

生态建筑 ECO-FRIENDLY ARCHITECTURE

(西) 布拉托 (Broto,C.) 编著 安基国际传媒 策划

常州大学山书的藏书章



ECO-FRIENDLY ARCHITECTURE

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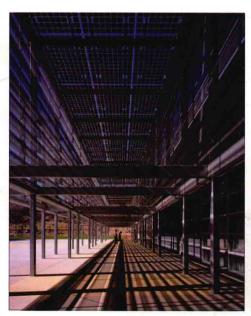
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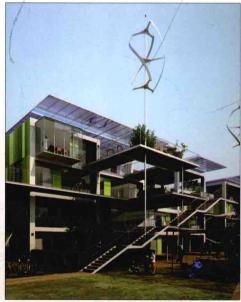
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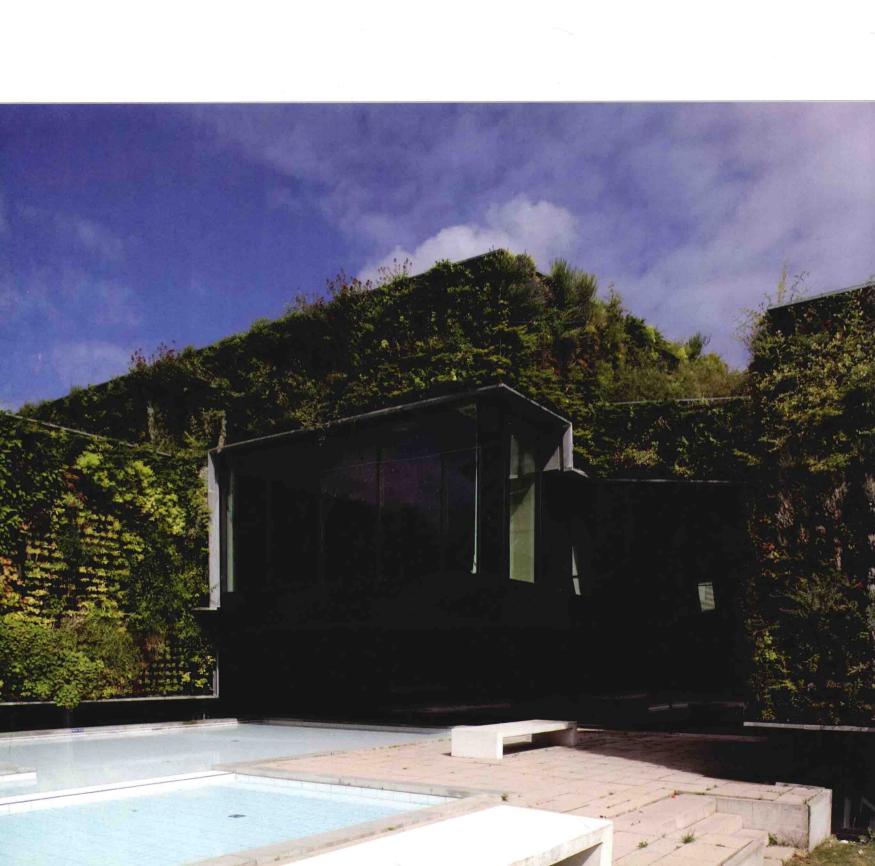
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The issue of the sustainability of our construction practices is one of which building professionals have long been aware: the first petrol crisis in the 1970s sparked the first questions to be raised about energy usage in our buildings, and in the cases of the most daring or – as we would now say – visionary, to look beyond, to our relationship with the natural world and in particular our stewardship of its finite resources. Though important advances were made at this time with the first building energy use legislation being passed, the subject remained low on the political agenda during subsequent years. It has only been with recent political concern over global warming and the crude oil peak that 'sustainability' has stopped being a niche interest amongst building professionals and has come to represent a primary evaluation criterion for practically every construction project in Europe, America and increasingly, Asia.

The renewed political interest in the topic has prompted the creation of a raft of awards and analysis schemes for assessing the sustainability of a project – from the *Green Building Challenge* to the LEED accreditation system. These increasingly comprehensive analysis tools not only allow projects to be assessed objectively and thus compared with others – but are coming to influence design processes from the earliest stages. Though many argue that legislation has been slow to catch up with our understanding of what needs to be achieved, there are practices, of which many are featured in this volume, that are choosing to lead the field, designing projects with specifications which far exceed current legal obligations, to attain the most demanding certifications under voluntary schemes.

The works represented in this volume - from leading international architects as well as up-and-coming practices – reflect the vast geographical and programmatic range of projects in which sustainability criteria are being placed at the center of the design process. With each project extensively illustrated with design sketches, construction and detail drawings and full color photographs, this volume will be a source of inspiration for design and construction professionals as well as for architecture students and enthusiasts. This sparkling selection of projects demonstrates that, as architects across all fields of the profession take on the challenge of improving the sustainability of our built environment as a cultural – and survival - imperative, beyond a purely professional obligation, it is leading them to take a fresh look at every aspect of their work, opening dazzling new opportunities for creation and innovation.

ingenhoven architects

Lufthansa Headquarters

Photographs: H.G. Esch, Hennef

Location: Frankfurt, Germany

The new headquarters of Lufthansa AG at Frankfurt Airport is located at the hub of Europe's technically most efficient and demanding transportation centres, close to the junction where motorways and ICE high speed train lines cross.

The main challenge was to achieve a high-class administrative work space that would visually communicate the client's corporate message regarding technology, efficiency and environmental concerns, whilst insulating the building against air and noise pollution in the healthiest and most sustainable way possible. Under a roof that is reminiscent of the shape of a paraglider, the comblike floor plan of the building is comprised of ten separate wings that branch out from a long central space occupied by landscaped gardens that act as buffer zones and connect the entire building. Plants chosen from five continents symbolize Lufthansa's global connections. All 1,850 office work-places have views into the fully-glazed garden environments and can be naturally ventilated with fresh air that the plants generate. The gardens provide the workspace with a healthy micro-climate, renovating the air, stabilizing the temperature and absorbing sound, embodying an outstanding architectural and environmental performance.

Based in Dusseldorf since 1985, ingenhoven architects is a major figure in the architectural field in which sustainability is pursued through technological means. Christoph Ingenhoven's concept for the Lufthansa Headquarters building was awarded 1st prize at the international competition held in 1999. The first construction stage was completed between 2002 and 2006. After the second building stage, this communicative building will house 4,500 employees and the landscaping will comprise 28 different gardens.

Architecture:

ingenhoven architects

Architectural competition:

1999

Completion date:

2006

Awards, Nominations:

Hypo Real Estate Prize 2008
Wüstenrot Stiftung Design Award 2008
2008 International Architecture Award
RIBA European Award 2008
Premio Internazionale
Architettura Sostenibile 2008
iF communication design award 2007

mfi-Preis Kunst am Bau 2007

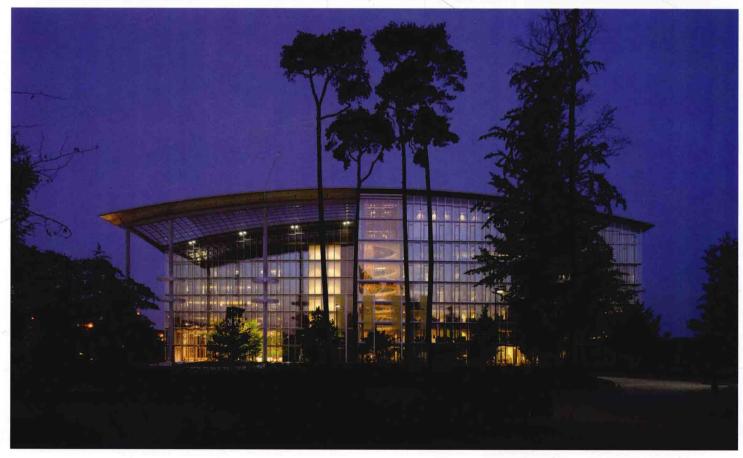


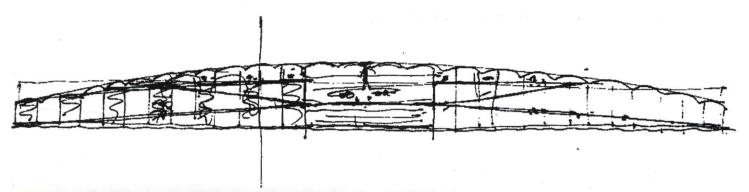




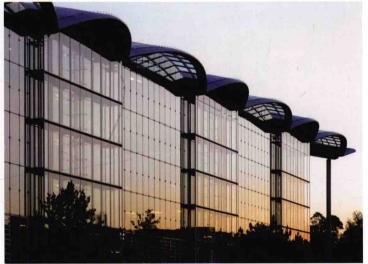
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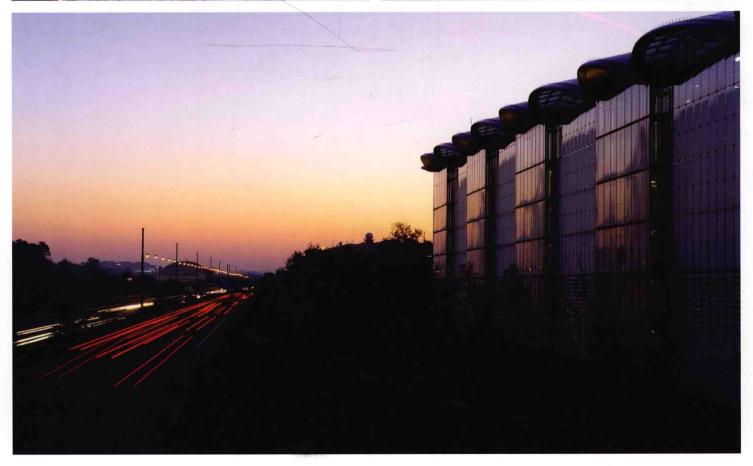


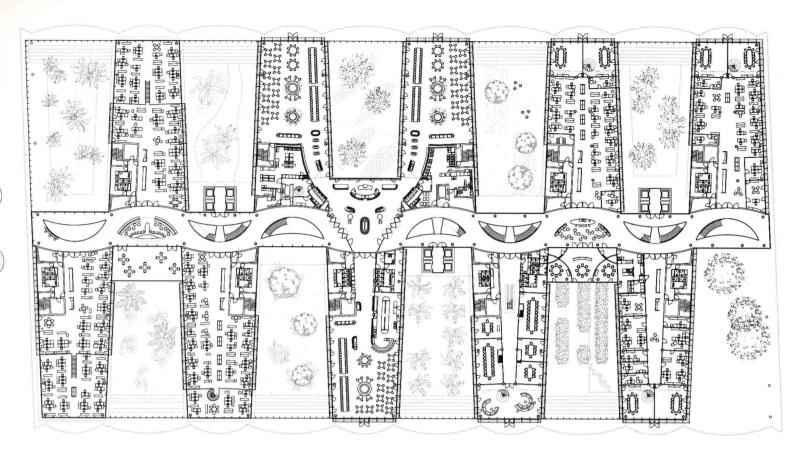




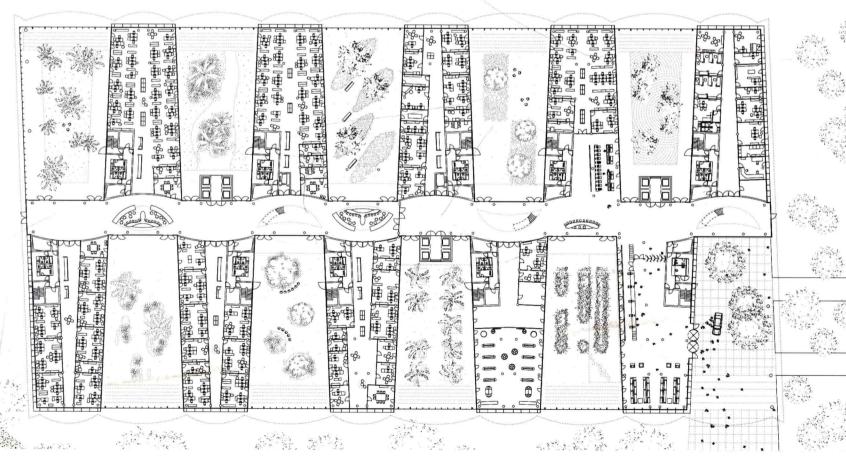




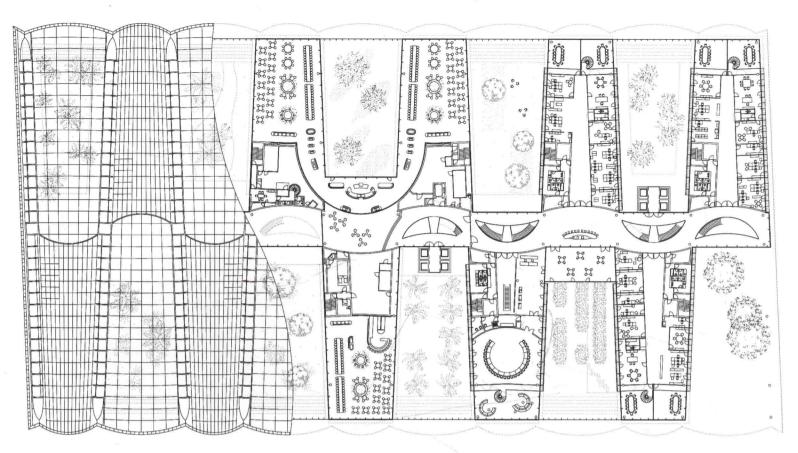




5th floor plan



Ground floor plan

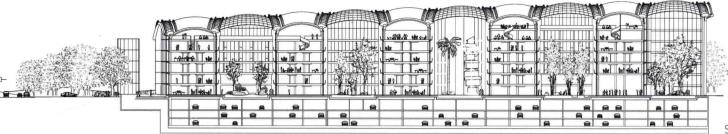


6th floor plan









Section 2

The barrel-shaped glazed atria roofs span a 60-foot gap. Concrete areas of the roof are also barrel-shaped, supported on high-performance concrete pillars. The two are connected by aerodynamic wing-shaped spoilers that create an overlying neutral wind pressure space that helps extract exhaust from the atria.











