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Design for 10,000 Years

Jeremy Faludi
December 14, 2007 1:00 AM

Many unpleasant byproducts of today's design industry last thousands of years; but what things do we want to last that long? Who besides the Long Now and Yucca Mountain designs things to last 10,000 years?

Last Spring, on a road trip, I visited Hoover Dam. It was as impressive as you'd expect for something taller and wider than the Great Pyramid of Khufu, a single structure that irrigates three US states. It's engineering with a capital E. That wears off after a while, though, especially if you consider the dubious environmental impact of creating the hemisphere's largest artificial lake. The thing that still impressed me days later was the monument there to commemorate the dam's construction. ...Or, rather, the monument's floor.

The floor of the Hoover Dam's commemorative art piece is a star map for its location on the date the dam was finished. They did that because this structure was so monumental they planned it to last thousands of years. They consciously planned it to last longer than this country, the English language, maybe longer than our civilization. They wanted to leave something readable by whatever future civilizations came along, and they reasoned that anyone advanced enough would have precise astronomy, and would be able to read the star map and calculate back through time to the date that the stars would have been in those positions for that latitude and longitude. It's brilliant. (And they have a textual explanation of it, inlaid into the floor in bronze, which is so verbose future archaeologists could practically decrypt English from it.) Nobody outside of The Long Now thinks that way these days.

Contrast that with an anecdote from William McDonough's speech at Bioneers 2000, in which he recounts a meeting where scientists from the Hanford nuclear plant were trying to decide how to design a sign or architecture to warn people five thousand years in the future about the radioactive waste there; some local Native Americans who were at the same conference laughed at them and said, "Tell the scientists not to worry, we'll tell them where it is." He uses it to illustrate his point about people needing to feel like they're indigenous in order to act responsibly with the Earth and others. Design for 10,000 years can mean design for the future versions of ourselves as much as it means designing for strangers.

Few designers think past the next project cycle, because the businesspeople paying them usually don't think past the annual revenues. But what if both these groups of people started to look further ahead? Japan has a tradition of this, with many companies (such as Honda) having a 100-year plan, but in most of the West this is a foreign concept. There are a few corporate exceptions (like National Instruments, for the geeks in the audience), and many municipalities in Europe have thought this way for ages, but how many designers have? John Thackara and the Long Now's Brian Eno put together the book Eternally Yours with some other
Designing for long-lived products is not the only strategy of import; obviously some things should be designed more ephemerally, such as packaging. There’s no sense in a plastic wrapper you tore off in ten seconds sitting in a landfill for a decade before decaying into the soil, or a styrofoam cup that you used for an hour lasting thousands of years. Designing away the things you don’t want to still be here in 10,000 years is just as important. Mountains of landfill, clearcut forests, undrinkable rivers, and the like can be designed away just like they were inadvertently designed into modern life. All it takes is collective will and ingenuity.

When you think of lasting, permanently valuable design, you probably think of architecture first--the pyramids, Petra, other ancient temples. But archaeologists have found jewelry over 5,000 years old that could still be worn today, and 1,000-year-old Chinese jade vases that are still functional and beautiful. (Maybe one, somewhere, has been in continuous use all that time.) The Long Now is giving us an idea what a 10,000 year clock would look like; what would a 10,000 year farm look like? (Would it be terra preta?) What would a 10,000 year factory look like? I invite you to leave comments about what and how you would design for 10,000 years.

photo by author

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I think, in so many ways, this discussion all comes back to the limitations we face in a market economy. Where is the onus to manufacture products or build structures that last if the point of one's economy is the ongoing sale of new goods? Not until we (the consumers...a title that points to the problem itself) demand products that we can pass along to our children's children will this be resolved. (And, one should add, not until we are willing to pay the fully accounted cost of these things as well; I sometimes feel sorry for craftspeople or manufacturers who do aim to make lasting things but face the onslaught of cheaper "short-term" goods.)

[Had some thoughts on this regarding computers here.]

Posted by: Jason Nicholas on December 17, 2007 3:31 AM

The 10,000 year materials would be plastics and foam. The problem is people wanting design change to reflect there style or personal taste, so the design would still change, the materials would be made to adjust to different designs, like the blocks that kids play with. A design that is modeled after nature or to complement it would last a very long time indeed.

Posted by: keith anderle on December 17, 2007 8:08 AM

I've made myself the same remark and this is a known fact: things like washing-machine and the like are designed to last 5 years, this is ussually somme more than the guaranty time.

Pieces like rollings are manufactured with a sturdiness to last 5 years for 80% of the pieces, an engineer of my friends told me. They could do pieces for 20 years, this would just cost some bucks more for the complete machine...

In France, we now have mandatory energy consumption level labels on new cars, fridge, washing-machine etc ... We could ask for mandatory "life expectancy" labels on products, certified by national commission.

Posted by: litteulldav on December 17, 2007 8:40 AM

We can't predict what Promethean gifts science and technology will offer us in 10 years so designing something to last for 10,000 years is hubris to the n'th degree.
But, Gary, things are designed and manufactured now in a purposeful finite manner (or, in the case of housing, "finite manors" I suppose). Surely there is an argument to design things to the best of our ability. Is it not more hubristic to make things with the thought that resources are basically infinite and there is no need to care for the future?

There is only so much we can steal away from Zeus before he gets entirely miffed.

reminds me of the Iroquois philosophy of Seven Generations: that every leadership decision made should consider the the wisdom and experience of the previous 7 generations and the impact to the next 7.

What about the opposite of designing for 10,000 years? What about designing products to implode and completely disappear in 1, 3, 5 years? Rather than assuming things MUST be here to stay, can we develop materials and designs that are beautiful now, but won't take up space, resources, landfills in the future because they no longer exist. At this point I suppose it must be about biodegradability, but could there be new materials that turn to dust? to ether?

You might be interested in the Earth artist Charles Ross's Star Axis in New Mexico, which is designed and built to last and be relevant thousands of years into the future, if not indefinitely. Between the construction materials (all stone) and the relation of the artwork to the universe (designed to physically line up with changing star positions well into the future), it's quite a beautiful and important work. He has information about it here: http://www.staraxis.org

I just realized that I should add that Star Axis not only considers the future, but also the present and the past. Just as it has areas that are mapped to the Earth's position in the universe into the future, they also go backwards, so that the present is a grounded point in a linear line that spans huge periods of time. One is able to stand at a place mapping to the building of the periods and see where the North Star would have been back then. It's very humbling and the nature of the piece forces you to consider your place in the grand scheme of things.
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