Sustainable by Design

Hopkins Architects
Hopkins’ “quest for architectural sophistication dovetails seamlessly with superior environmental performance”

Hopkins Architects’ commitment to environmentally-advanced design is remarkable and deeply rooted in strategic commitments made more than a decade ago. They are unquestionably pioneers in this increasingly crucial aspect of architecture.

In the United States, the practice recently completed the LEED™ ‘Platinum’ rated, Carbon-Neutral Kroon Hall for Yale’s School of Forestry and Environmental Studies. That followed completion of Northern Arizona University’s Advanced Research and Development building, one of the highest-scoring LEED™ ‘Platinum’ buildings in the country. In the United Kingdom in 1996, Hopkins was the first practice to achieve the BREEAM ‘Excellent’ rating for their Inland Revenue Centre. Since then they have designed buildings that already achieve the Government’s 2050 target of 80% cuts in CO₂ emissions and are designing to the new highest level of BREEAM, ‘Outstanding.’

Crucially, Hopkins’ approach does not produce repetitive, off-the-shelf environmental design: each building is a specific expression of architectural composition, innovation, function, refined detail, materiality and presence. In every case, and in challenging settings, the quest for architectural sophistication dovetails seamlessly with superior environmental performance - and this ambitious fusion of design and performance has set Hopkins Architects apart.
Kroon Hall, School of Forestry and Environmental Studies
Yale University, New Haven, Connecticut

Notable Features:

- Yale’s greenest building and a symbol of the School’s ideals and values
- Roof-mounted photovoltaic panels
- Highly insulated/efficient building envelope
- Ground source heat pumps
- External solar shading
- Exposed thermal mass
- Extensive use of natural light
- Regeneration of courtyard spaces
- Use of FSC Certified lumber from Yale’s own forests for interior finishes
- Solar hot water heaters
- Rainwater/greywater harvesting system
- Target: LEED™ ‘Platinum’
One of the most advanced academic buildings in America featuring LEED™ Platinum and Carbon-Neutral design
Notable Features

- Sets a new standard in energy-efficient academic laboratory design
- Spaces throughout designed for formal and casual interaction
- 10,000 sf PV canopy
- Natural ventilation to offices
- Highly-efficient fume hood specification
- Extensive use of natural light
- Recycled aluminium shading louvres
- Heat recovery system
- Atrium used as buffer and communal space between offices and laboratories
- Sustainable drainage systems
- Extensive offsite prefabrication
An extraordinarily efficient academic laboratory containing one of the largest integrated photovoltaic arrays in the United States
McMurtry College & Duncan College
Rice University, Houston, Texas

Notable Features

- Prefabricated GRP bathroom pods, featured at MoMA, New York
- 70% concrete replacement using slag cement in exposed arcade areas
- Double-width brick perimeter wall composed of handmade soft bricks
- Exterior surfaces are self-finished
- Large historic trees were moved rather than abated
- Lighting and A/C on sensors
- Extensive green roofs
- Sunshades and trees protect glass façades on common areas
- Target: LEED™ ‘Gold’
Two new residential colleges built using innovative construction techniques including the highest recycled content concrete ever produced in the US
Applied Research and Development (ARD) Building
Northern Arizona University, Flagstaff, Arizona

Notable Features

- Building shape and orientation optimized to capture winter sun
- More than 20% of electricity supplied by offsite PVs
- Exposed thermal mass from the concrete structure
- Low pressure air distribution
- Detention basin for seasonal flooding
- Automated building shading
- Greywater used for toilets and irrigation
- 1/3 of building made of recycled materials
- 92% of construction waste diverted from landfill
- Connection to district heating scheme
- LEED™ ‘Platinum’
A research building with one of the highest LEED™ Platinum ratings ever and reductions in energy use of 89% from a typical building.
Cyprus Cultural Centre
Nicosia, Cyprus

Notable Features

- New national center for the performing arts, a symbol of Cyprus’s creative spirit
- 3 flexible performance spaces
- Library and educational center
- Outdoor assembly/recreation spaces
- Ground source heat pumps
- Solar hot water collectors
- Photovoltaic arrays
- Local stone cladding
- Natural ventilation in perimeter accommodation
- Exposed thermal mass
- Energy center shared with adjoining projects
An inspirational Performing Arts Centre that is the heart of the Cyprus Capital’s new Cultural Quarter
The Lawn Tennis Association’s National Tennis Centre
London, United Kingdom

Notable Features

- Significant controlled natural daylighting throughout the building
- FSC certified wood linings and ceilings
- Retention of established trees
- External awareness throughout
- Mixed-mode ventilation in offices
- Highly efficient levels of insulation
- Incorporation of natural levels into building’s section
- External shading and balconies
- Stormwater retention system
- Heat recovery through thermal wheel
- Green transport plan to minimize the building’s impact on the neighborhood
An elegant center for sporting excellence in an historic park which minimized disruption to existing woodland
Shin-Marunouchi Building
Tokyo, Japan

Notable Features

- Green roof gardens
- Green wall to surrounding cycle sheds
- Open public colonnades
- Integrated to the public transport system
- Photovoltaic array on the roof
- Sun shade louvres with automatic tracking
- Integrated public transport options
- Street level planting, reduces heat island effect
- Greywater recycling
- Seismic structural design
- Major retail center on lower floors
- Completed 10 months ahead of schedule
- CASBEE - New construction rated
A landmark development designed with low-energy strategies in one of Japan’s most historically-significant locations
The Evelina Children’s Hospital
London, United Kingdom

Notable Features

- A radical departure from traditional Children’s Hospital design
- Maximised interaction between patients to aid the healing process
- External awareness/daylight to all areas
- Glazed atrium to create Children’s Area
- Corridor-free, non-institutional environment
- Natural stack-effect ventilation
- Efficient, deep-plan floor plates
- Flexible partitions and services throughout ensure adaptability
- Highly insulated, terracotta-clad façade
- Regeneration of Brownfield site
- External solar shading
A hospital that rethinks the way architecture can inspire occupants and stimulate the healing process
Portcullis House, New Parliamentary Building
London, United Kingdom

Notable Features

- Narrow plan form - 46’ wide floorplates
- Exposed thermal mass utilized
- Nighttime cooling of building structure
- Rotating hygroscopic thermal heat recovery wheel
- Bore hole water/evaporative cooling
- Roof vent exhaust chimney
- Gullwing precast concrete floor units
- Integrated active window recovery
- Coordination with major subway station
- BMS-controlled artificial lighting
- Use of atria as buffer and meeting space
- Low-pressure drop ventilation system
- Long-life sustainable building materials
- BREEAM ‘Excellent’
A symbolic new headquarters for the English Parliament sensitively incorporated into a UNESCO World Heritage Site
Norwich Cathedral Refectory and Visitors Centre
Norwich, United Kingdom

Notable Features

- A respectful new building that occupies the original refectory site
- Reuses existing, sometimes ruined portions of building wherever possible
- Construction methods respect & enhance the original medieval construction
- English oak joinery and traditional craftsmanship throughout
- Restoration of existing stone masonry
- External shading of windows
- Light and airy interior
- Long-life, durable specification
- Rooflights along the library edge maintain daylight through original leaded windows
A pavilion utilizing handcrafted, traditional materials to create a sensitive, contemporary design in an historic setting.
**Jubilee Campus, University of Nottingham**
**Nottingham, United Kingdom**

**Notable Features**
- Landscaping for micro-climate control
- Exposed thermal mass
- Nighttime cooling of building structure
- Hygroscopic thermal heat recovery and evaporative cooling
- Rotating roof vent exhaust cowl to maximize wind pressure utilisation
- Integrated reflective louvers and blinds
- BMS controlled lighting, H&V, shading
- PVs balance fan power, provide shading
- Use of atria as buffer and meeting spaces
- Green roofs
- Sustainable construction materials, no use of PVC throughout the building
- BREEAM ‘Excellent’
A major new campus for a respected university that met the UK Government’s 2050 CO₂ reduction target in 1999
Hopkins Architects has a longstanding commitment to environmentally-responsible design that is both inspirational and a pleasure to inhabit and our firm has placed increasing emphasis on sustainable design since its founding in 1976. We are one of the leaders in Green Design and we fully support and promote high levels of sustainability within our practice and our projects. We acknowledge the effect that climate change is having on our current and future lives, the need to protect our environment, enhance social cohesion and ensure financial security for the present and future generation.

Our practice strives to minimize our own impact on the environment by making sustainability a fundamental part of the way we operate and approach the design process and delivery of our projects. We are committed to developing designs that reconcile ethical concerns with our clients priorities.

We have an in-house Sustainable Design Research Group whose role is to ensure the efficient transfer of knowledge and experience from one project to another. We operate an in-house Environmental Design Audit System whereby all projects are monitored throughout the design and construction phases to ensure compliance. Knowledge gained from outside seminars and working groups is also disseminated by the same system.
Our desire to continue to be leaders in sustainable building design means our designs are the product of an integrated, intensive and continual research and development process. We were the first architects to design a building that attained a BREEAM ‘Excellent’ rating and are currently designing to the newly introduced BREEAM ‘Outstanding’ rating which includes buildings with at least 20% of energy from on-site renewables. In the US, we currently have two LEED™ ‘Platinum’ buildings, one of which is Carbon Neutral. We have undertaken three published research programs funded by the European Union during which we have worked in collaboration with engineers, manufacturers and test stations on an international basis.

We have developed and operate an Environmental Appraisal procedure for our projects, outputs from which are reported to our clients. The Practice offers BREEAM Assessment services and two of our architects are registered.
Hopkins Architects has been at the forefront of British architecture since the practice was established in 1976. Our work has been widely acclaimed by both architects and the public alike and our projects have won most major architectural awards.

Our track record for delivering buildings of the highest architectural excellence, combining innovative design, craft, and environmental responsibility has been the key to our continuing success. Apart from our large portfolio of buildings in the United Kingdom, in recent years our international works have increased rapidly with projects in Greece, Japan, Dubai, Cyprus, India and the United States.