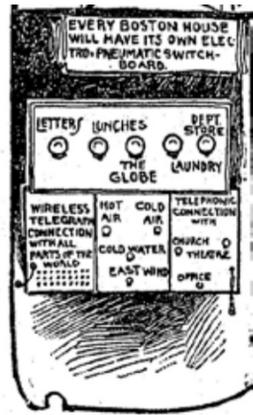


Reverse Engineering Our Future. Survival of the Fittest (or Most Desirable) Idea

by Carlo Ratti and Matthew Claudel

In December 1900, the *Boston Globe* newspaper ran an article by Thomas F. Anderson imagining what the city would look like in the year 2000.

Every Boston house will have its own electro pneumatic switchboard. *Boston Globe* (December 24, 1900).
From smithsonianmag.com by Matt Novak, October 4, 2011

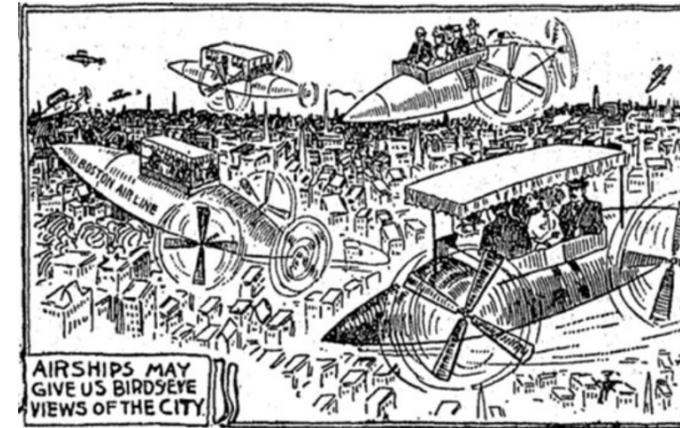


The piece, titled "Boston at the End of the 20th century," painted an elaborate vision of a metropolis with moving sidewalks, airships soaring high above the city, and pneumatic tube delivery of everything from food to newspapers. Anderson's predictions were sweeping and optimistic, depicting a lavish and radiant vision of the world of tomorrow... which, after a century, looks very different from our own.

This portrait (and a host of others that are similar) proves that nothing ever looks as dated as old science fiction, as the saying goes. Yet anticipating the future—traditionally the task of fiction writers and futurologists—is no less central to the act of design. In the words of Alan Kay, "the best way to predict the future is to invent it." At the edge of a graveyard of so-called "paleofutures," designers are confronted with urgent questions. How can we avoid the scrapheap of future visions? And, most importantly, how

can we maintain an output of innovation that pushes society forward—continually defining what is yet to be?

The prolific life's work of Buckminster Fuller, the archetypal inventor of the 20th century, was sustained by a methodology of Anticipatory Design Science. He applied a systematic approach to design, motivated by a general belief that invention, speculation and science go hand in hand. The role of the designer was to introduce variations or mutations in the *status quo* and nurture their effects. Anticipatory Design Science meant, in Fuller's words, "to solve problems by introducing into the environment new artifacts, the availability of which will induce their spontaneous employment by humans and thus, coincidentally, cause humans to abandon their previous problem-producing behaviors and devices." Designers imagine the future, and serve as a catalyst for change.



Airships may give us birds eye views of the city. *Boston Globe* (December 24, 1900).
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Yet today, challenges grow increasingly urgent as solutions shift from production to invention. A new design model, grounded in Fuller's Anticipatory Design Science, has emerged as Speculative Design. It is "a means of speculating about how things could be—to imagine possible futures" (Anthony Dunne). The speculative designer, ideating alone, is largely unburdened by reality. Yet recent history has proven the power of the crowd—titanic feats of collaboration, crowdsourcing and co-creation have been realized in the contemporary networked condition. Open software, such as Linux, or even the Internet itself came into being through vibrant actions, interactions, clashes and cooperation among millions of people from different backgrounds. Design, too, will operationalize that raw power.

In so doing, design is not just about imagination—the crucial second step is to manifest and demonstrate ideas, effectively putting them into the hands of

people-at-large. Innovators will outline possible scenarios, posit them and test them in the world, where people, whether designers or not, will respond to the variations and mutations and serve as a compass bearing for the development of their own environment. Innovation becomes the agent of mutation in a quasi-biological evolutionary process, and people themselves have the role of natural selection. This will become an operative framework for crowdsourcing the future, guided by an assessment of the optimal result (or, the survival of the fittest idea). Design and futurology merge as practitioners—together with you, the user/inhabitant/consumer—define and then engineer the most desirable future.

Maybe Boston in 2114 still won't use a pneumatic courier service... because we probably wouldn't want it anyway, as we build—together—our "futur souhaité."