Architects' Journal

RSHP completes chameleon-like Centre Building for the LSE – review

10 SEPTEMBER, 2019 BY ROB WILSON

SHOW FULLSCREEN

Source:Joas Souza

Source:Mark Gorton/RSHP

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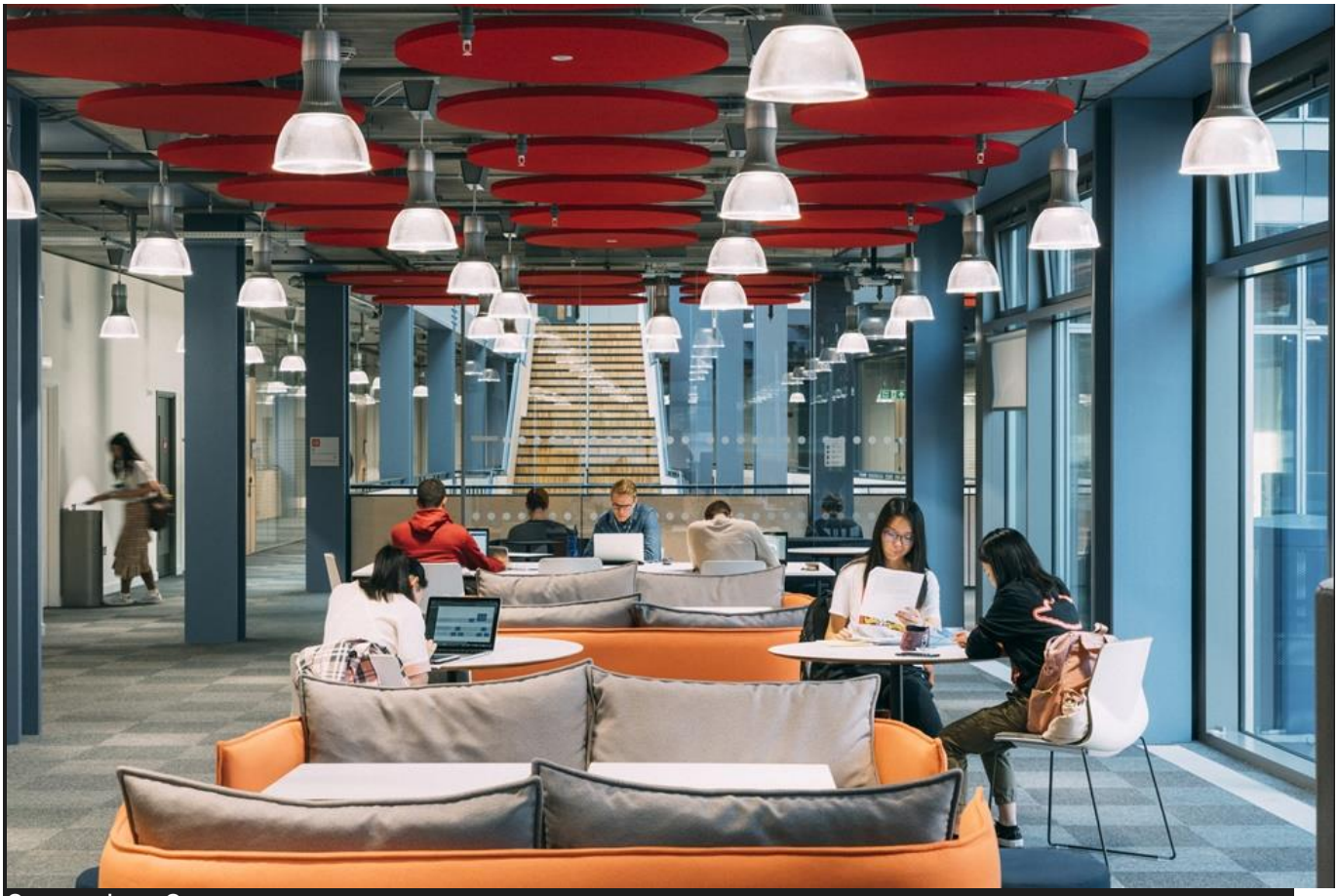

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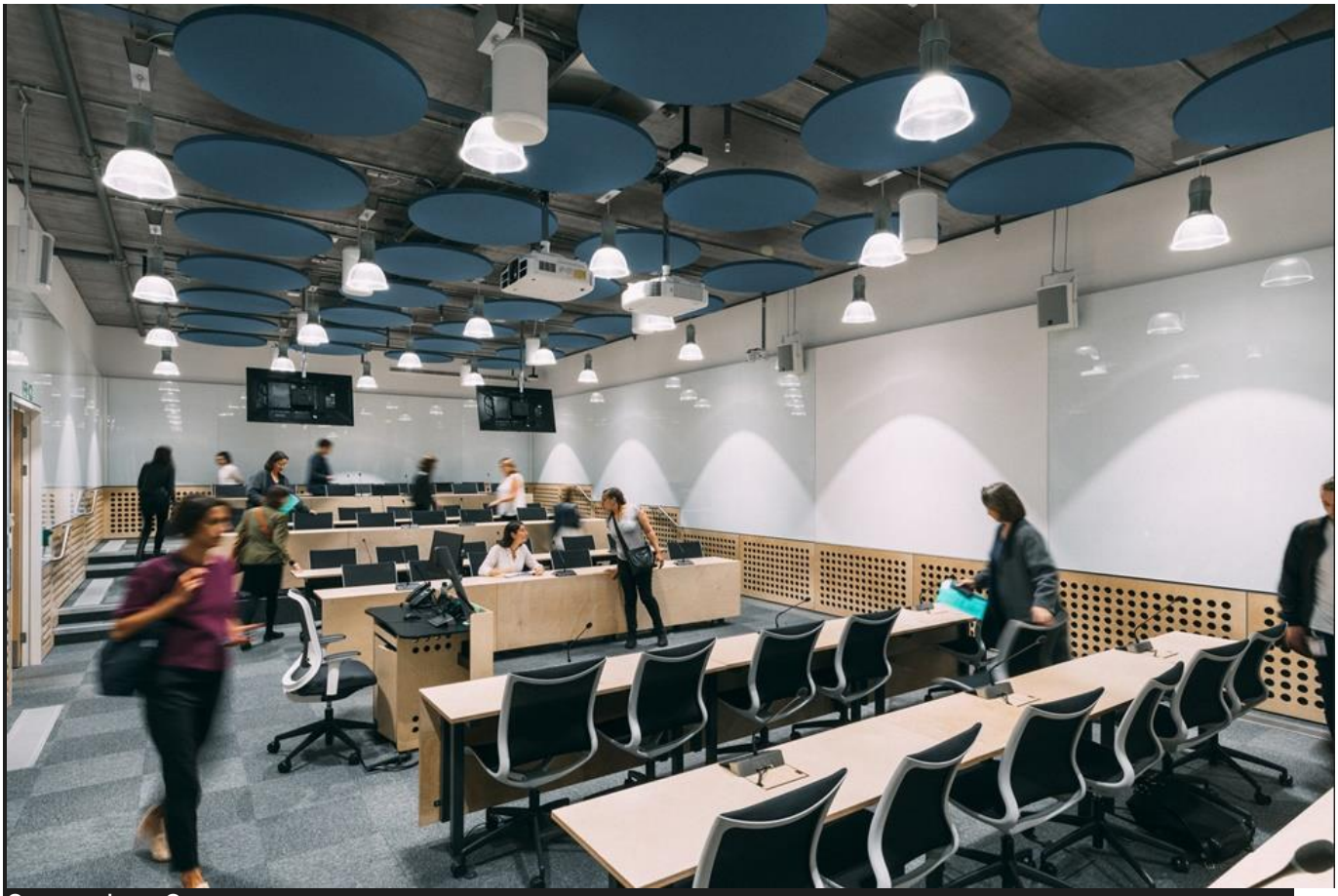

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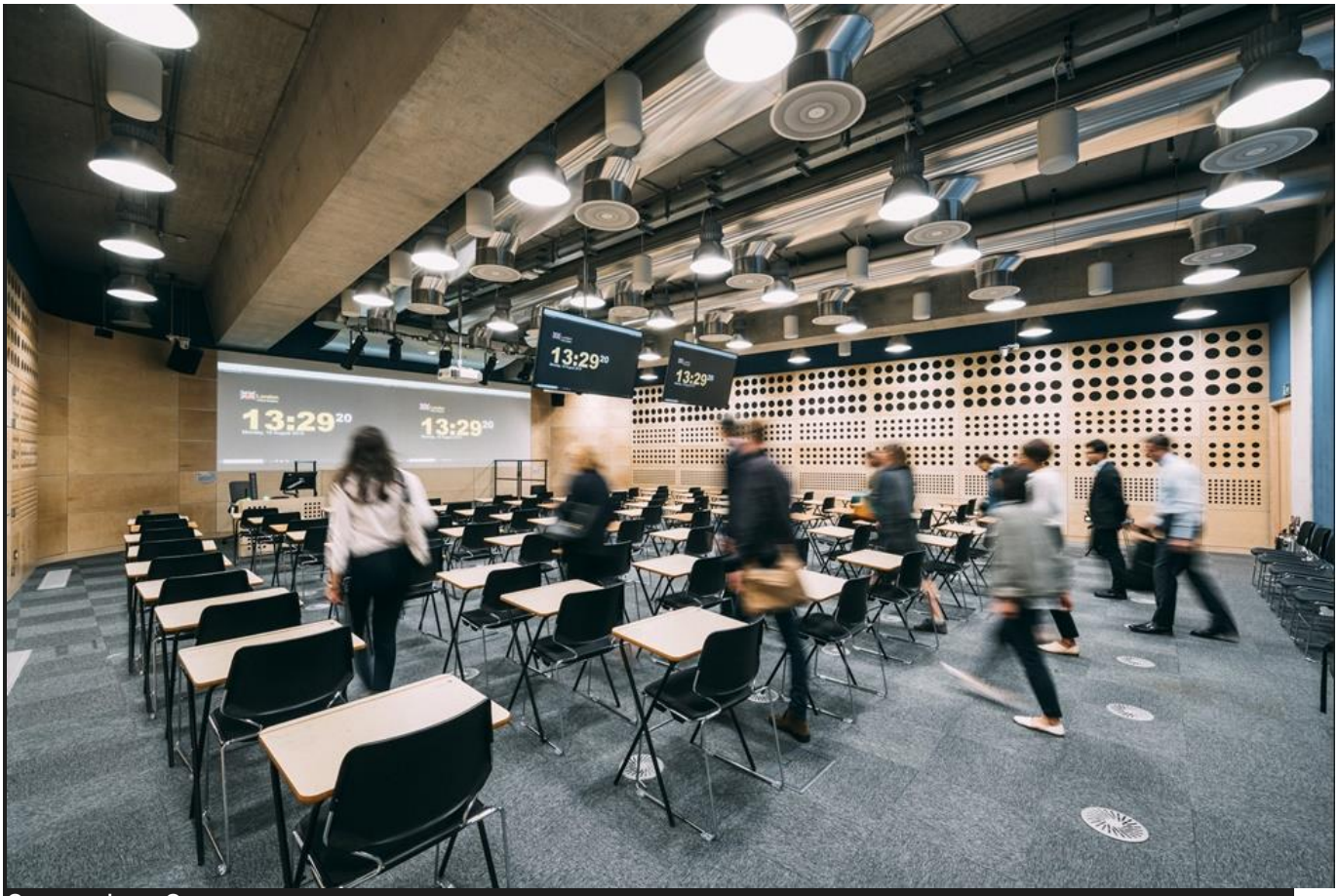

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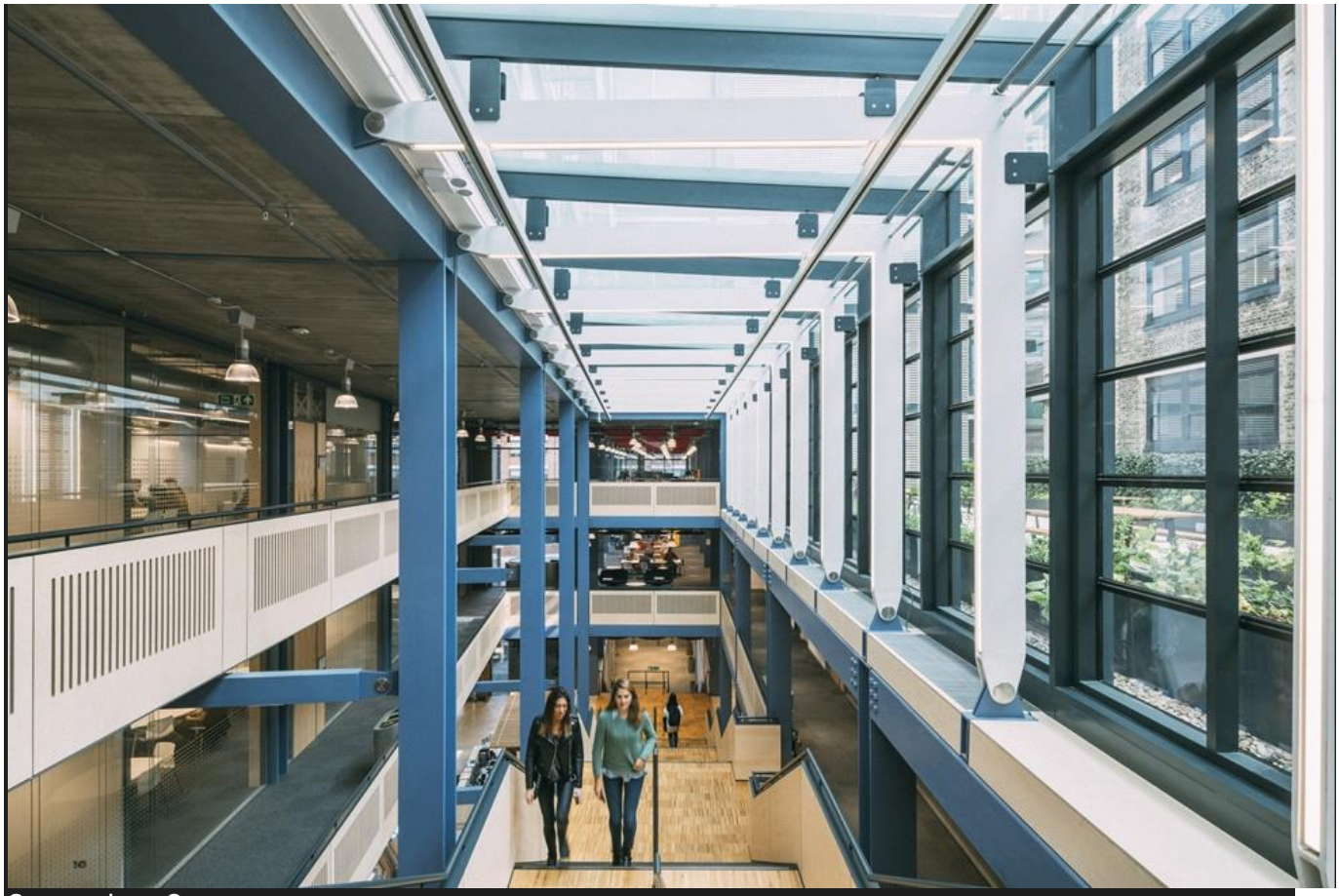

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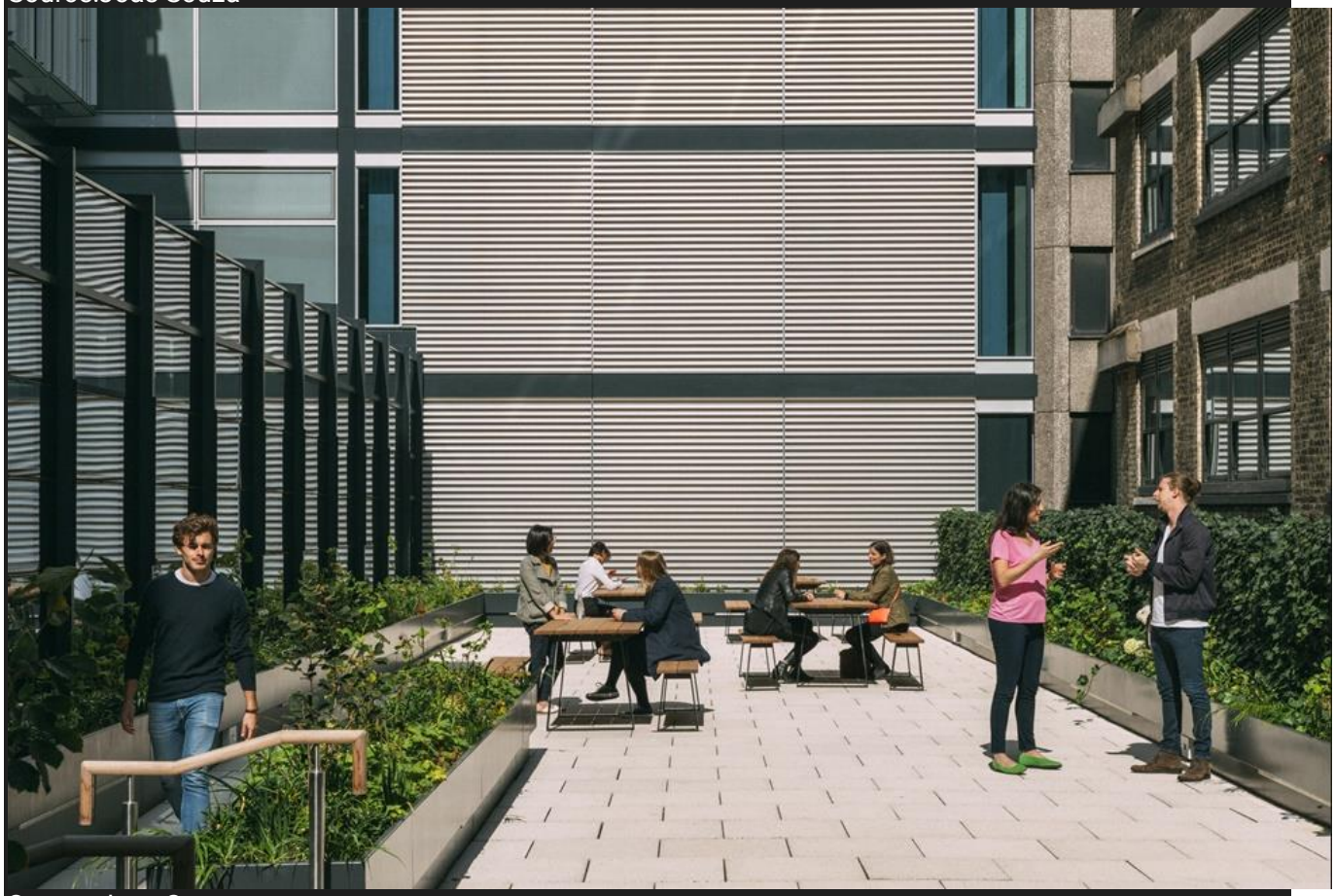

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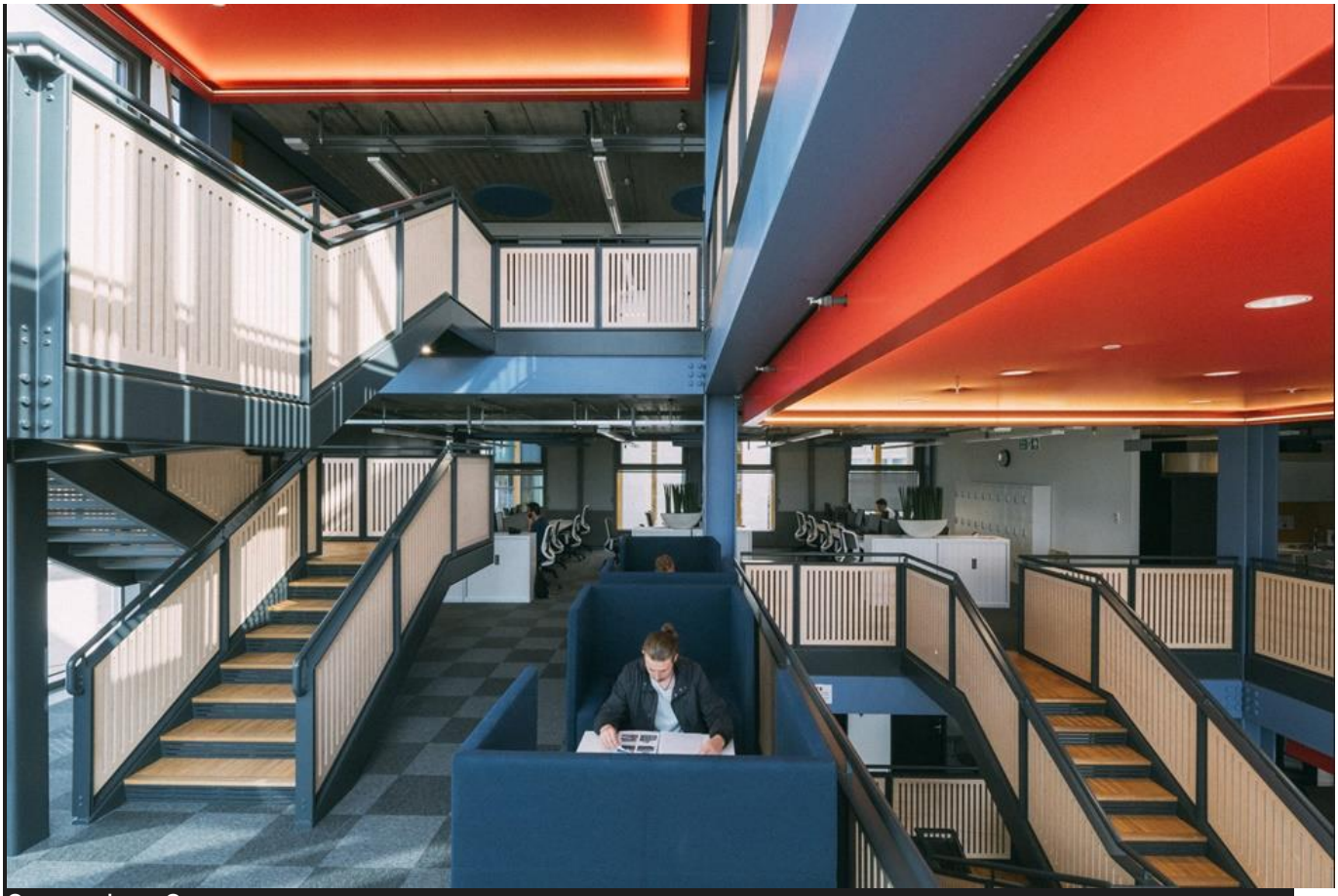

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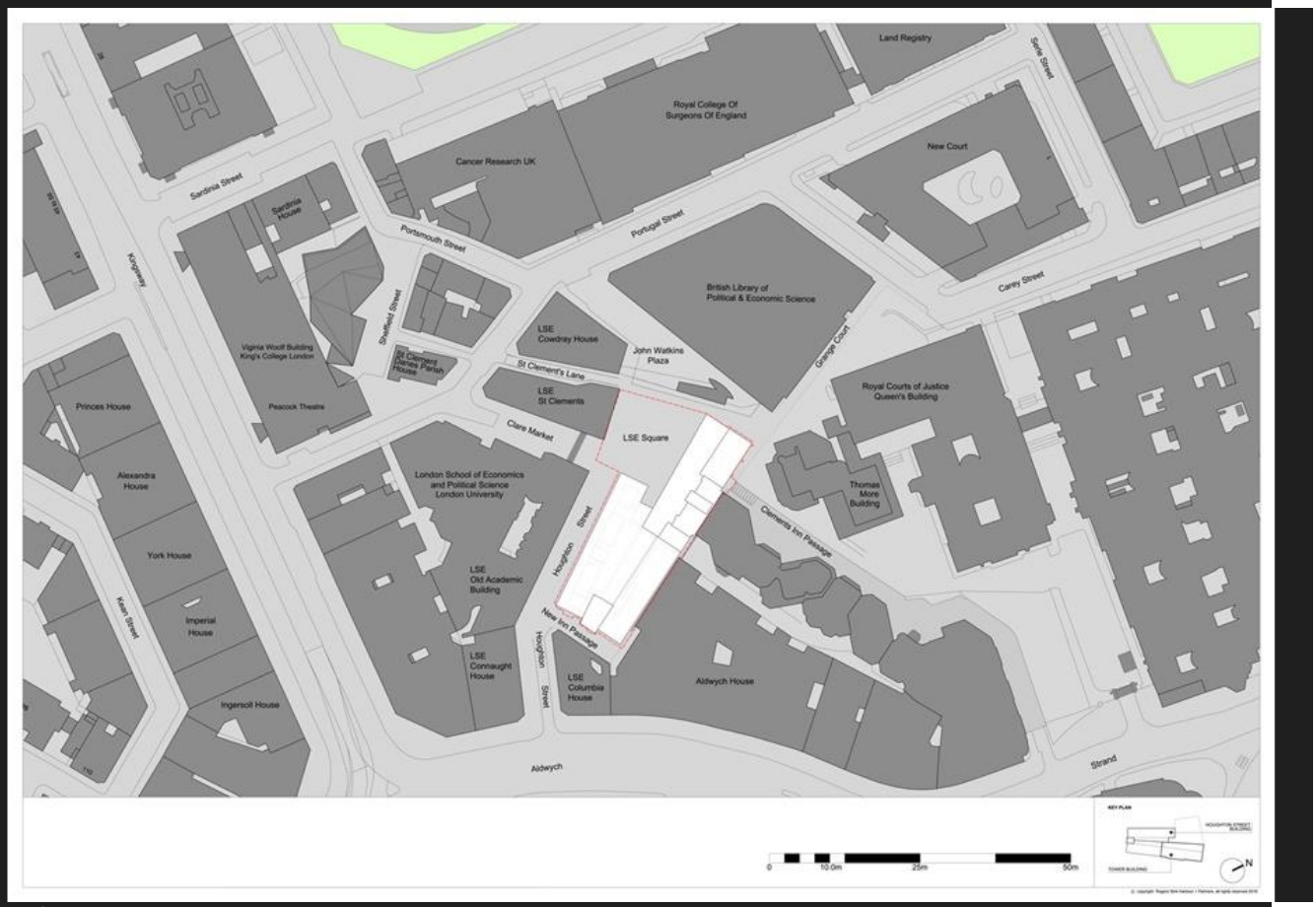
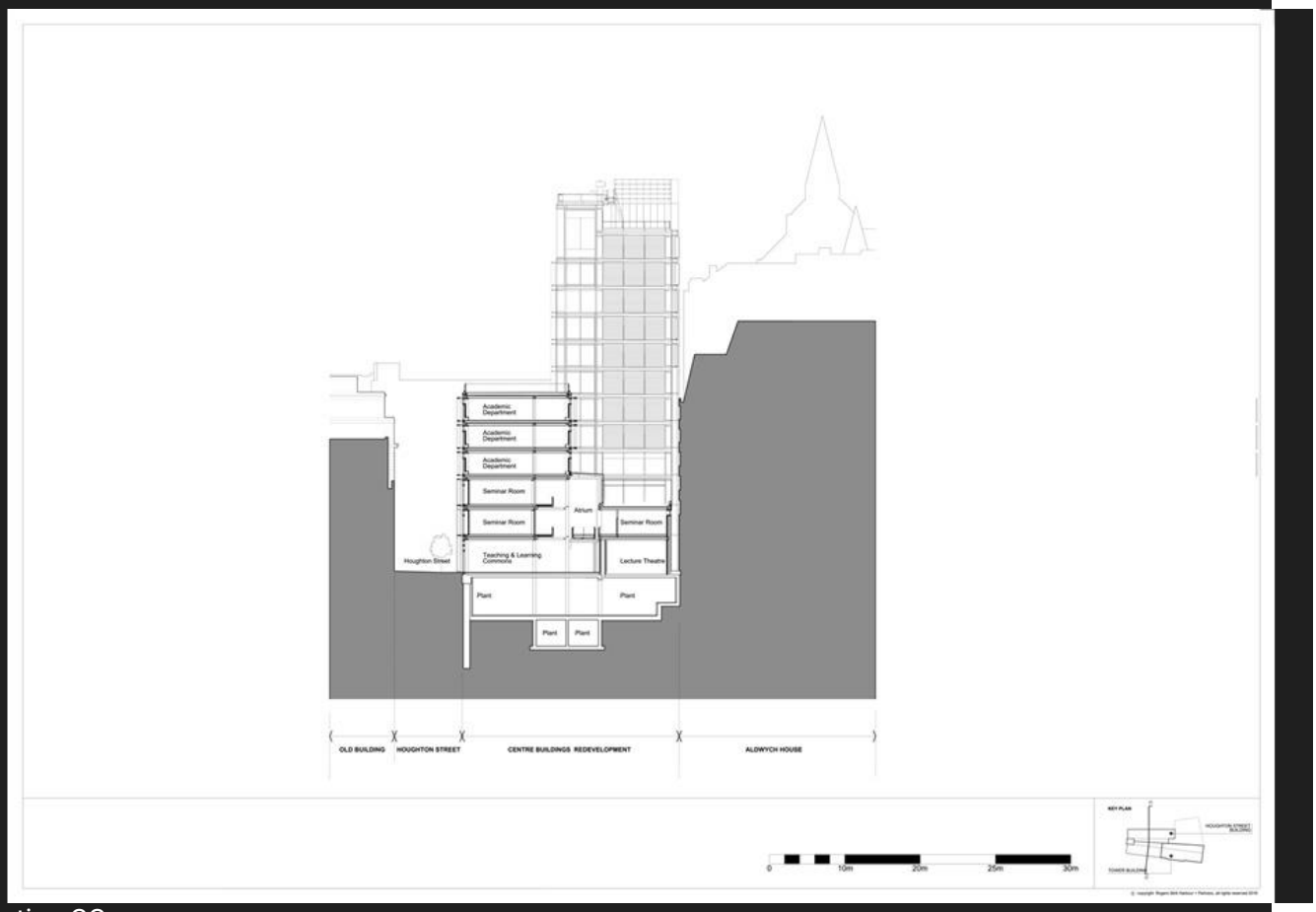


Site plan

Source: Rogers Stirk Harbour + Partners



Section CC
Source Rogers Stirk Harbour + Partners

- COMMENT

The latest addition to the London School of Economics and Political Science (LSE), designed by Rogers Stirk Harbour + Partners (RSHP), has opened

Rising to 13 storeys, the Centre Building is the biggest and tallest building on the LSE campus, designed to create a new heart for it. Facing a newly-created square, the building hosts five academic departments above a student 'commons' and a profusion of formal and informal teaching spaces.

'Together the square and building are intended to create an identifiable focus for the campus and front door to the LSE, which it always lacked,' says Tracy Meller, the RSHP partner who led on the project.

The building contains five academic departments arranged over 10 floors above three floors of teaching space. This includes a dozen seminar rooms and four lecture theatres – a 200-seat basement auditorium, a newly formatted double-banked theatre seating 80 and two crescent-shaped 'Harvard-style' ones.

The latter open off an extensive student commons area offering more informal study spaces, which sit around the base of the central spatial feature of the building: a dramatic ‘Academic Stair’. Cascading down from the top level, the stair’s movement is expressed diagonally across the façade of the building. It provides a connecting vertical spine of double-height spaces which are intended to encourage interaction between departments, institutes, research centres, students and staff, and which provide both commonality and a refreshing variety of spaces.

The building, won by RSHP in a competition in 2013 against rival schemes by Grafton Architects, Heneghan Peng, Hopkins Architects and OMA, is the core piece of a masterplan developed in 2011 and led by Julian Robinson, director of estates at LSE, which has gradually been transforming the LSE campus. Other elements of this include the O’Donnell and Tuomey-designed Saw Swee Hock Student Centre, completed in 2015, and Grafton Architects’ upcoming Paul Marshall Building, due to complete in 2022.

The building’s £78 million construction cost was part of an overall budget of £125 million, which has transformed the centre of the LSE’s campus. The new square was created through a land-swap with Westminster Council, reworking the existing street pattern.

The project was constructed using a Design and Build contract and delivered by Mace, and the visible build quality is exemplary. About 60 per cent of the building’s elements were prefabricated, reflecting the highly constrained nature of the site, which backs onto the Royal Courts of Justice.

The restricted access to the site and difficulty of servicing also led to elements of the original scheme being omitted, such as the original plan for incorporating a major catering facility. Other challenges during the project have included additional costs caused by the results of the Brexit referendum and exchange rate fluctuations, which at one point added £1.5 million to the cost of the cladding package, fabricated by Dobler Metallbau in Germany.

The Centre Building has been awarded a BREEAM Outstanding rating, with its extensive environmental strategy developed by chapmanbdsp using primarily passive technology. An initial material assessment exercise resulted in 30 per cent being sliced off the embodied carbon footprint of the building and features include the use of natural ventilation throughout, except in the largest communal spaces and the extensive use of brise-soleil on the exterior of the building, which define and punctuate its façade.

There is an emphasis throughout the scheme on communal, shared spaces from the new square up. These include a series of roof terraces incorporated into the building's two blocks, the lower entrance element reflecting the scale of Houghton Street, the façade of which also incorporates contextual stone panels.

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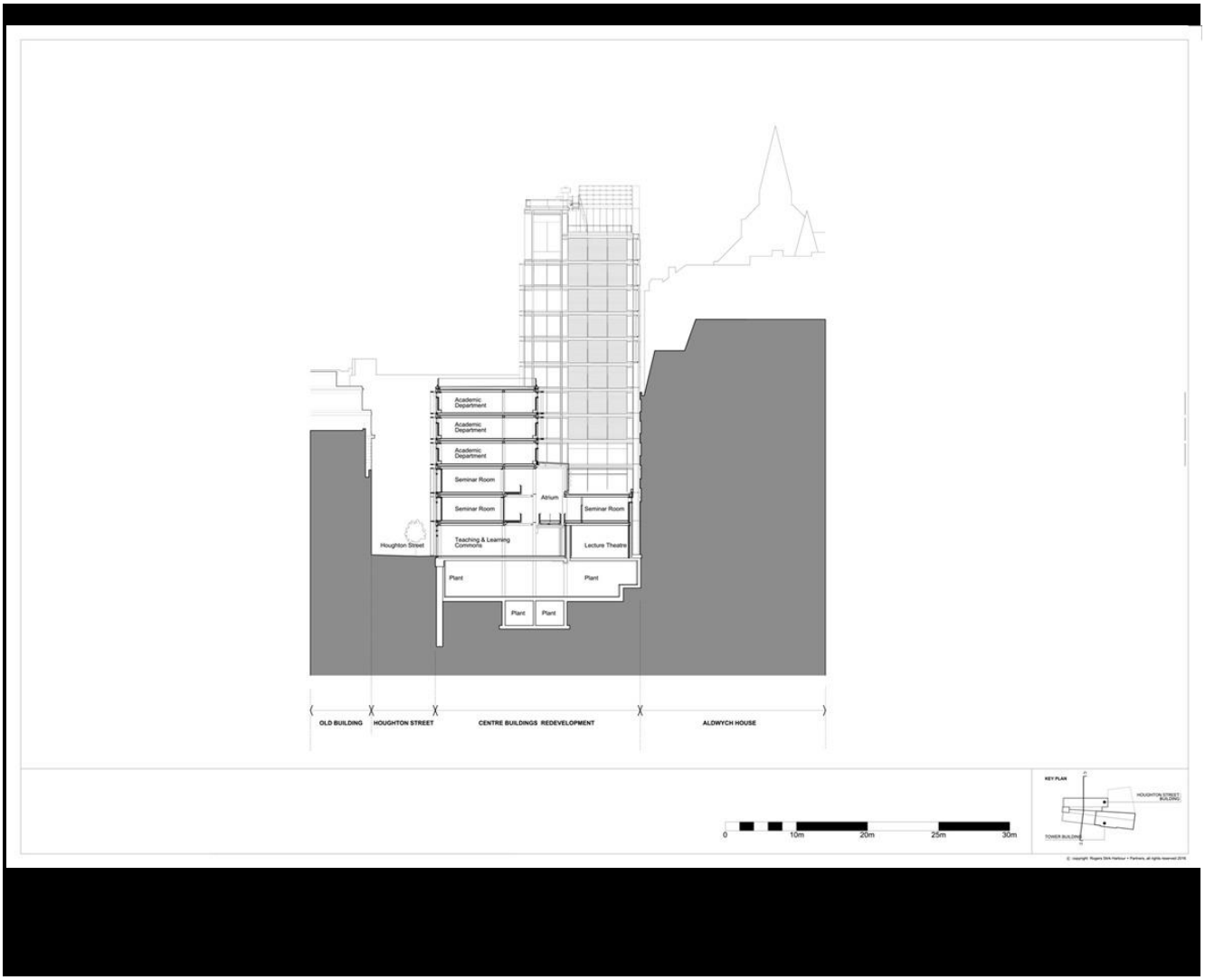
There is a controlled sense of generosity and expression in the design – most noticeably expressed in the strong but subtle use of colour. The steel frame, which was engineered by AKT II, is painted 'pigeon' blue – a soft but intense grey-blue. The brise soleil, which appear a sober grey as you approach off Houghton Street, are accented with yellow strips from the square, warmly animating the façade.

Meanwhile each landing of the Academic Stair has a red square red of Barissol as a ceiling – partly in homage to the LSE's logo – each of which begins to glow through the façade in the evening, bringing the building chameleon-like alive at night with a change of colour.

Overall, while this building has an intensity of site and programme, it has a spacious generosity to it. Its design, generated by principles of environmental but also social sustainability, delivers on them both in a quietly impressive way.



Architect’s view

The Centre Building project presented us with a unique opportunity to work with the LSE to design a building which really reflects the values of the school, creating innovative and inspirational spaces for students and staff, in which to learn, socialise, study and collaborate.

Our proposals went beyond the original brief aspirations placing a new public square at the heart of the campus to improve wayfinding and connectivity, and to give the LSE a much-needed new focal point. Embracing sustainable design principles from the offset the BREEAM Outstanding building provides good daylighting and natural ventilation to over 70 per cent of the accommodation, creating workspaces which enhance the wellbeing of its occupants, in addition it reduces embodied carbon by 30 per cent, harvests rainwater and utilises a biomass boiler and PVs as part of its renewable energy strategy.

Tracy Meller, partner and architect, Rogers Stirk Harbour + Partners

Project data

Start on site January 2017
Completion June 2019
Gross internal floor area 15,500m²
Form of contract Design and build (GC Works)
Construction cost £78 million
Construction cost per m² £5,032
Architect Rogers Stirk Harbour + Partners
Client London School of Economics and Political Science (LSE)
Structural engineer AKT II Consulting
M&E consultant chapmanbdsp
QS Deloitte
Landscape consultant Gillespies
Fire strategy and acoustic consultant Hoare Lea
Project manager LSE Capital Development
CDM co-ordinator M Safe
Approved building inspector Meridian Consult
Main contractor Mace
CAD software used BIM/MicroStation/Revit
Annual CO_2 emissions 9.9 kg/m² (predicted as per BRUKL)

Supplementary sustainability data (estimated)

On-site energy generation 1.06 (PV) and 9.75 (CHP) kwh/m^2/yr
Heating and hot water load 35.95 (H) and 5.29 (DHW) kwh/m^2/yr
Total energy load 54.02 kwh/m²/yr
Carbon emissions (all) 9.9 kgCO_2eq/m²/yr (estimated)
Annual mains water consumption 16.63 m³/occupant/day (estimated)
Airtightness at 50pa 5 m³/hr/m²
Overall thermal bridging heat transfer coefficient (Y value) 0.05 w/m²k
Overall area-weighted u-value 0.49 w/m²k
Embodied / whole-life carbon 3291 Kg CO_2eq/m²
Design life 60 years

https://www.architectsjournal.co.uk/buildings/rshp-completes-chameleon-like-centre-building-for-the-lse-review/10044354.article?blocktitle=homepage-big-pic&contentID=19632