



**Proposed University College London  
Main Quadrangle Lighting  
Gower Street**

Listed Building and  
Planning Application

JULY 2006

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## **1.0 INTRODUCTION**

July 2006

**PROPOSED UCL MAIN QUADRANGLE LIGHTING**  
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This report has been prepared for the Estates and Facilities Department of University College London (UCL) by Gaunt Francis Architects.

In December 2003 Alan Baxter Associates produced draft Management Guidelines for UCL which identified what is significant about the UCL buildings and to help streamline the process of gaining future planning and listed building consents. The Management Guidelines are awaiting adoption by Camden Council, but have been adopted by UCL who are using them to develop new proposals. This report is based on the draft Management Guidelines, and will justify the proposals in their terms (as well as in terms of PPG15).

The buildings that front onto the Quadrangle are all Grade I Listed. This report has been written to accompany an application for Planning and Listed Building Consent for a proposed new lighting scheme to be installed in the Quadrangle. The proposals have been developed by Gaunt Francis Architects and Max Fordham LLP.

The proposals stem from the need to provide improved lighting for aesthetic and Health & Safety purposes within the Quadrangle. The Quadrangle forms the heart of the University campus, and is well used during the day for both circulation, relaxation and activities. In the evening it is less appealing, being poorly lit. The aim of the proposal is to make the area more attractive, to provide better architectural modelling of the listed elevations, highlighting important features and to extend the potential hours of use of the space. Particular care has been taken in the selection of fittings for accent lighting to the listed features. A hierarchy of lighting is proposed, with the centre portico being the main focus of the space, and therefore the most strongly lit. Lighting to the other elevations will be subsidiary to this, providing a softer back-drop to the central feature. The semi circular rotundas to the Slade and South Wing will be provided with accent lighting. Lighting is also proposed to some of the principal trees within the Quadrangle, to enhance the landscaped space.

The lighting installation will be controlled with a scene-setting control unit, to enable special lighting effects to be provided for key functions, i.e. when the portico is used for theatrical performances or events. It will also enable the system to be controlled via a time-clock, to ensure economic use and reduce unnecessary light pollution.

Although the proposed works affect small parts of the buildings, it is important to see them in the wider context of the buildings. Section 2 on History outlines Wilkins' original scheme (1826). The present day form of the buildings is described in Section 3. Section 4 uses the draft Management Guidelines to define what elements of the buildings contribute most, particularly to the "outstanding" architectural and historic importance given by their Grade I listing. These sections are based upon Alan Baxter and Associates original report. The Quadrangle lighting proposals are illustrated in Section 5. The proposals are then assessed for their impact on and benefits they will bring to the buildings as a whole; Section 6 focuses on the proposals, describing and justifying them according to the criteria of PPG15 and the draft Management Guidelines.

## 2.0 HISTORY

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PROPOSED UCL MAIN QUADRANGLE LIGHTING  
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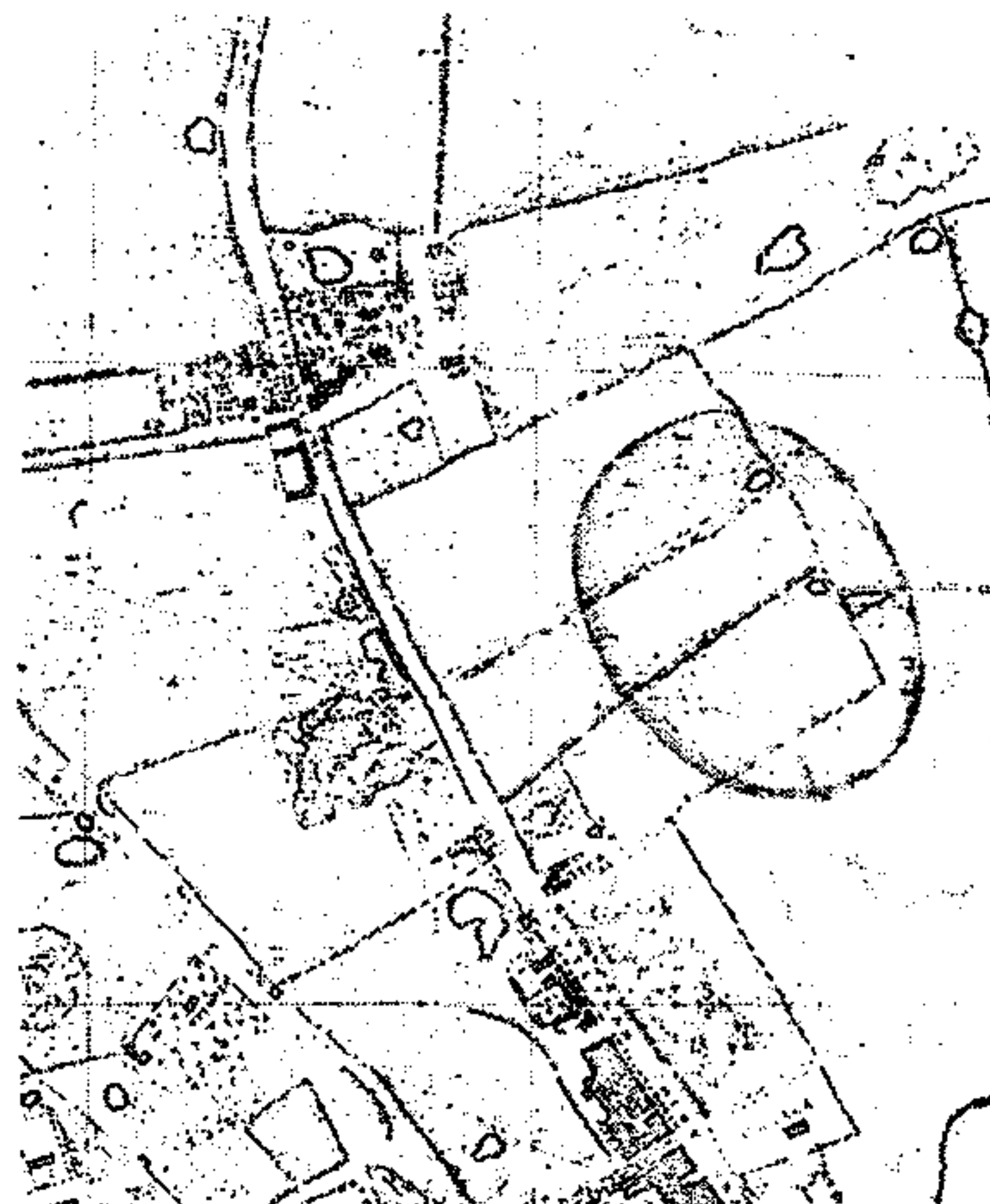


Figure 1: Rocque map of 1746, showing future location of University College London

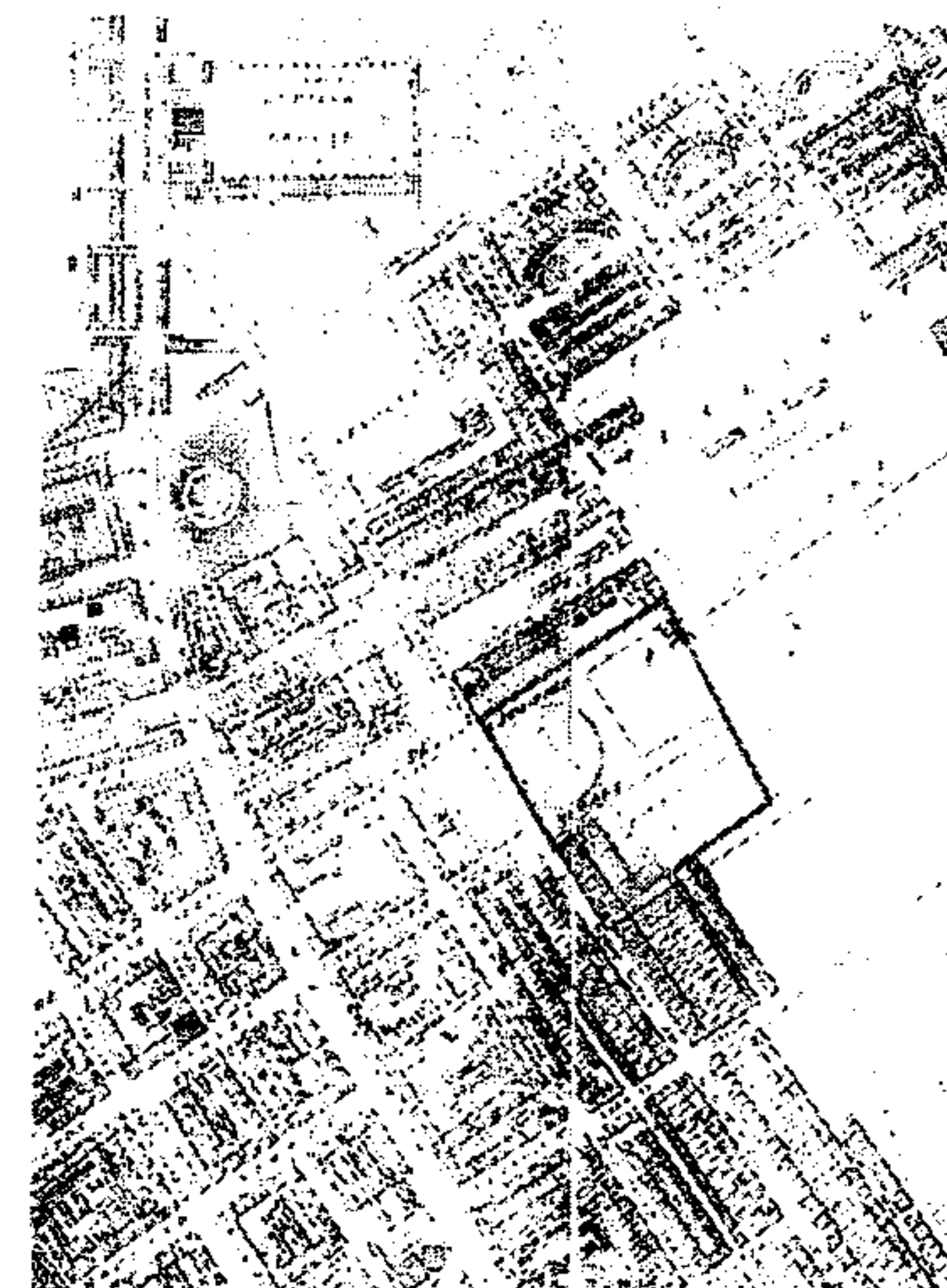


Figure 2a: Horwood map of 1819, showing original campus and present day extent

## Underlying Geology

The Slade School and Pearson building lie on the northern edge of the third (Taplow) gravel terrace, which gives way to the underlying London Clay broadly along the line of the Euston Road.

## Archaeology and Early Map Evidence

The Greater London Sites and Monuments Records lists a scatter of finds from the area immediately surrounding UCL. The majority of these are old finds, poorly documented. They point to a thin scatter of Prehistoric material, in the form of stone handaxes of Neolithic and earlier date, but there is no evidence for any occupation sites. The remarkable gold ring of Anglo-Saxon date, found in Euston Square during the 19<sup>th</sup> century, appears also to be a stray find.

The only site for which recently excavated evidence is available is Totten Hall Manor, also apparently known as Tottenham Court Manor. Excavations on the site of 250 Euston Road in 1979 uncovered evidence for Anglo-Saxon and medieval occupation, which accords with the documentary evidence of the Domesday Book and later sources.

There is no suggestion that the buildings of the manor extended as far as the UCL site. In general, none of the recent building projects on the campus have revealed any traces of significant archaeology predating the college's use of the site.

In the 18<sup>th</sup> century, the area was largely rural pasture. The Rocque map of 1746 (Fig. 1) shows a network of narrow streets and lanes enclosing agricultural fields. Ten years later, the New Road (Euston Road) was built along the northern edge of the Bedford estate, to allow livestock to be moved to Smithfield by avoiding the crowds in Oxford Street and Holborn. Meanwhile the urban edge of London was moving rapidly north, as the characteristic Bloomsbury pattern of terraces of houses arranged around squares was laid out. Horwood's map of 1819 (Fig 2) shows just how far development had spread. Gower Street has large terraced houses with elaborate gardens backing onto small mews buildings in Upper Gower Mews. Gower Place has smaller terraced houses. The core of the UCL site was at this time laid out to become Carmarthen Square.

### **Context: Wilkin's Scheme – 1826**

University College London was founded in 1826 as a secular institution, essentially as a business proposition. The college was funded by the sale of £100 shares which raised £300,000 to pay for new buildings and employ teaching staff. The backers purchased eight acres in Bloomsbury (then laid out as Carmarthen Square) for the site of the new college buildings. William Wilkins won the competition for the design of the new buildings.

Wilkins' original plans were grandiose, in the Greek Revival style and based around a quadrangle. The main feature was a ten-columned portico (the first of that size built in the country), raised upon a rusticated plinth and approached by flights of stairs. The portico led to a suite of grand public rooms, all double height, on the first, or principal floor. First came the Great Hall, which projects forward of the main building line into the quadrangle.

Behind the Great Hall was an octagonal vestibule, surmounted by a dome, in a Renaissance style. It acted as a central space, with the council chamber to the east and, in the main block, the library to the south and a museum to the north. On the ground floor beneath these grand rooms lay rooms connected with the everyday running of the college: lecture rooms, student assembly rooms and offices. On the east side, on either side of the dome, were open cloisters intended to allow students to take exercise in wet weather. At either end of this main block, semi-circular projections contained two lecture theatres with banked seating.

To the front the main block was to be flanked by wings (where the South Wing and Slade are now) with further lecture rooms, offices etc. Each had a small dome at its mid point and terminated with a projecting portico. On the Gower Street side, the quadrangle was to be closed by an ambulatory (where the Pearsons and Chadwick Buildings are now) with, at its centre, a propylon, "a noble portico of the Doric order of architecture".

Wilkins' scheme was never fully realised due to the lack of investors. An early modification was the omission of the projecting Great Hall. The portico was pushed back to its present position, so that it opened directly into the vestibule. The Great Hall moved back to replace the Council Chambers at the rear. The flanking wings, propylon and ambulatory were also postponed until further funds became available. The Slade and Pearson Building were not erected until much later. Although they do not follow Wilkins' original design, with the South Wing and Chadwick Building, they form the quadrangle first envisaged by Wilkins.



### **William Wilkins (1778-1839)**

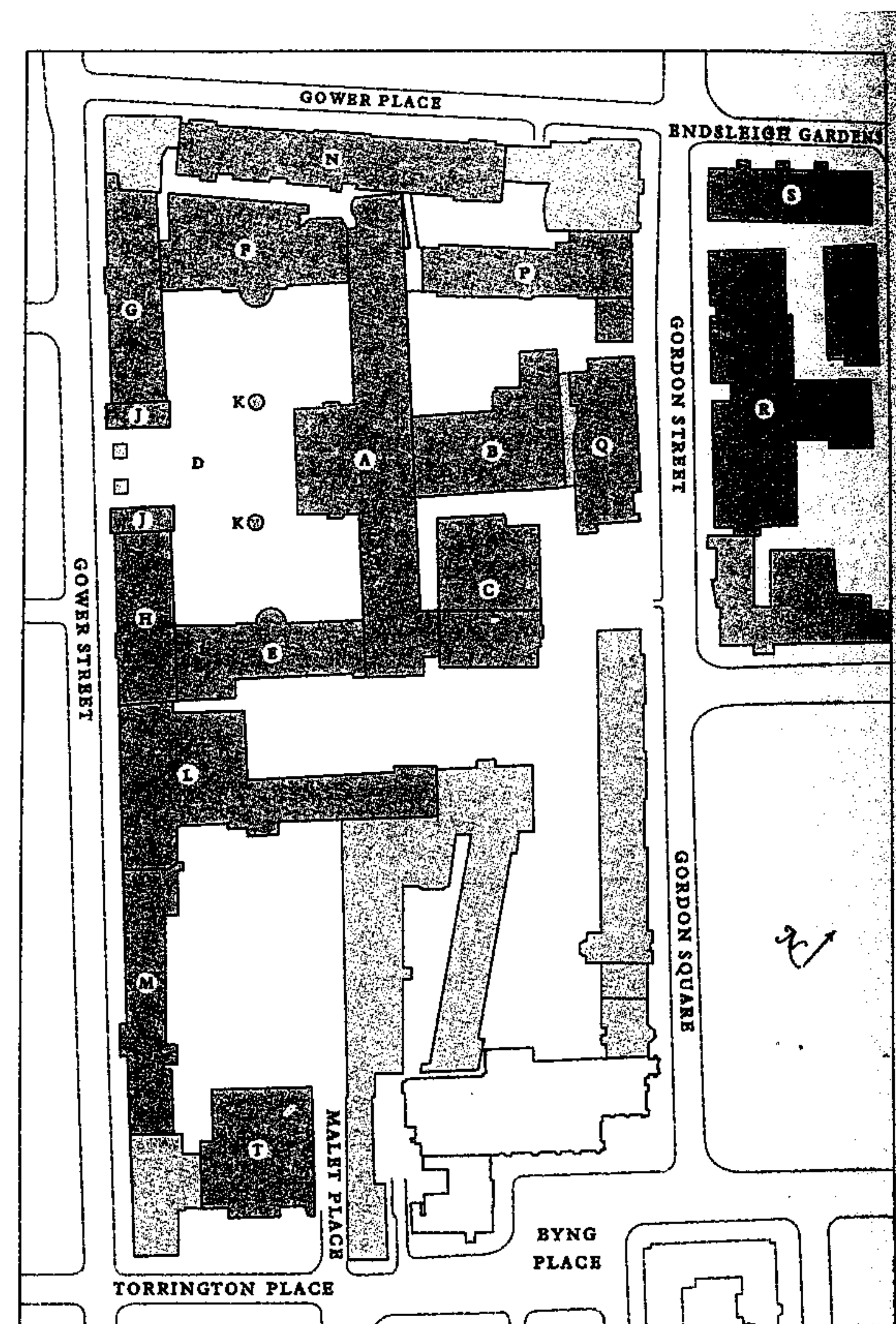
Wilkins was one of the leading figures in the English Greek Revival of the early 1800's, first as a classicist, then an archaeologist, then an architect. He was best known for his designs for the National Gallery in Trafalgar Square and the main buildings of University College.

He toured Greece, Asia Minor and Italy between 1801 and 1804, before returning to England and winning the competition for Downing College, Cambridge. Thomas Hope had assisted this success by writing a supporting pamphlet and the college was built between 1807 and 1820. Also from 1804, work began at Grange Park, where Wilkins adapted the monumental Greek temple language to a private house set in a landscape.

In 1826 his neo-Grecian design won the competition for the new University College in Gower Street in London, although the built scheme was reduced for reasons of costs. A few years after UCL, his scheme for the National Gallery in Trafalgar Square was built between 1832 and 1838.

He was also known as a scholar, publishing *Antiquities of Magna Graecia* in 1816, *Civil Architecture of Vitruvius* in 1816, *Civil Architecture of Vitruvius* in 1812 and 1817 and finally *Prousiones Architectonicae* in 1837.





- |  |  |
|--|--|
| A Wilkins Building, 1827-9                 | K Observatories, 1905-7                          |
| B Library, 1849 (additions by Richardson)  | L Anatomy, 1922-3                                |
| C Bernard Katz Building, 1993              | M Biological Sciences, 1959-64                   |
| D Front Quadrangle                         | N Kathleen Lonsdale Building, 1912-13            |
| E South Wing, 1869-76                      | P Physics, rebuilt 1954                          |
| F North Wing, Slade School of Art, 1870-81 | Q Bloomsbury Theatre, 1964-9                     |
| G NW Wing, 1913-14                         | R Chemistry, (Christopher Ingold Building), 1969 |
| H SW Wing, 1891, completed 1923            | S Wates House, 1975                              |
| J NW and SW Wing extensions, 1984-5        | T Engineering, 1961                              |

University College. Plan

Figure 2b: University College London Plan

## The Slade School of Art, 1871-81 and South Wing Building

Between the late 1860's and early 1880's there was a spate of new building including, at last, the north and south flanking wings of the quadrangle. The north wing was built for the Slade School of Art and the south wing for the College's School. Wilkins' scheme was not carried out. Instead, the wings were designed by the College's Professor of Architecture, Thomas Hayter Lewis. He devised buildings that harmonised successfully with the main building, by substituting a Corinthian half rotunda for Wilkins' domes at the mid-point of each façade.

The South Wing was built first, between 1869 and 1874, for the School. Behind the façade the building was modest, without the grand spaces of the Wilkins Building, containing a series of classrooms and offices opening off a central corridor over three floors. These were entirely functional in architecture and finishes, reflecting both their utilitarian purpose and the college's continual shortage of money. Only the larger rooms in the rotundas have any pretensions to architectural space.

The North wing was built for Slade School of Fine Art in two phases between 1871-81. Felix Slade (1788-1868), a collector of Venetian glass, books and printers, died leaving £45,000 in his will to found three professorships in Oxford, Cambridge and University College, London. This bequest was bolstered by Samuel Sharpe and JP Heywood and financed the first section of the North Wing, which was built between 1870-1. The Slade opened in October 1871 and was the first school dedicated wholly to the teaching of fine art; in the past professorships has been thought to suffice. By 1875 the Slade had 220 students.

Following an appeal for further funds in 1878, the second more extensive phase of buildings began. Once completed in 1881, the top floor was used for Physiology, the first and part of the ground floor for the Slade and the rest of the ground floor and basement for the Chemistry Department. A large basement extension was built to house a new Chemistry Laboratory, to the rear of the building.

The Slade was intended for the practical training of professional artists and this emphasis shows clearly in the layout of the building. A long corridor lies immediately behind the façade with the central rotunda occupied by the stairs. Opening off the corridor, large studio spaces are flooded with north light through large sash windows. EJ Poynter (1788-1868), the first Slade Professor, introduced innovative French teaching techniques, founded on life drawing and encouraging students to develop an individual style. Unusually, men and women were also taught together at the Slade from the beginning.

### **The Pearson Building, 1914-7**

In 1907 the College School relocated to Hampstead. This created more space on the campus and encouraged a spate of new construction. FM Simpson, the College's Professor of Architecture, oversaw this; he designed numerous new buildings of which the Pearson was one.

The Pearson Building was built in two stages between 1914 and 1917. A small one-storey Pathological Chemistry building predated the building, but presumably was demolished to make way for the Pearson Building. The northern section of the Pearson Building was built first, in 1914, for the Department of Architecture, and was funded by Sir Herbert Bartlett (whom the School of Architecture, was named after). FM Architecture at UCL and King's College and the new building was erected to house the united Schools.

The remaining section was built in 1917 for the Department of Eugenics and Applied Statistics. Both parts of the building was designed by FM Simpson and with the Chadwick Building formed the culmination of Wilkins' vision for a college quadrangle.

Karl Pearson (1857-1936) was educated at the University College School and was later appointed Professor of Mathematics at the College. He pioneered the study of statistics. As such, his name was an obvious choice for the new building.

A large extension was added to both the Pearson Building and Chadwick Building in 1984-5. These extensions were designed by Casson & Conder to architecturally complete The Quadrangle (the Lodges were also moved and re-built at the same time). The extensions mirrors the styles of the existing buildings and on quick inspection are not distinguishable from the older section. They provide a suitable 'frame' to the Portico of the Wilkins Building, when viewed from Gower Street.

### **3.0 THE MAIN QUADRANGLE**



The external facades of all the buildings surrounding the Main Quadrangle remain as built, a testimony to the UCL's continuing concern to preserve the unity of Wilkins' original architectural composition. This concern is epitomised by Casson & Conder's completion of the Pearson and Chadwick wings in an exterior style which completely matches the earlier work.



Figure 3: Current photograph of the Main Quadrangle viewed from South Wing building



## **4.0 SIGNIFICANCE**

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The following section analyses what is significant about the buildings and derives from Section 4 of the draft UCL Management Guidelines.

All the buildings around the College quadrangle, including the later Chadwick and Pearson Buildings are Grade I listed, and as such are "of outstanding architectural or historic interest" (according to Government Guidance in PPG15) and in the top 2% of the total stock of listed buildings. As para. 3.6 of PPG15 states "these buildings (Grade I and II\*) are of particularly great importance to the nation's built heritage: their significance will generally be beyond dispute".

The outstanding architectural significance the buildings stem from their contribution to the College quadrangle. The quadrangle was first envisaged in Wilkins' designs of 1826, and although the original scheme was never built on account of a lack of investors, the current layout has evolved gradually as the funds emerged. The Slade and Pearson form the north wing and (part of) the west side of the quadrangle and as such are of "outstanding architectural" interest. The South Wing and Chadwick Building complete the Quadrangle to the South and West in a mirror image.

The entire UCL site lies within the original Bloomsbury Conservation Area, first designated in 1968 but subsequently extended Conservation Areas are defined as having "special architectural and historic interest, the character and appearance of which it is desirable to preserve or enhance".

The Grade I listing applies to the whole buildings, but it is acknowledged that not all parts are necessarily of the same degree of importance. Although, as para C.5 of PPG 15 points out "subsequent additions to historic buildings are often of interest in their own right, as part of the building's organic history", it is often possible to establish a hierarchy of significance. This can in turn form a reliable base planning the building's future.

The criteria for assessing relative importance outlined in the draft UCL Management Guidelines are given in para 6.10 of PPG15. They are:-

- **architectural interest:** the lists are meant to include all buildings which are of importance to the nation for the interest of their architectural design, decoration and craftsmanship; also important examples of particular building types and techniques (e.g. buildings displaying technological innovation or virtuosity) and significant plan forms;
- **historic interest:** this includes buildings which illustrate important aspects of the nation's social, economic, cultural or military history;
- **close historical association** with nationally important people or events;
- **group value** especially where buildings comprise an important, architectural or historic unity or a fine example of planning (e.g. squares, terraces or model villages).

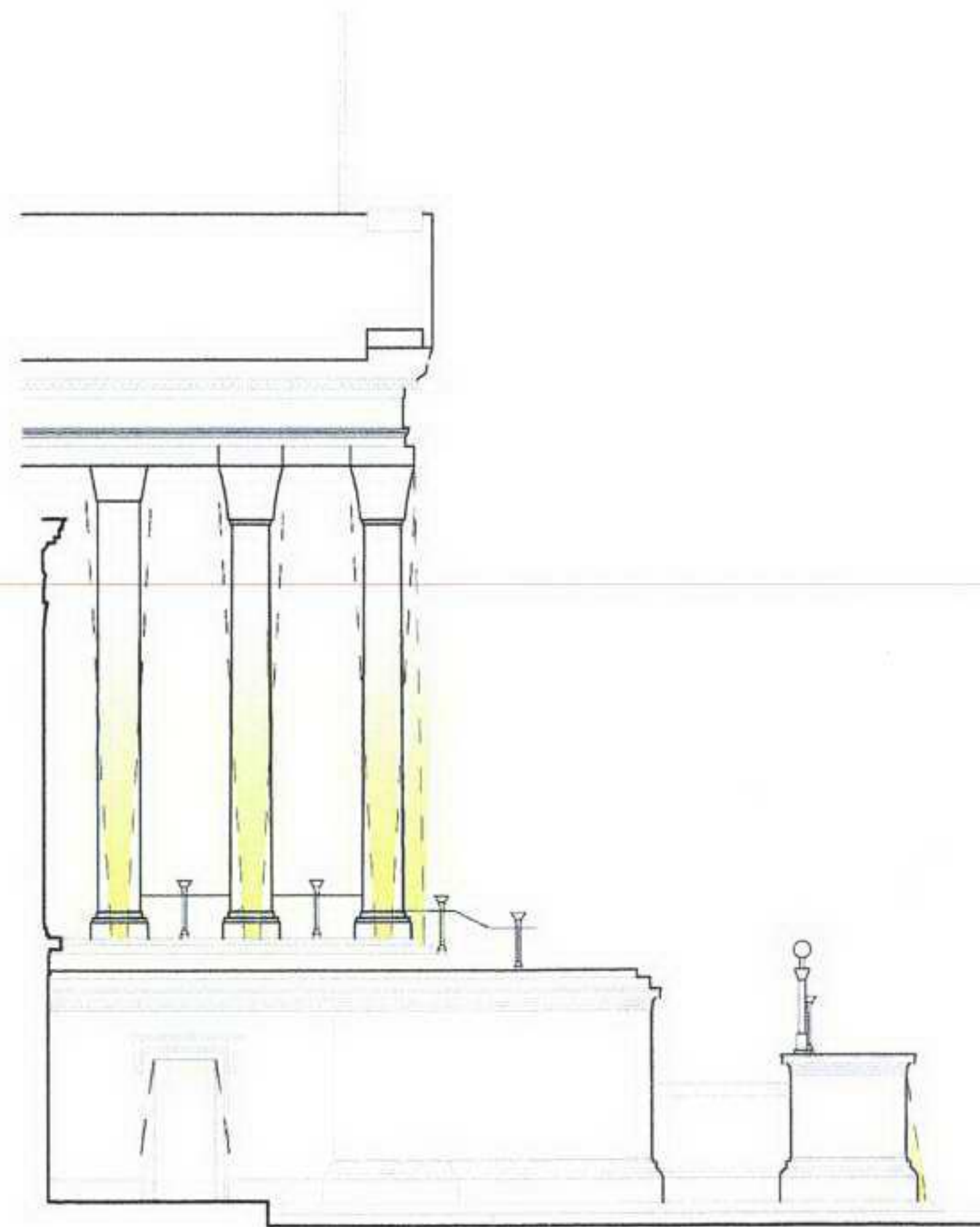
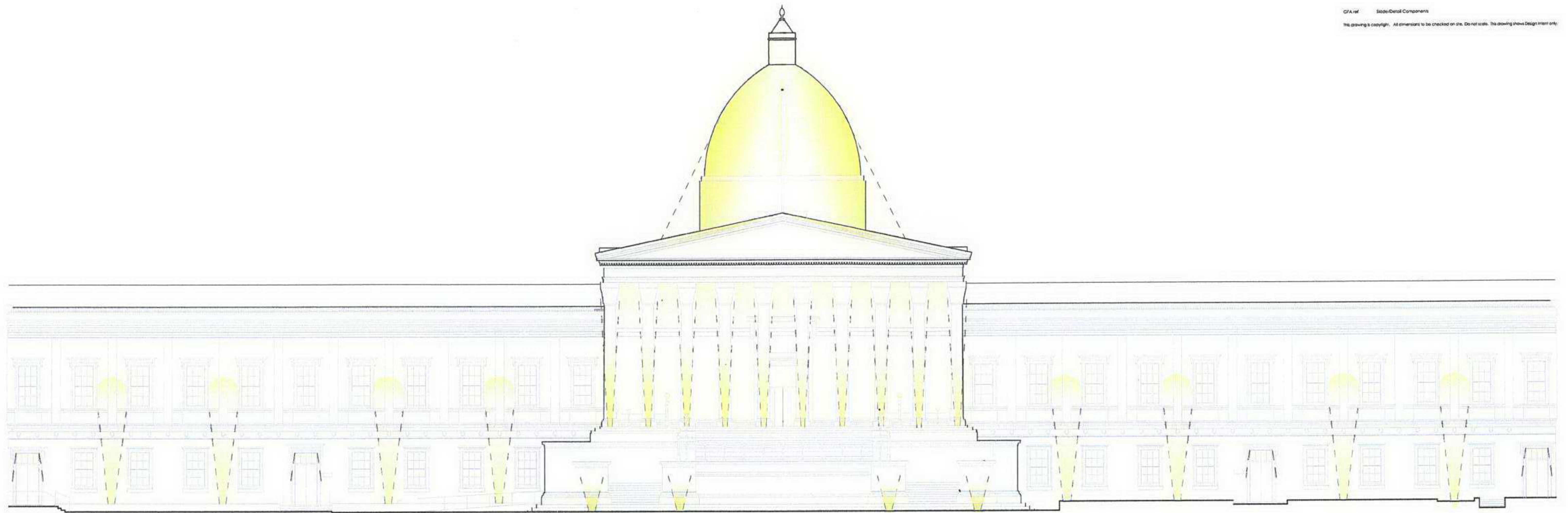
In addition, age and rarity are significant considerations. As paragraph 6.11 of PPG notes "most buildings of about 1700 to 1840 are listed, though some selection is necessary. After about 1840, {...}, greater selection is necessary to identify the best examples of particular building types, and only buildings of definite quality are listed. For the same reasons, only selected buildings for the period after 1914 are listed"

The whole of the Quadrangle is highly significant both in terms of architectural and historic interest, and group value. All the facades, even those of the later buildings are highly significant elements of the overall composition of the Main Quadrangle entrance and the Gower Street frontage.



## 5.0 PROPOSED LIGHTING ELEVATIONS

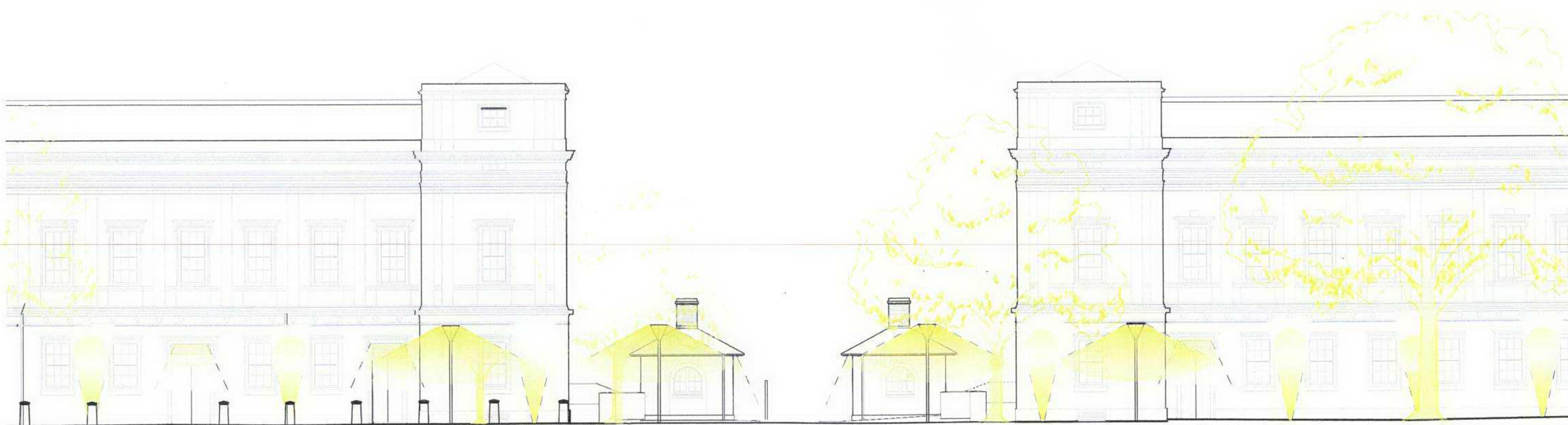
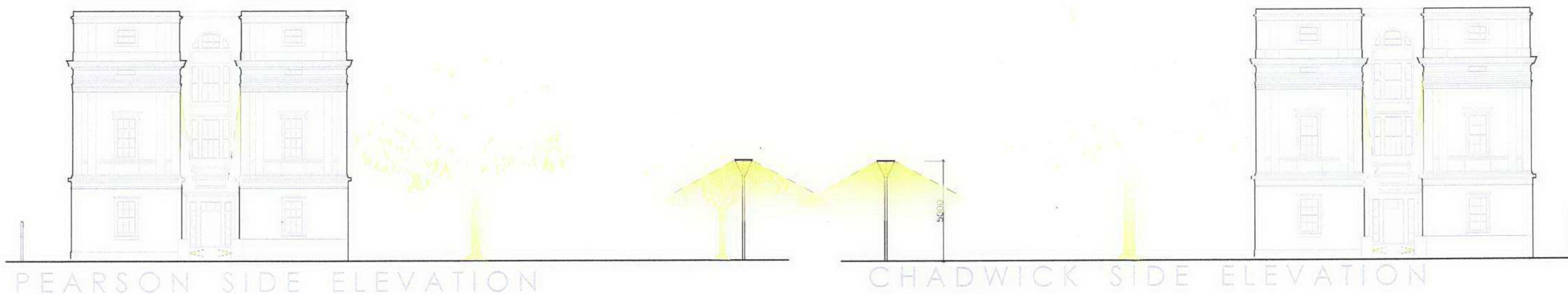




# PROPOSED ELEVATIONS of WILKINS BUILDING

for University College London





PROPOSED ELEVATIONS CHADWICK & PEARSON  
 for University College London



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## **6.0 LIGHTING PROPOSALS AND THE IMPACT**

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## **THE LIGHTING PROPOSALS**

The lighting proposals are designed to enhance the Quadrangle, both as an open space, and to provide improved architectural modelling of the listed elevations, emphasising the hierarchy of importance of the key architectural features within the Quadrangle.

Key elements of the lighting concept therefore include:-

- Lighting of the entrance gateway, to form a focus on Gower Street
- Creation of a vista/axis from the entry point to the Quadrangle off Gower Street, looking towards the main portico
- Creating a hierarchy of lighting with the main focus being the central portico, and with a lesser emphasis on the rotundas to the North and South Wings
- Highlighting the entrances into the buildings around the Quadrangle
- General ambient and circulation lighting within the Quadrangle
- Provision for special events and entertainment



#### **LIGHTING OF THE ENTRANCE GATEWAY**

The entry point into the Quadrangle is to be highlighted on Gower Street, to draw visitors into the heart of the UCL campus. Lighting is to be provided to the underside of the soffit of each security lodge, providing a gentle wall-washing effect to each West elevation. In addition, up-lighting is to be provided within the central recess to the entrance elevations of both Chadwick and Pearson buildings, which will be visible in the perspective of the streetscape when approaching from either the North or South directions. (Refer to elevation AE (2)0 02)







#### **HIGHLIGHTING OF THE AXIS FROM THE ENTRANCE TO THE PORTICO**

The lighting proposals have been designed to draw the visitor into the heart of the Quadrangle from the entry lodges, towards the portico. In addition to the high level lighting of the North and South elevations of Chadwick and Pearson respectively, lighting is provided at low level to each of the entry steps to each building. The axis leading to the portico is then framed by the pairs of lights installed beneath the trees to each side. This is also emphasised by the symmetry of the new lamp posts, which light the main circulation route. Dramatic light is then proposed to provide modelling to the main architectural features of the portico, washing the base, the columns and the pediment, together with floodlighting of the dome, highlighting its architectural significance.

#### **HIERARCHY OF LIGHTING:**

1. Lighting to the portico is provided in a number of different ways:-
  - a) The low level plinths are to be washed with lights from a-symmetric fittings recessed into the ground in the central tarmac area. This will emphasise the base and mass of the portico itself, and links the portico with the ground level.
  - b) The existing light fittings are to be restored and to be put in good working order. This will provide a gentle wash of light over the main steps.
  - c) Each column is to be given accent lighting with an individual LED spotlight recessed into the stone step immediately in front of the column
  - d) The pediment is to be up-lit by use of fittings concealed within the lightwells to each side of the portico, shining up to catch the underside of the cornice
  - e) The dome is to be washed with light from each direction to give emphasis to the central feature of the UCL campus. This will be seen from long distance views, as well as the Quadrangle itself.
  - f) The rear wall of the portico will be washed with light from small LED fittings located above each column within the roof space. This will both give definition to the columns themselves, and emphasise the depth of the portico. As a general effect, white light is to be used. However, these fittings have the ability to provide coloured lighting for events and special productions.
  - g) The lighting to the North and South Cloisters to each side of the portico will provide a very gentle back-drop to the portico itself, with the replacement of the existing floodlight fittings at low level. No additional fittings are proposed attached to the building, with the exception of emphasis on entrances as noted below.



THE PORTICO



Daytime photo

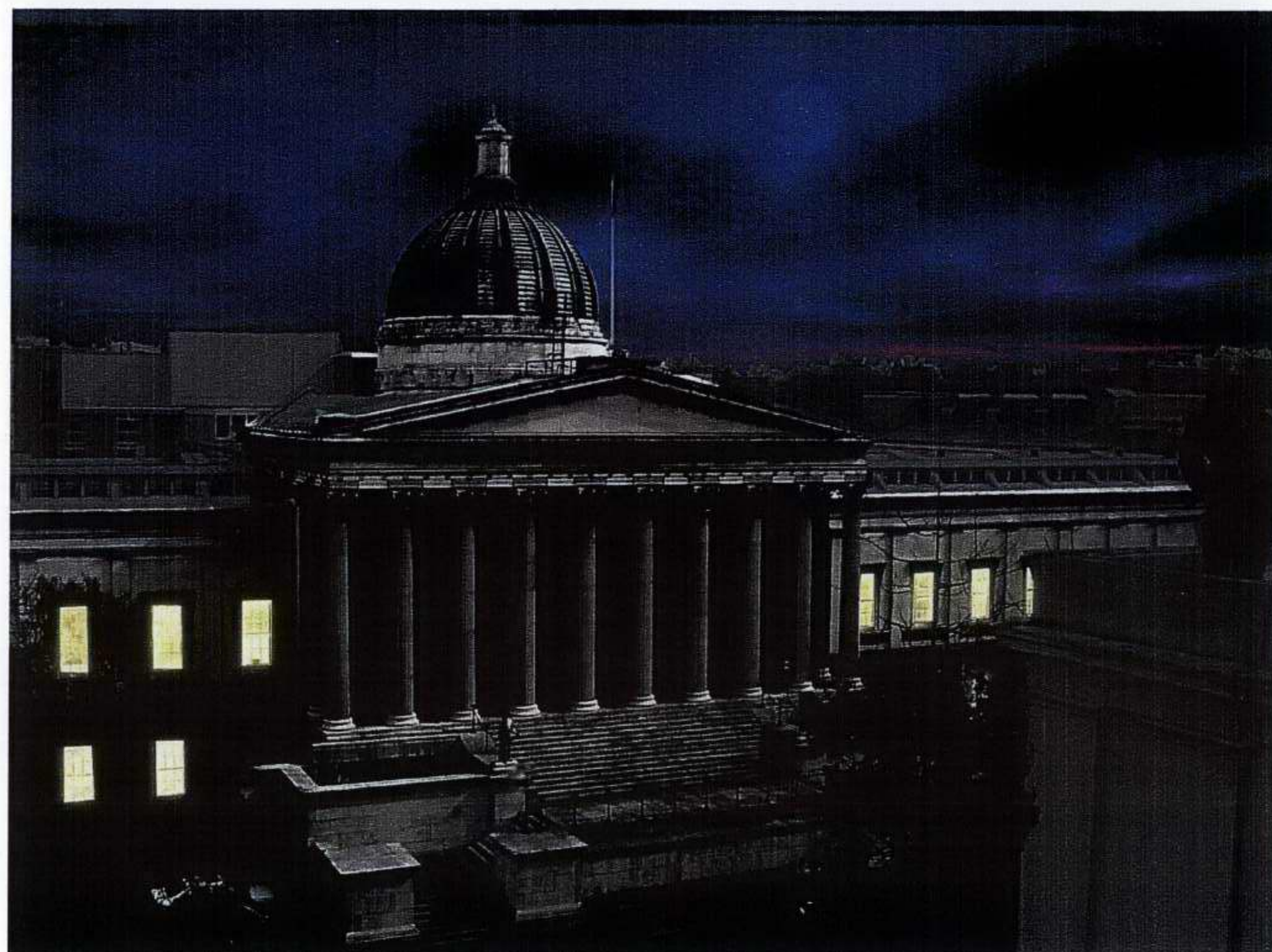
MAX FORDHAM

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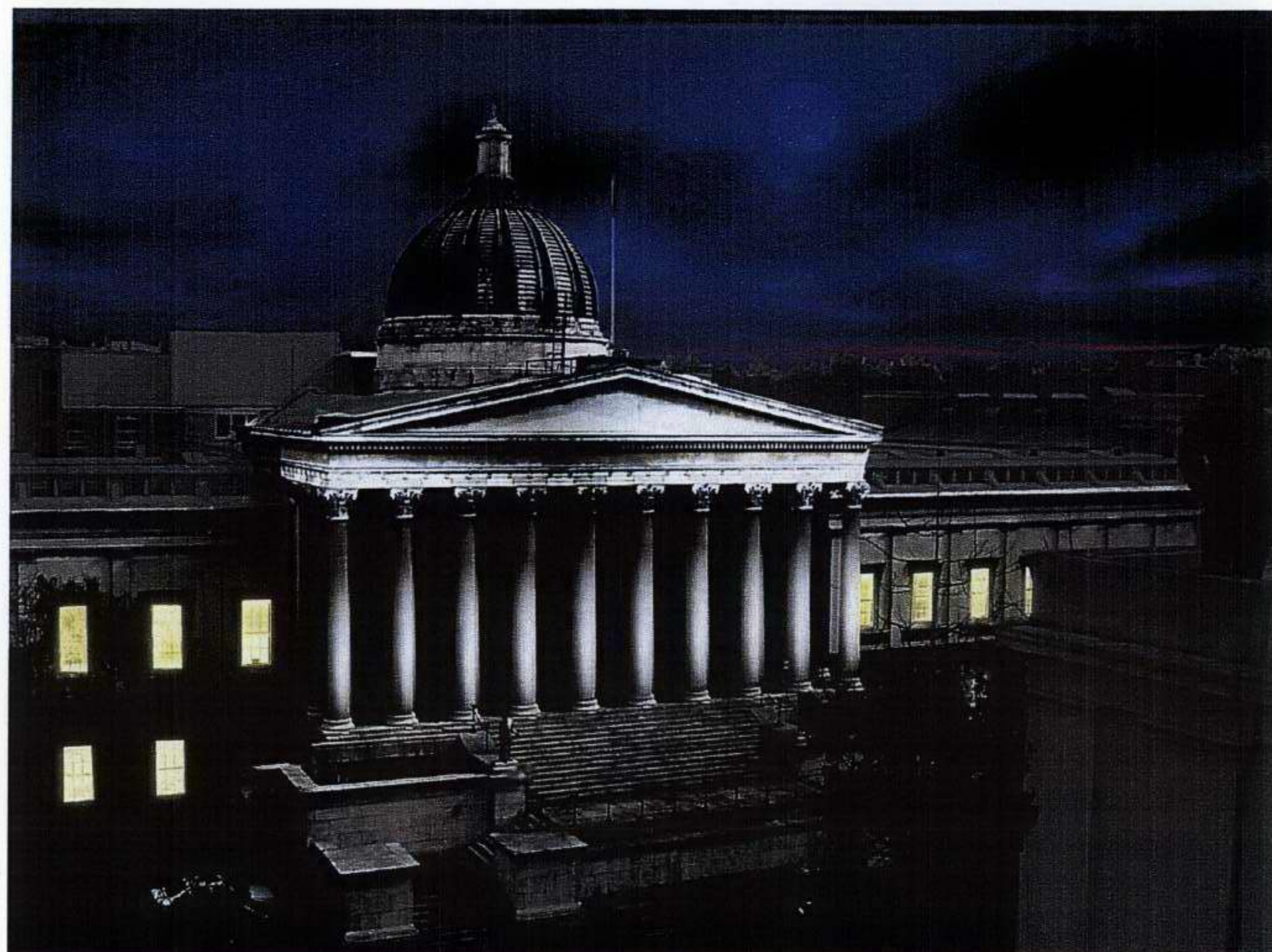


Night time visualisation – glow through windows



Night time visualisation – adding uplights to the Portico columns





Night time visualisation – adding floods to the Portico front edifice



Night time visualisation – adding floodlighting to the dome





Night time visualisation – adding wash lights into the porch

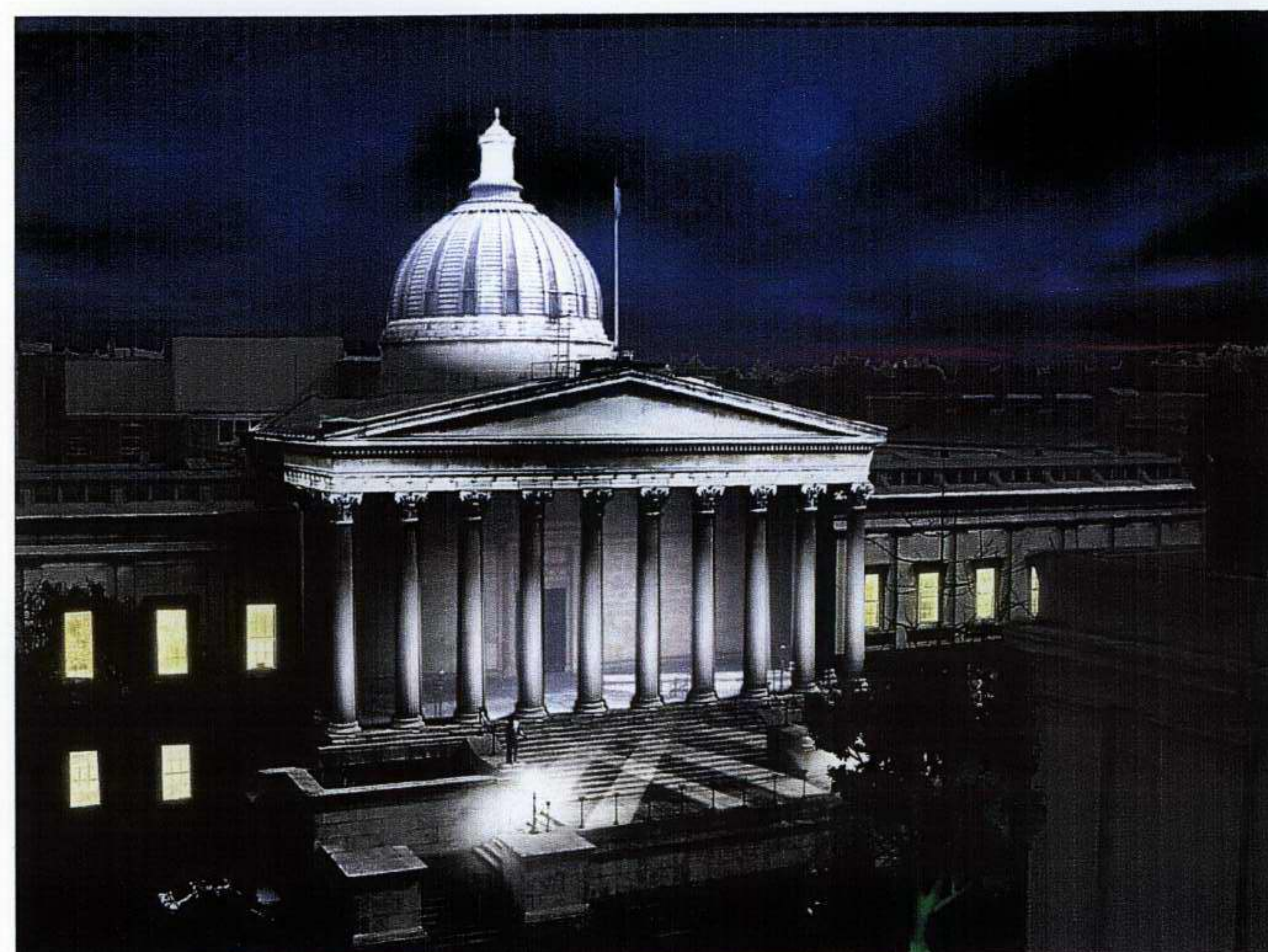


Night time visualisation – adding the existing column lamps





Night time visualisation – adding feature lights to the trees

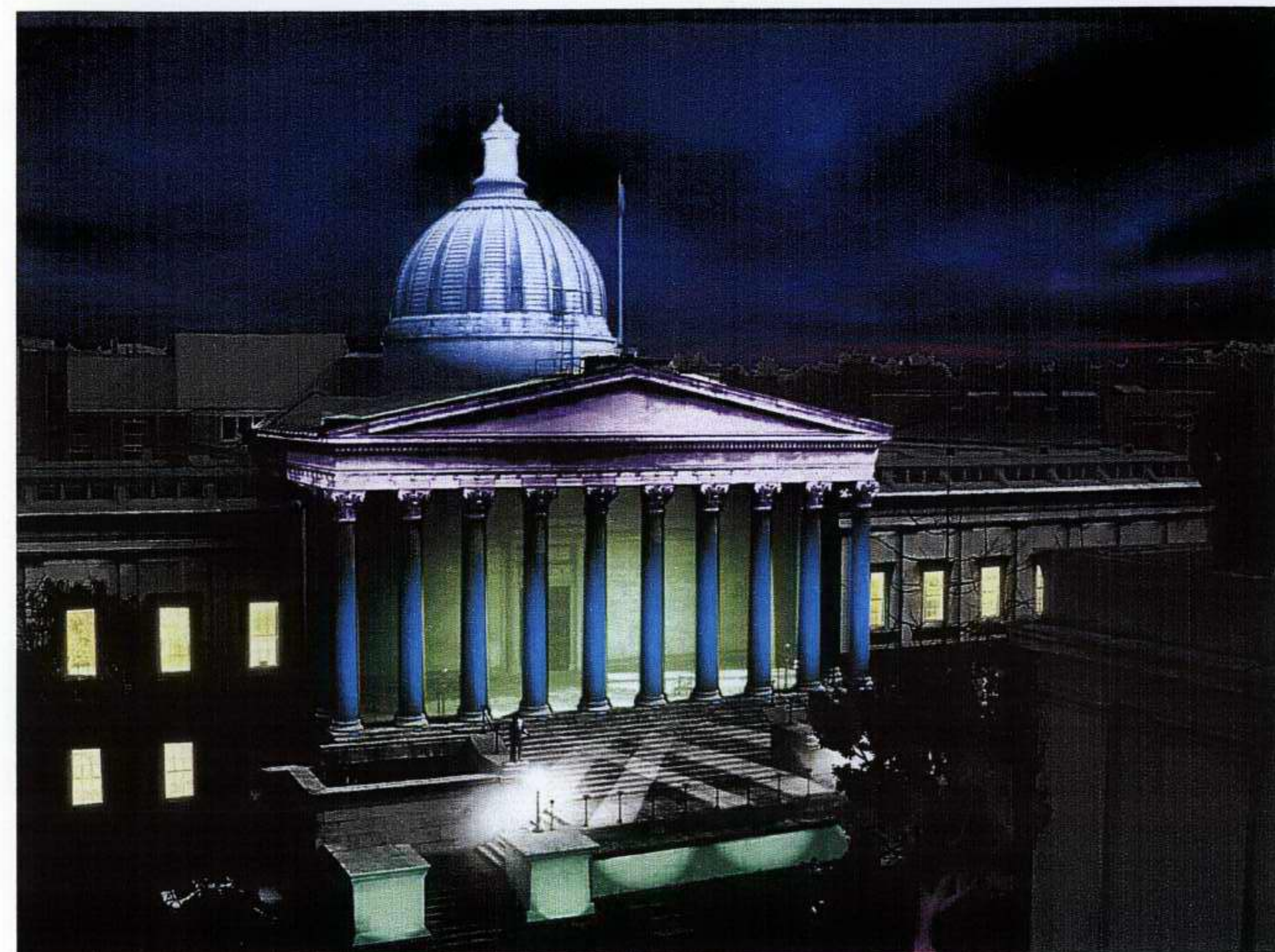


Night time visualisation – narrow beam spots to steps from high level





Night time visualisation – adding uplights to Portico front



Night time visualisation – options for colour change



1. Floodlighting to cupola
2. Washlights to facade
3. Backlighting to Portico
4. Uplights to columns
5. Spotlights to steps
6. Uplights to Portico front
7. Feature lights to trees

## UCL Quadrangle External Lighting Visualisation



base photograph



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2. Lighting to the rotundas of the North and South wings

Emphasis is also given to the rotundas, as the central feature of the North and South Wings. Spotlights are to be provided on the 1<sup>st</sup> floor level string course which will uplight the columns of the rotundas.

3. Entrances into the buildings around the Quadrangle

It is proposed that each doorway providing access to the building will have a gentle wash of light. A slimline LED fitting is proposed to sit within the head of each stone reveal. This will help circulation around the Quadrangle.

4. Ambient lighting within the Quadrangle

General lighting around The Quadrangle is to be provided by 6 No. new lamppost fittings located around the perimeter of the central tarmac area. These are approximately 5m high (to align with the main string courses) and will provide indirect lighting. This is to be supplemented by uplighting of the principal trees around The Quadrangle, and wall washing of the main elevations from floodlights either set into the ground, or located behind pillars, as existing.

**SPECIAL EVENTS AND ENTERTAINMENT**

The college utilises the portico and Quadrangle for a number of special events and entertainments throughout the year. The proposed lighting installations have the ability to give coloured lighting effects to enhance the existing lighting scheme, and in addition, powerpoints are to be provided in existing locations within the portico area, within the two lightwells to either side of the portico, and within the basis of the lamp standards in the main Quadrangle area, so that additional lighting or equipment may be plugged in for special events.

Generally all the light fittings around the Quadrangle are to be arranged on a number of different circuits, and controlled with a themed set lighting control unit. This can therefore be controlled by the time clock or a photo-cell and will provide additional flexibility for the special events.



## HERITAGE IMPACT ASSESSMENT

To assess the potential risks or benefits of the proposals we have considered:

a) The impact of the proposals on the historic fabric

b) The significance of this fabric

c) Any mitigating factors (this is the Heritage Lottery Fund approach to assessments).

The levels of significance are those assigned in the draft UCL Management Guidelines.

	PROPOSED WORK	AREA AFFECTED	IMPACT	SIGNIFICANCE	POSSIBLE RISKS OR BENEFITS	MITIGATION
1	Luminaire recessed in ground beneath trees to light up branches and leaves	Quadrangle	Lifting of existing paving to run new cable routes	Neutral	Highlighting of historical landscaping to enhance quadrangle setting.	Reversible
2	Lamp post luminaire with symmetric indirect light 5m high	Mounted on posts around Quadrangle. Refer to plan for locations	Provision of improved lighting levels for general circulation around the Quadrangle. Some paving to be lifted to provide cable routes.	Significant	Major benefit to improve aerial lighting and Health & Safety around Quadrangle area.	Reversible
3	Floodlights above main entrance to Person and Chadwick	Entrance gateway	Installation of new cable routes from inside each building (fed from 1 <sup>st</sup> floor rooms)	Neutral	Minor risk setting of listed buildings but signify important architectural feature and highlights route through to Wilkins portico.	Reversible
4	Recessed lights to either side of steps from main entrances from both Chadwick and Pearson buildings	Entrance gateway	Negligible	Neutral	Health & Safety Lighting to existing steps.	
5	Lighting to entrance doors	Entrances to all buildings around the Quadrangle	Highlighting of each doorway, fitting surface mounted onto existing stone lintels	Significant	Minor risk setting of listed buildings by proposing to use small light fittings. Benefit to signify an architectural feature.	Reversible
6	Recessed in-ground luminaires to light Pearson and Chadwick facades from the grass within the Quadrangle	Quadrangle Pearson and Chadwick buildings	Lifting of paving to run new cable routes	Neutral	Minor benefit with removal of existing flood-lighting attached to building fabric.	Reversible
7	Wide beam flood to light up the dome from 4 locations	Visible from a wide area and Quadrangle	Modelling and highlighting of important architectural feature. Some surface mounted cabling at roof level.	Highly significant	Benefit to setting of Listed Building.	Reversible
8	LED Light fittings recessed into steps of portico	Top stair of portico  Fittings selected are 70mm diameter (smallest available cables to run concealed at junction between tread and riser.	Highlighting of prominent architectural feature within the Quadrangle	Significant	Minor risk to existing fabric but choice of small size light fittings. To carefully lift the existing stone to fix the light fittings onto the step's base. Benefit to setting of Listed Building. Benefit of removal of large surface mounted flood-lights.	Reversible
9	Up-lighting of pediment	Installation of fittings within 2 lightwells in front of portico (not visible)	Highlighting of prominent architectural feature within the Quadrangle	Highly significant	Benefit to setting of Listed Building.	Fittings will not be visible. Reversible



	PROPOSED WORK	AREA AFFECTED	IMPACT	SIGNIFICANCE	POSSIBLE RISKS OR BENEFITS	MITIGATION
11	Installation of high level LED lights within roof space of portico	High level within portico	Cable route from roof space through to high level fittings. Like to wash back wall of portico	Highly significant	Minor risk. Location of proposed fittings will not be visible from the Quadrangle, and light fittings are small scale in relation to space.	Reversible
12	Up-lighting of Rotundas to South Wing and Slade School of Fine Art	Rotunda Slade, Rotunda South Wing, First Floor string course.	Cable route around existing first floor string course as existing. Surface mounted spotlights concealed on ledge to highlight the columns	Significant	Fittings selected are small in relation to the depth of the ledge and are barely visible.	Reversible
13	Replacement of existing floodlights at low level on ledges, pillars and lightwells.	Quadrangle Lighting to Slade South Wing and North and South Cloisters	Replacement of existing fittings	Neutral	Minor benefit. Replacement of existing bulky fittings	Reversible
14	Lighting to underside of eaves to Security Lodge	Entrance Gateway	Installation of fittings to underside of soffit of gateway lodges	Neutral	Minor benefit to setting of Listed Building	Reversible
15	Existing lighting posts to portico	4 No. existing light fittings to be refurbished	Restoration of existing	Significant	Benefit	Existing light fittings in extremely poor condition. To be refurbished
16	Emergency/Anti-panic lights above existing entrances	Entrances providing means of escape from main buildings(replacement of existing fittings)	Fitting surface mounted onto historic fabric	Significant	Major benefit (replacement of existing fittings) to improve the fire safety at the Quadrangle area. A requirement to be integrated in the Quadrangle lighting scheme	Reversible
17	External Power points	Around portico areas	Existing external powerpoints behind columns will be renewed, as will points in nearby recesses	Significant	Major benefit to reduce the use of long cables for future events. Trip hazards over long cables will be avoided	Improved fittings