



IBN – INSTITUTE FOR FORESTRY AND NATURE RESEARCH

WAGENINGEN, THE NETHERLANDS, 1994-1998

Client

Rijkgebouwdienst Directie Oost,
Arnhem, The Netherlands

Architect

Stefan Behnisch

Competition

1993, 1st prize

Planning and construction

1994-1998

Gross

11.800 m² / 126,970 sq.ft.

Volume

70.000 m³ / 2,471,700 cu.ft.

Address

Droevendaals Steeg 3a
6708 Wageningen
The Netherlands

The laboratory and administration building, now called Lumen, for the former Institute for Forestry and Nature Research was a European Union pilot project for ecological investigation into building. In a cooperative venture between the Ministry of Agriculture, Nature, and Fishery and the Ministry for Housing, Planning, and Environment, the project analyzed planning, construction, and subsequent occupation and followed the motto of “human and environmentally friendly building for the future”, in the spirit of the Rio de Janeiro Summit.

The project provided for a maximum reduction of carbon dioxide emissions; furthermore, the building was to be constructed within a standard budget, to demonstrate that durable and sustainable building strategies can be realized without inordinate investment. At first

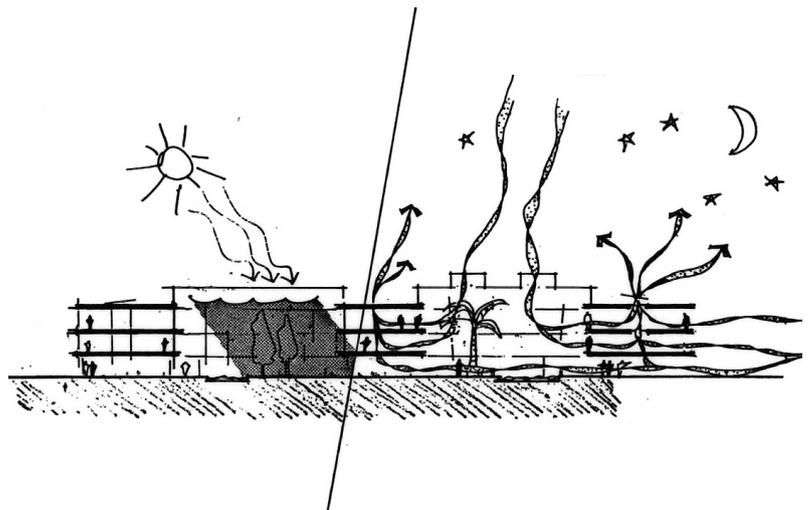
glance, the site made available - over-fertilized, nutrient-exhausted agricultural land north of the university town - seemed inappropriate for a project of this nature. Instead of attempting a “re-naturalization” - in the sense of making a wild, or pseudo-natural landscape - a design strategy was developed that drew on the few remaining ecological qualities of the landscape to create a diverse new habitat with vegetation which could sustain insects and animal species and be hospitable to the organization’s staff. Elements such as dry-stone walls, scattered tree groves and alleys, hedges, berms, ponds, swamps, and water channels were introduced, creating intricate, varied microclimates and restoring delicately balanced ecosystems.

The building was designed not to dominate its rural setting, but to embrace the landscape,

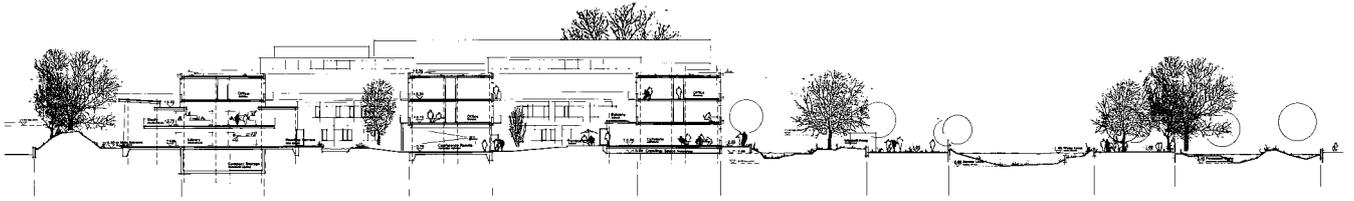


with all workplaces in direct contact with indoor and outdoor gardens. Two indoor gardens provide the focus for daily activities, and function as both test-beds and informal meeting areas for researchers; an integral component of the energy concept, they serve as the “lungs” of the building, improving the performance of the external envelope.

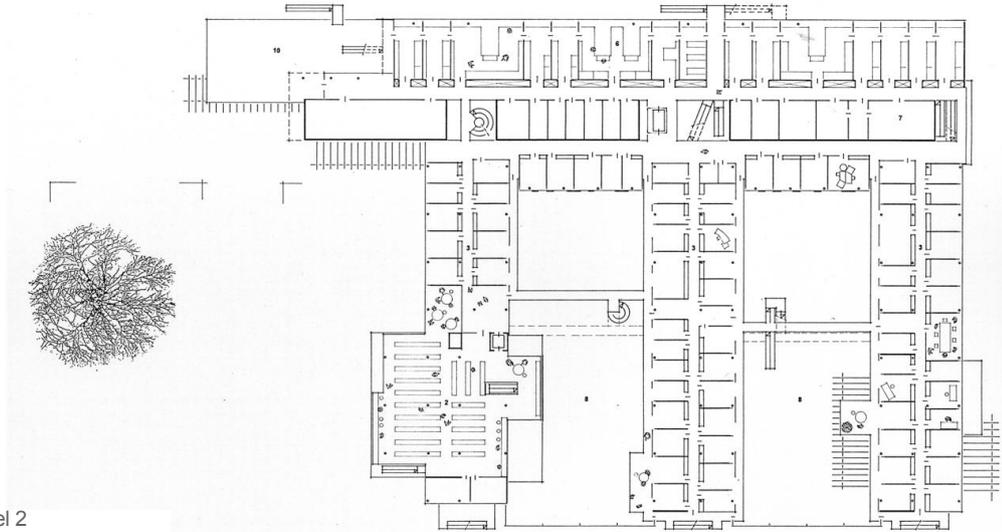
The design brief demanded that all materials be ecologically sound, and promote rational use of energy. The project was realised within a standard budget demonstrating that durable and sustainable building techniques can be applied without additional costs. The building is also highly flexible - capable of adapting to the changing requirements of the Institute and promoting self-expression and self-determination in occupant staff.



Climate concept



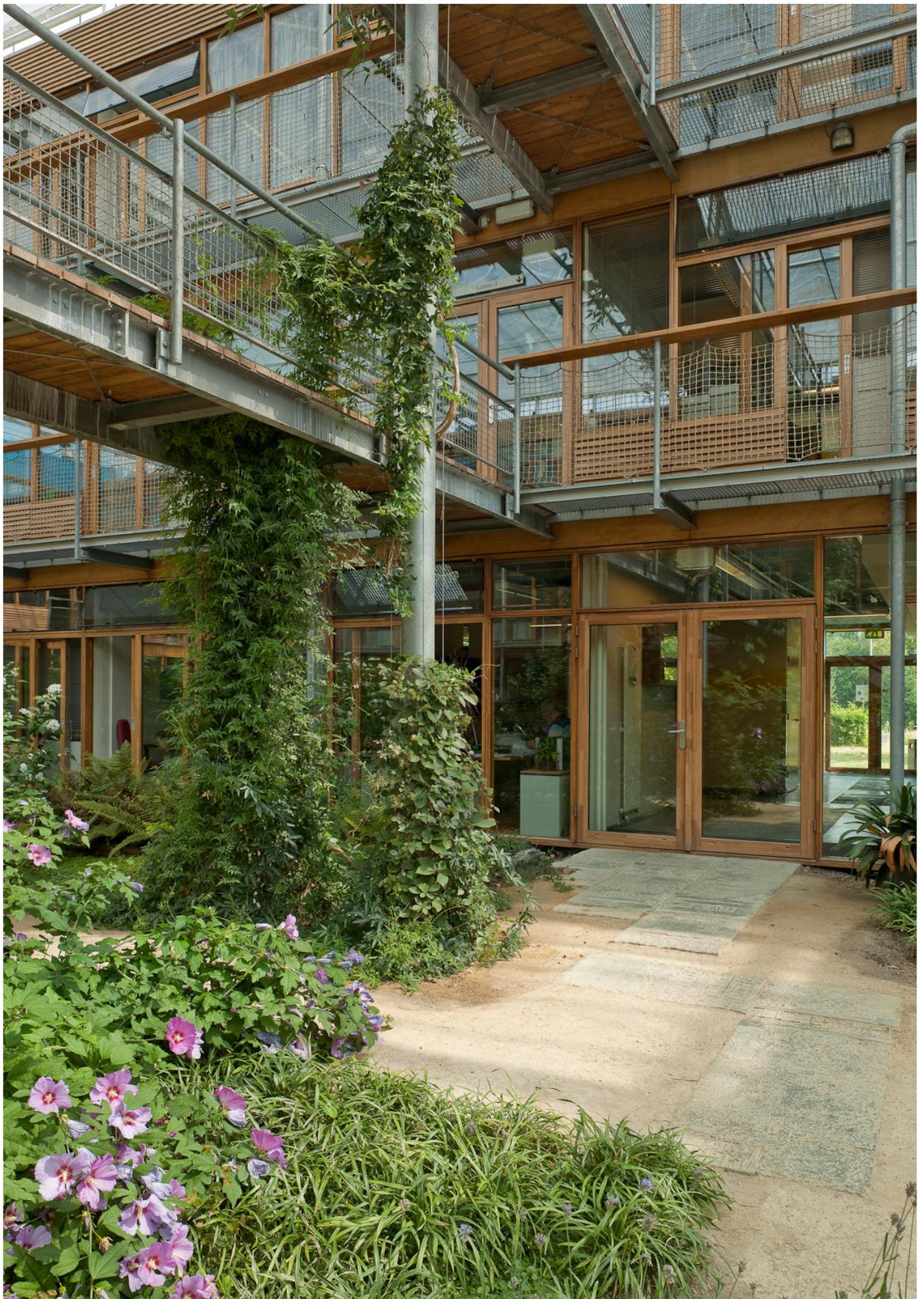
Long section

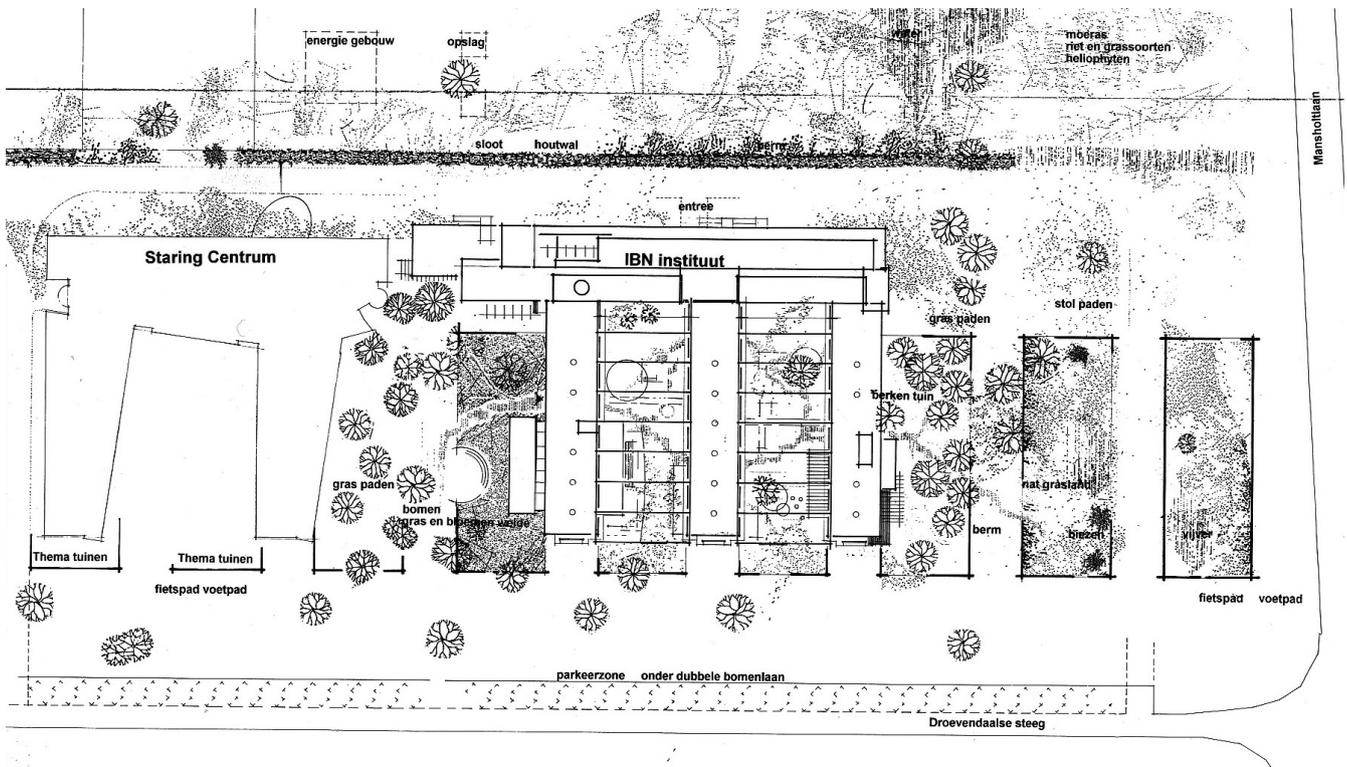


Level 2









Site plan