
VOLUME

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WHEN BROUGHT INTO THE CITY, NO TECHNOLOGY IS A NEUTRAL ENABLER, A MERE DECORATION, OR EVEN A MARKETPLACE OF SUPPLY & DEMAND.

URBAN TECHNOLOGIES ARE BUILT UPON SPOKEN AND UNSPOKEN ASSUMPTIONS ABOUT URBAN LIFE, EACH WITH PECULIAR IMPLICATIONS FOR SOCIAL RELATIONS AND THE NATURAL ECOSYSTEM.

IT IS TIME FOR THE DISCIPLINE OF MEDIA ARCHITECTURE TO GET UNDER ITS OWN SKIN, AND ADDRESS THE IMPLIED FUTURES OF NEW TECHNOLOGIES.

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FRONT COVER IMAGE: The cuttlefish can change the texture of its skin according to its environment. Photo by Shirin Amouei.
BACK COVER IMAGE: Cuttlefish, engravings by the Dutch zoologist Albertus Seba, 1665–1736.

AGAINST FUTURE PROOFING ROY BENDOR



Abandoned apartment building skeleton on the Breezy Point peninsula, NYC. Photo by Arthur Tress/NARA.

If Media Architecture has moved into the territory of interactivity, citizen participation, and co-design, then that could be another way of saying Media Architecture is being applied to create a better future: a fairer one, a more equal one, a healthier one, a more sustainable one. As such, Media Architecture seems an effective treatment for some of these major issues, or it should at least contribute to confronting them. But as with any treatment or therapy, attention should be paid to the symptoms of the side effects: the application of a tool for better results can easily cloud the view on the potential risks and false assumptions. As such, Roy Bendor discusses one such symptom: 'future-proofing'. Another way to put into perspective 'what design can do'.

Planned obsolescence is widely recognized as a staple of conspicuous consumption, but other, perhaps less nefarious forms of obsolescence are

equally implicated in social and ecological degradation. Some forms of obsolescence happen because of human short-sightedness or sheer stupidity; others because of cultural, political, or economic presentism; and still, others are simply the result of the irrepressible uncertainty of the future, the unannounced arrival of "black swans".¹ If "No battle plan survives first contact with the enemy" (a saying attributed to the Prussian General von Moltke), few expectations about the future withstand what Helga Nowotny calls "the cunning of uncertainty". Try as we will, the future always seems to escape our best predictions.

Nowhere can the elusive nature of the future be seen more strikingly than in urban planning, design and development (urban design in short), where failing means failing big. Barely functional or altogether abandoned 'white elephants' are a constant reminder that material progress in late-capitalist modernity incurs a debt we could never fully repay. Not that we are particularly good at

heeding reminders. Critics have long warned that urban design operates without a clear view of the future. In their proposal for the redevelopment of Harlem (NYC) in 1965, Buckminster Fuller and June Jordan warn, "You can build to defend the endurance of man, to protect his existence, to illuminate it. But you cannot build for these purposes merely in spasmodic response to past and present crises, for then crisis, like the poor, will be with us always".²

To the question whether urban design can be less reactive and more anticipatory, future-proofing appears to be the answer.

Future-proofing, "the process of anticipating the future and developing methods of minimizing the effects of shocks and stresses due to future events", emerged in architecture during the 1990s in two very different contexts: the preservation of historical buildings in face of urban redevelopment, and the suitability of new buildings for future inhabitants and conditions.³ Perhaps under the influence of the Y2K bug, the term migrated to domains as varied as infrastructure development, electronics manufacturing, and healthcare provision as a way to signal the importance of future ("forward") compatibility, and it is in this sense that the term is currently in use by designers of gadgets, buildings, organizations, cities, and even economies.

Insofar as it designates a coherent strategy, future-proofing appears to be an idea whose time has come; a necessary corrective to our pathological short-termism. It responds to accusations that designers often promote business interests ahead of social and environmental well-being by cueing designers to a multitude of longitudinal factors that go beyond cost-effectiveness. Future-proofing also posits the perceived capacity of designers to solve complex problems before they even appear –

standing for the possibility that the fundamental uncertainty of the future can be tamed by the combined powers of human inventiveness and technical expertise. With future-proofing, designers need not rely solely on their individual ability to imagine unknown futures in order to develop what Buckminster Fuller called a “comprehensively anticipating integrity”. The future could be anticipated and managed procedurally, *by design*.

In some ways, future-proofing can be viewed as a sign that anticipatory thinking is making a timely resurgence across all domains of human activity. If anthropologist Agustin Fuentes is correct, and the ability to collectively imagine future possibilities is indeed one of the defining characteristics of the human species, future-proofing merely closes the civilizational loop, so to speak, returning humanity to its premodern intuitions. Whereas the radical architects of the 1960s envisioned “instant cities that could sprout like spring flowers”,⁴ the future-proofed cities of tomorrow would be built gradually and wisely. More trees than flowers. Yet, as compelling as this may sound, I want to suggest here that future-proofing is actually a doubling-down on modernity or, more specifically, the modern drive for control. Not the remedy for designerly short-sightedness but another symptom of an old malaise – the “eternal recurrence of the new” as Walter Benjamin wrote about fashion.⁵ To be clear, what I am suggesting is not motivated by a conservative harkening to a glorious, impervious past, nor by a celebration of randomness or a romantic advocacy of something like the application of Wabi Sabi aesthetics the world over. Because every method we use to navigate future uncertainty comes with an intellectual baggage, we should ask ourselves what kind of unspoken assumptions or hidden intentions underlie future-proofing.

An initial reason to be suspicious of future-proofing has to do with the fact that what we care about, our values and beliefs or the ‘ground zero’ upon which our aspirations are premised, are dynamic and change over time. This is what ethicists call ‘value dynamics’. Values may change deliberately as part of a top-down effort (think the Chinese Cultural Revolution), or they may change to reflect the consequences of cultural or political conflicts (think the civil rights movement in the US), but value dynamics may also “follow autonomous patterns where actors, interests and intentions play a more unobtrusive role.”⁶ It may be that the only way to fully predict future values is to program them in a non-democratic way, but there’s another issue at play here: the unobtrusiveness of shifts in values means that tracing value dynamics is a constant game of catch-up. Just ask those American investors who assumed that shopping malls would remain “the heart and soul of communities” (if they ever really were that).⁷

The question of the hiddenness of value dynamics points to another form of latent forces operating beneath the threshold of our anticipatory faculties. Every design process is guided by expectations. These, to borrow Jens Beckert’s terminology, may be differentiated into ‘rational’ and ‘fictional’ expectations. Rational expectations embody the capacity of (rational) actors to systematically gather and make sense of all available information in order to make probabilistic forecasts of the future. Fictional expectations, on the other hand, “refer to the images actors form as they consider future states of the world, the way they visualize causal relations, and the ways they perceive their actions influencing outcomes.”⁸ Design, it follows, embodies specific social, political, and cultural *imaginaries*. What makes them especially difficult to grasp and therefore operationalize, is that they tend to operate implicitly, seldom surfacing as conscious design requirements, and that they tend to be most active in the early stages of design when uncertainty abounds. In other words, in conditions of uncertainty, when rational analyses are woefully insufficient, actors rely on their tacit beliefs about the world. The more general and abstract these are, as Gregory Bateson observed, the less flexible they become, leading to both intellectual and material lock-in.⁹

However, the opposite is also true: less abstract and more concrete expectations may lead to the very same outcome. In what I call ‘the foresight dilemma’, over-proofing may end up undermining the very intentions behind it. Paul Goodwin describes the problem in the context of scenario development and analysis (a touchstone of current foresight practices): “Ironically, as more and more detail is added to a scenario, the more plausible it may appear, yet its actual chances of occurring decline. People can become unrealistically attached to the small set of scenarios they’ve produced so they are immune to the prospects of other scenarios occurring. Unless they are careful this will narrow their perspectives and make them vulnerable to shocks and surprises.”¹⁰



Randall Park mall. Photo by Seph Lawless

Goodwin's warning posits a considerable challenge to all future-proofers: the more they try to avoid the worst of what the future may hold by creating richly detailed scenarios that anticipate the future, the more likely they are to fail because of their belief that their future-proofing may actually work. The more detailed the map the *less* representative it is of the territory, and in this sense future-proofing appears incapable of helping designers "think the unthinkable", as Herman Kahn famously quipped.

Lastly, the question of how to 'think the unthinkable' is inseparable from the question of who gets to do the thinking. This is where the practical and moral blind-spots of future-proofing meet. As Pupul Bishit of the Decolonising the Future Initiative asserts, "[F]utures for all cannot be imagined by a few",¹¹ and indeed, what use is future-proofing if it is done in the same technocratic, expert-led, top-down manner that yields urban 'white elephants'? Given the complexity of urban dynamics and the plurality of urban ways of being – that is, if we manage to resist the universalizing force of the smart city imaginary¹² – it makes sense to engage as many actors (and potential actors) in envisioning future possibilities. When more publics are engaged in collectively imagining *their* futures, there is a much better chance that what they imagine will not only be realized, but also endure longer and more gracefully. Even so, despite the growing recognition that democratizing the future requires democratizing futuring practices, there is nothing in future-proofing that insists on engaging multiple actors, stakeholders or publics.

All of this leads me to suggest that future-proofing is not only futile but is, in fact, regressive and disruptive to more future-embracing design approaches. Future-proofing may seem at first like a welcome paradigm shift, a move to incorporate long-term thinking where it is needed the most, but in fact it perpetuates the same kind of modernist, hubristic "fictions, fallacies or fantasies of control"¹³ that brought us here in the first place. It is, in other words, yet another attempt to hide our "embarrassment of complexity"¹⁴ by deploying technological rationality against a whimsical future – an attempt in which distinctions between risk, which could be managed through careful modelling, and uncertainty, which is incalculable, fall apart.

Where does this leave designers? What can those who wish to circumvent or even short-circuit the faulty logic of future-proofing do? They can start by taking seriously Brazilian anthropologist Eduardo Viveiros de Castro's suggestion to think and act like bricoleurs instead of engineers,¹⁵ and to approach design as a continuous process of seeding possibilities for appropriation instead of modelling solutions. They can also use Alejandro Aravena's "incremental design" as an example of how such a strategy may be enacted. Learning to "unpredict" – or, rather, "unlearning" to design-as-usual¹⁶ – may be counterintuitive for designers trained to prescribe user behaviour, but it may signal an opportunity for designers to embrace instead of hedge against future uncertainty.

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Colophon VOLUME 59

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