Naturally Temperature-Conditioned Traditional Courtyard Homes: Ready for a Renaissance?

by Jennifer Neman, Istanbul, Turkey on 02.23.10

The Cevat Sofi Taranici House in Diyarbakir, Turkey, is an example of a traditional courtyard-style home. Photo via Overhander Association.

Rugged design insulation and programmable thermostats are all well and good (really good), but people 4,500 years ago managed to keep their homes appropriately warm and cool without high technology — and without wasting energy. How did they do it?

Traditional courtyard homes developed between 3,000 or 2,000 BC “incorporate a variety of appropriately designed inward-looking habitable rooms and spaces at different floor levels around a planted courtyard to suit different seasons and to enhance privacy,” according to an exhibit at the Science Museum of London that shows a model of one such house in Baghdad. These “naturally conditioned homes” are still found in many places, from Greece to southeast Turkey, and likely beyond.

Courtyard houses are built contiguously (with shared walls) and incorporate natural cooling elements in design. These include a planted courtyard with fountain and basin, room orientation, thick external and party walls, double-glazed windows, and air-scoops for natural cross ventilation (reducing external air from the roof terrace to pass through party walls to sustainean rooms).

Ellen MacArthur tipped us off to the exhibit, which cited as an example of the Muslim world being “green before it was cool.” The exhibition itself, Fast Forward: Discover the Muslim Heritage in Our World, is focused on engineering and medical achievements rather than eco-friendly ones, but the accompanying book does look at early uses of recycle, water-conservation laws, and herbal medicines.

Traditional Water Conservation Techniques

Of course, we can romanticize all and ways of doing things, but the traditional Middle Eastern underground aqueducts called qanats have seen some resurgence of interest as water shortages become a more pressing problem in many parts of the world, as have various rainwater collection techniques. Admittedly, adopting courtyard home designs more widely might require some change in our habits, as the Science Museum points out.

Inhabitants move from one space to another at different times of day within the same season, seeking the most comfortable environment. In contrast, inhabitants of modern-style homes stick to the same rooms in all seasons, relying heavily on energy-intensive systems to make their environment comfortable.

But it makes sense, in a lot of ways. In the summer, I find myself seeking out certain restaurants, cafes, or bars that have any open spaces in which to enjoy the sun, while in winter, I gravitate toward the ones that are intimate and cozy. So why not do the same in your own house? Besides, with things like cell phones, laptops, and mini-DVD players making us less chained to our desks and sofas, such a “minor migration” through one's own home is probably easier than ever.