Whole House Book - Review

Contributed by Blue Peter

This book is about the design of ecologically friendly buildings, with the material discussed under various sections:

• Users and Builders
• The Site
• Designing a New Home
• The Healthy House
• Building Elements (Foundations, floors, walls, etc.)
• Resources and Materials
• Energy Conservation
• Energy Efficiency (heating)
• Energy from the Sun
• Water Conservation and Quality
• Finance, Legislation and Assessments
• Case Studies

The bulk of the book covers a range of the various possibilities that you could use in building (or renovating or extending) a house e.g. what sort of foundations might you use, what sort of insulation, what sort of heating, etc. It discusses the pros and cons of the options and often provides a list of their preferred approaches. Thus, the book covers all the sorts of choices which a person designing or modifying a building might have to make. In this, it does provide an excellent overview of the various possibilities in eco-building, and it is certainly worth getting by anyone who wants to know about the bits of an eco-house.

The basic principles used in assessing materials are effectively the 3 r’s of reduce, reuse, recycle. Energy is a large factor in house-building because both the construction of a house and its use consume large amounts of energy. Therefore the materials used should ideally be either recycled, or those materials which require the least amounts of processing (timber – locally grown, stone, earth, straw, etc.). They should be used to create a well-insulated, and well-ventilated, dwelling, which makes the most of passive solar heating and lighting. And they should be used in such a way that the materials can easily be recycled at the end of their use (so screws rather than nails, and no glues or composites). Luckily, such materials also tend to provide a healthier internal environment.

Since, as the authors say, there is no one ideal ecologically friendly building method, there is always a question of balancing up the relevant factors. For instance, concrete is often treated as an environmental nightmare, yet, if it’s use allows, say the construction of an earth-sheltered home which due to the earth-sheltering requires no or minimal space heating (as with the Hockerton Housing Project), then might the use of concrete be justified in this case? The authors help in this by listing their preferences for the various elements, and also by providing a running example which shows how the energy performance of a house improves as various improvements are made to it.

Despite all this, I personally still feel fazed by all the different factors that need to be taken into account. I can understand the reasoning behind each separate part, but trying to put them all together makes my head spin, which, I suppose, is why we need architects.

Before concluding, a couple of caveats:

Because I have seen the complaint come up with regard to other books, it is worth saying that what it doesn’t do is tell you how to use or build with these elements. So it isn’t going to get you down to the nuts and bolts of, say, how to construct a local stone foundation wall (one of the ecological best practices for foundations). You will need another book (or books), or a builder or whatever if this is what you want.

Secondly, the book is quite expensive - £35 for about 350 pages (in paperback), and though each page is 210 x 270 mm, the margin on a page is 75mm. Many pages have small, colour photos in these margins, as well as photos inserted into the text. If it were possible to trade off some of the photos for a reduction in price, I feel that many of these photos could have been omitted, e.g. Fig 3.1 which shows houses on a housing estate. The layout and photos give the book a sort of “coffee table” feel, which perhaps doesn’t quite fit in with the eco-ideas behind it.

So, in summary, it’s the sort of book which you need at the beginning of a project to set up the basic parameters (materials, methods, etc.) in which a build will take place. It there provides a comprehensive review of things from an ecological perspective, written in a way which the ordinary layperson can readily understand.Many thanks to CAT for providing the review copy.Click here to go to the CAT website where this and many other titles as well as a huge range of information on "green" living and technologies are available.