EcoTech

SUSTAINABLE ARCHITECTURE TODAY

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- Hudson Architects' Ecology Building Society 1st post-occupancy report
- Grimshaw staff review new eco books
- Green roof case studies – Luxembourg, Isle of Wight, Torquay and London Zoo
- Directory: sourcing for eco part 2
- Beyond best practice – Design Architects at Newcastle University
- Testing timbers – forest certification, Shelton Grange, Hampson Millwork
- Mark Gorgolewski letter from Toronto

Applications/Outcomes

- Close links with local community
  Ongoing
- Sustainable transport plan
  Not implemented
- Adaptability strategy. Requirement of brief
- Use of traditional materials. Implemented
- Low maintenance. Part of brief
- Sedum roof. Implemented
- Public access to gardens
  Space available, need required, ongoing
- Retention of existing site features
  Implemented
- Natural daylighting. Outcome not certain
- Green tariff electricity. Implemented
- Natural ventilation strategy. Implemented
- Super-insulated construction. Implemented
- Triple glazing
  Double glazed (w/ U-value less than 1)
- Increased thermal mass
  Concrete slabs to first floor
- No heating system. Abandoned
- Avoid thermal bridging
  Cross zero taken to avoid
- Rainwater harvesting. Implemented
- Waste reused/recycling plans. Not done
- Solid wood drainage independent
  Is trained as connection to mains sewer
- Recycling strategy for office materials
  Ongoing
- Solar panels in private garden area
  Not done – cost considerations
- Photovoltaic array
  Ongoing – permission for black array
- Low energy office goods/equipment
  Implemented
- Excellent Breeam rating. Achieved

Building

Tried and tested

Hudson Architects' brief for the new Ecological Building Society headquarters in Yorkshire called for impeccable green credentials. Adrian Lowman of Building Use Studies put it to the test. Photos: Simon Tan.

There is no such thing as a perfect building. The best building we have found in nearly 20 years of looking still has the gut ache of its occupants saying that there is something wrong with it, and that's just the users! The difficulty increases even more when, as here, the client has an avowedly green agenda, with lots of customers hanging a sharp eye open to ensure that they stick to it.

To make it even harder, I agreed to write this review only if I could carry out a post-survey, because I am fed up with reading programmes claims for buildings (especially allegedly 'green' buildings) which are not borne out in reality. I am delighted to say that this request received wholehearted support from architect Mark Hudson and client Paul Ellis from the Ecology Building Society. The building had been in use for five months when we

looked at it. As a result, we have a fighting chance of knowing whether the aspirations have been achieved.

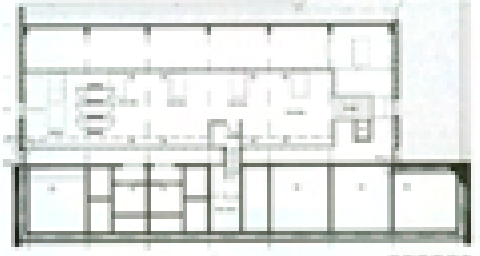
And what aspirations! The table (above) shows 24 of them and this excludes the main building requirements, which was to create an excellent working environment. Only six of the 24 have not been carried through. Fallen by the wayside are the sustainable transport plan, the possibility of having no heating system, the waste/wastefreezing issue for the recreational area, an independent drainage/sewerage system and solar panels in the private garden area. All the others are either achieved or in the course of execution.

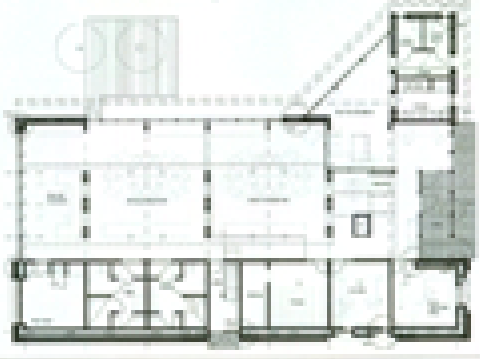
For me, the test of a building is not its green credentials (which are, after all, a means, not an end) but whether or not it adds value for the organisation and the individuals occupying it. This means staff who are working productively in relatively healthy and comfortable circumstances and a client that perceives value for money in the building – especially with respect to the image the building portrays – and to the costs of running it.

In these terms the building is looking good, or very good, in most respects. Although conducted prior to

summer occupancy (when the thermal of advanced naturally-ventilated buildings like this one) the occupant survey shows the building in the top ten per cent of the Building Use Studies UK dataset for most of the comfort and satisfaction variables. The perceived productivity score is plus 11 per cent, an excellent result, although we are still in the occupants' honeymoon period. I expect that summertime comfort conditions will also be reasonable. The night-time ventilation strategy will not be manual, as many are, by insurance and security requirements, the trickle ventilation seems to work satisfactorily, there is plenty of thermal mass, and most of the windows are openable.

The main downsides from the occupants' point of view are ones that are common in green buildings: glare, noise and perceived dryness. Blinds are being added to dampen the effects of both low winter sun, to manage effects of the attempt to give general floor occupants a good view out and reflections from the light-coloured underside of the overhanging roof. The noise is partly a result of the open-ness of the mezzanine workspaces to the areas beneath, which include a temporary meeting room. Acoustic surface treatments may help here.





Above Inside and facing entrance canopy and front entrance wall.
Plans Ground and upper levels.
Opposite Ground floor workspace with mezzanine gallery; south-west facing elevation.

However, there are also niggles, such as door closers on the staircase which squeak and slam the door shut (totally unobtrusive and phones where the users cannot tell which phone is ringing. The complete lack of carpets is a big plus point in my eyes (even in the woollen district of West Yorkshire!) but it does mean that more attention to detail is needed with noise

overhead. Dryness is a feature more than a bug. Relative humidity drops in winter and, as long as there are no experiments like mine (not repeated here), people should be able to live with it.

The layout seems a little odd in that the main wall facing the garden has cupboards, photocopiers and faxes, all of which block access to the radiator controls. This is prime workstation

Above Off-landing at the first level; the building works into its surroundings.
Below The north-east elevation from parking area; there is the main workspace with an oblique glazed screen in the middle-ground area.

ancillary and probably results from the original aim of having no heating at all. The client has a demanding requirement for storage, which at the moment is not quite met, with tolerable piles of boxes and open filing.

That said, I liked the building and so do the occupants. It meets the requirements of providing a good working environment and looks promising on green credentials as well. Air-tightness tests, for example, are better than target and with remedial action should be much better than the UK norm.

I've left my bicycle here so far. I was the only person in the building that day not to have travelled by car. I came on the bus from Brighlsea, passing the railway station at Thornton, which was ten minutes' walk away. Most of the staff said that their car journey took less than 15 minutes, so many were potential candidates for travelling by bus, bike or even on foot. You know what's coming next. What's the point of going to so much trouble to create a potentially great green building when most of the effort is neutralised by additions to those lumps of metal in the car park? Don't tell me. I know the reasons. Don't we all?

Adrian Cowan is director of Building Use Studies and co-author of the BRE/Cassell Walk series.