









03 Right to Light shave

04 Right to Light opening

05 Passage

INTRODUCTION

Apart from the surprisingly large areas of its surface that are superbly planned, London's planning is an amalgamation of rules (some of them medieval), negotiation (some of it highly personal), and financial compensation for the damage inflicted by almost any structure on its neighbours. Fundamentally hostile to the puritanism of the modern in this complex free for all, a number of styles have flourished – neo gothic, baroque, brutalism, post modernism, picturesque, high tech, and developer-class.

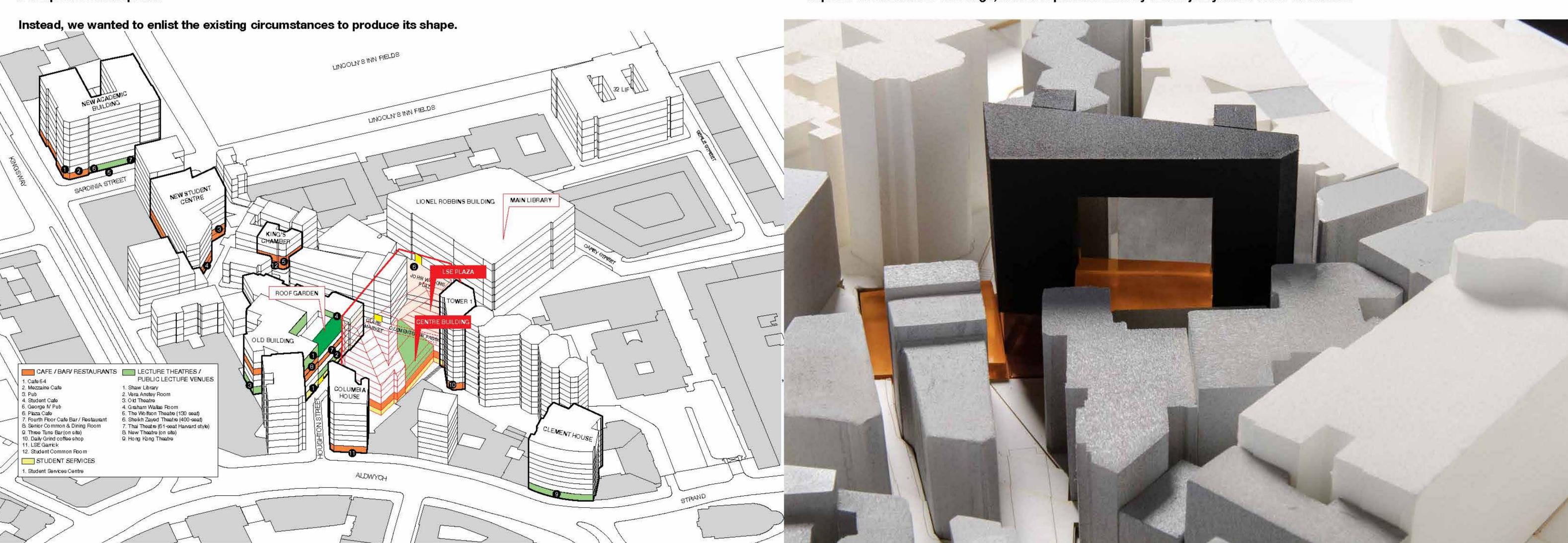
The LSE campus is a cacophony – at least periods of construction left their traces – it did not seem right for the environment to add a crisp new masterpiece.

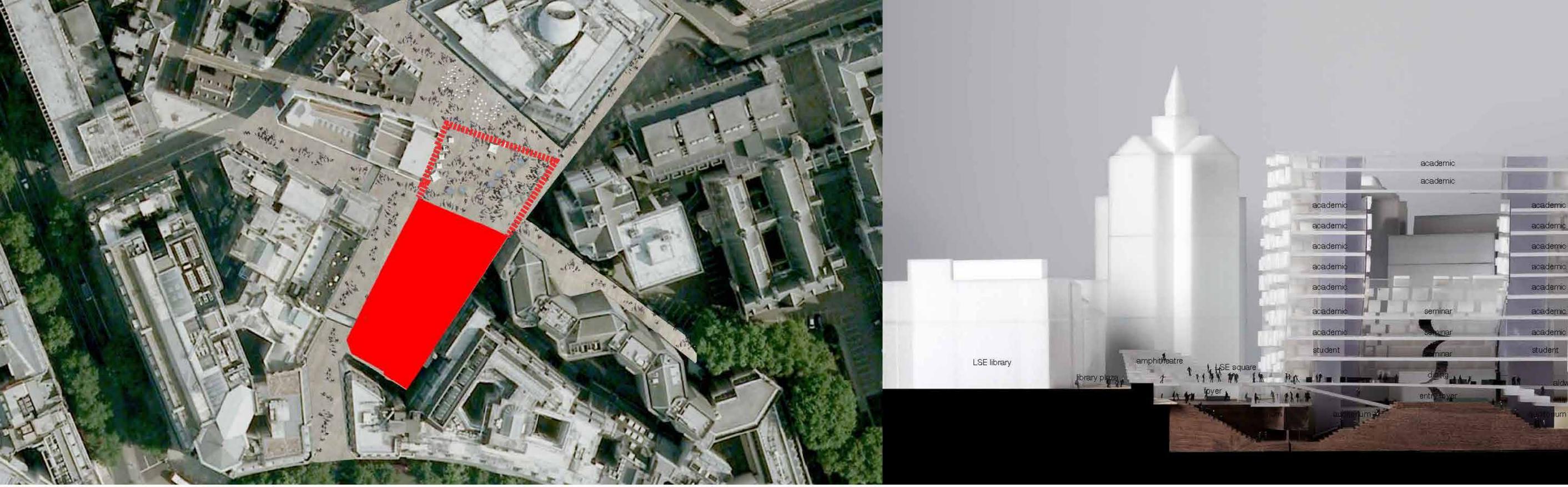


LSE CENTRE BUILDING

What intrigues us in this project is to imagine the lowest possible volume, to submit it to contextual, technical, regulatory demands and create in that way a stunningly beautiful volume, that has authority as a shape, seemingly transcending all the pragmatic demands that have, in fact, defined it.

Even as brief and clients have talked about public space, we have not subjected this Gordian cluster to the sudden and inevitably alien introduction of public space, but propose to not occupy the full footprint so that we crate, at the location where a large number of paths and directions converge, a central place defined by the majority of the LSE's structures.





LSE SQUARE

The newly created LSE Square extends from the datum of the Central Building dining facilities, mitigating the multiple levels of the campus lanes and streets, and forming a new sunlit gathering space at the central node of the campus.

The Square is punctuated by blocks of green, trees, seating, and skylights to the central auditorium beneath, with the extreme corner lifted to form an outdoor amphitheatre, capturing the afternoon sun.

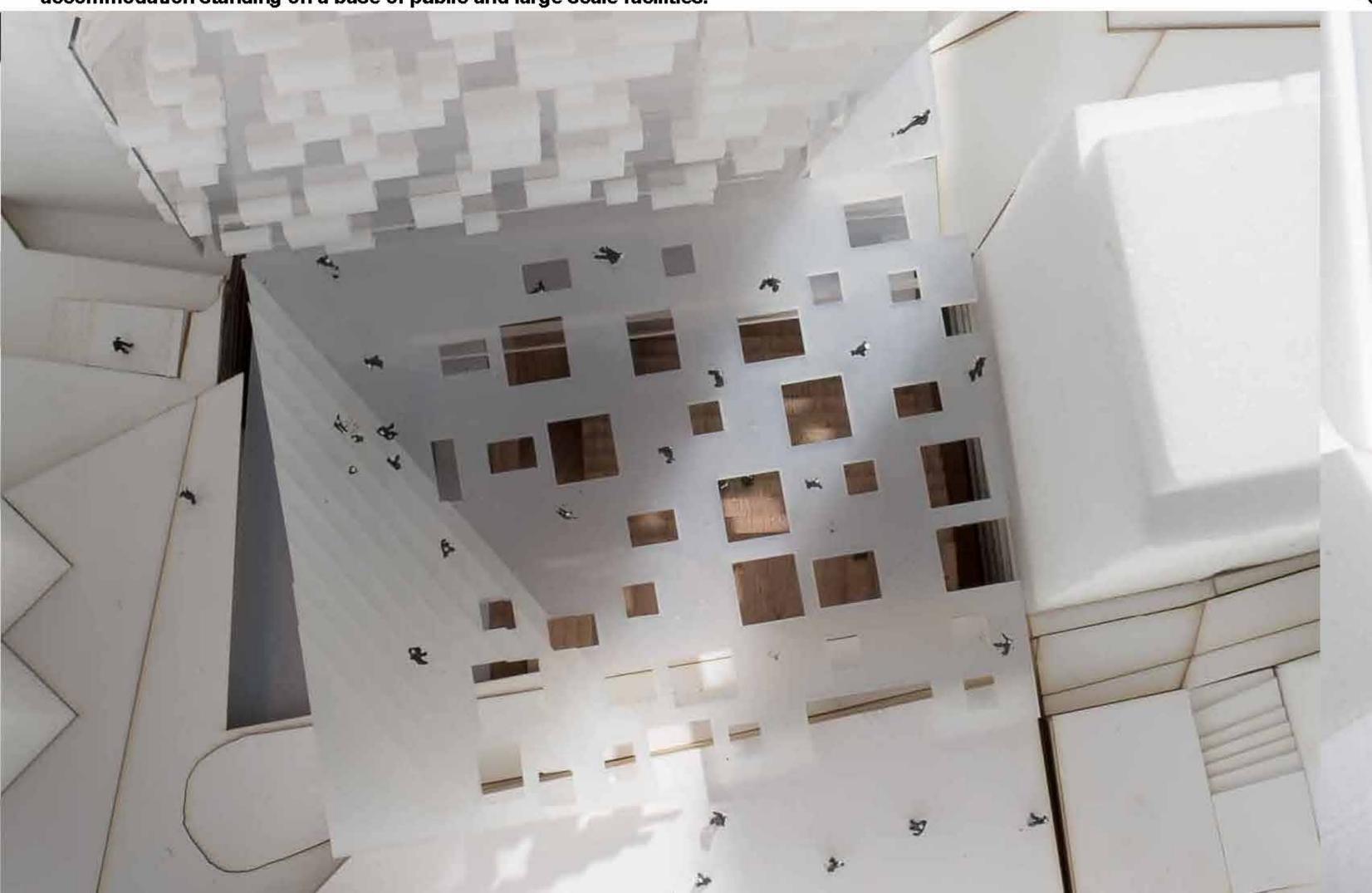
Generated as a zoning envelope, perforated by a right to light "window" – the building is in fact an arc of intimate teaching and learning accommodation standing on a base of public and large scale facilities.

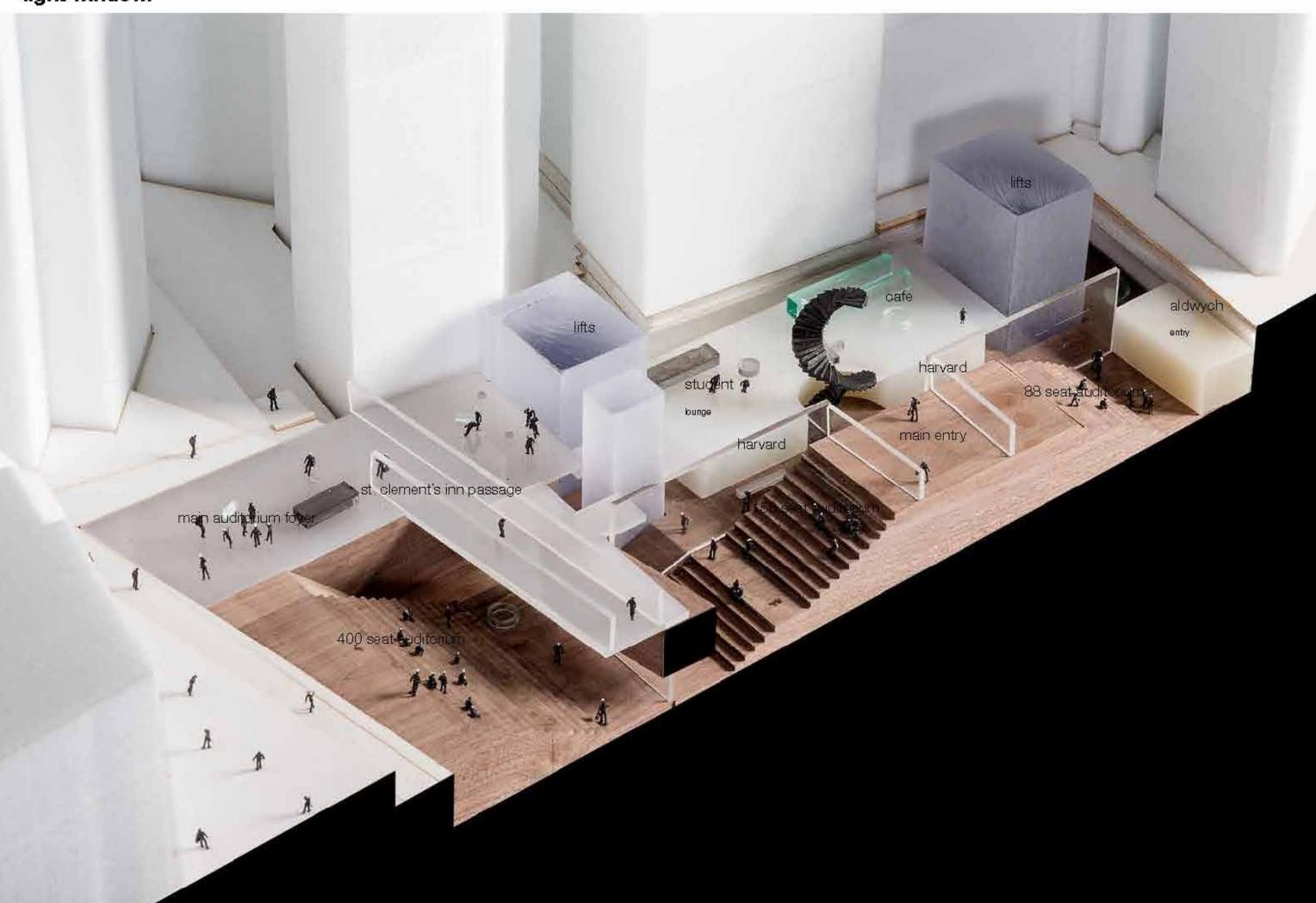
PUBLIC PLINTH

The profile of 3 auditoriums is used to introduce a sequence of entrances and foyers that flow along Houghton Street and down to the lower teaching level, ultimately joining the lowest foyer of the large auditorium as it ascends back beneath LSE Square. From the Square, the elevated dining level rejoins Houghton Street, terracing down to the Aldwych Entry.

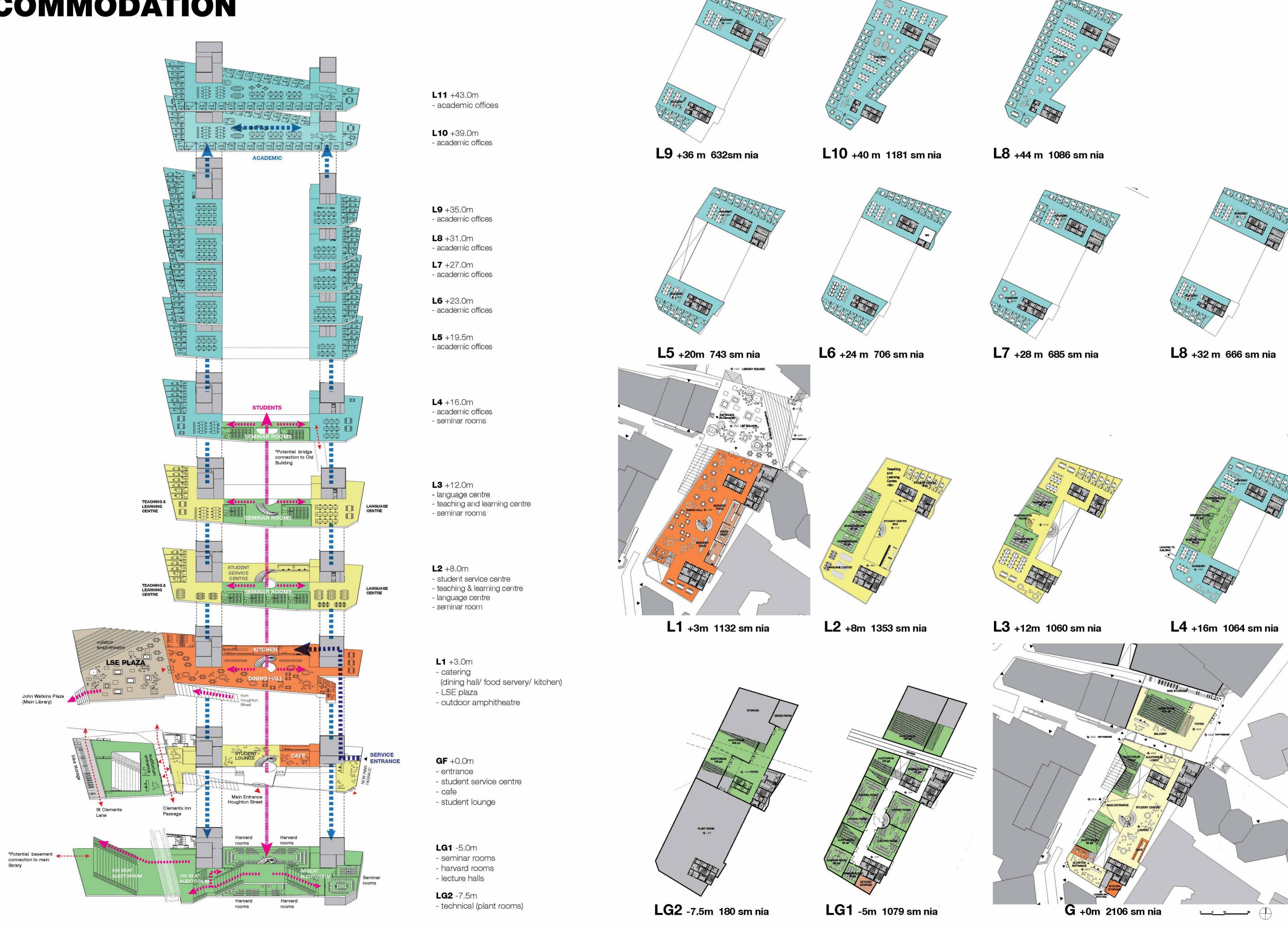
Clement's Inn passage remains, doubling as an entrance vestibule to the large auditorium.

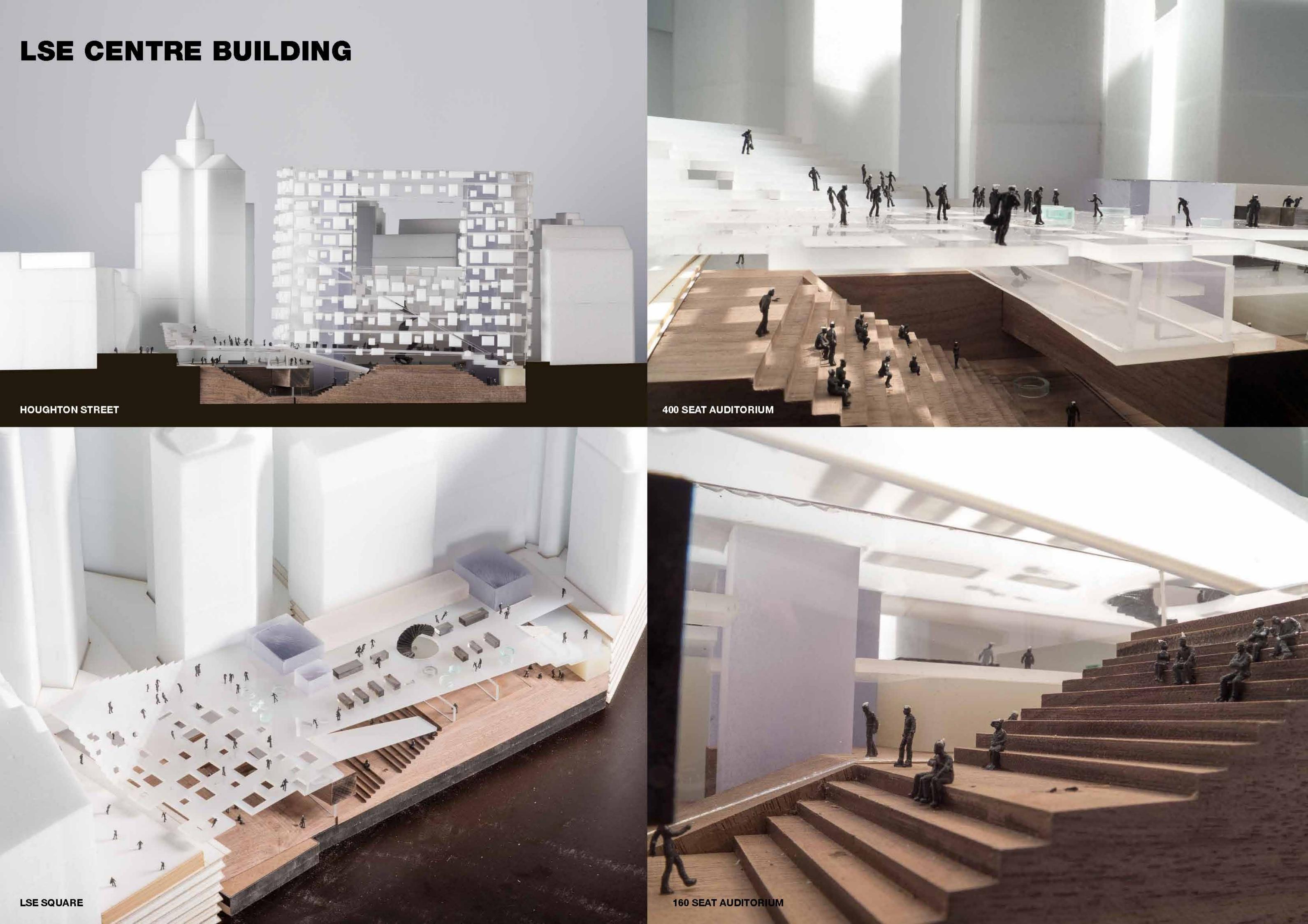
A central stair penetrates this horizontal flow, vertically connecting the plinth, and ascending up to the sloping plane of the right to light window.



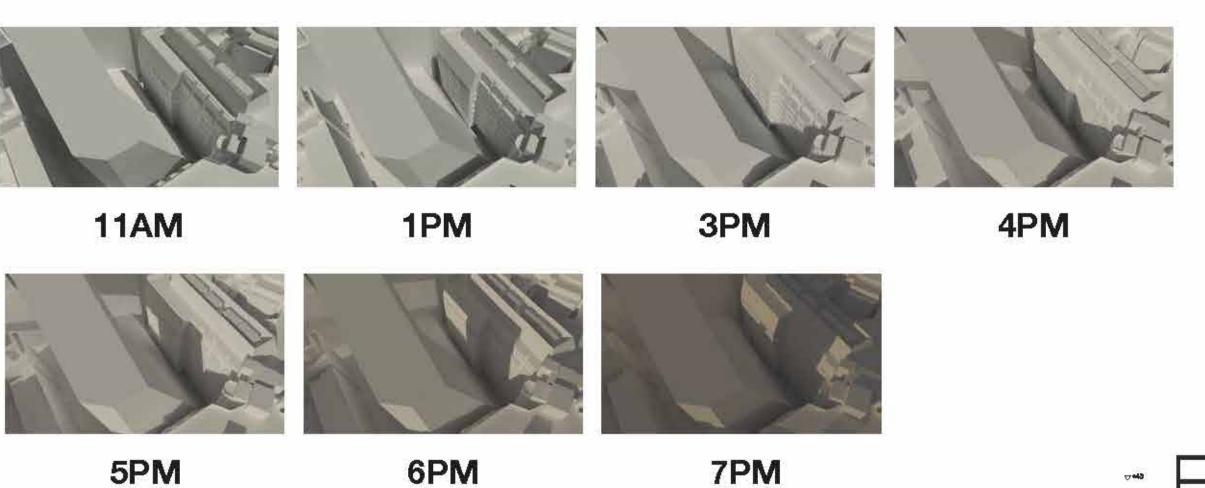


ACCOMMODATION



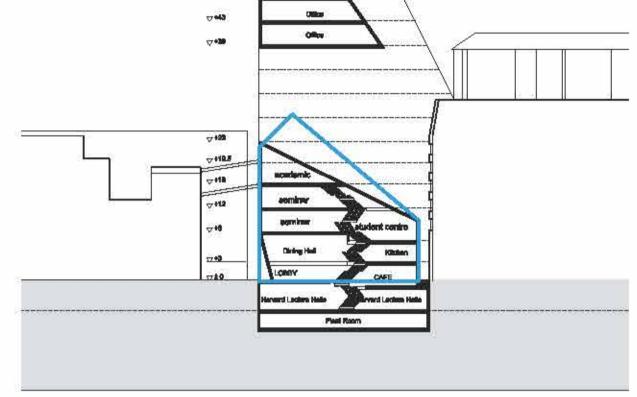


RIGHT TO LIGHT

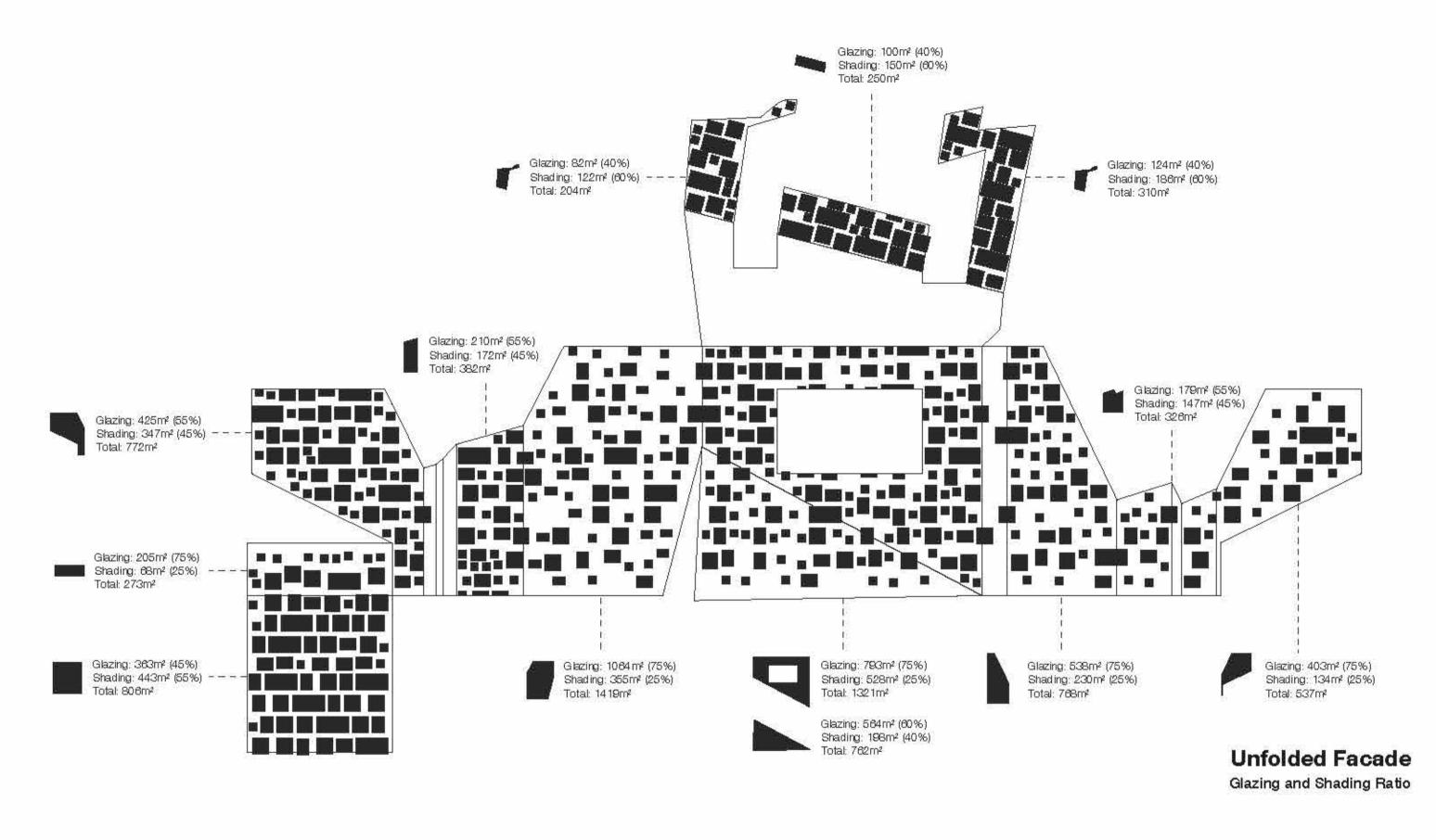


Shadow study at Aldwych House / Summer Solstice (June 21)

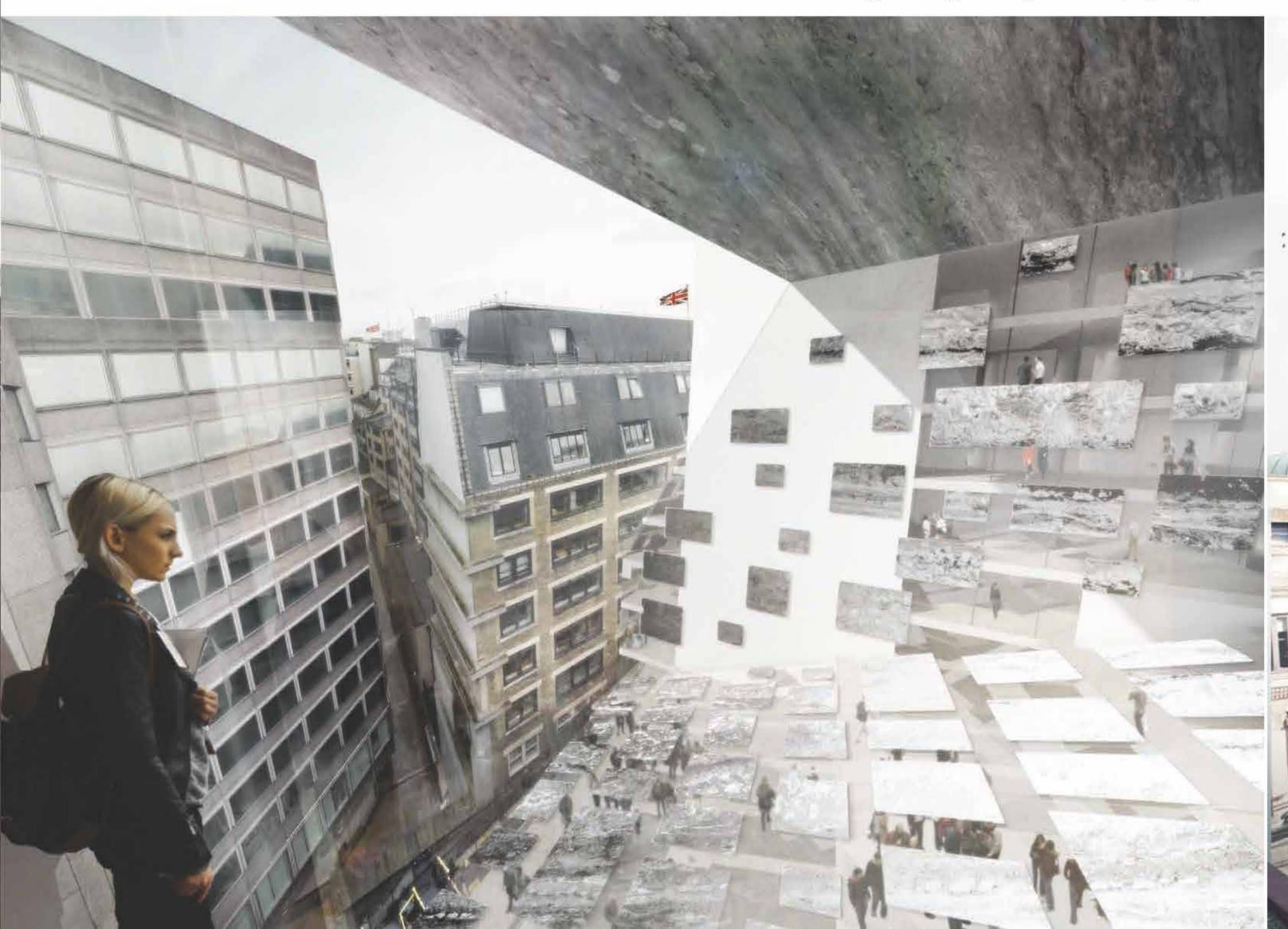
While the building exceeds the Right to Light envelope adjacent to Aldwych House, an opening is created that respects the RtL aspect angle from the lowest Aldwych House windows. Materials at the window remain light and reflective, further bringing daylight into the interstitial space between the buildings. The unexpected bridging between the two legs of the RtL envelope will create a visor effect for some windows, and a full RtL assessment is required to review both the precise aspect of the bridge and the strongest position for negotiation with neighbours and council.

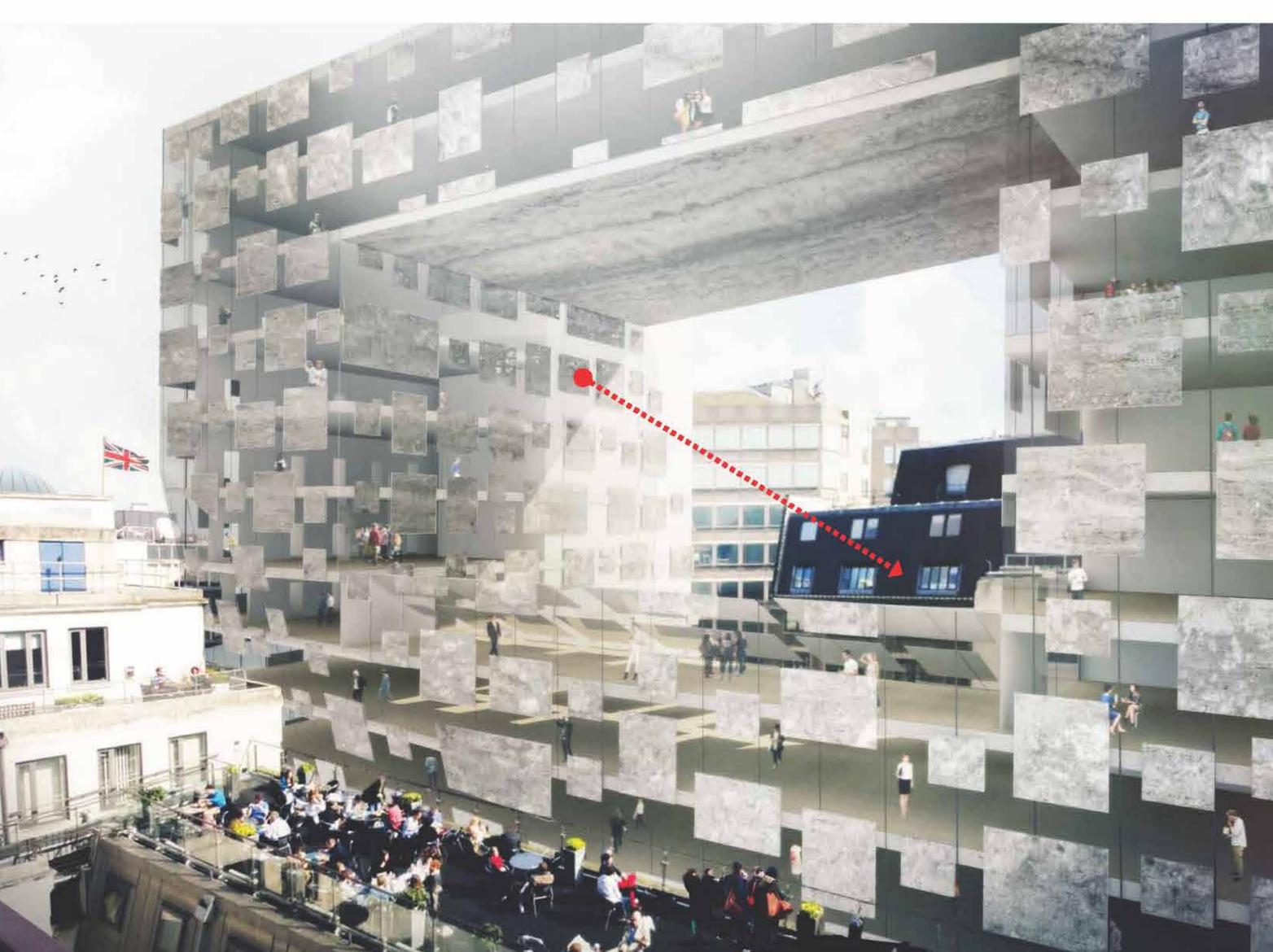


Section against Right of Light Envelope (blue)

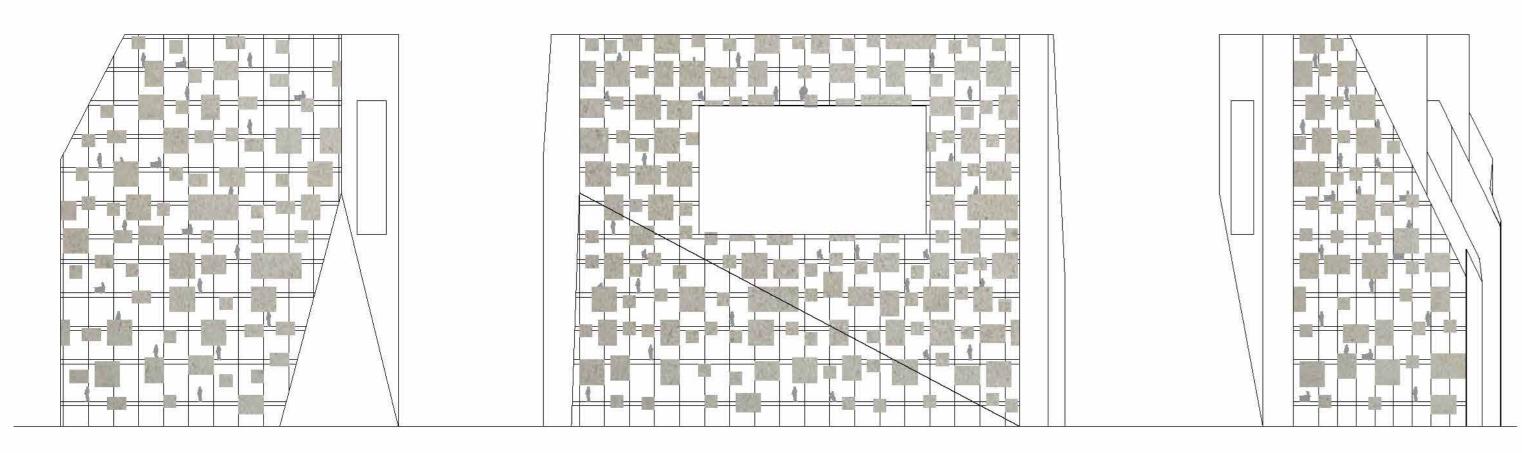


FACADE



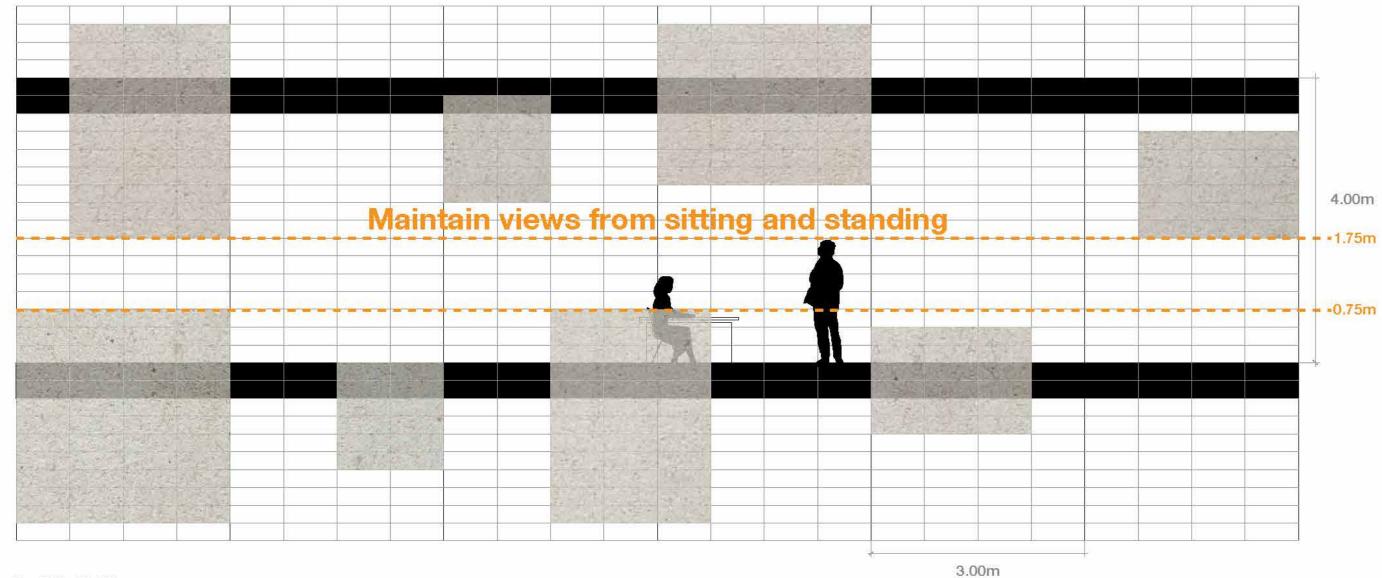


The eccentricity and irregularity of the proposed LSE Centre Building, together with the extent to which buildings openings are today dictated by other than purely architectural issues, and the contrasting needs for light and dark spaces dictated by the LSE's program – all these have suggested a reversal of the standard "window" and "wall" relationship whereby larger patches cover where it is possible and leave a transparent outline of the main volume.



LSE Square Elevation Houghton Street Elevation New Inn Passage Elevation

Building Elevation



Facade Visibility



Facade Modules

SUSTAINABILITY

SUSTAINABILITY STRATEGY & BREEAM

Sustainability has been a critical consideration for the design team, as early design decisions can provide the most valuable opportunities to use resources efficiently – or alternatively can impose limitations that cannot be recovered at later design stages. As a result, the implications for sustainability were considered during early design workshops, in particular the impacts of massing, orientation, façade expression, form, and adjacencies.

Key issues included the following:

- Minimising unwanted solar gain, through variations in glazing ratio according to orientation and exposure (height).
- Providing adequate space at roof level for renewable generation technologies, and for rooftop wildlife habitats.
- Identifying straightforward routes to access secure cycle storage.
- Location of functions to reflect requirements for daylight and views.
- Consideration of embodied impact of major building elements.

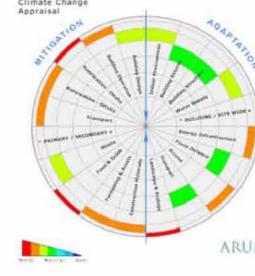
The design team are targeting an Outstanding rating against the BREEAM NC 2011 Education Scheme. This rating has been designed to be challenging, with buildings that achieve it representing the top 1% of sustainable construction projects.

Therefore, in order to define a viable strategy for Outstanding, the project team have completed a pre-assessment for the project, with a range against each BREEAM category illustrated in Figure 1. This preliminary scenario includes credits worth 86.04%, exceeding the threshold for Outstanding, and addressing the majority of available credits across all nine core BREEAM categories. The pale green bars indicate an Excellent score, illustrating where particular effort is required to lift to Outstanding.

BEYOND BREEAM

BREEAM is designed to benchmark a building's sustainability performance at handover. As the LSE are planning to occupy the estate for the coming decades, a longer term view is appropriate. Arup's in-house Climate Change Appraisal Framework will be used during design development to identify potential vulnerabilities, and options to improve the resilience of the building to projected changes in London's climate.

A Soft Landings 'action list' has been developed by the design team for the LSE GSSS. This will be



Climate Change Appraisal Framework

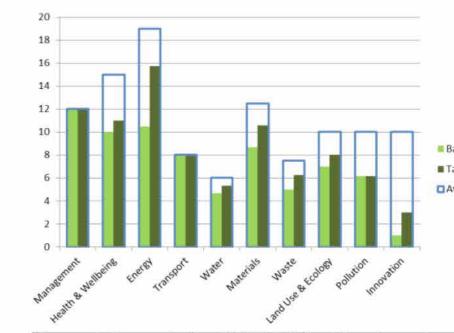
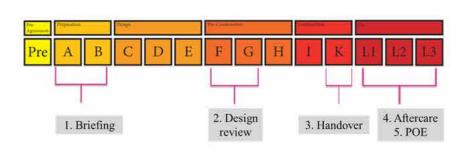


Figure 1 Scenario for BREEAM Outstanding at LSE GSSS

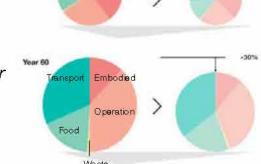
The most significant challenge in achieving the target rating has been identified as the mandatory requirement to reduce carbon Baseline emissions by more than 40% over the • Target Building Regulation Part L baseline, for credit Ene01. This will be achieved through contributions to demand reduction from the mechanical services, a high performance thermal envelope, efficient lighting, and finally by the incorporation of renewable technologies. Preliminary modelling by the design team indicate that the required reductions can be achieved for the proposed form.

The sustainability team will also co-ordinate additional input from a range of Arup specialists, whose early input will be essential to incorporate best practice around issues of acoustics, ecology, flood risk assessment, and resource efficiency.



Soft Landings key milestones

Implications of embodied carbon savings for typical buildings over longer lifespans



Considerate Acoustics for all plant

used as framework for discussion during mobilisation, to develop a tailored Soft Landings framework for this specific project, that reflects the needs of the LSE

during and following design and construction.

Although the site is at the heart of the city, there are opportunities to provide habitats both at roof level, where biodiversity can be maximised, and at ground level, where native species will be selected to enhance the public space experienced by students and visitors. Options for consideration include the incorporation of fruit trees in the plaza – an 'edible landscape' to provide visitors with a physical manifestation of the project's commitment to sustainability. Life cycle carbon accounting takes into account construction, operation and disposal phases of the building's life. Carbon analysis will be used to guide design decisions from the outset. This systematic approach provides a framework to understand the implications of system selection, with analysis detail developing in parallel to the design progression.

