

# Sustainability

## in Interior Design

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## Long-term projects

We will now analyse the following long-term projects using the key questions we introduced in Chapter 2:

- **MOSS HOUSE**, house by Nendo, Tokyo (Japan)
- **BALEHAUS**, house by White Design, Bath (UK)
- **KOBY COTTAGE**, house by Garrison Architects, Albion (US)
- **ELWOOD CLOTHING**, office by Matt Gibson Architecture + Design, Melbourne (Australia)
- **GARDEN MUSEUM**, by Dow Jones Architects, London (UK)

- **GREENHOUSE**, nightclub by Bluarch, New York (US)

- **CLUB WATT**, nightclub by Studio Roosegaarde, Rotterdam (Netherlands)

- **NATURE CAFÉ LA PORTE**, restaurant by RAU architects, Amsterdam (Netherlands)

Standalone case studies:

- **DESIGN COUNCIL**, offices by Clive Sall Architecture and Carl Turner Architects, London (UK)

- **RENTAS**, shop by Domo Arquitectos Asociados, Brasilia (Brazil)



BaleHaus in Bath, a prototype house by White Design. This new-build project enabled a comprehensive approach to sustainable design, including high levels of insulation within the external walls.



### What is the purpose of the project?

Typically, long-term interior projects will be for the residential, leisure, education, healthcare and commercial sectors. Our exemplar projects include houses, nightclubs, an office, a museum, a shop and a café.

Many of these projects, including Moss House and the Garden Museum, refurbished existing spaces and had to find innovative ways to work within a given environment. At the Garden Museum this involved inserting a freestanding belvedere structure to make full use of the double-height interior of an existing church. A different approach was taken at Moss House, where the interior was transformed largely through decoration. Other projects, such as Koby Cottage and BaleHaus, are fit-outs or entirely new buildings, allowing a freer reign and a more holistic approach.



**Top**  
Nendo's Moss House in Tokyo takes inspiration from nature to reinvigorate an existing residential interior.

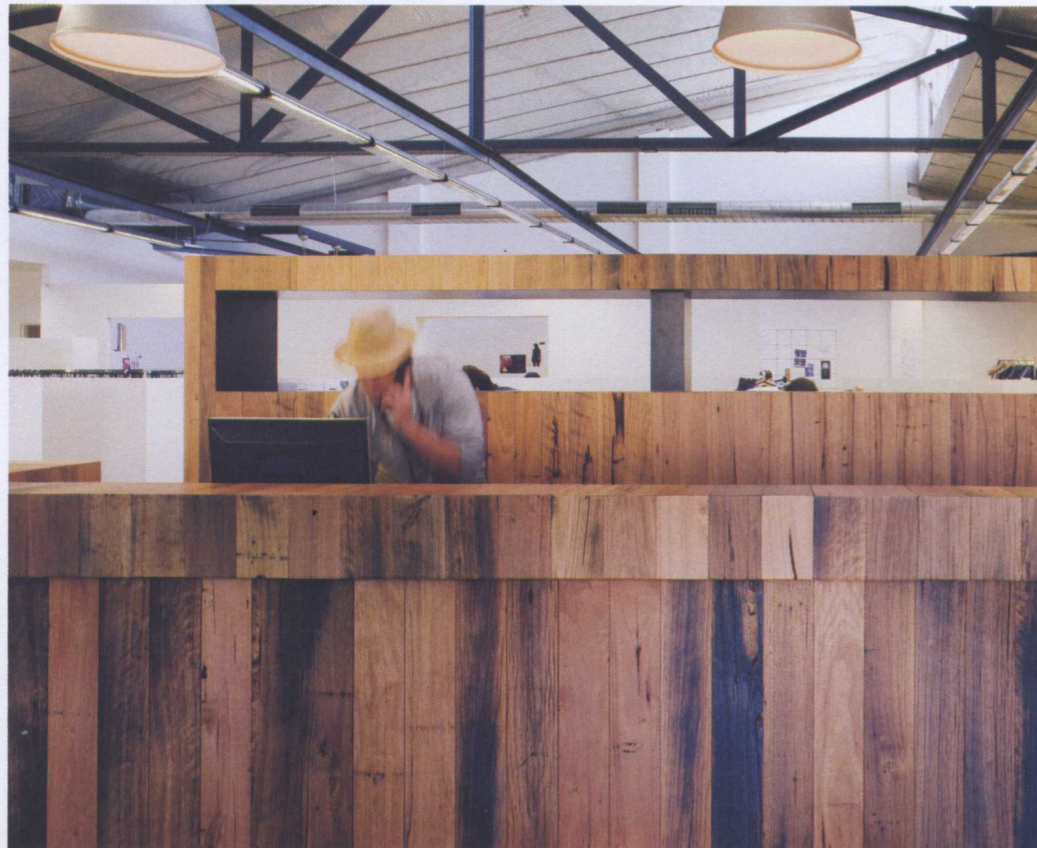
**Above**  
The refurbished Garden Museum in London by Dow Jones Architects transforms an existing church interior using prefabricated timber cassettes. The new lighting uses low-energy light bulbs.

### What construction methods are appropriate?

The refurbishment projects have made use of the existing structure where possible. The Garden Museum successfully revives an oversized extant structure, keeping all of the original envelope. Elwood Clothing's designers transformed a disused industrial warehouse by removing unwanted layers to reveal characterful steel roof trusses, concrete floors and brickwork walls.

Many of the projects celebrate modern methods of construction, taking advantage of their benefits in minimizing construction times, controlling construction quality and durability, and reducing waste. The Garden Museum's engineered-timber belvedere consists of prefabricated timber cassettes, clearly distinguishing the new construction from the existing building and allowing the two to be reverently detached from each other. The new-build Koby Cottage uses prefabricated modular steel construction for the whole structure. Hollow tubular steel makes the modules lightweight, and all internal fixtures, including the kitchen, were installed before delivery to site. BaleHaus combines modern construction processes with natural materials in its straw-based prefabricated wall panels.

The original warehouse trusses and sloping ceiling have been revealed at Elwood Clothing.



**Above**  
The Garden Museum's belvedere is made of prefabricated timber cassettes and forms a mezzanine gallery that blends in with the historic church setting.



**Left**  
BaleHaus uses traditional natural materials in a modern way, its walls being made of prefabricated straw and timber panels.

## How will the space function?

Flexibility is built into Koby Cottage, which has a banquette seat with removable bolsters that can be transformed into a day bed, saving space. The Garden Museum had to accommodate permanent and temporary exhibits, as well as frequent lectures, seminars and debates. Raising the permanent collection onto a mezzanine means that the ground floor space, used as a temporary gallery, can be quickly cleared for events. Greenhouse also has integral flexibility, serving as an events space when not operating as a nightclub.

The designers have all tried to encourage people to act in ways that consider the environment. The Elwood Clothing offices are planned so that regularly used spaces and workspaces, which need plenty of light, are placed near windows or roof lights to discourage unnecessary use of electric lighting. In the residential projects, areas occupied more during the day, such as BaleHaus and Koby Cottage's living and dining areas, have been positioned near glazing. And Koby Cottage includes a generous bicycle store.

At Club Watt, sustainable living is made a fun part of the whole experience. Clubbers are immersed in environmentally conscious design, from drinks served in recyclable plastic cups, to local organic food, to visible

transparent pipes carrying recycled rainwater to flush the toilets – and of course the interactive dance floor allowing dancers to control the LEDs. Visitors experience a much more sedate interpretation of sustainability at Koby Cottage, being surrounded by natural materials and views of nature. A courtyard and green roof at Club Watt allow clubbers to relax amid nature. In a more abstract way, Moss House's wallpaper embossed with vivid green dried moss constantly reminds its occupants of the natural world and perhaps their duty to it. Greenhouse's whole interior is conceived as a landscape, with wooden animal sculptures, a bar representing a miniature landscape and a wave-like crystal ceiling.

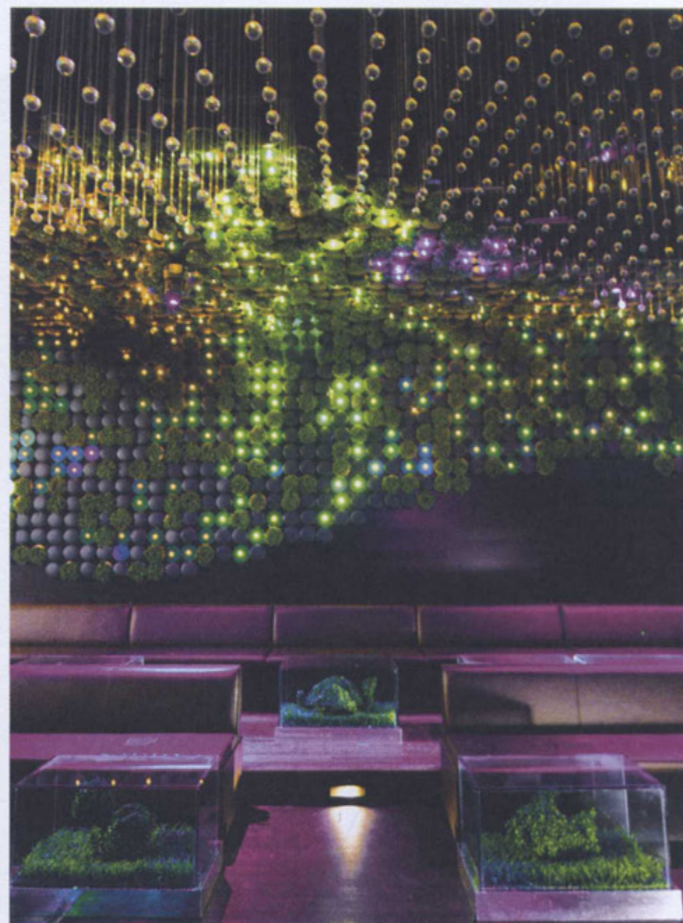
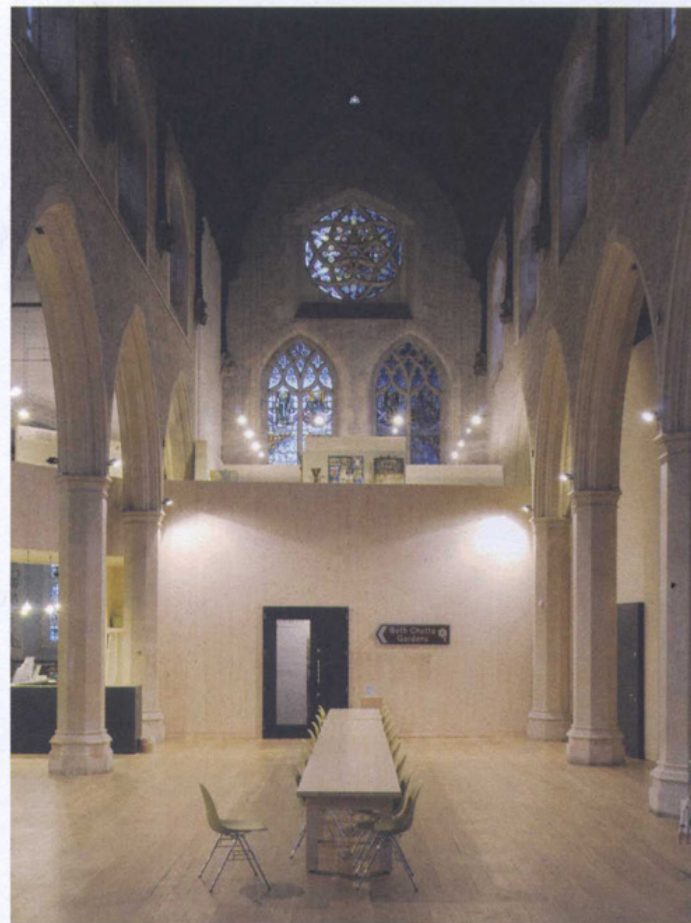
Some of the designers returned to site once the completed interior was in use to check that things were working as planned. For example, formal post-occupancy studies were made at BaleHaus, where performance is being monitored for one year.

### Below left

Locating the permanent exhibition at mezzanine level frees up the ground floor of the Garden Museum for events.

### Below

Animal sculptures on the tables in Greenhouse nightclub are a reminder of the natural world, while the crystal ceiling suggests a wave.



## What will happen to it when it becomes redundant?

Although the projects are long-term ones, their designers have been far-sighted enough to consider their end.

BaleHaus is designed for re-use, as its robust, modular wall panels can each be removed in one piece and transported to another site for reinstallation. Alternatively, the panels' individual components can be re-used.

The next best approach, of designing for recycling, was taken at the Garden Museum. Its new belvedere deliberately avoids touching the church, other than at floor level, so that it can be removed without damaging the existing building. Upon removal, the engineered-timber structure could be recycled as fuel to heat 12 homes for one year. Recyclable materials, including glass and timber, are used within Greenhouse and BaleHaus. Koby Cottage includes a day bed upholstered with biodegradable fabric that can be composted at the end of its life.

This chapter has shown that sustainable interior design can be put into practice with impressive results. The showcased projects demonstrate that beautiful designs with low environmental impact are achievable in a range of contexts, no matter what the building type or location. Each designer has simply applied a sustainable design approach befitting the expected duration of their project.

The new structure does not touch the existing construction at the Garden Museum, skimming past the church's columns and walls.

