
PROBE feedback

A truly unique seminar took place in May: clients, design teams and facilities managers from buildings studied under PROBE met for the first time to discuss their experiences.

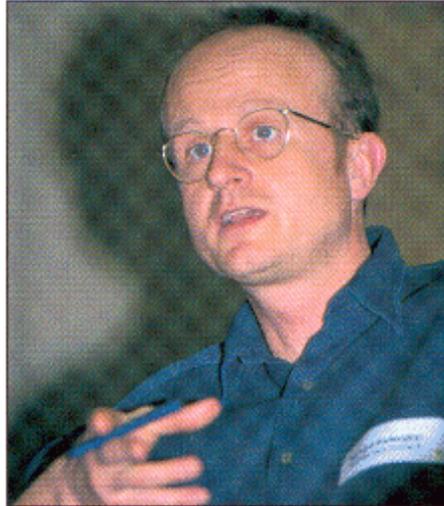
BY RODERIC BUNN

By any measure **Woodhouse Medical Centre**, designed by eco-architects Brenda and Robert Vale, is a fine example of truly green construction. Its outstandingly low heating energy consumption and high occupant comfort scores place it high on any database of building performance.

But it does have one unplanned feature: retrofitted air conditioning. And it was all for the want of a Velux pole. Crucially, the occupants of the building had no idea that the rooflight windows were part of the ventilation strategy, and even if they did, no pole was provided anyway. Once the building started to overheat, the doctors took the fit-and-forget solution to the problem and bolted dx coolers to the once impeccably green surgery.

Many buildings have their own versions of the missing Velux pole, so it was no surprise that clients who took part in PROBE found it such a cathartic exercise. Conversely, designers like architect Richard Partington found the experience initially “bruising and disheartening”. There is real ignorance about monitoring buildings, he said, adding that at least PROBE had started a dialogue.

And dialogue was what this seminar was all about, an opportunity to assess post-occupancy evaluation studies and to determine how PROBE-type surveys should develop.



Architect Richard Partington of Nicholas Hare Associates admitted he found the PROBE experience initially "bruising and disheartening". However, PROBE has started a valuable dialogue on the monitoring and in-use performance of buildings, he said, and the next stage should promote the wider benefits, such as the relationship between comfort and productivity.

Dramatis personae

Clients

Martyn Newton University of East Anglia
Ian Wilson De Montfort University
Andrew Cooke Charities Aid Foundation
Mike Fenton Cheltenham & Gloucester Chief Office

Architects

Richard Partington Nicholas Hare Associates
Linton Ross Feilden Clegg
Richard Brearley John Miller & Partners

Consulting engineers

Jim Grace Atelier Ten
Bart Stevens Max Fordham & Partners
Andrew Ford Fulcrum Engineering
Chris Twinn Ove Arup & Partners
Ken Carmichael Buro Happold

Rapporteurs

Mark Standeven and **Robert Cohen**
HGa Consulting Engineers
Bill Bordass William Bordass Associates
Adrian Leaman Building Use Studies
Roderic Bunn Building Services Journal
Richard John CIBSE

Though there was mixed reaction from the designers to the PROBE investigations, none doubted the value of the exercise. However, some felt that the relationship between

cause and effect was not always identified. Ove Arup's Chris Twinn warned that future feedback studies should avoid projecting the message that particular services or building types, such as "advanced naturally ventilated" buildings, are inherently unstable. Specific failures, he said, can be due to other, generic industry problems.

Architects and engineers agreed that team spirit between clients and their designers, plus a mutual understanding of the design brief, is crucial to producing a low energy, easily-controlled and flexible building.

The **Elizabeth Fry Building** is an excellent example. Architect Richard Brearley and consultant Andrew Ford agreed that the building's success depended on cross-discipline collaboration, and a committed client.

Everybody recognised the importance of energy efficiency, but from a very different perspective. Architect Linton Ross (designer of **John Cabot City Technology College**) said that while design teams can make provision for low energy, they have no control over how a client capitalises on it.

In response, facilities manager Mike Fenton of Cheltenham & Gloucester said that design teams must understand clients' capabilities, particularly when it comes to building energy management systems. Corporate down-sizing can leave clients stretched to operate complex controls, forcing them to outsource.

The process of handover and building operation was a major issue for the clients, who complained of a whole host of problems, from poorly commissioned services to missing or inadequate O&M manuals. The client representatives said that the latter need to be simple, provided on time, capable of being expanded, and must include as-fitted drawings.

As Martyn Newton of the University of East Anglia pointed out, the cost of performance monitoring is often not reflected in running cost savings. Without the BRECSU's sponsorship, the gas saving of £750/y would certainly not have justified the costs of monitoring the **Elizabeth Fry Building**. It is often cheaper, he said, to leave systems under-performing than to debug them.

For that simple reason, both clients and designers agreed that more inducements are required. Suggestions ranged from standard feedback clauses within contract documentation, through to a PROBE proforma within the RIBA Plan of Work and the progressive tightening of CO₂ targets via the *Building Regulations*. Richard Partington recommended promoting the wider benefits of the PROBE studies, such as the relationship between comfort and productivity.

Andrew Cooke of the CAF said the Foundation would use a feedback system like PROBE in future for any new buildings it procures. Ian Wilson of De Montfort University also said that feedback from PROBE is being used to improve procurement at the university, which now includes commissioning consultants specifically to review early scheme designs.

The issues raised will be used to inform the proposed PROBE 3 research, and will form the basis of a second client feedback seminar early in 1999.

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