridor spaces, often to the detriment of the historic character of the building.

Conservation Policies

1 Ownership:

The ownership of their main building should remain in the hands of the of the London School of Hygiene and Tropical Medicine while it remains in their sole use.

2 Professional advice:

The London School of Hygiene and Tropical Medicine should employ suitably accredited architects and draw on other professionals with appropriate specialist building conservation skills as necessary. In particular arrangements should be made for regular quinquennial inspections and for access to regular advice on constructional and repair issues, as they arise.

3 Statutory and legal requirements:

The London School of Hygiene and Tropical Medicine will comply with statutory and other legal requirements arising from the grade II listing of the building. They will continue to follow best practice, recognising the need for early consultation with local authorities (Camden Council) English Heritage and relevant amenity societies.

4 Conservation Area and Setting:

The London School of Hygiene and Tropical Medicine will always be considered part of the wider Bloomsbury townscape and decisions about the building must bear in mind its place in this townscape, which is also a designated Heritage Asset (The Bloomsbury Conservation Area). Similarly, decisions about the Conservation Area townscape must bear in mind the significance of the school. The guidance of the Bloomsbury Conservation Area Appraisal and Management Strategy (adopted April 11, 2011) should be considered and adhered to.

5 Responding to historical significance:

In areas of high significance, as defined in this Plan, significant elements will be retained; where possible intrusive and detracting elements will be removed; and where appropriate lost features will be restored, based on material evidence.

In areas of medium significance the historical and architectural character of significant elements will be respected. The retention of historic fabric will be a significant consideration for proposed interventions, as will the removal of intrusive additions. Restoration of lost features based on material evidence may also be considered.

In areas of neutral significance a more flexible approach will be adopted and alteration may be considered. Mitigation of losses of historic fabric by recording,re-use on site, or donation to a pubic collection may be acceptable.

More specifically:

- Significant and highly significant spaces should be repaired and maintained using original materials, details and colour schemes wherever possible.
- A design guide for neutral spaces which will ensure that incremental changes have a consistency and common language which complements that of significant and highly significant areas.
- A programme of paint research in significant and highly significant spaces should be carried out to inform a consistent future policy for re-decoration programmes.
- A programme for the replacement of light fittings sympathetic to the original design of he building should be developed.
- A conservation study of the library entrance sculpture should be commissioned to find out whether the paint can be removed.
- The existing patterns of door and fanlight joinery should be maintained in significant and highly significant areas
- Replacement chrome ironmongery (lever handles, grab handles etc.) should match the existing, for gradual replacement as needed.
- In conjunction with the overall strategy of space allocation, commission a feasibility study on the future use of the library and former boardroom and staff common room, which would maintain and enhance the original character of these spaces.

6 Archives:

The very well managed archives of the London School of Hygiene and Tropical Medicine should continue to maintain all relevant record information for the buildings.

7 External development:

Additional appropriate building development may be considered to the roof areas of the buildings, but not elsewhere. Any future development must take into account key view lines and the architectural context of the building.

8 Conservation principles:

All works, from maintenance and upgrading through to large-scale interventions, will aim to comply with the following conservation principles:

- To respect the evolution of the London School of Hygiene and Tropical Medicine and its many historical layers
- To retain historically significant fabric, finishes and decorations wherever possible
- To use materials and techniques compatible with historic construction, and to a high conservation standard
- To carry out alterations in a manner which allows them to be reversible in the future
- To respect the character of areas of medium and high historical significance
- To replace significant fabric and detail on a like-for-like basis when required
- To record any features which have to be removed or demolished, and salvage and store them wherever possible.

9 Access:

Future proposals will address the requirements of the Disability Discrimination Act 2005, providing reasonable and dignified access to all users through an access management strategy; and will comply with Part M (disabled access) of the Building Regulations wherever possible. Proposals for improved access will not be visually intrusive and their impact on the historic building will be minimised.

10 Building services:

- Existing services installations (mechanical, electrical, telecoms, fire, security) will be tested as part of regular maintenance procedures.
- Fittings of historical interest, such as cast-iron radiators and light fittings will be considered for retention, in the context of the detailed room-by-room gazetteer.
- Surface mounted service installations should be removed and concealed where possible from significant and highly significant areas.
- New services will be concealed within the voids of the historic fabric where possible
- New visible services (CCTV, smoke detectors etc.) will be unobtrusive in design

11 Fire management:

A fire management strategy should take into account the need to protect the historic fabric.

12 Information and signage:

Signage will be kept to a minimum. Its design and placing will be sensitive to its location and architectural features, and take into account the needs of the visually impaired.

13 Maintenance:

- The LSHTM will make quinquennial inspections of the building, appropriate for a Grade II listed building. They will identify maintenance and repair priorities in the short, medium and long-term. The reports will include health and safety considerations for maintenance, and an electrical safety report.
- The LSHTM will ensure that when undertaking maintenance to the building, appropriate materials are used, including like-for-like replacement of materials where possible.
- Environmental conditions will be monitored and managed to ensure conservation of the significant features, fittings of the building, and historic objects within it.

14 Environmental practice and energy conservation:

Proposals for the future of the building will seek to improve the environmental performance (especially in terms of energy, water and waste) efficiency of the building without prejudicing its character. The context for such improvements should be:

- The commitment of The London School of Hygiene and Tropical Medicine to the conservation of the natural environment, and to a sustainable approach to buildings, as part of that overall commitment
- A consideration of current best practice in the field, with the possibility that the building can be a case study for further development.

15 Heritage Impact Assessments:

The Plan will form the basis for Heritage Impact Assessments carried out as part of the development of future proposals for the London School of Hygiene and Tropical Medicine.

16 Recording:

A photographic record will be made prior to any alterations, in parallel with the preparation of Heritage Impact Assessments. Copies of the record will be deposited at the agreed archive location.

17 Adopting and amending the Conservation Management Plan:

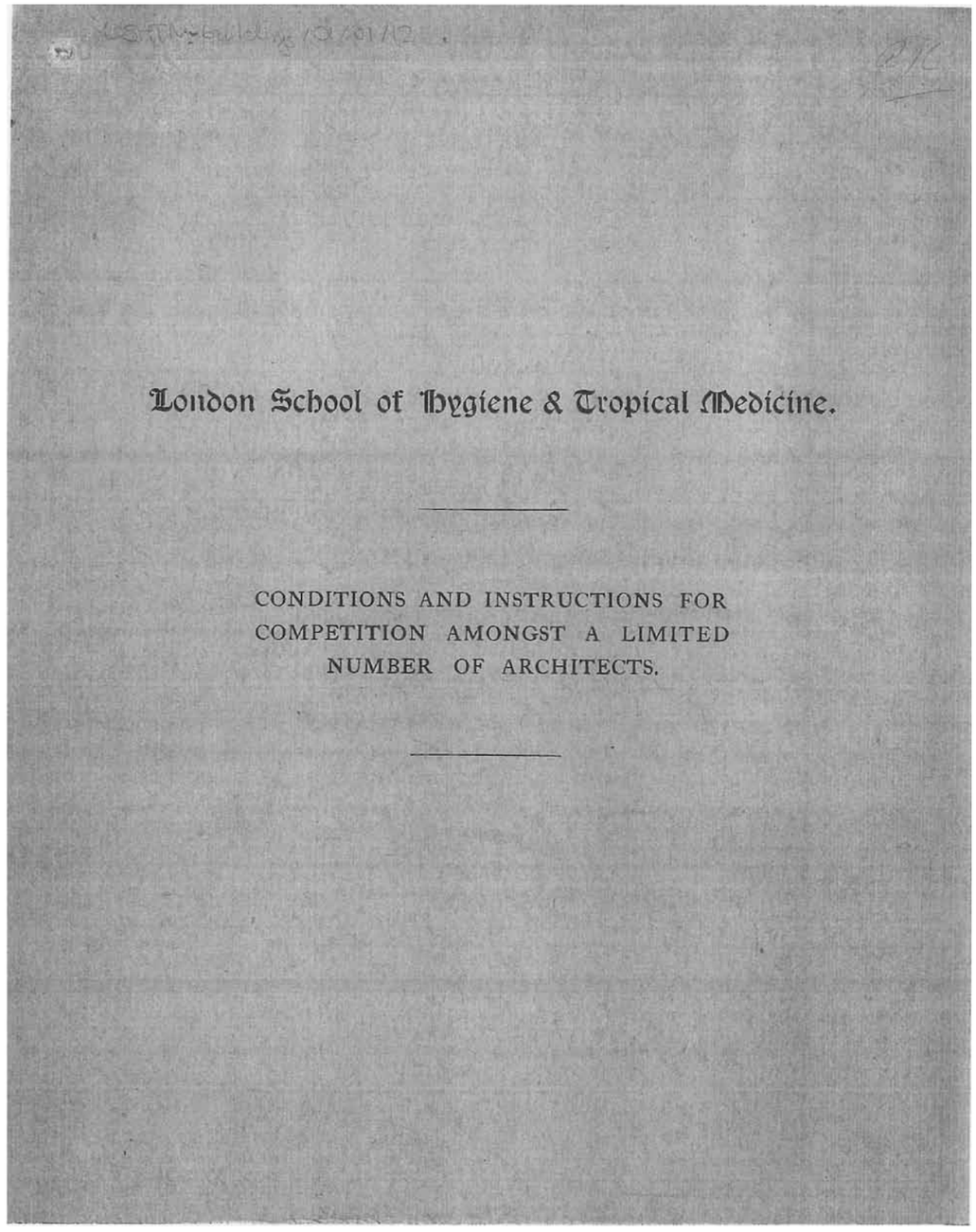
This Plan will be formally adopted following consultations and agreement by key stakeholders. It will be reviewed every five years by the School. Proposed amendments will be discussed with the relevant statutory authorities.

Action Plan (to be added following consultations)

Notes

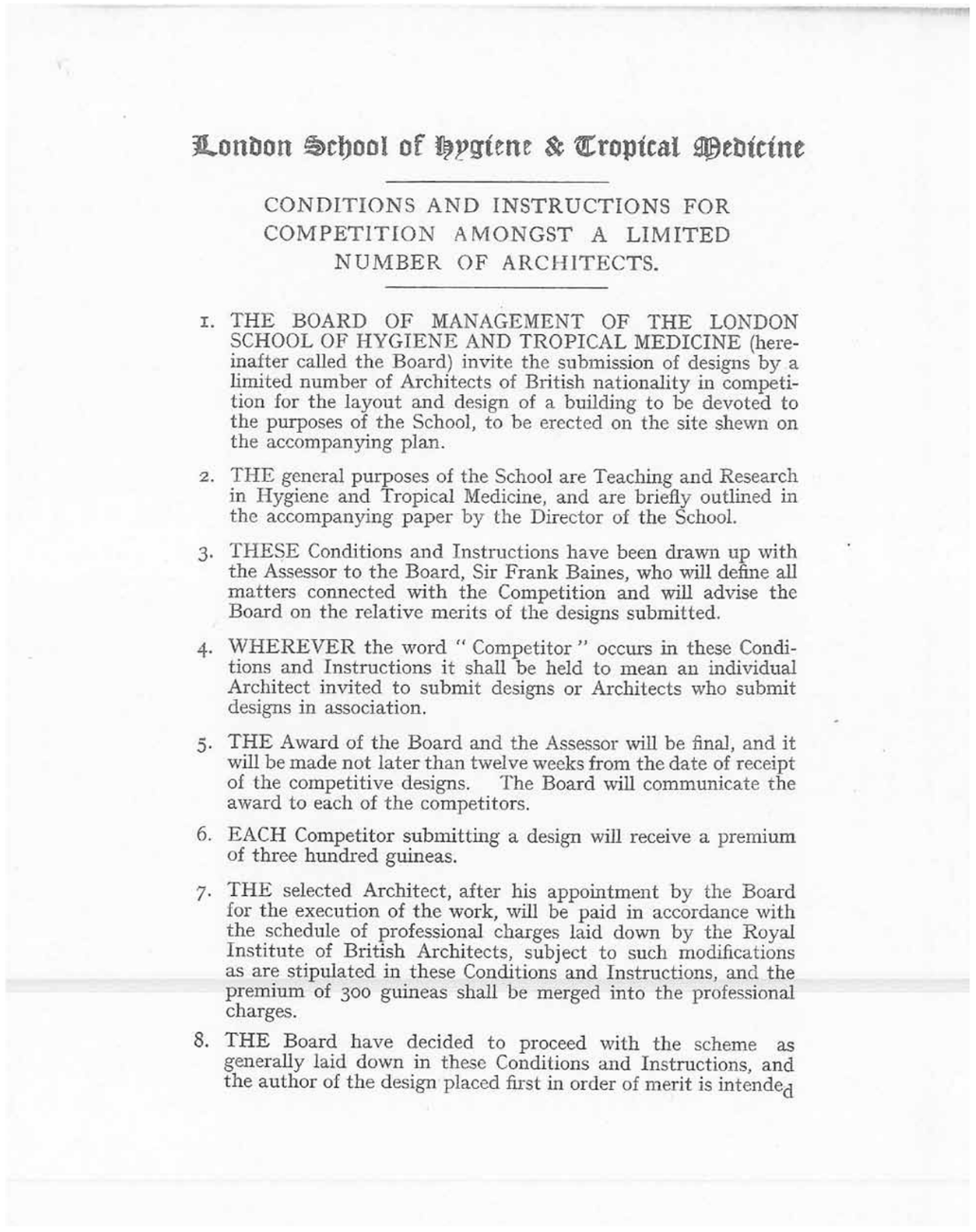
1. Sir Philip Manson-Bahr *History of the School of Tropical Medicine in London (1899-1949)* London School of Hygiene and Tropical Medicine Memoir no. 11, London 1956, p 61
2. Manson-Bahr op. cit. p 64
3. Manson-Bahr op. cit. p 65
4. Lise Wilkinson and Anne Hardy *Prevention and Cure: The London School of Hygiene and Tropical Medicine, a 20th century quest for global public health* London 2001, p67
5. Wilkinson and Hardy op. cit. p73
6. Wilkinson and Hardy op. cit. p74
7. Wilkinson and op. cit. pp76-77
8. John Summerson *Georgian London*, edited by Howard Colvin London 2003, p358
9. These drawings are held in the LSHTM archives
10. Negley Harte *The University of London 1836-1986: An Illustrated History* London 1986, pp188-194
11. These drawings are held in the LSHTM archives
12. Donald Fisher "Rockfeller Phylanthropy and the British Empire : The Creation of the London School of Hygiene an Tropical Medicine" *History of Education* 1978, Vol 7, No 2, p136
13. "Percy Morley Horder" *The Oxford Dictionary of National Biography*
14. "George Devey" *The Oxford Dictionary of National Biography* . George Devey, 1820-1886, was an architect of country houses in the vernacular idiom and an important influence on later arts and crafts architects
15. Peter Davey *Arts and Crafts Architecture: The search for an earthly paradise* London 1980, p103
16. *Journal of the Royal Institute of British Architects* November 1944
17. *The Builder* July 13 1928, p48
18. Clyde Binfield "Victorian Values: Aspects of a legacy" *Bulletin of the Hornsey Historical Society*, n.d. p12
19. Clyde Binfield "Holy Murder at Cheshunt College: the formation of an English architect" in *The Journal of the United Reform Church History Society*, Vol 4, No 2, May 1988, p105
20. ibid. p104
21. ibid. p104
22. information from RIBA Biography file
23. "Bliss was it in that dawn to be alive: An interview with John Brandon-Jones:" AD Profile 24, *Architectural Design* 1979, p98. Brandon-Jones, 1908-99, architect and architectural historian, was a student at the Architectural Association School in the late 1920s.
24. *The Times* 30 November 1966
25. Catherine M. Clark and James M. Mackintosh *The School and the Site: A historical memoir to celebrate the twenty-fifth anniversary of the School* London School of Hygiene and Tropical Medicine Memoir no 9, 1954, p58
26. Wilkinson and Hardy op. cit. p79
27. *Building* 18 November 1966, p106
28. *The Times* 30 November 1966
29. Clyde Binfield "Holy Murder at Cheshunt College: the formation of an English architect" in *The Journal of the United Reform Church History Society*, Vol 4, No 2, May 1988, p110
30. Wilkison and Hardy op. cit., p79
31. *Report of the proceedings LSHTM Ceremony of the Laying of the Foundation Stone*, July 7 1926, p6
32. LSHTM *Building Committee Minutes* June 1928
33. *Mapping the Practice and Profession of Sculpture in Britain and Ireland 1851-1951* www.sculpture.gla.ac.uk
34. Jonathan Black *The Sculpture of Eric Kennington*, 2002, p41. Black derived the information from Kennington's own diaries.
35. LSHTM *Building Committee Minutes* 10 July 1929
36. LSHTM *Finance and General Purposes Committee Minutes* 11 November 1953
37. LSHTM *FGPC Minutes* 9 January 1958
38. LSHTM *Finance and Planning Committee Minutes* 12 November 1975
39. LSHTM *Board of Management Minutes*, 24 January, 27 June and 24 November 1945
40. "Development Quinquennium 1952-57: Accommodation" in *Appendix* to *LSHTM Minutes 1951*
41. S.P.W. Chave *The School Through Fifty Years: Some personal recollections,* p20 LSHTM 1976, typescript with photographs in LSHTM Archives
42. LSHTM *Finance and General Purposes Committee Minutes* 19 January 1952, 19 March 1952, 20 February 1963
43. LSHTM *FGPC Minutes* 18 November 1964
44. LSHTM *FGPC Minutes* 9 June 1965
45. LSHTM *FGPC Minutes* 9 April 1969
46. LSHTM *FGPC Minutes* 9 September 1970
47. LSHTM *FGPC Minutes* 13 September 1972
48. LSHTM *FGPC Minutes* 11 September 1974 *Finance and Planning Committee Minutes* 12 February and 26 April 1975

Appendix 1: 1924 Competition Brief



London School of Hygiene & Tropical Medicine.

CONDITIONS AND INSTRUCTIONS FOR COMPETITION AMONGST A LIMITED NUMBER OF ARCHITECTS.



London School of Hygiene & Tropical Medicine

CONDITIONS AND INSTRUCTIONS FOR COMPETITION AMONGST A LIMITED NUMBER OF ARCHITECTS.

1. THE BOARD OF MANAGEMENT OF THE LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE (hereinafter called the Board) invite the submission of designs by a limited number of Architects of British nationality in competition for the layout and design of a building to be devoted to the purposes of the School, to be erected on the site shewn on the accompanying plan.

2. THE general purposes of the School are Teaching and Research in Hygiene and Tropical Medicine, and are briefly outlined in the accompanying paper by the Director of the School.

3. THESE Conditions and Instructions have been drawn up with the Assessor to the Board, Sir Frank Baines, who will define all matters connected with the Competition and will advise the Board on the relative merits of the designs submitted.

4. WHEREVER the word " Competitor " occurs in these Conditions and Instructions it shall be held to mean an individual Architect invited to submit designs or Architects who submit designs in association.

5. THE Award of the Board and the Assessor will be final, and it will be made not later than twelve weeks from the date of receipt of the competitive designs. The Board will communicate the award to each of the competitors.

6. EACH Competitor submitting a design will receive a premium of three hundred guineas.

7. THE selected Architect, after his appointment by the Board for the execution of the work, will be paid in accordance with the schedule of professional charges laid down by the Royal Institute of British Architects, subject to such modifications as are stipulated in these Conditions and Instructions, and the premium of 300 guineas shall be merged into the professional charges.

8. THE Board have decided to proceed with the scheme as generally laid down in these Conditions and Instructions, and the author of the design placed first in order of merit is intended

Appendix 1: 1924 Competition Brief

to be appointed and employed to carry out the work, provided the Board are satisfied that there is no valid objection to such employment. If there is any valid objection the Board may successively select the other authors of the designs in order of merit, who will be appointed and employed by the Board subject to a similar condition. An Award of the Board will not be varied for any other reason.

9. THE author of the selected design shall, if requested by the Board, before he is instructed by them to prepare working drawings, make any modifications in his design to meet the requirements of the Board without any addition to the agreed fee.

10. THE agreement between the Board and the selected Architect will be under the Seal of the School. It will detail the terms of his engagement, based on these Conditions and Instructions, and will contain an Arbitration Clause for settlement of any points of dispute which may arise.

11. IF within twelve months of their Award, and after working drawings have been prepared by the selected Architect, the Board find it impossible to proceed with the execution of the work for reasons (of which they shall be sole judge) other than those contained in Clauses 12 and 13, the selected Architect will be paid, in full discharge of his services, the sum of 2,000 guineas to include the 300 guineas payable under Clause 6, and shall have no other claim whatsoever against the Board. If subsequently the scheme is executed by the selected Architect the whole of this payment shall merge into the amount payable to him under Clause 7.

12. IF, by reason of illness or other incapacity before the work of erection and equipment of the building is complete, the selected Architect is unable to complete his agreement, the Board reserve to themselves the right to terminate their contract and to engage the services of another architect, and in such case or in the event of the death of the selected Architect the Board will pay to him or his personal representatives a proper proportion of the fees.

13. WHEN tenders are received for the erection of the building, if it is found that the Contractor's tender proposed to be accepted (being the lowest on the list, or that of the most suitable Contractor) exceeds by £25,000 the amount specified by the selected Architect for the erection of the building—after any modification in the plans as provided for in Clause 9—and the excess cannot be saved by reasonable modifications in the design, the Board reserve to themselves the right to refuse to proceed with the building, and the Architect shall not in that case be entitled to any remuneration or compensation whatever beyond the amount of the premium referred to in Clause 6.

14. A DESIGN will be excluded from consideration in the Competition for any of the following reasons :—

(*a*) If sent in after the period named in Clause 16 ;
(*b*) If it does not provide substantially for the accommodation specified ;
(*c*) If any of the Conditions and Instructions other than those of a suggestive or permissive character are disregarded by the Competitor ;
(*d*) If a Competitor discloses his identity or attempts to influence the decision.

15. EVERY design and accompanying report must be sent in without any name or other distinguishing mark, and must be accompanied by a declaration by the Competitor, contained in the official envelope, issued with these Conditions, properly sealed, stating : (i) the name and the address of the Competitor, (ii) that the design is his personal work, and (iii) that the drawings have been prepared in his own office and under his own supervision. The successful Competitor must be prepared to satisfy the Board that he is the author, *bona fide*, of the design submitted.

16. THE design, report and envelope of each Competitor are to be contained in one package, endorsed " Design for London School of Hygiene and Tropical Medicine," and sent, carriage paid, addressed to

The Secretary,
London School of Hygiene and Tropical Medicine,
Malet Street, W.C. 1,

not later than twelve noon on the 31st March, 1925.

17. ON receipt of a package, a number will be placed by the Secretary to the Board on each drawing and accompanying report enclosed therein, and a corresponding number on the envelope contained in the same package. The envelope will be retained unopened in the custody of the Secretary to the Board until after their Award has been made.

18. THE submission of designs shall be held to signify complete agreement with and acceptance of these Conditions and Instructions.

19. ANY questions which Competitors desire to ask must be addressed to the Secretary to the Board on or before 31st January, 1925. Copies of all such questions and of such answers thereto as the Assessor shall consider necessary will be sent by the Board to every Competitor and shall be deemed to be an integral part of these Conditions and Instructions.

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20. THE Competitors shall, if they are requested to do so, supply the Board with photographs and printed copies of their drawings.

21. THE Board will appoint and pay a Quantity Surveyor to prepare a proper Bill of Quantities and to measure up the work during progress. They will also appoint and pay a Clerk of Works to be approved by the selected Architect, it being understood that the Clerk of Works acts under the Architect, who accepts responsibility for his actions.

22. THE working drawings of the selected Architect will remain his property. He shall supply free of cost to the Board (in addition to all drawings required by Local or other Authorities) one copy of each of the sketch plans and of all working drawings, and shall also during the progress of the work supply complete small scale plans of the floors of the building, shewing all the rooms, the systems of heating, lighting, ventilation, etc., the system of drainage, and indeed all details, together with small scale elevations and sections of the work. The whole of the foregoing are to be on transparent linen. In addition the Architect is to supply four complete sets of the working drawings for the purpose of the Contract. He shall also, during the progress of the work, submit to the Board for their general approval all detail drawings which bear upon the design, layout, and construction of the buildings and of the laboratory fittings—the intention being, however, not to ask for the submission of an architect's normal structural details and full sizes.

23. THE Architect, in executing the work, shall not vary the designs in any material manner after the general approval of the Board has been received, without again receiving their approval signified in writing. The Board will not consider alternative designs unless in the form of complete and distinctive schemes.

24. THE drawings are to be accompanied by a concise type-written explanatory report containing an outline specification of materials to be employed and the type of construction proposed, and amplifying and extending details which cannot effectively be shewn upon the drawings. The Architect will be particularly expected to detail the proposed heating, lighting, and ventilating systems, and to give schedules of the accommodation provided, with the floor areas of the different sections to be accommodated in the building coloured in distinctive tints as stipulated in Clause 65.

25. THE scheme submitted must contain the Competitor's estimate of the cost of the building, including all expenditure likely to be involved therewith for all subsidiary works, sub-contracts, etc. The detailed figures of the cube of the building, and the prices upon which the estimates are based must be attached to the report, the total cube being stated, and the method by which the figures have been arrived at.

26. THE sum available for the development of the site up to the requirements of the School as specified in these Conditions and Instructions, including all Engineering services, and all fixed fittings for Laboratories, Library, Museum, Research Rooms, and generally, and including also Architect's fees, Quantity Surveyor's fees, etc., and Clerk of Works' charges and Contingencies, is £365,000. For the guidance of competitors, it is stated that of this amount of £365,000 a sum of £30,000 has been fixed as a Contingency sum to allow of modifications and possible increase in prices during the progress of the work.

27. ARCHITECTS may, if they think fit, prepare designs for the full economic development of the site, detailing the redundant accommodation in such provision, its estimated cost being stated as a proportion of the total cost. Careful attention must be paid to means of access to such redundant accommodation without prejudicing the effective utilisation of the building as a school of hygiene and tropical medicine.

28. THE drawings required from the Competitors are as follows :—
    (*a*) Plans of foundations, basement and all floors, together with roof plan, all to $\frac{1}{16}$" scale.
    (*b*) Outline plans of drainage, heating, lighting and ventilating services, all to $\frac{1}{16}$" scale.
    (*c*) Three elevations and longitudinal and transfer sections, to $\frac{1}{8}$" scale, with additional sections as required to illustrate the design.
    (*d*) One $\frac{1}{2}$" scale detail of a portion of the façade of the building.

    Perspectives of the design are optional, but the successful Competitor will be required to provide a perspective drawing.

29. ALL drawings must be mounted on plain compo board or card and may be executed in ink or pencil at the Competitor's discretion. All pencil drawings to be treated with a fixative. If the Competitor prefers, under paragraph 28 (*b*), to send prints or negatives from the original drawings of the drainage, heating, lighting and ventilating services, this may be done. All elevations, sections and details may be in line or monochrome. All areas and clear heights of all rooms to be entered in figures on the drawings, the areas of all corridors being separately detailed. Sectional work may be shewn in black or white at the discretion of the Competitor.

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THE ACCOMMODATION, ETC., TO BE PROVIDED.

30. THE total effective floor space required (excluding walls, corridors, etc.), is about 100,000 superficial feet, excluding basement.

31. THE distribution of the accommodation is to be as follows :—

SUMMARY (EXCLUDING BASEMENT).

		sup. feet
Administrative section		6,000
Museum	(say)	15,000
Theatre and preparation room		3,500
Conference room and ante-room		4,000
Rest and recreation rooms (Men & Women)		1,500
Library quarters		5,000
Publications Bureau		3,000
Teaching and Research accommodation :—		
Division I		7,000
,, II		8,000
,, III		8,000
,, IV		12,000
,, V		4,000
,, VI		7,000
Cinema studio		600
Artist's room		400
Caretaker's quarters		1,300
Animal quarters		1,200
Unallocated		12,500
		100,000

32. TEACHING AND RESEARCH DIVISIONS.

(corresponding with the Provisional Scheme of work).

DIVISION I.—*Physics and Applied Physiology.*	*sup. feet*
1 Professor's room	300
2 Staff rooms	400
1 large class room	1,200
1 small class room	400
1 Laboratory	1,200
4 single-worker research rooms	800
1 group do. for 4 workers	400
Preparation room, etc. (as for Division IV)	1,000
Extra accommodation, at present unallocated	1,300
	7,000

	sup. feet
DIVISION II.—*Chemistry and Bio-Chemistry.* The same as Division I, except that the Laboratory is 2,200 sup. ft., instead of 1,200	8,000
DIVISION III.—*Immunology and Bacteriology* ..... do.	8,000

DIVISION IV.—*Medical Biology.*

(This should be on the same floor as the Tropical Division of the Museum.)

1 Professor's room	300
5 Staff rooms (200 each)	1,000
2 laboratories (1,200 and 1,000, respectively, separated by a movable sound-proof partition)	2,200
1 large class room	1,200
1 small class room	400
5 (single-worker) research rooms	1,000
1 (group of 4 workers) research room	400
Insectarium (200) and Aquarium or Tank Room (300)	500
Staff accommodation, at present unallocated	2,000
Research accommodation, at present unallocated	2,000
Preparation room (200) adjoining large class room, Incubator room (100) and Refrigerator room (100), lavatories, domestic service rooms, central cleansing room (300), and photographic room (say)	1,000
Total (excluding Museum)	12,000

DIVISION V.—*Epidemiology and Vital Statistics.*

1 Professor's room	300
2 Staff rooms	400
1 Class room	900
1 small laboratory	800
Preparation rooms, etc., as for Division IV, omitting Refrigerator and Incubator rooms, but including card index room (500), and extra rooms	1,600
	4,000

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DIVISION VI.—*General Sanitary Administration.*	*sup. feet*
1 Professor's room	300
3 Staff rooms	600
1 Record room	200
1 Laboratory	1,200
1 Laboratory	800
1 Class room	1,200
2 small class rooms	800
Preparation room, etc. (as for Division IV, omitting Refrigerator and Incubator rooms, but including extra Class room (500)	1,300
Extra unallocated accommodation	600
	7,000

EACH of the six Divisions should be as far as possible self-contained and should occupy the whole or a definite part of one floor only, and not be partly on one floor and partly on another. Division No. IV should be linked up with the Tropical Section of the Museum—about one-third of the total Museum space.

ADMINISTRATIVE SECTION.

33. THIS should comprise :—

Director's Office	400
,, Personal Assistant's Office	300
Dean's Office	300
Secretary's Room	300
Board Room, with cloak-room and lavatory	700
Staff Common Room (with lavatory)	500
Visiting Staff Common Room (with lavatory)	400
General Office	400
2 Rooms at 300	600
3 ,, 200	600
Inquiry and waiting rooms, lavatories, porter's lodge, small kitchen, and unallocated	1,500
	6,000

BASEMENT.

34. THE Basement should provide, in addition to store-rooms, workshops, boiler house and various plant, for the following :—

Post-mortem demonstration room (1,200 sup. ft.) with preparation room (300).
Cloak rooms (men and women) with lockers for 200 students and space for doubling locker provision ; with lavatories, two spray-baths, and dressing-rooms attached.
Goods receiving room, with shoot from yard.
Photographic unit (including micro-photography).
Printing-room.
Space for X-ray room and for air-conditioning room for ventilation (and other) tests.
Separate storage for museum exhibits.
Destructor (near animal lift).
Dry Canteen and mess-room for household staff.
Kitchen, for preparation of light refreshments.

The Boiler House should be so situated that road access from both streets can be obtained to allow of the provision and evacuation of coal, stores, and ashes away from main entrances of the building.

OTHER ACCOMMODATION.

35.

	sup. feet
Museum (say)	15,000
Theatre and preparation room	3,500
Conference room and ante-room	4,000
Rest and recreation rooms (Men and Women) with refreshment service room adjacent	1,500
Library quarters	5,000
Publications Bureau	3,000
Cinema studio, with dark room attached (top floor)	600
Artist's room (top floor)	400
Caretaker's quarters (top floor)	1,300
Animal quarters	1,200
	35,500

(In addition, there should be outhouse provision for a laundry.)

36. THE ANIMAL QUARTERS should be on the top floor and isolated as far as possible and should have floors and lower walls of impermeable material. A small electric lift should communicate specially with the basement. The unit will comprise :—

Animals' living rooms.
Pens for exercise.
Quarantine, inoculation, and disinfecting chambers.
Kitchen for preparation of animals' food.
Store and attendant's room.
Post-mortem room.
Adequate heating and water supply

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37. THE Competitors in their designs should consider the relation of the site to that of the British Museum and should have regard to the amenities of the district as a potential University centre. If a building in Portland Stone is proposed, the views of the Competitors are invited as to the effect on the time in which the building may be completed.

38. THE principal frontage should be on Keppel Street. It may be set back, at the Competitor's option (say) twelve to fifteen feet. The administrative section should be on the ground floor on this front, and the Museum should occupy the frontage above the administrative section. There should be separate entrances on the Gower Street, Keppel Street and Malet Street fronts, respectively, with a porter's lodge at each entrance.

39. THE lighting, especially of the laboratories and class-rooms, should be the best possible. This applies also to the Museum, so far as this is consistent with adequate wall space; cross-lighting for the Museum is desirable and overhead lighting on the top floor. Consideration is to be given to the provision of North lighting for the research and class rooms, laboratories, etc., on the upper floors.

40. ANY internal courtyards are to be designed to give adequate light to the blocks surrounding them and to have good reflecting surfaces, and may be used for top lighting of workshops, etc., in basement.

41. THE Architects are to consider whether any utilisation shall be made in part of the courtyard of the adjacent building, lettered "A" on the accompanying site plan, in relation to light and air.

42. TWO electric passenger lifts are to be provided, serving the whole building, with electric goods lift for service to all sections of school on every floor, and also lift to animal quarters as explained above. The passenger lifts should be supplied with automatic car control and have a normal speed of 200 to 250 feet a minute.

43. THE theatre should be on the ground floor and built with two tiers in such a way as to function for a large theatre or a smaller one, and with access from the higher floor level.

44. THE building throughout should be fireproof, the skeleton framework of steel, the floors throughout of reinforced concrete and the roofing of steel with wired glass or of concrete and filler joist construction. Consideration should be given to the sound-resisting properties of the materials used in the con struction.

45. THE finishings of the building should be of simplicity to ensure hygienic conditions. All horizontal angles should be coved and the walls of Laboratories finished with glazed bricks of a suitable kind to an approximate height of 4 feet.

46. THE types of flooring of Theatre, Museum, Library, Laboratories, Corridors, etc., should be specified.

47. THE window frames of the building should be of steel and the internal joinery of hardwood where fire risk arises, such as in the Theatre, Library, Museum, Laboratories, etc. Competitors should consider the desirability of providing double windows on all fronts; they should bear in mind that the noisiest street is likely to be Gower Street.

48. NO skirtings or architraves to doors are desired, and coved tile skirtings are to be provided to junction between wall surfacing and flooring.

49. PARTITION walls in research and laboratory accommodation are not to be structural, but must be easily removable and reasonably sound-proof.

50. A detailed description of the fume cupboards, drainings, wall ice boxes, and other proposed laboratory fittings, of library and museum fittings, and all other fixed fittings is to be included in the report.

51. ALL Engineering services—heating, hot water supply, ventilation, electric light, cooking appliances for kitchen, passenger and goods lifts, fire protection provision, electric bells, and compressed air plant throughout the building, Still Room apparatus, destructor, gas and water supplies, etc., to be briefly detailed by the Competitors.

52. THE heating system may be an accelerated low pressure hot water system, arranged to allow of boilers being banked overnight and circulating pump shut down to avoid night attendance. Heating boilers may be of the sectional type with bunkers arranged for direct discharge of fuel into the Boiler House.

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A panel system of heating may be submitted as an alternative system. Fire-places may be provided in the Administrative block, with gas points adjacent.

53. THE hot water supply to be taken from boilers installed in the Main Boiler House in the Basement, with storage cylinders, circulating pumps, etc. Hot water to be supplied to every lavatory basin, with extra points near floor level for cleaners. Hot water taps to be fitted in lavatories, cleaning rooms, and steam points in every Laboratory and Research Room for general use. The installation must provide for additional hot water points as afterwards required.

54. THE ventilation system proposed should be detailed by the Competitor. It may be an extract system. It must be designed to give adequate complete changes of air under normal conditions, with special provision for chemical, biological, and bacteriological Laboratories, fume cupboards, etc.

55. THE general lighting of all rooms, laboratories, etc., to be electric, with drop pendants for the smaller rooms; the lighting to be semi-indirect or indirect for large Laboratories, Lecture Theatres, etc. The Competitor is to make provision for all special electric light fittings in the Library and Museum, Research Laboratories, etc.

56. ALL electric wiring to be carried out in concealed screwed steel conduit and fire-proofed throughout. Plugs for electric power should be available throughout the building, and extra plugs for local and special lighting should be provided in Laboratories. Consumption indicators will be required for each of the six Divisions. Separate mains for power and lighting will be required.

57. AN adequate number of multiple gas points to be provided on each bench.

58. FIRE protection to be provided by means of about ten internal hydrants equipped with 1½″ drain, hose, and portable appliances throughout the building.

59. IN the case of the lower floors the standard type of small ejectors connected to water tap will suffice (a water pressure of approximately 50 lbs. per square inch being available), but for the upper floors it will be necessary to provide an electric-mechanical plant situated in the basement with a point arranged on each laboratory bench. Special attention is drawn to the necessity of eliminating possible leakages through the system by the provision of specially-soldered pipe joints and control cocks with large bearing surfaces.

60. AN estimated amount of 80 to 100 gallons per day of distilled water will probably be required, and four stills are suggested, situated in a still room in the basement with provision for extension.

61. Provision should be made for an installation of telephones with small switch-room.

62. There should be separate lavatory accommodation, as may be necessary, for (*a*) staff and students, (*b*) household staff, and (*c*) general public; in each case for men and women respectively.

63. THE buildings and all fittings, also engineering services, are to be designed and constructed with a view to minimising the cost of maintenance. Special regard should be had to the importance of flexibility of arrangement to permit of extension and modifications which will inevitably arise in a research establishment, and also to ensure continuity of service which is of primary importance. Special consideration should therefore be given to the formation of chases and trenches for the pipe installations, etc.

64. An estimate of the time in which a building, in accordance with the Competitor's designs, may be expected to be completed, ready for occupation, should be given.

COLOURING OF PLANS.

65. Competitors should note that the different sections of the accommodation are to be coloured on the plans in distinctive tints as follows :—

Administrative section and all Entrances, Corridors, Staircases, Lifts, Lavatories and Messengers' rooms. Also Common or Conference Room, and Rest and Recreation Rooms, and Caretaker's accommodation.	Grey.
Library and Theatre	Pink.
Museum	Yellow.
Teaching and Research Accommodation :—	
Division I	Light Brown.
,, II	Darker Brown.
,, III	Light Green.
,, IV	Darker Green.
,, V	Light Blue.
,, VI	Darker Blue.
Basement and Animal quarters	Mauve.
Unallocated accommodation	Uncoloured.

Malet Street, W.C. 1.
December, 1924.

*Langley & Sons, Ltd., The Euston Press, N.W.*1.

Appendix 2: Statutory Listing Description

This building is listed under the Planning (Listed Buildings and Conservation Areas) Act 1990 as amended for its special architectural or historic interest.

Name: LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE AND ATTACHED WALLS AND RAILINGS

List entry Number: 1113106

Location: LONDON SCHOOL OF HYGIENE AND TROPICAL MEDICINE AND ATTACHED WALLS AND RAILINGS, MALET STREET

County District Type: Parish

Greater London Authority Camden London Borough

National Park: Not applicable to this List entry.

Grade: II

Date first listed: 09-Mar-1982

Date of most recent amendment: Not applicable to this List entry.

Legacy System Information: The contents of this record have been generated from a legacy data system.

Legacy System: LBS

UID: 477484

List entry Description: Summary of Building

Legacy Record: This information may be included in the List Entry Details.

Reasons for Designation:

Legacy Record - This information may be included in the List Entry Details.

History:

Legacy Record - This information may be included in the List Entry Details.

Details

CAMDEN

TQ2981NE MALET STREET 798-1/99/1100 (North side) 09/03/82 London School of Hygiene and Tropical Medicine and attached walls and railings

GV II

School of Medicine. 1926-8. By P Morley Horder and V Rees. Steel frame construction, faced with Portland stone. Stripped Classical style. Entrance block to Keppel Street, rest of building laid out to the north in an H-plan. EXTERIOR: 3 storeys and attic. Keppel Street facade 11 windows, the end bays recessed. Return to Malet Street 23 windows, the left hand 3 bays projecting; return to Gower Street 24 windows, the right hand 3 bays projecting. Main entrance square headed and architraved with a central carving of entwined serpents supporting a panel showing Aesculapius in his chariot. Metal framed, square-headed casement windows, those on ground and 1st floor architraved. Entrance block 1st floor windows with metal balconies decorated with gilded tropical insects. Frieze with names of eminent medical scientists set between vestigial pilaster capitals with laurel wreaths. Cornice and blind attic storey above (fenestrated on returns). At the right-hand angle of the entrance block a foundation stone laid by the Rt Hon Neville Chamberlain, 7 July 1926. INTERIOR not inspected. SUBSIDIARY FEATURES: attached stone walls, on returns with plain railings of horizontal bands.

Listing NGR: TQ2981081885

Selected Sources

Legacy Record - This information may be included in the List Entry Details

National Grid Reference: TQ 29810 81885