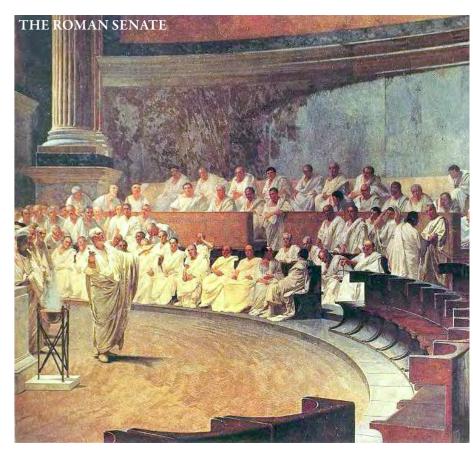


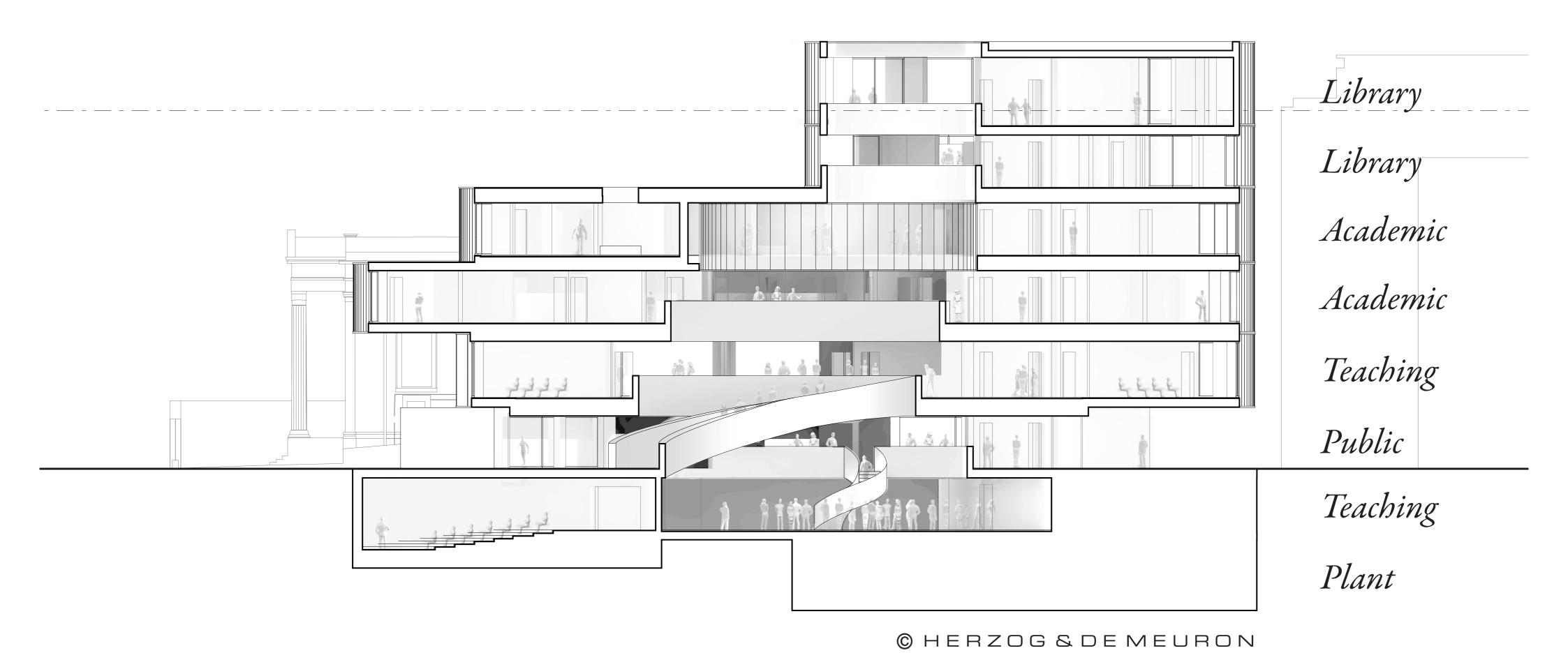
accidental.

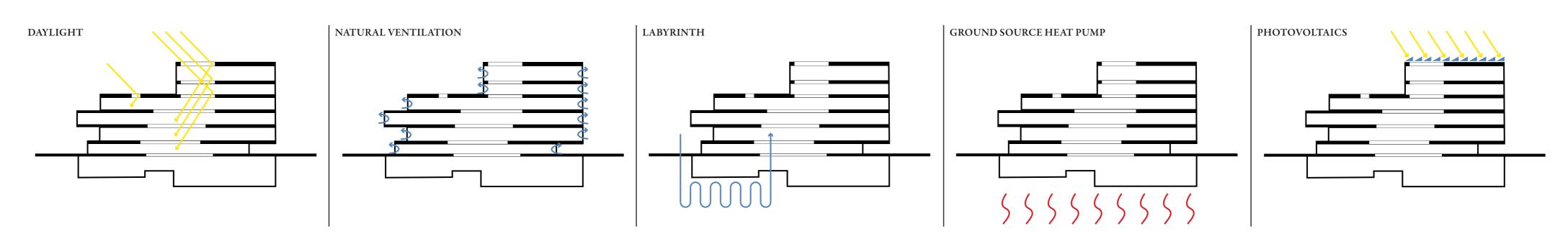
The Blavatnik School of Government will house teaching and academic spaces which are supported by meeting, administration, research and service areas which are all connected by the Forum.

At its lower levels, the building houses large public and teaching programmes. The upper levels are occupied by academic and research programs that require a more quiet atmosphere to foster focus and concentration. Crowning the School will be the library research tower which overlooks an outdoor terrace, Library Square to the north, and the whole of Oxford beyond. The School offers a wide range of teaching-space types from small flexible seminar rooms to larger flat floor teaching



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# Sustainability

The University is committed to improving its sustainability in all areas and has a particularly strong focus on the reduction of carbon emissions in any new buildings it seeks to construct. To realise its goals of creating sustainable buildings, the University's approach has two key strands. Firstly, in 2009, it adopted a policy which requires all new buildings to achieve a rating of Excellent under the relevant BREEAM scheme. Secondly, in 2011 it developed a Sustainable Buildings Philosophy (SBP) which seeks to compliment BREEAM by focusing on the performance of the building once it is operational, particularly in terms of in-use energy consumption and carbon emissions.

The new building for the Blavatnik School of Government (BSG) represents a significant addition to the University estate and has the opportunity to embody the principles of sustainability in its design and operation and act as an example of sustainable development for those future leaders who will come into contact with the building and the work of those who use it.

### BREEAM

During the feasibility stage of the project a BREEAM Pre-Assessment was carried out using the New Construction 2011 scheme. This work resulted in the targeting of sufficient credits, 73.69%, to achieve the required BREEAM Excellent rating (the threshold score for Excellent is 70%). Assessment is an ongoing process and the outline design currently is targeting a score of 75.19% with all mandatory requirements covered.

#### SUSTAINABLE BUILDINGS PHILOSOPHY

The BSG is the first project to implement the University's SBP. This philosophy seeks to ensure that there is a focus on outcomes rather than compliance in terms of sustainability and carbon emissions in-use. It intends to enhance the thinking of everyone involved in the design, construction and operation of new buildings for the University.

It recognises the important role that BREEAM plays and endeavours not to duplicate effort where issues being considered overlap. Instead, it sets any mandatory requirements for achieving BREEAM Excellent as the backstop performance for the relevant issue with the potential for projects to go beyond compliance by setting higher aspirational targets as they wish.

During the Feasibility stage, aspirational performance levels were set across the range of issues covered by the SBP using the Sustainability Aspiration Map (SAM). Then during Outline Design, two reviews of the targets set in the SAM were carried out to give an indication of the predicted performance of the design – the target of SAM Level 3 is being reached in most cases.

## DESIGN PRINCIPLES

The design is being developed with strong principles of sustainability, in terms of its passive response to key issues such as ventilation and over-heating, as well as the active systems being proposed for the building. The first aspect to making a building perform exceptionally well passively is to consider the setting in which it will exist. In considering the buildings performance one must take account for (amongst other things) the sun path, the likely prevailing wind and local sources of noise.

To this end where ever possible natural ventilation is to be used via user controlled operable windows. Spaces which are highly occupied or which have large heat gains are provided with mechanical displacement ventilation and a degree of comfort cooling to limit internal temperatures in summer. The building will make as much use as possible of natural light, reducing the burden on artificial lighting systems (which typically accounts for around 15% of a building's annual energy use). The façade thermal performance will be optimised to place the smallest burden possible on the building heating and cooling plant.

The building will draw upon low and zero carbon energy sources. The scheme currently allows for PV panels, ground source heat pumps and an earth-coupled subterranean air intake labyrinth; where the incoming air for mechanical ventilation is passed through pipes to take advantage of passive or 'free' cooling (summer) and heating (winter).

The ROQ masterplan has already set out a strategy to minimise carbon emissions from the site. A network of Ground Source Heat Pump (GSHP) loops will

be installed; one system under each building. The underground borehole loops will initially be connected to the building which sits directly above them. As the site is developed and the buildings sequentially come online the individual systems will be connected together, potentially allowing buildings to reject or draw upon more heat than the 'local' system allows.

The BSG, like the others on the site, will therefore have a network of bore holes underneath it utilising all the available space. This will contribute to the 20% of onsite generated energy required by Oxford City Council's planning policies.

The external public spaces are currently envisaged as being hard landscaped to allow for clear pedestrian movement. A terrace at Level 4 is intended to include an element of planting and it is hoped that this will be of indigenous species with real wildlife benefit responding to the desire to the deliver local habitats and connectivity to other habitats in the vicinity.



# The School

The Blavatnik School of Government (BSG) will engage in a dialogue with its historic context through proportion, scale, and materiality. The School will offer a contemporary reading of historic Oxford materials. Limestone is the base material for most construction in Oxford. Being partially soluble and therefore susceptible to weathering, limestone captures the passage of time with erosion softening the geometry of individual buildings and the city as a whole.

Using stone as a building material in contemporary architecture is difficult, normally resulting in generic structural frames clad in thin stone tiles to give the false reading of a solid and massive stone structure - as traditional stone buildings are read. The proposal for the BSG is to use contemporary materials, glass and concrete, with current construction methods to produce a building that echoes the solidity and mineral feel of stone buildings.

The BSG is proposed to be built as an in-situ concrete structure with a limestone add-mixture, leaving the concrete frame exposed internally. The concrete will be cast or treated in a manner which reveals its smaller particles akin to eroded limestone. The structure of the building with therefore have a colour and texture related to limestone.

The façade is a critical element in unifying the overall form of the building while still allowing each floor level to be expressed individually. A two layer facade of glass and coloured metal will be wrapped over concrete structure. The façade of each level will span from the underside of the floor to the top the ceiling making each floor level read as an individual piece within a stack of objects. To give scale to the volumes the façade is broken down in closely spaced panels, referencing the neogothic stone mullions found throughout Oxford but in particular the courtyard façade of the Bodleian Library.

