

# The LAST STRAW

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## TLS Book Reviews

# Making Better Concrete: Guidelines to Using Fly Ash for Higher Quality Eco-friendly Structures

by Bruce King, P.E. - California, USA

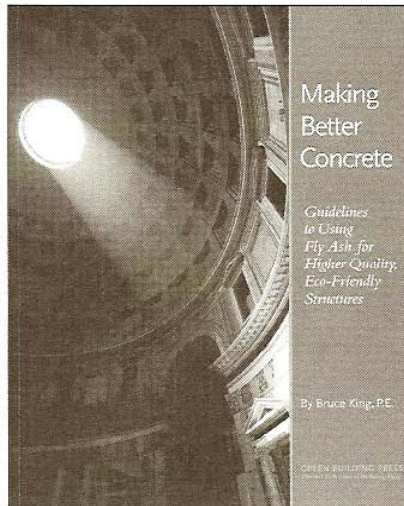
reviewed by Carol Venolia, Eco-architect - California, USA

Years ago, one of our gang identified using fly ash in concrete as one of the top-ten no-brainers of green building. Well, all right, *wanting* to use it doesn't take a lot of brains...but what about *knowing how* to use it? Ah, there's a different story.

Finally, after years of fly-ashing by the seat of our pants, we can now read that story between the covers of a valuable little book. In *Making Better Concrete*, engineer Bruce King brings his considerable knowledge and wit to bear on the subject, with a little help from a stellar lineup of friends.

Now, as a good balehead, you may be thinking, "Huh! Concrete! I try not to touch the stuff." But most buildings, of whatever fiber, need a concrete foundation, and many straw-bale homes sport concrete slab floors.

Why not learn how to make environmentally sound concrete? In fact, concrete itself is just a particular form of stabilized earth that's recyclable and requires minimal processing – a fairly environmentally benign material. On the other hand, cement – the glue that holds concrete together – is quite un-benign. Making cement requires gobs of energy and releases megagobs of carbon dioxide into the atmosphere. So the best idea is to use something else, like someone else's waste product, as the glue. Fly ash (the dust collected from the smokestack of coal-fired power plants) is perfectly suited for this role. And, since we currently get half our power both domestically and globally from burning coal, we have lots of ash. (When we come to our senses and stop mining and



burning coal, we'll figure out something else to use.)

*Making Better Concrete* not only tells us what fly ash is, but what we can do with it. Bruce King explains how fly ash works, how to design with it, the do's and don'ts of pouring fly ash concrete, and how to attain LEED credits for using fly ash. The text is concise, clear, and well organized, augmented liberally with helpful charts and illustrations. Until now, most of the available literature on this subject has been in the form of obscure or inaccessible technical papers – to which this book also refers you, in case you want to know more.

Who should read this book? Architects, building designers, builders, engineers, concrete suppliers and subcontractors, and

anyone else who wants to use fly ash easily and effectively. This includes you, baleheads! If you use concrete in your work, or are just forced to, then *Making Better Concrete* is the book for you.

Bruce King is known for such past accomplishments as writing *Buildings of Earth and Straw: Structural Design for Rammed Earth and Straw Bale Architecture* and founding the Ecological Building Network – not to mention engineering numerous eco-buildings. This book adds to his credits not only in and of itself, but also by launching his latest venture, Green Building Press. 📖

Published by Green Building Press (see more about this new publishing venture below)