

Alexander Rose

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While most people obsess over minutes, Alexander Rose and the Long Now Foundation are building a clock and a library that will last 10,000 years.

James Daly: The scale of the Long Now Foundation is extreme: Its clock and library are expected to last 10,000 years—or about twice as long as the interval separating us from the construction of the first pyramid at Giza. Is this science, entertainment, or both? The clock project is really a piece of theater. It’s meant as a touchstone or a focusing item. It’s meant to ground people’s attention. The library project is actually the content behind that theater. But the reality of it is that building a 10,000-year clock is a project that’s filled with tons of folly. It’s an interesting material science problem. It’s a fun engineering problem. The real challenge is actually in designing the 10,000-year institution: the library. The clock is really just an excuse to start these kinds of conversations.

Still, there’s a seriousness in it. We’re obsessed with time, and this clock in many ways spoofs that obsession.

Right. As we were approaching the year 2000, we had a temporary vertigo towards time. It seemed unreal. Even in 1999, when you were making plans for 2005, it just seemed strange. So people got nostalgic. They got obsessed with the Y2K bug. But now that we’re into 2001, we have an infinite future ahead of us. There are no more stopping points that are reasonably near. So there is a great amount of freedom that’s being allowed now. There is a certain permission that’s been given to think longer term.

Do you ever think about what kind of people might discover this clock in 10 centuries?

Certainly. That’s actually what we spend quite a bit of our time talking about when we’re designing a 10,000-year clock and, especially, a 10,000-year library. What are the people going to be like? What are they interested in? Should we include the Gregorian calendar? Should we use the inch-based measuring system in all of our designs?

So far the answers to a lot of those problems have been to go ahead and put in a Gregorian calendar and use the inch-based measuring system as remnants of this civilization. As reminders of those who built it. But also so they can be evolved later and adapted to future civilizations—especially the Gregorian calendar. Things like the calendar system are the easiest parts of a clock to change. You don’t have to redo the whole thing from the ground up; you can just swap a few dials.

Why put the clock in the middle of a mountain in Nevada, where like a pharaoh’s tomb it might be lost, as opposed to someplace like midtown Manhattan?

Cities are extremely problematic. They tend to get bombed during wartime. They tend to turn themselves over in terms of architecture and buildings. And they tend to find things out of fashion and destroy them very quickly.

In the 1960s and 1970s, for instance, the Victorian houses in San Francisco were seen as very ugly and were torn down all over town. Thirty

they're considered precious. The most dangerous time for our artifact and any artifact worth preserving is the first generation after they're built, when they go out of fashion but before they're considered old enough to be antique and interesting. Finding a way past that short-term thinking has been one of our most difficult challenges.

We also designed a lot of interesting things into the clock, like a star field that will rotate with the Earth's procession. Even if the clock were lost for several thousand years and then someone found it, you would still

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have a context of when it stopped and your current time, and how to rectify the two. And so, in that sense, the clock is actually designed to be stopped. I think the times it will have stopped are at least as interesting as the times when it will be going. There could be a period when either our civilization does not have enough time to deal with winding this clock. Or for some reason our civilization could be obliterated and the clock would be lost for a while.

You're also involved in the creation of the Battle Bots games, where small robots beat each other until only one is standing. They live through an accelerated life. Do you see a connection between the Long Now project and the Battle Bots?

Mostly in terms of both playing with time and manufacturing things. With the Long Now project, I'm trying to build a single object that can last for a long time, whereas the Battle Bots project is highly Darwinist—the machines can be destroyed easily. The Battle Bots games are a great destructive-analysis lab. It's like an accelerated-aging tank.

I think you could describe many office environments in the same way—as accelerated-aging tanks.

Very true. And there's a real parallel there. Battle Bots has taught me how things fail in very real ways. It has also taught me, on a more mundane level, how to design things for manufacture. Because when you're designing things that other people are making versus designing things that you are making, you tend to do it a lot differently. Both projects have certainly taught me how to design things that don't fail. I've learned that simple is better. In Battle Bots, everything that can fail, will. In the clock, over the centuries, that is also true. When something is sitting in a museum and it's a beautiful object, no one is going to hurt it. Outside, in the real world, it's a different story.

Battle Bots is an extremely popular event. What do you make of that? Is it just a modern-day fascination with destruction, akin to a miniaturized demolition derby?

Battle Bots actually has far more variations than a demolition derby. It's not just about welding a steel plate onto your car. But it does strike me that a lot of entertainment is going toward less-produced things. People are less interested in having something really crafted for them. Unless it's done really well, like a Steven Spielberg kind of thing. Battle Bots is really just a creativity fair. It's popular because you can tell that all of these robots were designed in garages around the world. The designers have free reign. The only constraint is weight. Then they arrive, and they have no idea what they're going up against. There is a huge chance factor in the way all these machines are going to interact. It's not like football, where you always have the same field, the same players, and all you're doing is rearranging how you move them around.

Why is that? Do you think people have had their fill of twinkling special effects, or is reality just more interesting?

There is an element of chance in all this and people really latch on to that. People enjoy watching spontaneous creativity, as opposed to the very market-driven and market-targeted kind of production values that are employed in a television show. It instantly becomes a lot more interesting when you know that the outcome of whatever you're watching is not scripted and not designed by some Hollywood studio exec. There is a certain amount of disbelief in the way that most television and movies are created. Instead, there is a fascination with the real that is universal. ■