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THE FUTURES OF EVERYDAY LIFE:  
POLITICS AND THE DESIGN OF EXPERIENTIAL SCENARIOS

A DISSERTATION SUBMITTED TO THE GRADUATE DIVISION OF THE  
UNIVERSITY OF HAWAI'I AT MĀNOA IN PARTIAL FULFILLMENT OF THE  
REQUIREMENTS FOR THE DEGREE OF

DOCTOR OF PHILOSOPHY

IN

POLITICAL SCIENCE

AUGUST 2010

By

Stuart Candy

Dissertation Committee:

Jim Dator, Chairperson  
Michael J. Shapiro  
Debora Halbert  
Stephen Duncombe  
Markus Wessendorf

The Futures of Everyday Life: Politics and the Design of Experiential Scenarios

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## ABSTRACT

The great existential challenges facing the human species can be traced, in part, to the fact that we have underdeveloped discursive practices for thinking possible worlds ‘out loud’, performatively and materially, in the register of experience. That needs to change. In this dissertation, a methodology for ‘experiential scenarios’, covering a range of interventions and media from immersive performance to stand-alone ‘artifacts from the future’, is offered as a partial corrective. The beginnings of aesthetic, political and ethical frameworks for ‘experiential futures’ are proposed, drawing on alternative futures methodology, the emerging anti-mediumist practice of ‘experience design’, and the theoretical perspective of a Rancièrian ‘politics of aesthetics’. The relationships between these three domains -- futures, design, and politics -- are explored to show how and why they are coming together, and what each has to offer the others. The upshot is that our apparent binary choice between unthinkable dystopia and unimaginable utopia is a false dilemma, because in fact, we can and should imagine ‘possibility space’ hyperdimensionally, and seek to flesh out worlds hitherto supposed unimaginable or unthinkable on a daily basis. Developed from early deployments across a range of settings in everyday life, from urban guerrilla-style activism to corporate consulting, experiential scenarios do not offer definitive answers as to how the future will look, or even how it should look, but they can contribute to a mental ecology within which these questions may be posed and discussed more effectively than ever before.

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## INTRODUCTION.

### THE UNTHINKABLE AND THE UNIMAGINABLE

We're on a kind of slider bar, between the Unthinkable, and the Unimaginable, now. Between the grim meathook future, and the bright green future. And there are ways out of this situation: there are actual ways to move the slider from one side to the other. Except we haven't invented the words for them yet.

~ Bruce Sterling <sup>1</sup>

Humanity appears to be caught between two competing visions for society, two kinds of future: one appears to be unthinkably bad, the other unimaginably good. The paradox is that, vague though they are, the diametrically opposed potentials both have an aura of plausibility. Strangely enough, the balance between these competing images of the future seems to shift depending on what evidence you happen to attend to at the moment, and even on your mood as you consider them. It is as if the slider of the probable future moves depending on how you tilt your mind.

The quotation above comes from Bruce Sterling's 2006 keynote speech at the annual technology conference South by Southwest, in his hometown of Austin, Texas. A foremost science-fiction writer and design critic, he has emerged as one of the most astute observers of change in our culture. We begin here because Sterling's assertion vividly expresses an important idea behind the work you are reading. It is an intuition which will resonate with many of us, and the more deeply we consider it, the more concerned we may reasonably become.

The discomfiting implication is that the outcome of some gigantic existential gamble rests in our hands, or even more strangely, in our heads. However, as alarming as it is -- this weighty responsibility for how the future will turn out --

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<sup>1</sup> Sterling 2006b.

more worrying still is the implication of a serious inbuilt shortfall in our capacity to meet that responsibility. The terms ‘unthinkable’ and ‘unimaginable’, despite denoting scenarios that in normative terms are complete opposites, point to a common weakness: *our inability to adequately cognise those possibilities*. If the diagnosis is correct, we currently can’t wrap our heads around either the best or the worst of what may befall us. This would amount to a chronic historical and psychological quandary; that the kind of future we might most like to manifest, as well as the kind that we surely do not, are both shadowy, vague, and nearly impossible to talk about.

No small matter.

Sterling goes on to elaborate, borrowing an insight from fellow science-fiction writer Warren Ellis, this recognition that it is not a coin toss, but a human process -- power, persuasion, or in a word, politics -- that will decide the future we create:

[T]here's a middle distance between the complete collapse of infrastructure and some weird geek dream of electronically knowing where all your stuff is. Between apocalyptic politics and Nerd-vana, is the human dimension. How this stuff is taken on board, by smart people, at street level. ... That's where the story lies... in this spread of possible futures, and the people, on the ground, facing them. The story has to be about people trying to steer, or condemn other people, toward one future or another, using everything in their power. That's a big story. <sup>2</sup>

This dissertation sets out to make a contribution to the unfolding of that big story. It is about developing the requisite tools to steer ourselves, and our communities, towards preferred futures. It is about furnishing the means intentionally to slide the probable future towards our preferred outcomes, as Sterling suggests, by helping us both to think the supposedly unthinkable, and to imagine the hitherto unimaginable. This is a work that tries, in a manner of speaking, to work toward a lexicon of the words he says we’re missing -- but with two modifications. First,

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<sup>2</sup> *Ibid.*

contra Sterling, some key parts of that vocabulary *have* already been invented, especially in the first half century of futures studies (a field comprising the first of three traditions of inquiry and practice on which this dissertation seeks to build). Second, as will quickly become apparent, many of the most potent tools available to help nudge the slider turn out not to be literally *words*, but instead strategies involving extra-linguistic principles of communication and action.

A dissertation being a work in language, we will be dealing with a tension throughout, between the material / emotional / phenomenal on one hand and the linguistic / intellectual / conceptual on the other hand, beginning with the central concept proposed here, experiential futures -- a *term* denoting a *practice* that deliberately attempts to explore the places where language alone cannot. At once an emerging form of foresight practice, design work and political action, an *experiential scenario* is the manifestation of one or more fragments of an ostensible future world in any medium or combination of media including image, artifact, and performance. It involves designing and staging interventions that exploit the continuum of human experience, the full array of sensory and semiotic vectors, in order to enable a different and deeper engagement in thought and discussion about one or more futures, than has traditionally been possible through textual and statistical means of representing scenarios. The term experiential scenario refers to any particular instantiation of a purported or implied future narrative. We'll use 'experiential futures' to denote the broad level of the practice or methodology as a whole.

This practice can be located at a three-way intersection where futures studies, design, and politics (both theory and activism) meet. It can be approached, and usefully deployed, from any of those angles. Why these three fields? As a human institution, politics is the mechanism by which we collectively make decisions, set rules for ourselves, and deliberately reshape the world. (It also, as we shall see in Chapter 3, offers a way of perceiving with heightened sensitivity to the subtle

and ethically-freighted dynamics of power reflected in the aesthetic order.) Futures is the discursive community and toolset concerned with enabling visions and possible paths of action to be elaborated, articulated and pursued. Design is remaking the world piece by piece, just on a different (smaller) scale than futures, and frequently with an immediate interface to materiality.

What do these three practices or perspectives offer each other? The dissertation implicitly elaborates on these relationships throughout, but here is one way to think about it for now. To both design and politics, futures affords some tools to crack open times-to-come as a far richer domain for discussion. It also offers the holistic systems-thinking and temporal reach that are necessary to move beyond ideology-driven argumentation about 'the (singular) future' into more systematic and multi-dimensional exploration. Politics, in its theoretical aspect, gives futurists and designers a sensitivity to power relations and a range of conceptions of the good and the just at the social level, and in its activist aspect, represents a tradition of exploring and concretely operationalising these ethics in the world. Designers give to futures and politics practitioners a much-needed dose of communications acumen and facility with media, along with a fusion of aesthetic (used here in the narrow sense) with the pragmatic; a necessary equilibrium between form and function.

This work is not, then, an exploration of the future as such. There is very little here that directly discusses how 'the future' may or may not eventuate. This may come to some readers as a disappointment and to others as a relief, but either way, a vast amount of material exists, in a whole variety of genres ranging from unhinged narrative fabulation to earnest empirical modelling, to address any interest you have in speculation about the future of this or that. My efforts are deliberately located at the next analytical level up from future *content*, looking at how we think about the future, and how we might approach it much more effectively than we currently do. This is about *process*, methodology. It is about

engaging the range of possibilities that the term ‘future’ encompasses at a given time and in a given domain; how to imagine those possibilities, and how to design and stage interventions that *manifest* them as vividly and usefully as we can.

If at this point you’re noticing that there seems to be a normative element here, and that, rather than purporting to predict the future (as some readers might understandably expect from a dissertation about the future), instead I am talking about tools to influence it, well; you are right. It is a conscious assumption here that, as creatures equally blessed and cursed with self-awareness, all humans are implicated in the creation of their future. This is not my assumption alone, but a shared commitment of the futures field.<sup>3</sup> A corollary of this proposition here is that, like it or not, no retreat is available into ‘apolitical’ non-involvement. There is no such hiding place. In bumper-sticker form: as Jane Goodall has said, ‘What you do makes a difference, and you have to decide what kind of difference you want to make.’ Or, as the Yiddish proverb has it, ‘No choice is also a choice.’<sup>4</sup> *A failure to develop or to exercise our capacity for foresight is a future-making decision too* -- which will no less surely influence the kind of world where we live in due course. Thus we will not overlook, but directly address, a fundamental paradox about futures. On one hand, I share the view that *the future cannot be predicted* (Dator’s ‘first law’<sup>5</sup>). Stated in the terms introduced when we began, this means that the specific future as it eventuates is, as far as the present is

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<sup>3</sup> Amara 1981a. In this influential article Amara suggests that there are three premises on which the entire futures field rests: ‘1. The future is not predictable. 2. The future is not predetermined. 3. Future outcomes can be influenced by individual choices.’ See also Jim Dator’s ‘first law of the Future’, below, note 5.

<sup>4</sup> Or, as the late critical historian Howard Zinn famously put it, ‘You can’t be neutral on a moving train.’ The principle of the impossibility of neutrality certainly applies in this setting, but a key entailment of that metaphor -- a train is *on a track, with a preset route* -- does not.

<sup>5</sup> Futurist Jim Dator’s ‘first law of the future’ holds that “‘The future’ cannot be “studied” because “the future” does not exist.’ Two qualifications follow. ‘A. “The future” cannot be “predicted,” but “alternative futures” can and should be “forecast.” B. “The future” cannot be “predicted,” but “preferred futures” can and should be envisioned, invented, implemented, continuously evaluated, revised, and re-envisioned.’ (Dator 1996a.)

concerned, literally both 'unthinkable' and 'unimaginable'. It is simply impossible to access the *actual* future in this way, because as far as human beings are concerned, it is an illusion -- there is no single 'actual' future. The paradox comes with the fact that, despite this impossibility, we *can* continue to develop a practice whereby multiple, alternative, hypothetical futures are elaborated, made both thinkable and imaginable, on a continuous basis.<sup>6</sup> The claim is not, therefore, that we can *will* our way around an epistemological impasse -- absence of 'information' from the future -- but rather that we can and should pragmatically use our capacity for hypothetical exploration in a way that recasts this impasse as more of an opportunity than a problem. The opportunity lies precisely in the fact that action takes over where episteme fails, as our future becomes increasingly subject to active design over passive discovery. As one grasps this perspective, the key questions shift markedly. Instead of the future remaining a principally philosophical puzzle, of how we can possibly know anything about it (a fun question if you have time to burn), one's interest migrates to the challenge of thinking and doing whatever helps wiser action, despite the inevitable blind spots.

You may well wonder what, specifically, is the nature of my own normative commitment? If there's an agenda, what is it? My aim is to help the reader to consider the usefulness and cultural potential of alternative futures thinking, at the general level, and to flesh out the political significance and design desiderata of experiential scenarios in particular. I will argue for the value and viability of an experiential, designerly approach to improving quality of engagement with alternative futures in our culture at large -- in companies, governments, schools,

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<sup>6</sup> Consulting futurist Riel Miller recently proposed a three-stage framework for 'futures literacy'. Level one is increased temporal or futures *awareness*; level two is *discovery* using 'Rigorous Imagining' ('Escaping from the probable and preferable to imagine the possible demands systematic creativity and creating systematically, non-discursive reflection and social science are essential ingredients'); and level three is *choice*, using 'Strategic Scenarios'. (Miller 2007, 348.) An equally relevant conception of futures-relevant literacy has been suggested by sociologist and founding Peace Studies professor Elise Boulding, under a different banner. 'Image literacy involves the individual's ability to combine the materials of inner and outer experience worlds, drawn from all the senses, to shape new patterns of "reality." Children do it all the time, but it is called daydreaming, and they are punished for it.' (Boulding 1990, 86-87.)

community organisations, and so on. In line with the noted emphasis on futures process, more than content, my main purpose is not to convince the reader of the superior value, importance or beauty of any of the usual future narratives. It could be said that my interest in enabling widespread engagement with foresight as a practice *does* in fact push for a particular future; one in which that hope is fulfilled, and this I concede. My preferred 'meta-scenario', so to speak, one in which we approach something like a society-wide capacity for foresight, is discussed directly at the end, in Chapter 7. But it should be understood how that differs from the common future prescriptions. In the same way that someone can advocate democracy as a system without telling you for whom or what you ought to vote, or like Voltaire's willingness to defend to the death another's right to express even an opinion which he does not share, this dissertation makes a case for a systemic shift in how we relate to the future as a domain, without this necessitating that we have the same specific preferences.<sup>7</sup> Does this imply that all futures are equally desirable to me? Certainly not. I'd much rather that we strive toward the unimaginably good than stumble into the unthinkable bad, but I believe we need to address both -- and much more than that -- far better than we currently do, in order for this actually to go from being an arresting rhetorical figure to being a viable choice. At the social level, it seems to me that, like democratic decision-making invoked a moment ago, systemic foresight (which no society has yet implemented) is a fundamental good, and in fact, it would generate a form of insight and input that may be necessary for the successful functioning of real democracy (which, likewise, no society has yet implemented).

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<sup>7</sup> This approach is clarified by a description from Jim Dator, who has been involved in the field since its inception: 'Futures studies ... is interested not in itself furthering any particular view of the future, but rather in furthering both narrowly professional as well as broadly participative inquiry into the future--understanding the roots and consequences of each of the manifold images of the future which exist in people's minds and in support of people's actions. We are interested in identifying and understanding the many different images of the future which exist, understanding why certain people have certain images rather than others, how their different images of the future lead to specific actions, or inactions, in the present, and how present actions or inactions themselves create certain aspects of the future.' (Dator 1998, 7.)



This dissertation therefore concerns two layers of futures. The main one is the development and deployment of futures thinking today, in the midst of everyday life, using experiential means. The other, which will be a background presence rather than a focal point until the last chapter, is the eventual prospect of a cultural shift in which futures-oriented thought or foresight has been more systemically integrated and is used on an everyday basis. The title, 'The Futures of Everyday Life', refers to both of these.

It will illuminate my choice of topic and approach to explain their origins. It was through the Hawaii Research Center for Futures Studies (HRCFS), a small futures consultancy associated with the University of Hawaii's long-standing graduate program in alternative futures, within the Department of Political Science, that this line of inquiry came about. In 2005, just as I was starting there as a Master's student, the state legislature happened to approach HRCFS director Jim Dator with the idea of launching a broad-based public conversation around sustainability, focusing on the year 2050.

An important bit of context: this would not be Hawaii's first attempt to futurise the polity. Indeed, shortly after officially becoming the 50th U.S. state in 1959, Hawaii had initiated what still stands as the most comprehensive public futuring exercise ever held anywhere. It was called 'Hawaii's 2000', took place in 1970-71, and successfully involved hundreds of thousands of people around the islands.<sup>8</sup> The process was endorsed at the highest levels of state government, being spearheaded by Governor John Burns;<sup>9</sup> the local media were interested and cooperative; and celebrity futurists at the time, including Arthur C. Clarke and Alvin Toffler, were brought in to take part. However, the story took a turn which was prophetic, ironically enough, precisely in its failure of vision. State plans produced on the basis of Hawaii 2000, sadly, fell at the first hurdle they met,

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<sup>8</sup> Chaplin and Paige 1973. See also Maruyama and Dator 1971; Dator 1987, especially 89ff.

<sup>9</sup> Slaughter 1991.

when the 1973 oil crisis struck. By the time the year 2000 arrived, what had eventuated in the islands, for many residents, arguably resembled the most provocatively grim scenario imagined 30 years before.<sup>10</sup> In any case foresight turned out not to have been effectively institutionalised.<sup>11</sup>

Being unfamiliar with this backstory when I arrived on Oahu in 2005, and perhaps unconsciously expecting to find in Hawaii some sort of utopian idyll, it was perplexing to find instead some of the worst excesses of Southern California-style urbanism and consumption blithely replicated. Public transport was sparse and inconvenient, roads were congested, and despite the compactness of the island and generally excellent weather, bicycles were rare. A seemingly wilful ignorance of place, plus poor use of resources, amounted to entrenched bad habits. For instance, while outside temperatures were almost always pleasant, indoor air conditioning was not only ubiquitous, but often uncomfortably cold. Local produce represented a scarce and expensive alternative to cheap imported food, including staples like bananas and milk. Ninety five per cent of electricity used in the islands was generated using fossil fuels, all of which had to be imported on oil-burning tankers. Discarded waste almost all went to landfill because recycling was so difficult; polystyrene and plastic packaging were everywhere. When researching the catering options for the '2050' kickoff event in mid-2006, we found no local distributors at all for biodegradable cups, cutlery or food containers. Moreover, the folks responsible for supervising the logistics of that event viewed it as a waste of time to source these green materials. They were seemingly immune to what for me was a painful performative irony, wall-to-wall disposable plastic plaguing all the preliminary sustainability-themed meetings at the state Capitol building.

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<sup>10</sup> Chaplin and Paige 1973, 465-472; see also Jim Dator's Introduction in Rohter 1992, xiii-xix.

<sup>11</sup> Dator *et al.* 1999, 49-53.

In other words, although the islands remained beautiful and unspoiled in parts, in Hawaii at that time many people's lifestyles still appeared not to evince any awareness of their extraordinary isolation and vulnerability to systemic disruption. The legislature's thought of revisiting the intentions of 'Hawaii 2000' three and a half decades on, and to launch a far-reaching and sincere conversation about possible futures of the islands, was clearly an excellent, if overdue, idea.<sup>12</sup>

I found myself on the team of futurists -- comprising Dator, myself, and fellow graduate student Jake Dunagan -- which was tasked with bringing an alternative futures perspective to that conversation, which was called 'Hawaii 2050'. And, as we considered how best to launch this public-facing futures effort, the core challenge seemed to be a communicative one: *how to convey a variety of ideas about the future accessibly, meaningfully and impactfully to a wide group of participants?*

Our answer to that question took the form of a set of experiential scenarios, a series of windows on alternative versions of the year 2050 in which people could spend a short period and then have a discussion based on their varying responses to the shared experience, a sort of theatrical hybrid of theme park ride and role playing exercise. (Details of this multi-part installation and the scenarios on which it was based are given in Chapter 2.) The terminology and design principles set out here evolved over time, rather than springing to life fully formed with that first project, but the shape of our intent was clear from the beginning. The idea of activating in people a hypothetical mode of thought using media which would also encompass and evoke emotional responses, rather than relying on purely textual or verbal thought experiments (as in a usual futures workshop),

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<sup>12</sup> There has since been excellent progress in some of these areas, I hasten to add. Also, none of my observations are meant to impugn the intentions or effectiveness of earlier pro-sustainability efforts by many good people around the islands. But from my vantage point it seems very clear that 'Hawaii 2050' was instigated right around a significant tipping point in relation to local environment-oriented consciousness, activism and behaviour change during just a few short years from the mid to late 2000s.

not only seemed inherently more interesting, but it offered a way of reaching a larger number of people in a short period of time. In other words, an experiential, cross-media approach promised to maximise accessibility in two ways; not only making complex subject matter more welcoming, but also facilitating the logistics of reaching a big group at an in-person event. The enthusiastic response of participants at the Hawaii 2050 kickoff represented an auspicious starting point, fuelling a conviction that the methods we had used warranted further investigation.

Shortly after this inaugural event, however, there was a startling change of plan for Hawaii 2050's next steps. Despite the exciting beginning to this rare state-sponsored futures process, the legislature reverted to (what one surmises struck them as) the comforts of a more conventional planning practice. Operationally, this meant that, at the series of public discussions subsequently held at high school auditoriums and community centres around the state, instead of starting like the kickoff, with a context-setting consideration of the various ways that change could unfold in the four and a half decades to the year 2050, people in attendance were invited immediately to delve into an effort to define the term 'sustainability'; to brainstorm and then prioritise broad discussion areas such as water, food, education, and housing. Such topics undoubtedly belonged on the agenda, but the new omission was crucial. No longer was there a vehicle for Hawaiian residents to examine their assumptions about the future before embarking on 'planning' it.

An exploratory 'alternative futures' stage is indispensable, in our experience, if any plan is to take account genuine options and contingencies, rather than flouting the risks of disruption, which become more acute the further out in time one tries to look. The longer the time horizon in question, the more obvious it is that assumptions based on a smooth continuity of present arrangements are unlikely to hold throughout (see Figure 0.1).

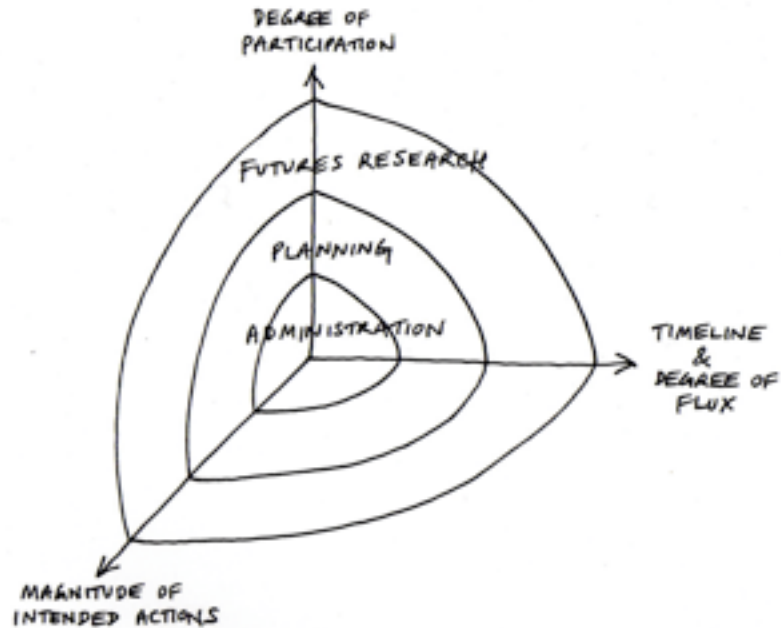


Figure 0.1: Futures Research seen in relation to Planning and Administration <sup>13</sup>

Given the magnitude of unforeseen change in Hawaii and in the wider world over the previous half-century, it was a heroic assumption indeed that a process dedicated to generating a public vision for how things *should* look another half-century hence could coherently do so without first asking how they *could* look. Especially given the lack of systemic, long-term orientation in run-of-the-mill politics, education, and media, the loss of an alternative futures phase was a missed opportunity, even a folly, of the highest order.<sup>14</sup>

The net effect was as follows. Three decades earlier, for Hawaii 2000, an alternative futures perspective initially adopted had failed when it came to being embedded institutionally. Now the same fate befell Hawaii 2050, although the latter venture faltered at an earlier stage. Researchers at HRCFS -- an organisation established by the state itself in 1971 at the conclusion of Hawaii 2000 -- would no longer be able to make the substantive, process-level

<sup>13</sup> Redrawn from a figure by Wendy Schultz. See Dator 2009, 4.

<sup>14</sup> For the finished 'Sustainability Plan', see Hawaii State Legislature, 2008.

contribution we had looked forward to making. Of course, the vicissitudes of involvement in any public political effort are well known, but they are not the point here. The point is that, in light of this change, on one hand, and of the encouragingly high level and quality of engagement elicited by the experiential scenarios at the kickoff, on the other hand, I became increasingly interested in finding other channels for performatively challenging notions about the future, augmenting both breadth and depth in people's consideration thereof.

With a string of projects under the independent banner of 'FoundFutures' (rather than under the auspices of the Futures Center), Dunagan and I began to seek, and where possible to create, other forums for futures-themed ideas and conversations. The idea of bringing 'fragments of possible worlds' directly into people's lives, where official opportunities for doing so may be unavailable, had occurred to us before (in fact many of the props that we produced for Hawaii 2050 bore the project's web address in fine print, with a view to some items being redeployed as public art after the event). But the state legislature's post-kickoff retreat to a predictable and timorous version of the process, which now ran a high risk of falling short of its lofty ambitions, highlighted the vulnerability of formal public futures work to institutional doubts and discomforts, and hastened the birth of FoundFutures. With this we moved away from some of the constraints, as well as the benefits, of institutional sponsorship, and towards a less 'contained' species of encounter between a public and its possible futures, which carries a different calculus of pluses and minuses. This dissertation thus includes consideration of 'wild' settings, spaces less scripted than galleries and workshops, to help fill in our framework for understanding and designing experiential scenarios through the lens of 'guerrilla futures' interventions (Chapter 5).

The story above provides a personal context for my interest in this topic, but also has a bearing on how these ideas may best be understood. Concepts developed

in response to practical challenges can have a different character from those arising in conversation with theoretical texts (to me the former often seem more blunt, but also more solid). A good deal of the literature cited here, therefore, has been retro-fitted, I hope sometimes with a refining influence, upon an understanding at first drawn from life. Whatever practical usefulness as well as theoretical inelegance the reader finds herein could be attributed in the first instance to that fact. It is a simultaneous dialectic of theory and practice that has produced this work, and while often this makes it difficult to know exactly which came about first in any given case (a practice, or its counterpart concept), citations throughout aim to acknowledge all specific sources where credit is due. As this work began, so it continues; the aim is to facilitate and enable futures-oriented interventions as a means, in turn, to explore and effect concrete changes actually desired in the world. I imagine it as a sort of politically and theoretically informed, but not theory-driven, manual of experiential scenarios; a briefing of lessons learned to date geared at enabling others to further develop this synthesis. In any case; whatever seems most useful and illuminating has been my guiding editorial principle. Anyone doubtful as to the theoretical, psychological, or political bases for experiential scenarios will, I hope, find most of their concerns addressed by the end of Chapter 3.

I cannot claim that 'experiential scenarios' are a brand new invention, but they have not, to my knowledge, previously been elaborated in methodological terms. It will soon be obvious to the reader that there are a great many antecedents and parallels to both experiential futures and its guerrilla variant, but these were identified haphazardly, and often after the fact, not in an orderly, let alone strictly chronological, way.<sup>15</sup> I continue to discover connections between this work and

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<sup>15</sup> In this connection I find it salutary to bear in mind the confession of the marvellous Swedish writer Sven Lindqvist: 'Even in the most authentic documentary there is always a fictional person -- the person telling the story. I have never created a more fictional character than the researching 'I' in my doctorate, a self that begins in pretended ignorance and then slowly arrives at knowledge, not at all in the fitful, chancy way I myself arrived at it, but step by step, proof by proof, according to the rules.' (Lindqvist 1992, 104.)

other disparate individuals, organisations, artworks, and even entire disciplines and fields of practice. Even if it were possible, which I doubt, it would not fit with our agenda to try to catalogue all these connections exhaustively. Yet we can also put to rest that what is described here is entirely derivative, or that from its further development no additional intellectual value may be expected.

Where I think this dissertation stands to make a contribution is in a more pragmatic vein, the usefulness that comes from drawing certain ideas together for the first time, if often at a very broad, generalist level, where my style of thinking and writing, as well as the nature of the topic, have usually led. Here I try to bring together case studies and lines of thought on which I can also speak from my modest experience, to help shift up from the cycle of informal, anecdotal learning in this area, and open the topic for more rigorous consideration. If the academic enterprise has a distinctive contribution to make in a circumstance such as this, that is surely part of it. And if at times these first steps seem clumsy, there may be a mitigating circumstance found in the lack of direct precedents in the literatures I have plumbed, a major reason for the dearth of which is that some of the most important earlier instances of this work come from fields of endeavour (management consulting, and political activism, for example) that lack the mechanisms to record their understandings in a thorough, scholarly or public way.<sup>16</sup> During the writing process I have occasionally wondered, if I happened to awaken one morning and find that I had mysteriously forgotten everything learned so far about the topic, whether this document might serve as a sort of

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<sup>16</sup> I have, for instance, enjoyed detailed conversations with two practitioners from the consulting world who were independently responsible, within their respective organisations, for staging (for the benefit of private-sector clients) what we here call experiential scenarios. They are Jason Tester of Institute for the Future (whose background is in Interaction Design) and Erika Gregory of Collective Invention, and formerly of Global Business Network and The Idea Factory (whose background includes extensive theatre experience). The work we discussed all took place prior to the 'Hawaii 2050', although I met Tester some two months before staging that event, and Gregory a couple of years after. I want to acknowledge both for generously sharing their stories and insights. This dissertation does not attempt to document their journeys, but their examples underline the fact that much of relevance and importance to this topic is probably not on the record at this time. Although the texts do not include descriptions of the most directly relevant interventions that they each described to me during our informal discussions, some insight into their approaches may be found in their respective articles. (Gregory, n.d.; Tester 2007.)



amnesiac boot disc. It is my hope that committing these ideas to paper in this form may enable others, not just my hypothetical amnesiac self, to pick up where the efforts described here leave off.

If the following statement does not make sense to you now, then it should by the end of the first chapter: The future, a purely virtual space, is a political frontier sorely in need of both decolonisation and democratisation (I have tried unsuccessfully to find less loaded words than these). I argue that the development of 'experiential futures' as described here can play a valuable role in working towards addressing this need.

The key proposition developed here is that at the intersection of three overlapping forms of activity (futures, design, and politics) there is an emerging, if overdue -- now ethically and historically necessary, yet belated -- form of political action in which futures are performed, made manifest, and concretised. To be clear: I do not predict that this emergent practice will happen someday; I show here that *it has already begun to happen*, and use this opportunity explicitly in support of that shift, to name components of it, and encourage its further development. As I argue throughout, such development is not just useful and desirable, it is also urgent.

The investigation develops over the course of seven chapters.

In Chapter 1, we look at how and why 'futures' may be considered in the plural, using the 'four generic futures' method developed in the Manoa School of Futures Studies. My goal here is to show how we can explore and map the 'possibility space' of alternative futures in more dimensions than the binary of good and bad scenarios, which is useful, but sorely limited.

In Chapter 2, we introduce ‘the experiential gulf’, the gap which inevitably stands between what a future is like in theory and what it’s like to live through in practice. This problem is considered from the standpoint of recent findings in neuroscience and psychology, concluding that ‘experiential scenarios’, by including the lived, bodily, affective registers of the human processing system, may be implemented to narrow this gap.

Already in this introduction I have alluded to *breadth* and *depth* in alternative futures; let me map these terms on to this outline. Both necessarily inhere as dimensions of any given scenario(s), but they may be differentiated for analytical purposes. Here I mean breadth to refer to the *range* or *variety* of scenarios -- different images, narratives and theories of the future -- for any given domain and time that are available to our imaginations. Breadth concerns the difference between considering a singular ‘future’ and examining ‘futures’ in the plural. Depth deals with engagement with the specificity, details and textures of one or more scenarios, particularly the emotional or internal (experiential) aspects.<sup>17</sup> Breadth is a property held to a greater or lesser extent by multiple scenarios, as a *set*, which can be increased even using traditional media such as textual narrative or statistics, simply by dealing with a wider array of scenarios. Depth is a property of *any particular scenario*, or more accurately, of the specific experience or interaction with it on the part of an individual or group. Currently the breadth dimension of scenarios is addressed far more comprehensively in futures studies practice and literature than depth is, but my argument calls for an understanding of both.<sup>18</sup> Chapter 1 deals more with the former, while Chapter 2 focuses on the latter.

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<sup>17</sup> Scholars in the important new strand of futures scholarship dealing with Wilberian ‘integral futures’ would mention a ‘spiritual’ dimension explicitly, and I would include that here as a dimension of experiential, although it is not my focal topic. See for example Voros 2008, 198ff.

<sup>18</sup> A note of caution; these are not the same definitions of breadth and depth as used by Slaughter in his discussion of the varieties of futures work. There he uses the terms to denote the type of knowledge or inquiry developed in a given instance; ‘breadth’ referring to coverage of issues, and ‘depth’ to refer to critical and epistemological dimensions. (Slaughter 2002a.)

Chapter 3 describes a distributed, perceptual, and 'aesthetic' conception of politics, showing how theoretically rich and politically potent interventions can be stated, using a hybrid of futures and design, in the language of materiality and of experience.

Chapter 4 shows how and why futures and design can come together, as practices dealing principally with the ideational and material realms respectively, but with the shared goal of remaking the world to some degree. Experiential futures can be considered as one of a number of practices currently flourishing at or near this intersection, which also include discursive design and design fiction. It ends by offering several working principles for the design and staging of experiential scenarios, with examples, both to assist would-be practitioners and to add some colour to the sketch of how the domains fit together.

The fifth chapter zooms in from the wider terrain of experiential futures to examine the important sub-topic of 'guerrilla' interventions, or futures 'in the wild', deployment in uninvited, unexpected and informal settings. The similarities and differences between this and related activist practices of 'culture jamming' and 'prefigurative politics' are discussed, followed by a comparative discussion of three case studies, in which the varying approaches to performing guerrilla futures, and their varying 'political' efficacy, are the focus.

Chapter 6 considers the ethics of futures interventions (both guerrilla and not), introducing an 'ontological spectrum' on which the range of discursive technologies for manifesting future possibilities can be situated. We look at specific cases at a tangent to experiential futures in order to highlight the ethical risks and obligations attending our developing practice.

Finally, Chapter 7 considers an embryonic vision for our culture as one with 'social foresight', a distributed capacity for looking ahead which would resolve the

problems with which we began, and a condition to which experiential futures may make a contribution. We consider the contrast between explicit and reflexive strains of futures thinking, and ask to what extent a truly built-in social foresight is possible.

Our project, being generalist in nature and tying together literatures and domains of activity which do not appear to have been brought into systematic conversation before, has unavoidable limitations. I must confess, with the French theorist Paul Virilio, that ‘My work is that of a limited man who must deal with a limitless situation.’<sup>19</sup> This is doubly true insofar as futures is indeed an unlimited, ever-unfolding subject, as well as being a domain on which virtually every other field of inquiry or discipline has something to say. At times we necessarily venture into territory -- psychology and industrial design, for example -- not within my usual scholarly bailiwick (although I hope the results reflect some of the many excellent writings and knowledgeable people I have consulted on these matters). A single document can do justice only to a fraction of the available material that is pertinent to such a wide-ranging topic; so this dissertation can serve best as a point of departure -- or perhaps more accurately, a mid-journey ‘research inscription’ that attempts to synthesise and map various earlier such ‘inscriptions’, to use Bruno Latour’s term<sup>20</sup> -- on the ongoing path of inquiry.

The fact that it is driven by a demonstrable real-world need, as suggested by Sterling’s quote at the outset, and by a willingness to be pragmatic about getting results that address this need, may help account for the various hybridities -- of consulting and activism, of theory and practice, of intellect and emotion, of fact and fiction, of simulation and simulacrum -- that suffuse the dissertation. More importantly, however, it helps clarify my motivations, and what I consider to be the stakes for this work. To say it plainly, I would be unable to justify to my own

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<sup>19</sup> Virilio 1999, 50.

<sup>20</sup> See for instance Latour 1987, 64-70.

satisfaction the investment of several years of my life in this topic if I did not believe it was potentially useful and valuable.

In a project like this, partly due to institutional and academic constraints, it is possible from time to time to lose sight of the original reasons for the undertaking. But I have tried to write in such a way that those reasons are never too far from the surface.

I state them here. The capacities and tools we have inherited, both biologically and culturally, for contemplating the future, are wanting. The already high stakes of the human experiment with the biosphere have been elevated with gathering speed, and increasing scale of change; simultaneous, interconnected, spanning the globe, covering domains social, technological, economic, environmental -- and, lagging well behind the rest -- political.

Scale, speed, and stakes of change: a self-reinforcing trinity of reasons to take the widespread, public improvement of futures thinking seriously, as a matter of urgency. If we don't drastically and promptly improve our ability to deal with future risk scenarios, we are virtually certain to succumb to one or more of them. Conversely, if, even half a century from now, humans have managed to avoid catastrophic social, economic and environmental collapse, we could deduce from that happy outcome that our ability to envision and act upon alternative futures must have greatly improved.<sup>21</sup>

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<sup>21</sup> This construction is parallel to one made by philosopher and neuroscientist Sam Harris in his book *The End of Faith*, a searing critique of religious unreason: 'Come back in a hundred years, and if we haven't returned to living in caves and killing one another with clubs, we will have some scientifically astute things to say about ethics.' (Harris 2004, 146.) This insight, almost a throwaway line in the context of a much larger work, jumped out at me when I read the book, and I think exemplifies a form of argument that is extremely valuable to thinking about alternative futures. It is logically a form of 'backcasting', a mode of thinking in futures described in more detail in Chapter 1.

The emergence of experiential scenarios may be used to assist with that -- among other, less grandiose applications. This dissertation sketches a framework for such a practice, drawing various disparate but related threads of futures, design and politics together, in some cases for the first time, to offer the beginnings of a lexicon, and a theoretically reflective manual, for a hybrid form of intervention in these weighty processes. It will in some small measure help, I would hope, to make the unthinkable thinkable and the unimaginable imaginable, to enable the avoidance of disasters (where avoidable), to escape from narrow and hegemonic conceptions of the future, whether inherited or imposed, and not least, to invent, elaborate and pursue continuously our preferred futures, whatever those may be.

## CHAPTER 1

### BEYOND UTOPIA AND DYSTOPIA

Quite clearly, our task is predominantly metaphysical, for it is how to get all of humanity to educate itself swiftly enough to generate spontaneous social behaviors that will avoid extinction.

~ R. Buckminster Fuller <sup>22</sup>

We started this inquiry with a complaint of sorts. A shame to have to begin on a negative note, perhaps, but friends, all is not well in futureland.

The ways in which we ordinarily think about the future are inadequate to the needs of an era characterised by rapid, frequently disruptive, change. These conventional modes of thought are all too often narrow, shallow, unimaginative, cliché-ridden, and on the whole, simply not up to the challenge of helping us survive, let alone do better than that, under the conditions we face.

How can I say such a thing, you might wonder. How can I claim, with all the many and various hopes and fears, ideas and expectations, predictions and projections about the future confronting us at every turn -- in advertisements, in political speeches, in films, books, newspapers, annual reports, and more -- that we're not paying proper attention to the future? Where do I get the temerity to suggest that we don't think about it enough, when most of us spend a good deal of our lives agonising over all manner of decisions, which by definition entails forward thinking?<sup>23</sup> On top of this, any number of books, films, video games and other artifacts of cultural expression exist which portray possibilities to feed the interest of future-watchers.

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<sup>22</sup> Fuller and Applewhite 1975, xxviii.

<sup>23</sup> 'The human condition can almost be summed up in the observation that, whereas all experiences are of the past, all decisions are about the future. The image of the future, therefore, is the key to all choice-oriented behavior.' (Kenneth Boulding, 'Foreword', in Polak 1973, v.)

And there, perhaps for some, the matter would rest: we are doing the best we can, and some upstart ‘futurist’ (didn’t they all disappear by the end of the 70s, anyway?) isn’t about to convince anyone otherwise. Well, this work is indeed unlikely to persuade anyone who has set themselves against the idea that we can imagine the future, address it more systematically and more creatively, and so make more thoughtful, and better -- dare I presume to say *wiser* -- decisions. But if you harbour any doubt at all that our current ways of thinking about times yet to come are the best we can do, there may be something in here for you.

Our argument begins with the simple observation that quantity of thought about the future does not imply quality. We can easily recognise that, other things being equal, after a certain point additional time spent in contemplation does not pay off in proportionately better decisions. And the apparent variety of cultural expressions of future narratives may superficially gloss over a relatively limited imaginary.<sup>24</sup> In a nutshell, as my colleague Jake Dunagan, now at Silicon Valley think tank Institute for the Future, has quipped; ‘Everyone thinks about the future, they just don’t do it very well.’<sup>25</sup>

Let’s return to the supposed ‘choice’ noted in the Introduction: an unthinkable bad future versus an unimaginably good one. Future-oriented thought resorts all too easily to the shopworn binary of utopia/dystopia, stories about future worlds which are simplistically characterised as ideal or nightmarish places to end up. I am not accusing Sterling of this mistake -- in fact he has explicitly critiqued this simple-minded, bipolar conception of the future:

Visionary futurists have a remarkable quirk. They tend to enforce the gravity of their prophecies by asserting that they will come true -- or else. ... I frankly care nothing for ‘Utopia’ or ‘Oblivion.’ If my long romance with futurism has taught me anything, it’s that neither of these terms has any meaning. They are mere gasps of intellectual exhaustion. They mean only that the futurist has exhausted his personal ability to confront the passage of time. ... These two archaeologisms,

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<sup>24</sup> Slaughter 1998; Hurley 2009.

<sup>25</sup> Griffith 2007.



'Utopia' and 'Oblivion,' are definitely showing their age, and, like the wacky shibboleths of some ancient theology, they are getting in the way of our ability to creatively affect the course of future events.<sup>26</sup>

We do not deplore the tendency to think futures in these terms on the basis that they are insufficiently 'objective', for good quality futures thinking fully acknowledges its own situation, including the values and desires behind it. The factors describing any given exercise in futures thinking / narrative / imagery include not only the obvious *temporal* dimension, but also geographic and cultural ones -- including epistemic and axiological assumptions and commitments. It hardly makes sense to complain when, in contemplating the future, people draw conclusions about what sorts of outcomes do and do not appeal to them; after all, this is perhaps the best reason for such contemplation in the first place. But at least futurists ought to know better than to let the matter rest there, using the caricature terms 'utopia' and 'dystopia' (or 'oblivion'), because it is such a terribly limiting framework, as futures scholar Richard Slaughter has pointed out:

This 'binary future' reflects the human tendency toward a polar choice between optimism on the one hand and pessimism on the other. It has become a kind of 'default frame' within which most speculative writing and normal futures work takes place. This reduction in the span of imaginative possibility reduces the core notion of futures studies (that of 'alternative futures') to two narrow bands on a much wider arc of potential.<sup>27</sup>

In other words, the slider of the perceived probable future can be mapped and manipulated in many more dimensions than just back and forth between good and bad, as can the way we think about possibilities, as well as our preferences. To expand the breadth and depth of potential worlds under consideration is a crucial first step, allowing us to bracket the phase of normative judgment and the

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<sup>26</sup> Sterling 2005, 138. Earlier in the book -- a visionary meditation on the past, present and future of materiality, and especially design's central role therein -- he invokes the same pair as in our opening quotation: 'The quest for a sustainable world may succeed, or it may fail. If it fails, the world will become unthinkable. If it works, the world will become unimaginable.' (Sterling 2005, 7.) This is his writerly, rhetorical shorthand for what is at stake in whether people assume their share of responsibility for the future, and we have already examined the revealing, although apparently unintentional, implications of these terms for our ability to engage the future effectively.

<sup>27</sup> Slaughter 1998, 993-994.

pursuit of a specific 'vision' until a fully considered range of futures is already on the table. While 'utopia' and 'dystopia' are too limited and extreme to serve as characterisations of future scenarios beyond the literary and rhetorical, in much the same way that the creative thought process of brainstorming is approached with a generative phase first and a judgment or sorting phase second,<sup>28</sup> so too can futures be approached generatively, with an eye to augmenting the pool, in both breadth and depth, at the outset.

### **Three easy pieces**

Where then to begin? Three basic concepts need to be introduced here from the tradition of futures studies whence this dissertation, in large part, takes its cue. The first is the central importance of 'alternative futures', the second is the 'image of the future', and the third is the trio of 'possible, probable and preferable' futures.

#### **1. Alternative futures**

Many of us are driven to the future by the understandable, although naively linear, question; What will happen in the future? Or some variant such as, Will X occur in the future? If this is as deep as the questioning goes, it manifests a linear mental model or conception of time that could be called monofuturism. Others, as we have seen, may resort to what Slaughter calls the 'binary future', the simplistic polar opposition of utopia and dystopia.<sup>29</sup> At the risk of mixing metaphors, even a slider bar between them offers no silver bullet: a normative

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<sup>28</sup> Tom Kelley of design firm IDEO described the principles of successful brainstorming, one of which is to put playfulness before critique or evaluation: 'Don't start to critique or debate ideas. It can sap the energy of the session pretty quickly.' (Kelley 2001, 57.)

<sup>29</sup> Slaughter 1998, 993ff.

spectrum ranging from dystopian to utopian would still be problematically one-dimensional.

In order to escape the profoundly limiting yet somehow compelling magnetism of these primitive constructs, we can grant the possibility of considering the unfolding of history in multiple dimensions. The start of a corrective to monofuturism as well as to binary futurism consists in entertaining a broader range of potential outcomes.

Certainly, there are approaches to the future which attempt to model and predict or forecast the most likely course of events, and these analytical, social-scientific modelling methods have their place. Indeed, this remains the emphasis of much -- though by no means all -- professional foresight work, as Miller has pointed out (before highlighting the limitations of that approach).<sup>30</sup> Many people outside the field mistakenly assume that the study of the future must be nothing more than ever-more sophisticated attempts to predict. This assumption is now at least four decades out of date.

As Daniel Bell writes in the introduction to Herman Kahn and Anthony Weiner's report *The Year 2000*, published in 1967, 'in the past five years there has been an enormous spate of writing on the future, and more important, half a dozen or so institutions have been created to deal seriously and consistently with problems of the future.'<sup>31</sup> He then adds:

[W]hat is central... to the present future studies is not an effort to 'predict' the future, as if this were some far-flung rug of time unrolling to some distant point, but the effort to sketch 'alternative futures' -- in other words, the likely results of different choices, so that the polity can understand costs and consequences of different desires.

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<sup>30</sup> See Miller 2007, 341-342.

<sup>31</sup> Kahn and Weiner 1967, p. xxv.

The idea of 'alternative futures', a plural approach to foresight, came to prominent attention in the English-speaking world in the 1960s, emerging from the work of the first think tanks in the military-industrial sector such as RAND and the Hudson Institute, themselves a legacy of the increasingly sophisticated intelligence-gathering and social planning apparatus occasioned by the strategic exigencies of the Second World War.<sup>32</sup> The word 'scenario', the futures field's single most recognisable terminological export, was originally appropriated from the film industry by Kahn, a well-known RAND/Hudson futurist.<sup>33</sup> 'Scenario' was the precursor to the word 'screenplay' in Hollywood, an etymology which highlights the notion of a given future narrative as one possibility among many, rather than a definitive projection of history's course.<sup>34</sup>

In closing their 1973 book that summarised the lessons of 'Hawaii 2000' -- a comprehensive public futuring process inspired by the millennium-focused work of the likes of Bell, Kahn and Weiner<sup>35</sup> -- George Chaplin and Glenn Paige wrote:

Our experience shows that most of us need training in the creation of alternative futures. Most of us are the creatures of an either/or, right/wrong, yes/no culture. This shows up in our images of the future where we often find what we want opposed to what we do not want -- a single 'heaven' opposed to a single 'hell.' ... Perhaps dichotomous thinking was functional for a past of scarcity, ignorance, and authority -- and perhaps it will make a powerful contribution to the future as illustrated by the binary heart of the contemporary computer -- but the potentials for pluralism in future societies probably make it necessary to prepare for more alternative outcomes than ever before.<sup>36</sup>

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<sup>32</sup> Bell 2003, 27ff. Comparable initiatives arose elsewhere around this time, notably in France, where Gaston Berger founded the field of study known as 'la prospective' and Bertrand de Jouvenel started the journal *Futuribles*, formative elements of a still-extant field concerned with exploring possible futures.

<sup>33</sup> Chermack, Lynham and Ruona 2001, 10

<sup>34</sup> The terms scenario and alternative futures overlap, and where they do are effectively interchangeable. 'Scenario', however, tends to have narrower, more methodological connotations, whereas 'alternative futures' sometimes designates the subject matter of the futures field as a whole.

<sup>35</sup> Chaplin and Paige 1973, 1-2.

<sup>36</sup> *Ibid.*, 460.

Decades later, notwithstanding our increased need for deeper engagement with possibilities, still very few of us have even been exposed to the *idea*, let alone had an opportunity actually to cultivate the *practice*, of systematically and creatively generating plural, alternative futures for our communities.

## 2. Images of the future

So if futures studies is not simply an extrapolative, positivist enterprise, then what is its subject matter? Surely it's not confectioned from pure speculation! Indeed, it is not.

In this tradition, the study of futures is recognised as being based primarily on 'images of the future', which we all have in our heads, and which circulate in our cultures. This approach was theorised by the Dutch sociologist Fred Polak in his two-volume masterwork *The Image of the Future*, written in 1953 and published in English translation in 1961.<sup>37</sup> In Polak's conception, 'image' included far more than the literal meaning of visual and pictorial expression, encompassing 'Man's conscious striving to foreknow the future plus his partly unconscious dreams, yearnings, urges, hopes and aspirations for that future'.<sup>38</sup> It spanned the gamut of human activities -- religion, philosophy, science, ethics, art, technology -- which 'all have in common just one thing; each, in its own way, replaces existing reality with a counter-reality which is at the same time a dynamically operating image of the future.'<sup>39</sup>

That is to say, Polak discerned as implicit in all human societies an orientation to the future, analogous, although not equivalent, to the ubiquitous capacity for foresight that, as we have already noted, belongs to each individual. His work on

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<sup>37</sup> Polak 1961.

<sup>38</sup> *Ibid.*, vol. 1, 16.

<sup>39</sup> *Ibid.*, 23.

this topic aimed to show, through a painstaking historical review of Western cultures throughout the ages, that the health of a society's image of the future could serve as an index of its prospects.

*The rise and fall of images of the future precedes or accompanies the rise and fall of cultures. As long as a society's image of the future is positive and flourishing, the flower of culture is in full blossom. Once the image of the future begins to decay and lose its vitality, however, the culture cannot long survive.*<sup>40</sup>

On the basis of this pattern, the generation of renewed and inspiring images of the future was revealed as 'the actual challenge of our times', according to Polak. 'The future that we see mirrored in the negativistic and nihilistic images of the future of our day is paralyzing us into an inability to respond by forging more positive and constructive images of the future.'<sup>41</sup> There is a resonance between the concern noted at the outset about a truly positive future being seemingly 'unimaginable', and this central proposition of Polak's theory of the image of the future. His work has long been an influential, if underacknowledged, milestone in the development of academic futures studies.<sup>42</sup> And in keeping with his example, in this dissertation the future is regarded less as being 'out there' than as 'in here', inside our minds, moving in our communities, and affecting, in all sorts of ways both monumental and subtle, how we live. In fact the unfolding future is a product of the interactions between internal and external aspects, which makes it somewhat awkward to capture in traditional categories founded on a neat Cartesian separation of the two. Our primary stance towards the subject matter of futures, then, amounts to something like a sociology or anthropology of ideas about the future, how they are produced, circulated, what effects they have, and so forth.<sup>43</sup>

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<sup>40</sup> *Ibid.*, 49-50, original emphasis.

<sup>41</sup> *Ibid.*, 52.

<sup>42</sup> Van der Helm 2005.

<sup>43</sup> This is not the place to offer a full outline of the theoretical underpinnings of futures studies, although see Slaughter 1996b; Bell 2003; Bell 2004 for a start. The wide variety of approaches to the field as an academic subject is best seen in Dator 2002; Sardar 1999b.

This perspective is applied by the same avenue, that is, futures is ultimately about becoming aware of, and then improving *in the present*, the range, robustness and rigour of our own images of the future. In this scholarly tradition of 'futures studies', the strand that concerns us here proceeds from philosophical assumptions that are not positivist but constructivist in character. Kees van der Heijden, among the key theorists of scenarios for organisational use, points out:

Scenarios seem to, but actually don't, make a statement about the future. We should not be misled by the fact that they are expressed in the future sense [*sic*]. They cannot be anything more than expressions of alternative interpretations of aspects of the current reality. Essentially we put ourselves at an imaginative future vantage point and describe what is going on right now as if we were looking at what is happening today from the perspective of a future historian. ... And since there is more than one future there is more than one historian, we accept multiple histories of the present.<sup>44</sup>

Futures images are supplemented by four other, more specific, methodological categories which feed into this, and which can readily be grasped by those coming to futures from other disciplines: these are 'events' and 'trends', on one hand, and 'theories' and 'methods', on the other. Together these five elements comprise what Dator has called the 'basic paradigm' in futures studies.

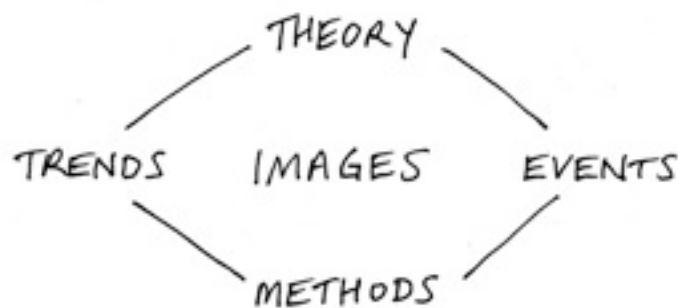


Figure 1.1: The 'Basic Paradigm' in Futures Studies <sup>45</sup>

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<sup>44</sup> van der Heijden 2004, 153.

<sup>45</sup> Dator 2002, 10.

### 3. The trio of possible, probable and preferable futures

How then ought we to make sense of our duly expanded subject matter? Things suddenly become far more complex when the topic of concern is no longer the deceptively neat question of ‘the future’, as it stretches to incorporate images, theories, and methods concerning putative trends and events in multiple alternative futures! This complex model requires a more sophisticated conceptual infrastructure than the comfortable old linear idea of change, but there are ways to keep it manageable.

The key is to structure thought around useful categories. In the early 1980s, American futurist Roy Amara made famous a simple three-part framework for the futures field, ‘possible’, ‘probable’, and ‘preferable’,<sup>46</sup> which he saw as capturing the three distinct roles or approaches to the subject matter that futurists had begun to adopt. These were, respectively ‘image-driven’, ‘analytically-driven’, and ‘value-driven’. He acknowledged that they were ‘not mutually exclusive’ and that ‘Many futurists pursue all three, often at the same time, although most tend to focus on one or two.’<sup>47</sup>

Over the past three decades, the trio of possible, probable, and preferable (‘the three P’s’<sup>48</sup>) has come to be used less often to designate *types of work* within the field, and much more often as descriptors of different *types of scenario*.<sup>49</sup> For

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<sup>46</sup> The most commonly cited source for the trio of possible, probable, and preferable is Amara, 1981a, 1981b, 1981c. However, it was introduced some years earlier in Amara 1974, where the source cited is a Typological Survey of Futures Research by pioneering Scottish futurist John McHale. Appendix G to this early report on the futures field comprises several pages of definitions for the term ‘futures research’, these entries being selected from among responses to a qualitative survey of futures practitioners at that time. However, they are anonymised, so it is unclear whether Amara (1974, 290) is paraphrasing his own contribution, or borrowing from someone else’s (McHale 1970, 72).

<sup>47</sup> Amara 1981a, 26.

<sup>48</sup> McHale 1970, 72.

<sup>49</sup> See for example Henchey 1978.



example, a recent review in the journal *Futures* proposes a typology for scenarios related to the above, which starts from the plain-language questions that a ‘scenario user’ may wish to ask.<sup>50</sup>

What can happen?	--> possible	--> exploratory <sup>51</sup>
What will happen?	--> probable	--> predictive
How can a specific target be reached?	--> preferable	--> normative

These categories, then, remain relevant and useful, and may help us to situate more clearly the approach taken here. For reasons which I trust will become apparent in due course, the bounds of the *possible* and the contours of the *preferable* are our principal interest. Both in practice require consideration of the *probable*, although the empirical/analytical social-science strand of futures studies is not a focus of this document.

We should pause to note that these elements, the ‘three P’s’, are context-dependent, highly situated terms, rather than absolutes. What ‘is’ or ‘seems’ possible, probable and preferable; all are very changeable over time, depending not only on *when* you are, but also on where and who; what you want; and what you’re looking at, and even, as suggested in the Introduction, what your mood happens to be. We should bear this in mind, for no futures exercise produces results once and for all.

Now, having introduced some key terms above, we proceed to outline a thought-image of ‘possibility space’ and an approach to scenarios which will help us visualise the breadth and depth dimensions of possible futures on which the rest of this dissertation builds.

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<sup>50</sup> Börjeson *et al.* 2006.

<sup>51</sup> Börjeson *et al.* use the term ‘explorative’, here we use the word ‘exploratory’ interchangeably.

## Mapping possibility space

There is a common image of change, a visual or diagrammatic metaphor, if you will, that envisages all future scenarios as points inside a cone of possibilities radiating from the present moment (see figure 1.2).<sup>52</sup>

This expresses an idea that, at any given moment in time, multiple paths are available (though certainly more at some times than at others), and that, by whatever combination of accident and design, we make our way 'forward' through thickets of possible worlds, carving a particular path, which by definition is only one of many possible paths. In this conception, you are at the apex of the cone, in the moment of pure presence and of zero potential; all possibilities expand off from this point of origin into the future. Moreover, the widening of the cone along the time axis indicates how possibilities *multiply* as time goes on. So, on any time scale -- X days, years, or centuries after the present -- the cone is always broader a moment later, at X+1. In plain terms this means that the further out in time you go, the more different the futures are liable to be from the present, *and* the more different they may become from each other.<sup>53</sup> Generally speaking, the further out in time from the present we try to project, the foggier, more

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<sup>52</sup> The 'cone' of possibility space is not a new device; it has been used in the futures field in various forms, and under different names, for some years. See for instance Voros 2003, 16, adapted from Hancock and Bezold 1994, 25, in turn based on Bezold and Hancock 1993, 73. Some interesting variants appear in Garrett 1999, 8; Godet and Roubelat 1996, 167. Taylor 1993 offers a (slightly different) 'cone of plausibility', elaborated further in Taylor 1994. For introductory purposes Peter Bishop of the long-running University of Houston graduate futures program has drawn on Taylor's work (for example Bishop 2009, slide 55). The Taylor version and the Hancock and Bezold version seem to have been generated independently; perhaps there are other origins too. In any case, while the cone's beginnings are (ironically) multiple, the isomorphism of them all with physicist Stephen Hawking's 'future light cone' in *A Brief History of Time*, earlier than any of the other references located, is striking: Hawking 1988, 27: figures. 2.3 and 2.4.

<sup>53</sup> The cone image, despite implying that given more time, we should expect more change, does allow for the possibility of relative stasis or stability in the particular path taken, periods in which comparatively little change occurs, as in, say, the middle ages compared to the Renaissance. I add this qualifier lest it should be thought that the model is an artifact of some kind of futurist neophilia or obsession with change per se, from the outset blinkered to the potential for periods of relative calm and stability. It is not, at least, not in these pages.

uncertain and difficult to imagine 'the future' gets, similarly to the way that, if you turn on a flashlight in a dark room, the cone of light becomes dimmer and more attenuated as it radiates away from the source.<sup>54</sup> This squares with personal experience as well as with the abysmal historical record of failed predictions.<sup>55</sup>

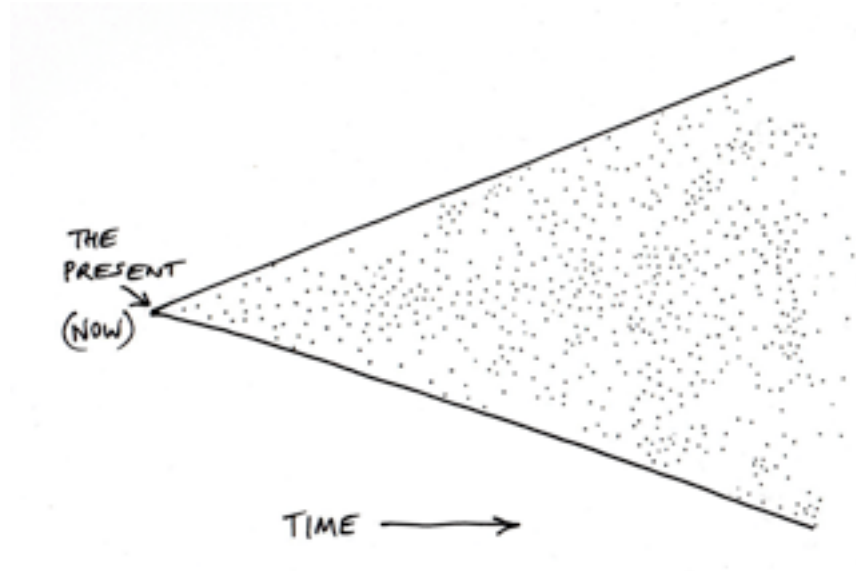


Figure 1.2: The cone of possibility space <sup>56</sup>

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<sup>54</sup> An excellent example of the consequences for scenario thinking of this expanding cone of potential scenarios can be seen in the report to Canada's Nuclear Waste Management Organization (NWMO) by Global Business Network, a prominent consultancy specialising in scenario planning. The report considers scenarios for nuclear waste management on four different time horizons: 25 years (1 generation); 175 years (7 generations); 500 years (20 generations) and 10,000 years (400 generations). 'The full assembly of future possibilities then took the form of four fairly detailed stories extending out 25 years; 12 much briefer scenarios reaching out 175 years; 16 End-points at 500 years, and a long list of very brief What-ifs for 10,000 years. This distribution of shorter and longer lists of, respectively, longer and shorter descriptions satisfies the requirement that we say with relative precision and confidence what we can about the relatively short term, and to outline very briefly as many possibilities as we can imagine in the very long term.' (GBN 2003, 8.)

<sup>55</sup> Tetlock 2005; Lee 2000; Cerf and Navasky 1998.

<sup>56</sup> See footnote 57, below, for commentary on the origins of this image.

As we have noted, the multiplication of possibilities is far more complex than a simple linear conception of time. One way of making this multiplicity more manageable is to plot the 'possible', 'probable', and 'preferable' futures categories on to our model of possibility space (see figure 1.3, below).

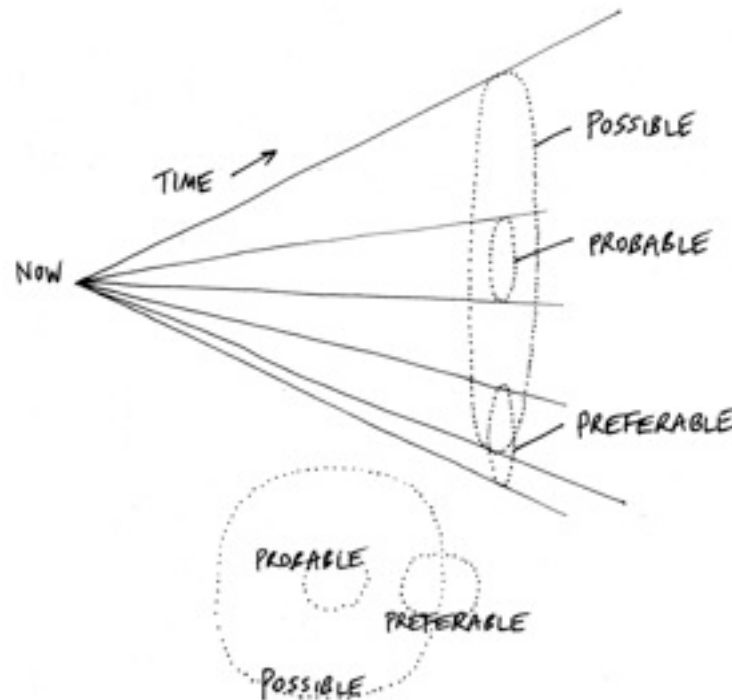


Figure 1.3: Possible, probable, and preferable futures as subsets of possibility space <sup>57</sup>

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<sup>57</sup> Based on diagram in Voros 2003, 16, which in turn is based on Hancock and Bezold 1994, 25 (an earlier version of which appeared in Bezold and Hancock 1993, 73). However while they include 'wild cards' (high impact, low probability events) and 'plausible' futures as categories (the fourth 'P' added alongside possible, probable and preferable by Henchey 1978, 26-27), I consider these redundant. Considerations of plausibility are implicit in 'possible' and 'probable'. Yet, while the multiplication of categories may not improve the model, it does highlight the inadequacy of *categorical* thought in this area. A *dimensional* approach, by contrast, would allow us to pare the possible, probable, preferable trio down to just two: one for all kinds of preferable, ranging from the fantasy 'utopian' ideal to the dystopian nightmare -- an axis of *desire*; and the other for likelihood -- an axis of *fate*, so to speak -- spanning from impossible at one end (probability of zero) to inevitable at the other (probability of one). This incorporates not only 'possible' and 'impossible', but also all degrees of 'probable' and 'plausible'. This potential for a more nuanced, 'greyscale' map of possibility space remains to be explored on another occasion.

This conical conception or image of possibility space in no way entails any assumption of necessary 'progress' or simple linearity. It reflects an understanding of life, and of history, that is not purely deterministic on the one hand, or chaotic on the other, but a mixture of the two; contingent. We do however assume that time flows only one way, which may be questioned as a cosmological commitment -- perhaps time is an artifact of our biology, or an illusion.<sup>58</sup> But for our purposes we'll treat it as a *reliable* illusion; it holds good as a description of how we experience time in ordinary, waking states of consciousness. To be quite clear on this point; we are adopting an assumption that nothing flows backwards in time, thus the future does not supply any information about itself to us.<sup>59</sup> With that unidirectionality comes what is sometimes called 'path dependence', the idea that events are cumulative, history matters, and present options are *simultaneously enabled and constrained* by what has come before. This would be a trivial insight in a unilinear conception of time, amounting to nothing more than a claim that you can't turn back the clock; but it becomes an important feature of a conception that is multidimensional, because it makes clear that certain branches of possibility space that may in principle have been available paths at one time, later become inaccessible. With each moment that passes, whole swaths of previously viable possibility space die off like withering segments of a temporal vine, but at the same time new, previously unimagined branches spring to life. Or in terms consistent with the original metaphor, new possibilities constantly come into view and old ones vanish. The cone is also a funnel, channeling the temporal process into an ever-narrowing chute until it crystallises in the realised present and becomes history, disappearing in our wake. Hence, the future is *as dynamic a domain as it is possible to imagine*, literally. It changes precisely as much as the present does,

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<sup>58</sup> As the late British author Douglas Adams had one of his characters put it, 'Time is an illusion. Lunchtime doubly so.' (Adams 2005 [1979], 21.)

<sup>59</sup> Those who claim otherwise are welcome to show their evidence, but I won't require that the reader buy into any sort of mysticism or transcendence to follow this futures conversation.

only multiplied -- because there are always more possibilities than actualities.<sup>60</sup> Therefore, from any organisational or broader cultural point of view, to devote only the odd burst of attention to the future against a day-to-day backdrop of presentism is a very poor foresight strategy. Constant updating is required, otherwise possibilities that at one time may have seemed viable but that no longer are, linger confusingly, further obscuring an already murky view of options currently available.<sup>61</sup>

The punchline from an old joke of an Irishman giving directions: 'If that's where you want to go, I wouldn't start from here.' This seems a fair summation of much Western pop future-culture in the early 21st century, wherein thriving subcultures of retro-futurism -- steampunk, atompunk, and post-ironic paleofuturological nostalgia, products of the 1890s, 1950s, or '70s -- keep thoroughly antiquated images of the future alive, and they come more easily and vividly to mind than scenarios to which we might plausibly aspire starting from where we actually are.<sup>62</sup> These past images of the future that have never quite been refreshed may be mistaken for maps of virtual territory that, even if it existed at one time, certainly no longer does.<sup>63</sup> We need a new map; indeed, a new way to map,

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<sup>60</sup> 'Possibilities are a whole area of mental activity which lies between truth and total fantasy. It is a very rich area because for any one truth there are many possibilities.' (de Bono 1998, 46.)

<sup>61</sup> As the British academic and cultural critical Richard Barbrook notes (contra Yogi Berra) 'the future is what is used to be.' Barbrook's argument holds that an ideologically driven image of a high-tech utopia has been perpetuated, more or less unchanged, for decades. '[T]he model of the future offered to me as an adult in late-2000s London is the same future promised to me as a child at the 1964 New York World's Fair. What is even weirder is that -- according to the prophecies made more than four decades ago -- I should already be living in this wonderful future.' (Barbrook 2007, 6.) The political and ideological function of these repackaged images, he believes, is to produce acquiescence to the technocratic narrative and the elites that propound it in a bid to control the historical process. In this vision, 'Contemporary reality is the beta version of a science fiction dream: the imaginary future.' (Barbrook 2007, 9.)

<sup>62</sup> Danny Hillis made a similar observation (back in 1993) as part of his pitch for extending temporal awareness beyond the ever-narrowing focus on the present. 'When I was a child, people used to talk about what would happen by the year 2000. Now, thirty years later, they still talk about what will happen by the year 2000. The future has been shrinking by one year per year for my entire life.' (Quoted in Brand 2000, 2-3.)

<sup>63</sup> See for instance Wilson 2007, and the retro-futuristic online gallery curated by Matt Novak, Paleofuture website.

ideally one which invites and empowers more of us to make our own, rather than taking existing maps as given. Experiential scenarios are, in a sense, proposed as an approach to the latter challenge.

Now, there are some important objections or concerns that can be raised with respect to this notion of conical possibility space. One doubt might be that the model is too limited, assuming a 'boundedness' which in reality does not exist. What's *outside* the cone, and how do we map *that*?

A second concern might be that this model smuggles in, by implication, a univocal and universal 'starting position', as if the 'we' of the person who happens to be thinking about the world using the diagram is shared by everyone at that moment in time, where a far more diverse array of subjectivities -- one per person, per moment, at least -- could in principle be identified.

A third possible criticism is that it represents a clumsy, perhaps even obsolete, strategy of *spatialising* time, thus retaining a deceptive linearity, as well as a field of potentials expressed in a drastically low-fidelity two-or-three-dimensions, which might better be replaced with a more suitably chaotic and -- to borrow a Deleuzian figure -- 'rhizomatic' thought-image than the cone.<sup>64</sup>

All are fair objections to some extent, but we may find the tradeoffs reasonable nonetheless.

To the first question, concerning the artificially clean boundedness of the cone and its contents; we can accept this as an admonition to take into account that the very category of 'possible' is always shifting, as are probable and preferable. Indeed, this is one of the fundamental commitments of the present work -- that not only the self-evidently values-driven category of 'preferable' is political, but

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<sup>64</sup> Deleuze and Guattari 2004.

that *possibility*, and even the ostensibly more scientific category of *probability*, are too. The lines are always permeable -- I have drawn them that way in Figure 1.3 -- and they should indeed be perennially controversial. In response to the question about the 'outside', we could take the position that there *is* nothing outside the cone to model, because we have taken the liberty of defining it that way. Alternatively -- and I prefer this approach -- we can see the permeable interface with the 'outside' of possibility as being one of the most interesting parts of the conceptual map.<sup>65</sup> Another solution to rendering possibility space more complex could lie in 'tagging' points of possibility space with their salient attributes,<sup>66</sup> rather than carving it wholesale into chunks designated one way or another. In any case, though, we find ourselves already in a more complex conversation about how the trio of futures categories are formed and patrolled, which bears out the heuristic value of the image when coupled with a critical eye.

Regarding the second point, about artificially positing a 'shared present', there is something to be said for this concern. However, as noted a moment ago, all these elements are highly situated, and not proposed as universal. The cone and 'possible, probable and preferable' categories as tools of thought, like all futures methods, are best understood as producing a particular, tailored (whether to an individual, company, or other community) temporary, and usually non-transferable perspective on a specific array of putative social, technological and other changes. To regard them as objective is a mistake, not a property of the model.<sup>67</sup> Moreover, what people may variously find revealed (or not) in their own use of the categories possible, probable, and preferable, in any given situation, is

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<sup>65</sup> Note also the suggestion in Figure 1.3, which has not appeared in previous versions of the diagram, that aspects of the preferable may always lie *beyond the possible*, a reference to the practical political value of utopianism, which is explicitly advocated by activists such as Stephen Duncombe and Steve Lambert. (Duncombe 2008; Lambert 2010.)

<sup>66</sup> See for example Garrett 1999, 8: figure 1.

<sup>67</sup> The image also does not capture, although it also does not contradict, an important idea about scenarios, that each possible point represents a different virtual standpoint or perspective from which to view (and critique or appreciate, or both) the present.



exactly as intertwined with their political subjectivities, personally and collectively, as are our sense of self/identities/histories. Particular sets of futures belong and correspond to particular 'I's and particular 'we's. But even to absorb and begin to use these futures terms changes the conditions of possibility for our perceptions themselves, and how we may go on to operate as (suddenly more futures-oriented) political actors. The 'politics' of futures thinking is addressed more fully in Chapter 3.

Finally, on the third point about the clumsiness of representing time as 2D or 3D space; this is a limitation of the medium, the flatness of the page. It would be quite logical to imagine possibility as *hyperspace*, with every adjustment to the world, large or small, striking out in another direction. This is (as of the time of writing) largely impracticable; but if -- as is becoming increasingly possible with computer modelling, crowdsourced content, vast and instantly searchable databases -- we developed the means and the habit of plotting the three P's more numerous, chaotically, and rhizomatically, this raises the question: what are the best current means 'gridding' a map of possibility space, while doing minimal violence to the complexity (not to mention the inescapable non-existence) of its contents?

In this section we have introduced the metaphor of 'possibility space' and the pragmatic conical thought-image, which together can supplant the assumption of steady, predictable, linear progress, and increase the sense of agency expanding into the future -- which is the paradoxical upside to the idea of increasing contingency.

### **A note about theory**

Before we proceed to examine how particular scenarios may be generated so as to flesh out our map of possibility space, philosophy- and theory-oriented readers

may find it helpful to note that our conception of possibility space is quite similar to, and seemingly compatible with, French philosopher Henri Bergson's (1859-1941) pair of 'virtual' and 'actual'. In *Matter and Memory* (1896) he wrote: 'Little by little it comes into view like a condensing cloud; from the virtual state it passes into the actual; and as its outlines become more distinct and its surface takes on colour, it tends to imitate perception.'<sup>68</sup> Here Bergson was describing the internal experience of calling a recollection to mind, rather than the more abstract process by which the future (virtual) gradually resolves into the present (actual), but the analogy is invited by his conception, which has not been lost on academic theorists such as Elizabeth Grosz.

Bergson suggests that objects, space, and the world of inert matter exist entirely in the domain of the actual. They contain no virtuality. ... By contrast, what duration, memory, and consciousness bring to the world is the possibility of unfolding, hesitation, uncertainty. ... Matter and the present are to be placed on the side of the actual; and mind or duration and the past, on the side of the virtual.

In doing so, Bergson in effect displaces the dominance of the possible / real relation. The process of realization, that 'movement' or vector from the possible to the real, is governed by the two principles of *resemblance* and *limitation*. The real exists in a relation of resemblance to the possible, functioning as its exact image, to which the category of existence or reality is simply added. In other words, the real and the possible are conceptually identical (since, as Kant argued, existence is not a quality or attribute). Realization also involves the process of limitation, the narrowing down of possibilities, so that some are rejected and others made real. The field of the possible is broader than the real. ... The possible passes into the real by a process of culling.<sup>69</sup>

Recasting our ideas in these terms, the cone of possibility space encompasses the *virtual*, and the present moment -- the cone's apex, which is of course constantly on the move, through every tick of the clock -- would be the *actual*. History's unfolding of time, 'motion' though possibility space, would constitute *realisation*, and the 'culling' meanwhile of that portion of unrealised virtuality.

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<sup>68</sup> Bergson 2004, 171.

<sup>69</sup> Grosz 1999, 25-26.

Grosz then adds Deleuze's gloss on Bergson to the mix, saying 'the virtual cannot be opposed to the real: it is real. It is through its reality that existence is produced. Instead of an impoverished real (the possible), the virtual can be considered more a superabundant real that induces actualization.'<sup>70</sup> This foreshadows a point that underpins our whole treatment of futures studies, especially, anticipating the concretisation or manifestation of ideas about the future in tangible, *experiential* form. The future *does not exist*, in the conception I offer here.<sup>71</sup> But futures (a narrower designation than Deleuze's 'virtual') are most assuredly *real*, in the sense that ideas, narratives and images of the future are a deeply powerful, productive force in our lives -- as in some respects, as Grosz says, 'induc[ing] actualization' -- albeit one that is vastly underappreciated and insufficiently politicised.

The key lesson Grosz extracts is as follows.

Insofar as time, history, change, and the future need to be reviewed in the light of this Bergsonian disordering, perhaps the concept of the virtual may prove central in reinvigorating the concept of the future insofar as it refuses to tie it to the realization of possibilities (the following of a plan), linking it instead to the unpredictable, uncertain actualization of virtualities. This point is not simply semantic: it is a question not of dumping the word 'possible' and replacing it with 'virtual,' but of understanding the concept in an entirely different way, understanding the processes of production and creation in terms of openness to the new instead of preformism is of the expected.<sup>72</sup>

With this, her theoretical investigation finds its way past a narrowly predictive and planning-program orientation to the future -- without any help from futurists -- to a renewed sense of possibility and 'openness to the new'. It is fascinating, although frankly a little painful, to see a theorist torturing herself (and the reader) in an effort to reach and express a point so basic to futures studies that it is, excuse the pun, virtually common sense: the future is plural, undecided, contingent. It

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<sup>70</sup> *Ibid.*, 26.

<sup>71</sup> Which owes much to Jim Dator's example, as seen in his 'first law of the future'. (Dator 1996a.)

<sup>72</sup> Grosz 1999, 28.

ought to be thought about, and *behaved toward*, accordingly. It is indeed unfortunate that such an obvious and ingrained aspect of the academic field of futures, after more than three decades, should apparently need to be reinvented thus.<sup>73</sup>

As Grosz shows by her own example, there are no doubt other vocabularies and conceptual ensembles by which we may come to a more multidimensional, and yet actionable, appreciation of futures than we had at first. The meshing of our possibility cone with Bergsonian thought on virtual/actual, as shown above, is a productive meeting. But for us the future is not, foremost, a *conceptual* problem, so to make the elaboration of others' theories a focus here would be to put the cart before the horse. (My approach in this work has, for the most part, been to use the work of philosophers and critical theorists in much the same way that meat is used in Vietnamese cuisine: as garnish rather than as centerpiece.<sup>74</sup>) This is not to deny that there could be enormous value in a more fully ramified theoretical treatment of our version of futures studies as it fits into certain earlier philosophical frameworks, but that would be a task other than the one at hand, and probably one better suited to an writer more fluent in theory, approaching futures as a second language. Instead, here we start with the pragmatist's preference for the nearest tools available, rather than from the notion that any particular intellectual titans are necessary for 'reinvigorating the concept of the future'. My own familiarity with futures studies predated my first encounter with these others by a decade; and the concept of the future is quite vigorous already, if you look in the right places. As is shown more concretely in Chapter 3, anyone interested in philosophy, especially political and critical theory, may have much to

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<sup>73</sup> An assessment of this apparent failure on the part of futures to connect more fully is discussed at the start of Chapter 7.

<sup>74</sup> 'Discourse is doubtless a form of capital, invested in symbols; it can be transmitted, displaced, accrued, or lost.' (de Certeau 1988, 13.) Crypto-theoretical elaborateness is often accompanied, it seems to me, by an implicit belief in a discursive version of 'trickle-down economics': that the poor and downtrodden will eventually benefit, somehow, from the extraordinary investments made by theory's upper class in discursive penthouses, semantic jewellery, and symbolic yachts. As far as I know, it remains to be shown exactly how this is to occur.

gain from investigating how futurists have learned to tackle these considerable challenges.

## Generating scenarios

Before we continue I want to reiterate an important point: remember, *the future does not exist*. All this talk of possibility space, cones, maps, the actual and virtual, possible and preferable -- these are all parts of a pragmatic, heuristic framework with which to manage the fact that change happens, and that we seem to be partly responsible for it, albeit in ways we have never fully grasped. The ultimate reason to engage in futures work, then, and especially to create scenarios -- which are merely tools to help us think -- is to enrich our perceptions and options in the evolving present. More concretely, of course, it is an instrument for mitigating risks and finding new opportunities.<sup>75</sup> The late Pierre Wack, who first adapted Kahn's 'scenarios' approach from think tanks to the business environment, famously described the futuring process as 'the gentle art of re-perceiving'.<sup>76</sup>

Given that the specific needs around 're-perceiving' are bound to vary enormously from across situations and settings, there are multiple ways to gather or generate scenarios, and it should probably go without saying, but I'll happily risk stating the obvious to forestall confusion on this point: *there is no single best way* to build

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<sup>75</sup> See for example Wack 1985b, 146. 'Scenarios serve two main purposes. The first is protective: anticipating and understanding risk. The second is entrepreneurial: discovering strategic options of which you were previously unaware.'

<sup>76</sup> Wack 1985b, 147. Interestingly, Wack's company, the oil giant Royal Dutch / Shell, has entered futures mythology for having successfully navigated the 1973 oil crisis, the same event which derailed the plans made in 'Hawaii 2000' (see Introduction). In my mind, this seems to lend to Wack's ideas about the requirements for scenarios to be accepted some added symbolic weight. Consider the following, but with the terminology altered to refer to the public sector: 'A company's perception of its business environment is as important as its investment infrastructure because its strategy comes from this perception. I cannot overemphasize this point: unless the corporate microcosm [view of the world] changes, managerial behavior will not change; the internal compass must be recalibrated.' (Wack 1985a, 84.)

them. Each has its own origins, contexts of use, methodological basis, and accompanying strengths and weaknesses. Accordingly, there is an extensive literature on the creation, rationale, and uses of scenarios,<sup>77</sup> and it lies beyond the scope of this work to offer an exhaustive comparison. However, the following brief descriptions allow us more clearly to characterise the focus of the present dissertation, by locating it among generative schemas.<sup>78</sup>

Perhaps the best known, and most widely used, formal approach to generating scenarios is that associated with Peter Schwartz and Global Business Network (a lineal descendant of Pierre Wack's work at Royal Dutch / Shell).<sup>79</sup> This method creates a 2x2 matrix based on critical uncertainties faced by an organisation. On one axis lies a crucial decision point, and on the other lies an important contextual question.<sup>80</sup>

A second approach is offered by Joop de Vries, in a process entitled 'Sociovision', which entails mapping potential developments which could develop in the future around a particular topic of concern, and distilling their basic

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<sup>77</sup> Among the principal works, in chronological order, are Wack 1985a; Wack 1985b; Schwartz 1991; Ringland 1998; van der Heijden *et al.* 2002; van der Heijden 2005. An attempt at a detailed scenario literature review is offered in Chermack, Lynham, and Ruona 2001, but they overlook this method entirely. A better and more recent overview can be found in Bishop, Hines and Collins 2007. These authors acknowledge the difficulty of their methodological survey: 'Despite its ubiquity, or perhaps because of it, we found more than two dozen separate definitions of scenarios in the literature, and that is probably not all.' (Bishop *et al.* 2007, 8) This confession is borne out by their scanty treatment of the principal method discussed in this chapter, the 'four generic futures'. Bishop *et al.* do touch on this approach, although under the alternate name 'incasting' (citing Schultz, n.d.f.). The description they provide (Bishop *et al.* 2007, 12) does not even mention the four headings by name, thus unfortunately giving short shrift to what appears to be the single most comprehensive exploratory scenario method currently available. The generic futures method should not be confused with the so-called 'Manoa approach' outlined in the same article.

<sup>78</sup> Schultz n.d.a.

<sup>79</sup> Schwartz 1991.

<sup>80</sup> Schultz n.d.d.

underlying structure so the group can consider planning for each eventuality.<sup>81</sup>  
(This can be seen as a sort of themed 'phenomenography'.<sup>82</sup>)

A third approach, dubbed the 'Harman Fan' by Schultz, comes from the late futurist Willis Harman. Not unlike Sociovision, it involves harnessing group insight in order to generate elements of possible futures. Twenty-two scenario 'snapshots' -- as opposed to fully realised narratives -- are elicited, and these are physically arranged on a fan (or cone-shaped) formation from near- to far-future, which enables consideration of alternative combinations of events, or pathways into the future.<sup>83</sup>

Each of the above, then, can be seen as affording insights with a emphasis that differs from the others. According to Schultz, the GBN matrix is best for 'maximising focus'; Sociovision's detailed probing of a particular issue is best for 'maximising depth'; and Harman's Fan can be used for 'maximising development'.

But in addition to these, a fourth approach to scenarios can be used for 'maximising difference',<sup>84</sup> which is one way of colouring the core method developed by Jim Dator at the so-called Manoa School of futures studies.<sup>85</sup> It uses 'generic' images of the future, or simply 'generic futures', and entails creating scenarios which are as different as possible from the present, as well as

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<sup>81</sup> Schultz n.d.e.

<sup>82</sup> Phenomenography proceeds from the idea that any given phenomenon, concept or principle can be understood in a limited number of qualitatively different ways. It is a process of inquiry which emerged from research into education and learning, and which maps the actual variety and workings of mental models or understandings that exist around a particular topic. These are derived from empirical investigation, for instance, interviews with a body of students. See Marton 1986.

<sup>83</sup> Schultz n.d.b.

<sup>84</sup> Schultz n.d.c.

<sup>85</sup> Jones 1992; Dator 2009.

from each other. What sets the generic futures method apart from other approaches to scenarios is that it enables the widest systematic survey of possibility space (in classifying *as well as* generative modes, as discussed below).

### **The four generic futures**

By the late 1970s, having already worked for over a decade with people on helping them become more aware of their own ideas about futures, in the newly-minted field then commonly called Futuristics -- and hammering out his own ideas about the future in the process -- Dator arrived at a key insight on which much of his subsequent work, with students and clients alike, would build. The key insight is that there exist a *finite number of basic types of story* that people tell each other about the future: four of them, in fact.<sup>86</sup>

First, there are stories of a future of *continued growth*, in all the key social, and especially economic, indicators. These are traditionally dominant in Western society, closely associated with the historical myth and metanarrative of indefinite linear progress. Then, as counterpoint to the anthem of continuation, and coming from the growing numbers of those who discern that indefinite continued growth within a finite system is impossible, there are stories of *collapse*; a tear in the fabric which brings 'progress' to a standstill, or sends society reeling 'backwards'. Third, since continuation is not possible, and collapse is not desirable, there are exhortations to adhere to certain standards, or values, or constraints: this is the *disciplined* or 'conservator society' future. Finally, there are stories about future society in which something drastic and unprecedented happens to shift our

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<sup>86</sup> Having adopted and used these terms since beginning my association with the Hawaii Research Center for Futures Studies in 2005, my own conceptual vocabulary is intertwined with ideas originally shared or inspired by Dator's work. The first publication of the 'four futures' framework is found in Dator 1979.



historic trajectory, a game-changing alteration, at the level of one or more of our fundamental assumptions: a *transformational* image of the future.

Dator calls these the 'four generic futures',<sup>87</sup> and sometimes, the 'four generic images of the future' (although given the unusually broad ambit of the word 'images' in futures studies, they can be more easily be understood in plain language as alternative future *narratives* or *trajectories*). In any case, in recognition of their function as processes, as opposed to steady states, here we name them after verbs rather than nouns: Continue, Collapse, Discipline, and Transform.

To see how this works as a classifying scheme, we can consider some prominent stories about possible futures, as found in our cultural environment. Although images of the future can take any number of forms, many of the best-known are from popular sources such as books and movies, so we begin there.

Continue: *2001: A Space Odyssey*;<sup>88</sup> *Idiocracy*;<sup>89</sup> *Westworld*;<sup>90</sup> *RoboCop*;<sup>91</sup> *Minority Report*;<sup>92</sup> *2046*;<sup>93</sup> *The Long Boom*;<sup>94</sup> *The Ultimate Resource 2*.<sup>95</sup>

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<sup>87</sup> An invaluable overview informed by thirty more years of experience with the method is provided in Dator 2009.

<sup>88</sup> Kubrick 1968.

<sup>89</sup> Judge 2007.

<sup>90</sup> Crichton 1973.

<sup>91</sup> Verhoeven 1987.

<sup>92</sup> Spielberg 2002.

<sup>93</sup> Wong 2004.

<sup>94</sup> Schwartz, Leyden and Hyatt 2000.

<sup>95</sup> Simon 1996.

Collapse: *Mad Max*;<sup>96</sup> *The Road*;<sup>97</sup> *The Coming Anarchy*;<sup>98</sup> *The Long Emergency*;<sup>99</sup> *Children of Men*;<sup>100</sup> *Waterworld*;<sup>101</sup> *2012*;<sup>102</sup> *The Day After Tomorrow*.<sup>103</sup>

Discipline: *1984*;<sup>104</sup> *Brave New World*;<sup>105</sup> *Gattaca*;<sup>106</sup> *The Handmaid's Tale*;<sup>107</sup> *Ecotopia*;<sup>108</sup> *An Inconvenient Truth*;<sup>109</sup> *Whole Earth Discipline*;<sup>110</sup> *The Limits to Growth*;<sup>111</sup> *Cradle to Cradle*;<sup>112</sup> *Natural Capitalism*.<sup>113</sup>

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<sup>96</sup> Miller 1979.

<sup>97</sup> McCarthy 2006; Hillcoat 2009.

<sup>98</sup> Kaplan 2000.

<sup>99</sup> Kunstler 2006.

<sup>100</sup> James 1992; Cuarón 2006.

<sup>101</sup> Reynolds 1995.

<sup>102</sup> Emmerich 2009

<sup>103</sup> Emmerich 2004.

<sup>104</sup> Orwell 1949; Radford 1984.

<sup>105</sup> Huxley 1932. At the time of writing, a film adaptation is reportedly in production by director Ridley Scott (*Blade Runner*, *Alien*). See Zeitchik 2009.

<sup>106</sup> Niccol 1997.

<sup>107</sup> Atwood 1988 [1985].

<sup>108</sup> Callenbach 2004 [1975].

<sup>109</sup> Guggenheim 2006.

<sup>110</sup> Brand 2009.

<sup>111</sup> Meadows *et al.* 1972.

<sup>112</sup> McDonough and Braungart 2002.

<sup>113</sup> Hawken, Lovins and Lovins 2005 [2000].

Transform: *The Matrix*;<sup>114</sup> *The Singularity is Near*;<sup>115</sup> 'Why the Future Doesn't Need Us';<sup>116</sup> *Accelerando*;<sup>117</sup> *Citizen Cyborg*;<sup>118</sup> *Radical Evolution*;<sup>119</sup> *The Book of Revelation*;<sup>120</sup> *2012: The Return of Quetzalcoatl*.<sup>121</sup>

The nature of the four generic futures is, I trust, becoming clearer. They are four sets of narratives, *each one of which* includes a wide range of specific scenarios. Importantly, these four categories, while still very simple, and usefully addressing the top-level potentials for state of the world/country/society, are more richly descriptive, complex and varied than the utopian/dystopian breakdown we started with. Also, utopian (appealing) and dystopian (unappealing) ideas are distributed across the four, which as we will see, is important to this mode of futuring, because we want normative complexity here, not mere caricature.

Lest I should be misunderstood on this point, we are not claiming that popular culture necessarily contains an adequately wide or appropriately distributed array of images of alternative futures. Some argue that the range is indeed far narrower than it ought to be, and that positive images of most descriptions are all too rare.<sup>122</sup>

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<sup>114</sup> Wachowski and Wachowski 1999.

<sup>115</sup> Kurzweil 2005.

<sup>116</sup> Joy 2000.

<sup>117</sup> Stross 2005.

<sup>118</sup> Hughes 2004.

<sup>119</sup> Garreau 2006.

<sup>120</sup> Book of the Revelation of John.

<sup>121</sup> Pinchbeck 2007.

<sup>122</sup> Slaughter 1998. See also for instance Karen Hurley's recent futures-themed doctorate in which she argues that 'The dominant images of the future out of Hollywood, where almost all of the film visions of the future are created, are of a nature-less world that is socially unjust and ruled by violent conflict, but there are other ways forward.' (Hurley 2009, 239.)

We might also note that, used for categorisation purposes, many stories will defy simple assignment into pure types. The *Terminator* story, for instance, posits a transformation (the machines wake up) which brings about a social collapse (they decimate human society). *RoboCop* is based on a technological transformation of sorts (full cyborg neural) against a backdrop of urban decay (social collapse) but evidently massively increased corporate power (continued growth).

Some of the ambiguities are more conceptual: for example, wouldn't a sudden and widespread change of values towards an unprecedented embrace of self-restraint constitute some kind of moral transformation?<sup>123</sup>

It gets more complicated still, the closer you look, and the categories fracture differently depending on what kind of criteria you bring to bear on thinking them through.

When the quartet is seen from a certain angle, 'continue' seems the odd one out, describing a 'default' mindset and trajectory which must, sooner or later, give way and resolve into one of other three decisive changes.

Yet, from another angle, it's 'transform' which is exceptional, as continue, collapse and discipline all seem to imply movement within known parameters. (Conceived in a three-dimensional spatial metaphor: they are, respectively, movement forwards, backwards, and to the sides, while 'transform' is more like a change of plane.)

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<sup>123</sup> This is a paradox immortalised in a line from Lampedusa's classic novel of the decline of Sicilian nobility during Italian unification in the nineteenth century: 'If we want everything to remain as it is, it will be necessary for everything to change'. (Cited in Ignatieff 2001, 172.) The translation differs in some editions: 'If we want things to stay as they are, things will have to change.' (Lampedusa 1960, 40.)

Then again; continue and discipline both connote incremental, continuous change, while collapse and transform suggest sudden, discontinuous shocks to the system. Similarly, the latter pair appear to describe a kind of change that is stumbled into unwittingly or that happens of its own accord, whereas the first two seem to signal deliberate choice. And yet, of those two, 'continue' implies a laissez-faire, hands-off approach to change, while discipline is its exact opposite; concerted pursuit of a desired state.

Part of the usefulness of this method lies in its deceptive simplicity. As a heuristic for managing and investigating the otherwise bewildering range of nuanced differences among images of the future, it provides a series of handles or lenses which make that variety possible to describe.

To explain this in terms of our 'cone' thought-image, we may select a year -- say, 2100 -- and slice a cross-section of the cone of possible futures at that point. Inside the resulting (circular) shape, sits an uncountably huge number of dots; thousands -- no wait, look at them all! -- it must be millions. As we zoom in on these dots, coming closer and closer, we see that each one is in fact a whole planet. Each dot in this galaxy of possibilities represents a different way that one might imagine the world turning out by the year 2100. Across this huge set of scenarios or worlds (images of the future), there is tremendous variety. In some, almost everyone rides bicycles. In others, since the Third World War ended, people have lived in airtight domes. In some, humanity is hyper-urbanised; in others, the species is close to extinct. Of course, many of these millions of planets are highly similar to each other, with only slight differences in borders, or clothing, language, diets, or technologies, differences which at a medium-level zoom barely register. In some of these worlds, Republicans have dominated the last 80 years of American politics, in others, the Democrats have. On 17 of these planets, an artefact-cloud originally seeded in a laboratory in Mountain View, California assumed control of the Internet on 29 August, 2034 at 11:15am. In just

under fourteen thousand of these dots representing the year 2100, the United States entered into a North American Federation with Canada and eventually, Mexico, at some stage in the past five decades. Cast in these terms, *breadth* speaks to the *variety* (not the absolute number) of dots; depth deals with how closely we zoom into and engage the *details* of the different worlds that each dot represents. I have been exaggerating the precision of these images for the sake of argument; in point of fact the possible variations are countless and impossible to map; there is no humanly known way of dealing with *all* of the thousands of distinct images that actually exist, let alone all those that *could*. Meanwhile, of course, time is ticking, and the viability of some of the best of them depend, in part, on decisions we're making right now. What Dator's generic futures do is cut that circle into four pieces, and then shift the dots into these four resulting corners, each corner attracting a different type of story. At some point the differences and variations become unimportant; the generic images approach tries to capture only the most important differences. The 'sorting' process would perhaps be complex, for reasons noted above, but all futures images or narratives may be characterised as some version, or combination, of continue, collapse, discipline, or transform.

The examples given above deal with the four generic images as a *classifying* framework. This provides a valuable way of mapping the vast variety of images of the future, which may be especially helpful in terms of identifying tendencies in a particular set of images. For example, on this basis it might be apprehended that an organisation's (or, for that matter, a nation's) 'official future', and its planning activities, have overwhelmingly been based on 'continue' assumptions, neglecting the other very different kinds of world that could result from social upheaval -- collapse, transform -- or concerted pursuit of certain values or outcomes -- discipline. Used in another context, it might reveal that the majority of films set in the future, from a certain place or era, invoke *collapse*. In an

organisational or consulting setting, such a classifying exercise may be part of a diagnostic phase, resulting in a clearer sense of where to direct attention next.

### **Four corners of possibility space**

In contrast to this classifying operation, and more importantly for our purposes, the four generic futures can also be used in a *generative* mode. The generative part comes when we try to create descriptions in plausible detail of exemplars from each corner. In other words, in this conception there are (so to speak) *four corners of possibility space*, and this way we can aim to give them all due consideration. Dator and others from the Manoa School have used this approach for several decades with hundreds of clients, students and general audiences, and it is here that the value of examining futures through these four lenses becomes clearest.

This generative approach might be used, in the first instance, at quite a broad level, by an entity -- nonprofit organisation, or national government, or electronics business, or utility company, or what have you -- trying to grapple with the various opportunities and challenges that could occur over the next generation (25 years). So the four generic images could be used to come up with a series of contexts in which the business or organisation might find itself after that time.<sup>124</sup> The generic futures may be used to generate one or more specific stories, each of the four headings serving, in effect, as a different lens through which to scan possibility space:

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<sup>124</sup> It is important to the method that the purpose mentioned here is exploratory, and on a relatively long timeline. There are other methods, including many variations on scenario generation, which would be better suited to shorter timelines and more confined strategic problems.

- 1) Continue: What are the ways in which the system in which we find ourselves could continue as it is?
- 2) Collapse: What are the ways in which it could fall apart?
- 3) Discipline: What are the ways in which it could be directed?
- 4) Transform: What are the ways in which it could change altogether?

Phrased this way, each generic image of the future presents a challenge to test the boundaries of one's expectations and understanding of the system.

Even if the search begins with this kind of generality or breadth, it is important that the scenarios eventually be specific enough to serve as real scaffolding for more in-depth thought and discussion. To note the category headings alone, abstract as they are, is unlikely to produce any special insight. ('How would this organisation fare in a discipline society?' is too abstract and content-free to be of much use, except as a starting point for more specific explorations.) In order to draw the value out of the schema, it is necessary to put these categories to work by deducing specific narrative logics (for 'dynamic' scenarios), or specific details of the resulting worlds (for 'static' ones), or both.<sup>125</sup> Dator has described this process of generating/deducing details from the provided title or outline of a scenario as 'deductive forecasting',<sup>126</sup> or 'incasting'<sup>127</sup> by analogy with the widely

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<sup>125</sup> In futures studies, a distinction is sometimes made between static (outcome) and dynamic (path) scenarios. (Miller 2007, 357, footnote 25.)

<sup>126</sup> Dator, 1998 [2002, 11].

<sup>127</sup> In recent years, rather than incasting, Dator has tended to use the term 'deductive forecasting'. However, consulting futurist and HRCFS alumna Wendy Schultz has written about the method under the former name, memorably describing it as 'the 'little black dress' of forecasting exercises' in honour of its all-purpose usefulness. (Schultz n.d.f.) For a more recent treatment of the method under this banner, see Curry and Schultz 2009, 49. Note that 'incasting' is slightly different from 'backcasting', John Robinson's term to describe a process of working backwards from a *preferred* vision to figure out a path forward. Incasting describes a similar logical process, but applied across a series of alternative outcomes.



known futures method of 'backcasting.'<sup>128</sup> To avoid confusion, the '-casting' terms are perhaps best used as denote this filling-in-details *phase* of scenario production, and its accompanying logic, rather than to serve as a synonyms for the 'generic futures' method, because the two are separable.<sup>129</sup> In any case the resulting descriptions of alternative futures, whether static or dynamic, can be used as a basis for discussion and inquiry, with each scenario acting as a sort of representative of its class. A pertinent example may be found in the four futures produced by the Hawaii Research Center for Futures Studies for 'Hawaii 2050', described in more detail in Chapter 2.<sup>130</sup>

The Manoa 'four generic futures' are one answer to the question of how to carve up the vast, hyperdimensional wilds of possibility space in search of the most meaningful combination of narratives. It is informed by four decades of experience introducing new communities to futures thinking, in a wide variety of industries, disciplines, geographies and cultures. The net effect of the process is to generate -- if I may switch metaphors yet again -- less a *map* of possibility space, and more of a *compass*, with each of the four scenarios serving as a directional reference. As noted, the scenarios should be built out in detail (not just

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<sup>128</sup> 'Backcasting' was coined 'to describe an approach to futures studies which involved the development of normative scenarios aimed at exploring the feasibility and implications of achieving certain desired end-points, in contrast to forecasting studies aimed at providing the most likely projection of future conditions.' (Robinson 2003, 841.) He cites his own 1982 article as the origin of the term. (Robinson 1982.)

<sup>129</sup> When using the generic images method as part of a futures workshop or classroom exercise, 'incasting' or 'deductive forecasting' would refer to a stage where the participants are challenged to work out for themselves certain features of a scenario from the top-level generic title, or from other outline features provided. So for example, in a workshop I ran for the 3D design department of Cranbrook Academy of Art in January 2010, participants were given bullet-point descriptions of four societies, each a different version of America 30 years hence. The 'discipline' future was sketched out with five or six short narrative descriptors, including: *luxurious lifestyles, and industrial production processes, come to be seen as wasteful and irresponsible. And: international trade diminishes as the era of cheap oil ends, 'true cost' economics kicks in, and local materials or recycled waste (again) become the standard way of producing things.* The students assigned to the 'discipline' group were challenged to consider what may become of the profession of design in these circumstances, as well as of the various products and services -- furniture, toys, etc -- that they expected or hoped to design during their careers.

<sup>130</sup> Candy, Dator and Dunagan 2006. See also the examples provided in Dator 2009, 16-18.

served up under their generic titles), thus giving people concrete material to think with in each corner. In principle, there are possible ways to cut it, labels and logical typologies other than continue, collapse, discipline, and transform. But I know of none that does so as simply, or as clearly, or so effectively maximises the differences between alternative futures.<sup>131</sup>

In this manner possibility space comes closer to being *fully encompassed* -- which is not to say that any given scenario exercise produced on this basis will necessarily include a scenario that 'gets it right'; what it does mean is that, done properly, one's scenaric imagination is stretched, literally to the greatest extent conceivable at that time. It is the most wide-ranging (and for that reason, in a sense we will investigate in due course, arguably the most overtly 'political') of all approaches to scenario generation known to this writer. By wide-ranging, I mean that it is especially well-suited to probing and questioning the apparent 'limits' of possibility space. In terms of the scenario typology introduced before, its function is primarily *exploratory*. However, as we have noted, such exploration is always intended, in a complete exercise or properly institutionalised futures process, to

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<sup>131</sup> We noted at the start of this chapter how binarism (scenarios in pairs) hobbles qualitative exploration of possibilities. A similar limitation applies to threes. Consulting futurist Riel Miller notes two commonly used methods producing scenaric trios, one quantitative, the other qualitative. The former is seen in scenarios based on varying growth rates; low medium and high, or 'baby-bear, momma-bear and papa-bear'. The latter comes from imagining a range of qualitative outcomes; the most desirable, the least desirable, and a mixture of both, or what he dubs 'the good, the bad, and the ugly'. (Miller 2007, 344.) To produce scenarios in threes courts the risk that expectations and preparations will gravitate to the middle road, a seemingly reasonable 'compromise' position, rather than require a reckoning with genuine unpredictability and qualitative variation. Prominent business futurist Peter Schwartz asserts that with more than four scenarios 'you cannot keep track of their ramifications in your mind'. (Schwartz 1991, 28.) However, circumstances may sometimes (if rarely) call for more than four. There might be more than one variety of discipline, say, or more than one path through collapse, that belongs in the discussion because of the nature of the topic, or the interests of the audience group. As Dator notes: 'it is sometimes necessary to have more than four alternatives in order to capture the major concerns or hopes for the future dominant in the present. But there must always be at least one example of each of the four generic futures. It is not advisable to omit one of the generic forms.' (Dator 2009, 12). The bottom line is that the quartet of generic titles should be used as a heuristic tool to generate divergent stories, however many or few the situation calls for; rather than as a recipe to be followed slavishly each time to produce four narratives; one under each heading.

precede a *normative* visioning stage.<sup>132</sup> The third, *predictive*, part of that typology is not ignored, but can be seen as rolled into the rigorous consideration of genuine uncertainty, as we move out the cone of possibilities and contingency increasingly takes over from predictability. It does however address *perceptions* of likelihood rather than scientifically-evaluated probabilities, which is a different phase or mode of futures work. The generic futures approach is designed to take over where relative predictability gives way to unknowns, the time horizon of which is bound to vary depending on the domain of interest.

What's the value of exploratory scenarios? Surely -- one may think -- what we need to focus on is whatever is *going to happen*, and perhaps *what we want to see happen* (but only grudgingly, because it's so darn unscientific)... and that's all. It is true that we could loosely describe the point of all futures studies as being to invent and pursue preferred futures, thus to merge the probable with the preferable (consider Figure 1.3 again). So what has possibility got to do with any of this?

At the level of culture, of society as a whole, we are awful at anticipating great changes. In 2007 a former Wall Street financier, Nassim Nicholas Taleb, published a bestselling book that introduced the memorable concept of the 'black swan'. The black swan is the historical outlier that nobody sees coming, but which dramatically overturns existing assumptions, and for which there are always plenty of explanations -- but only in retrospect.<sup>133</sup> Scientific and predictive thinking, narrow and evidence-based, are of little avail when it comes to black swans. Indeed, our sense of both 'probable' and 'preferable' futures is invisibly hemmed in by an *underdeveloped sense of the possible*, which has twin consequences: failure to perceive risks and hence take steps to avoid or mitigate them, and, more poignantly, neglect of horizons of positive potentials that could

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<sup>132</sup> Dator 2009, 2-3.

<sup>133</sup> Taleb 2007.

make the world better. For that reason, addressing ourselves more effectively to the possible is the first step (but not the last) in improving collective foresight.

This question also leads us back to the complaint raised at the outset: the ways in which we ordinarily think about the future are inadequate to our needs in circumstances of rapid and accelerating change, and our collective survival -- not to mention the fates of particular organisations, industries, or communities -- depends on grappling more successfully with potentials seemingly 'unthinkable' or 'unimaginable'. The notion of possibility or, put another way, of imagination, is intimately tied up with this problem (revisited in different forms in Chapters 2 and 3).

## **Conclusion**

This chapter has introduced some of the major terms and conceptual tools of futures studies as approached in this dissertation. Although we are explicitly assuming that the future does not exist and cannot be predicted, 'images of the future' serve as our central subject matter as well as the site of futures-oriented action. The idea of 'alternative futures' or 'scenarios' provides a key to diversifying beyond the naive preoccupation with 'what *will* happen', and the trio of 'possible, probable, and preferable' provides a way meaningfully to filter as well as to generate one's own images of the future. We then added the extended metaphor of the cone of possibility space, noting its limitations and affordances. Finally we introduced several generative schemas for scenarios, and noted the importance for our purposes of attending to the widest breadth (range), to which the 'four generic futures' approach is ideally suited.

Having established so far in our inquiry why it is important, and that it is conceptually viable, to explore futures beyond the narrow confines of the binary

of utopia/dystopia with which we started, it remains for us to learn to breathe more life into the scenarios we generate, creating more truly effective, artful tools for re-perceiving. This is the task of the next chapter. We will then see in Chapter 3 how this exploratory mode of futuring not only challenges the narrowness of conventional thinking about the future, but also enables us squarely to address, and perhaps supersede, the political agenda of critical theory.

## CHAPTER 2

### FROM EXPERIENTIAL GULF TO EXPERIENTIAL SCENARIO

Society has many built-in time spanners that help to link the present generation with the past. Our sense of the past is developed by contact with the older generation, by our knowledge of history, by the accumulated heritage of art, music, literature, and science passed down to us through the years. It is enhanced by immediate contact with the objects that surround us, each of which has a point of origin in the past, each of which provides us with a trace of identification with the past. No such time spanners enhance our sense of the future. We have no objects, no friends, no relatives, no works of art, no music or literature, that originate in the future. We have, as it were, no heritage of the future.

~ Alvin Toffler <sup>134</sup>

An acceleration of change over the past several hundred years or more is everywhere in evidence.<sup>135</sup> With this we find amplified potential for improvement or deterioration, or even both at once, over ever shorter timeframes. Tom Atlee: 'I've come to believe that things are getting better and better and worse and worse, faster and faster, simultaneously.'<sup>136</sup> The need for a dramatic improvement in futures thinking -- which, due to accelerating change, becomes increasingly difficult precisely as it becomes increasingly necessary -- can be seen in many places. This chapter proposes a way of understanding the problem, as well as a practice that may hold the promise of a solution.

We begin with a brief case study of two American cities where the consequences of failed foresight have been especially severe in recent history. Admittedly this focus is on situations where the consequences have been largely adverse (so far, at least; the story is not over yet). This should not be taken to suggest that

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<sup>134</sup> Toffler 1965 [as republished in Gaviglio and Raye 1971], 458. This is the original article that was later expanded into Toffler's bestselling *Future Shock*. (Toffler 1970.) There are, according to the Toffler website, over 15 million copies of the book in print: now *that* is a future shock. (Alvin and Heidi Toffler, personal website.)

<sup>135</sup> Gleick 1999.

<sup>136</sup> Atlee 2003(?).

the only reason to think through futures scenarios more broadly and more deeply is negative -- the avoidance of catastrophe. But it does imply that good quality foresight is currently the exception to the rule.

Having examined these two diagnostic cases, we proceed to introduce an important concept through which we can better understand the problem, the 'experiential gulf'. Perspectives from recent research in psychology and neuroscience are then used to support the contention that an experiential futures practice -- one incorporating the affective, bodily register, as well as the intellectual register primarily engaged in traditional scenario work -- holds out hope for narrowing that gulf. A detailed case study in the use of experiential scenarios (for the 'Hawaii 2050' project) is provided. Finally, we consider the usefulness of 'experience design' as a frame for approaching the challenge of breathing life into future scenarios.

### **A tale of two cities**

It was the best of times, it was the worst of times, it was the age of wisdom, it was the age of foolishness, it was the epoch of belief, it was the epoch of incredulity...

~ Charles Dickens <sup>137</sup>

#### **1. New Orleans: Blindsided by Katrina**

On 29 August 2005, communities along the Gulf of Mexico coast from Texas to Florida were devastated by one of the deadliest hurricanes in United States history, which took over 1,800 lives.<sup>138</sup> Hurricane Katrina is indelibly associated with the destruction of New Orleans, Louisiana, where it left some 80% of the city

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<sup>137</sup> Dickens 1859.

<sup>138</sup> Knabb, Rhome and Brown, 2005.

underwater, rendered thousands homeless, and incurred an unprecedented \$80 billion damage bill; America's costliest natural disaster. But the infamy of this episode lies not in the shocking statistics, but rather in the scandalous incompetence of official responses to the storm, and the prolonged human tragedy that ensued.<sup>139</sup>

Rebecca Solnit wrote in *Harper's* just after the event:<sup>140</sup>

The most hellish image in New Orleans was not the battering waves of Lake Pontchartrain or even the homeless children wandering on raised highways. It was the forgotten thousands crammed into the fetid depths of the Superdome. And what most news outlets failed to report was that those infernos were not designed by the people within, nor did they represent the spontaneous eruption of nature red in tooth and claw. They were created by the authorities.

Her conclusion is disturbing:

Failure at this level requires sustained effort. The deepening of the divide between the haves and have nots, the stripping away of social services, the defunding of the infrastructure, mean that this disaster—not of weather but of policy—has been more or less what was intended to happen, if not so starkly in plain sight.

Here Solnit speaks for the frustration and disgust that many feel in response to the systemic, policy-based oversights and injustices that comprised the conditions of possibility for Katrina's depressing aftermath. Note the way we are tempted to find intent without actually discerning anyone to whom that intent might be specifically ascribed. There is no question that particular agencies and individuals bear partial responsibility for the way the Katrina tragedy panned out. Still, our interest here is not in assigning blame, but in better understanding the phenomenon. So I am pointing this out to highlight the central paradox of collective (in)action: that it can seemingly be accidental and deliberate at the same time.

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<sup>139</sup> The best sources that I know of for recapturing the horrific experience of Katrina as an unfolding disaster are documentary narratives of those who lived through it. See Chicago Public Radio 2005 (radio program); Lee 2006 (documentary film).

<sup>140</sup> Solnit 2005 (quotes are from *Postscript*, published online only).



Following the disaster, the US House of Representatives established the Select Bipartisan Committee to Investigate the Preparation for and Response to Hurricane Katrina, which issued its report on 15 February 2006.<sup>141</sup> The title was 'A Failure of Initiative', by analogy with the infamous 'failure of imagination' identified in the wake of the attacks on September 11, 2001,<sup>142</sup> the morose spirit of which hangs heavy over this official hurricane postmortem. The Report's preface states: 'It remains difficult to understand how government could respond so ineffectively to a disaster that was anticipated for years, and for which specific dire warnings had been issued for days. This crisis was not only predictable, it was predicted.'<sup>143</sup>

It seems to be widely accepted that was not foresight per se that failed in this instance, but its implementation, across the board. From a consequentialist standpoint, of course, undigested insight is tantamount to no insight at all. And so we may find ourselves suspecting that, in a profound and disturbing way, warnings notwithstanding, we might as well not have seen Katrina coming.

Our report marks the culmination of 9 public hearings, scores of interviews and briefings, and the review of more than 500,000 pages of documents. Our investigation revealed that Katrina was a national failure, an abdication of the most solemn obligation to provide for the common welfare. At every level -- individual, corporate, philanthropic, and governmental -- we failed to meet the challenge that was Katrina. In this cautionary tale, all the little pigs built houses of straw.

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In many respects, our report is a litany of mistakes, misjudgments, lapses, and absurdities all cascading together, blinding us to what was coming and hobbling any collective effort to respond.<sup>144</sup>

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<sup>141</sup> US House of Representatives 2006.

<sup>142</sup> 'We reflect on the 9/11 Commission's finding that 'the most important failure was one of imagination.' The Select Committee believes Katrina was primarily a failure of initiative. But there is, of course, a nexus between the two. Both imagination and initiative -- in other words, leadership -- require good information. And a coordinated process for sharing it. And a willingness to use information -- however imperfect or incomplete -- to fuel action.' (*Ibid.*, 1.)

<sup>143</sup> *Ibid.*, xi.

<sup>144</sup> *Ibid.*, x.

Inaction in the face of known risks is undoubtedly, to borrow a phrase from architect William McDonough, a 'strategy of tragedy'.<sup>145</sup> The Committee found no shortage of guilty parties behind the tragic strategy (or rather, anti-strategy) that allowed Katrina to exact its brutal toll. The fact that some of those parties are more culpable than others is neither here nor there as far as grasping the basic nature of the problem is concerned. For, though it may certainly be possible and for some purposes desirable to name and shame particular culprits, we need to appreciate the problem at a more fundamental level than that. Meting out blame satisfies a need for justice, but with or without it, we must grok this fact: it is not simply some extraordinary coincidence that 'a litany of mistakes, misjudgments, lapses, and absurdities'<sup>146</sup> converged in this situation. Some bad luck was surely involved. But not that much: it is outrageously unlikely that so many -- individuals, agencies, organisations, levels of government -- all accidentally happened to fall asleep at the wheel, or drop the ball (or commit some other metaphorical infraction) simultaneously, on this occasion.

There is a blind spot in the eye of Katrina, and certainly in part it has to do with lack of leadership, coordination of agencies, information sharing, and so on. Yet no less important a factor than these is a shared lack: a weak epistemic and psychological infrastructure for taking the future seriously and preparing for its challenges. This is an aspect of our unfolding future which we seem to be having enormous trouble wrapping our heads around. Indeed, it is an instance of the problem with which we began the dissertation. Among Katrina's lessons is a reminder that a failure to reckon properly with the *unthinkable* -- the future we don't want -- is bound to make it even worse. So both it and the *unimaginable* -- the future we barely dare to hope for -- are not problems at a personal scale, but collective ones. Thinking and imagining them, and acting effectively on that basis, is not something that one individual, or a handful, can expect to address

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<sup>145</sup> McDonough and Braungart 2002, 42.

<sup>146</sup> US House of Representatives, x.

alone. Evidently, *both* imagination *and* initiative need to be fully operative and effectively distributed, somehow, in for foresight to 'work' properly in these situations.

## 2. Detroit: The future that couldn't last

The centre of the American automobile industry provides a contrasting, though equally tragic, tale of failed foresight. For a time, Detroit was on top of the world, an industrial powerhouse and headquarters to some of the largest car manufacturers on the planet. Its downfall was less rapid, but no less striking on closer inspection, than that of New Orleans.

High wages and abundant jobs once made the Motor City a magnet for migrants: Detroit's population increased sixfold between 1900 and 1950. Since 1950 the city's standing has plummeted. The United States Bureau of the Census reports that Detroit began the twenty-first century with 951,270 residents, its lowest population since 1910. One-third of its residents live below the poverty level, the highest percentage among the nation's seventy-seven largest cities. Detroit ranks seventy-third in median income and dead last in the value of its owner-occupied houses. It is the only city in the nation where single parents head the majority of families. And Detroit is more segregated than any other major metropolitan area.<sup>147</sup>

Detroit's disaster, being wholly manmade (*sic*), instead of revolving around a sudden act of nature, is more complicated and historically controversial. One popular account holds, in effect, that the city enjoyed a postwar golden age of industry which came to an abrupt end with the infamous Detroit riot of summer 1967. In this view, 'black rioters and bad luck caused the city's decline; whites bear no responsibility for its problems'.<sup>148</sup> Historians since the 1980s have, however, challenged this folk theory with arguments that the downward spiral began much earlier. Although accelerating after the riots, deindustrialisation had in fact commenced right after the war, and the systemic racial tensions and 'white

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<sup>147</sup> Boyle 2001, 109-110.

<sup>148</sup> *Ibid.*, 111.

flight' that escalated in the late 1960s were ultimately traceable to the faults of 'white Detroiters and the institutions they controlled'.<sup>149</sup>

As with Katrina, causes here are complicated and multifactorial, but in addition to local misgovernment and federal neglect, the decline of the American auto industry is a crucial piece of the puzzle, and a site where alternative possibilities beyond mild adjustments to the status quo were apparently not contemplated in any serious way. Historian Kevin Boyle: 'Auto manufacturers made Detroit into one of the world's greatest industrial centers in the first decades of the twentieth century. And their decisions made Detroit into the nation's premier example of urban decay at that century's end.'<sup>150</sup> Part of this shift consisted in the industry restructuring in the face of international competition, which moved jobs away from the United States to other countries with cheaper labour (as documented in the 1989 Michael Moore documentary *Roger and Me*, focusing on Moore's hometown Flint, a satellite of Detroit and birthplace of General Motors<sup>151</sup>). But there was a bigger-picture failure to foresee and prepare for circumstances other than steady, continued economic growth. The onset in 2008 of the 'global economic downturn' (as it is still commonly called at the time of writing), including a credit crunch and and gas-price increase, struck at what was then the remaining bastion of US auto industry profitability, the market for fuel-expensive sports utility vehicles.<sup>152</sup>

In a 2010 documentary *Requiem for Detroit?*, GM executive Tom Wilkinson says: 'When you've done something that's been really successful for 50 or 75 years, it can be hard to change the way you do things.'<sup>153</sup> Another automotive exec, Paul

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<sup>149</sup> *Ibid.*, 111.

<sup>150</sup> *Ibid.*, 125-126.

<sup>151</sup> Moore 1989.

<sup>152</sup> See for example Vlasic and Bunkley 2008; Samuelson 2008.

<sup>153</sup> Temple 2010, approx. 1hr 3 mins in.

Thal, is more direct: 'When things are going really good and you got a golden goose and it's laying golden eggs all the time, you think this is the way it is forever, and nobody had the foresight to say what if, what if, what if? They thought the golden goose would never, ever die.'<sup>154</sup> The 'seemingly inexhaustible golden goose'<sup>155</sup> stands as a resonant metaphor of the often dominant image of the future, *continue*, described in Chapter 1. It manifests a presentist or monofuturist ideology in which the world is, literally against all odds, not expected to seriously change.<sup>156</sup>

### **Lessons from New Orleans and Detroit**

Several instructive points may be drawn from the example of these two cities. It is not our aim here to extract a definitive interpretation of 'what went wrong', but rather to consider what can be learned here in connection with futures thinking.

The first point is about what the two situations seem to have in common. We can regard the New Orleans experience of Katrina, and Detroit's last half century or so, as being emblematic of a kind of problem which lies at the very heart of the concerns addressed by this dissertation. It's very difficult to be precise about *what it is that failed* in these situations, which is exactly the point: the fault is not attributable to any one person, institution, issue, or other explanatory factor. It is systematic, widespread, and deeply ingrained. Both situations bespeak a

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<sup>154</sup> *Ibid.*

<sup>155</sup> *Ibid.*, Julien Temple voiceover, approx. 6 mins in.

<sup>156</sup> For many years, futurist and political science professor Jim Dator has spoken of the 'crackpot realism of the present'; that 'fully understandable but quite misleading belief that the world of the present will dominate the future -- and [the resulting] fail[ure] seriously to consider other possibilities'. (Dator 2006; see also Dator 2009, 5.) Such assumptions about the future, founded on naïve extrapolation, are astonishingly common, and from a Datorian perspective, this could be regarded basically as what the field of alternative futures is intended to address. His term is an explicit reference to the late sociologist C. Wright Mills's notion of 'crackpot realism'. (See Higgs 2003.)

profound lack of preparedness and absence of an adequate mechanism for (or culture of) anticipation. The notion of *emergent failure of foresight* provides a sort of photographic negative of two ideas we will explore in Chapter 7, around the potential for development of *ambient foresight*, and eventually *social foresight*; effective and ongoing futures thinking as an emergent property of a culture.

The second point concerns a key contrast between the problems manifested in the two situations. The recent histories of Detroit and New Orleans, described above, illustrate deficiencies of breadth and of depth, respectively, in engaging future scenarios. To the extent that foresight failed Detroit, we can point to a failure to give due consideration to a broader range of futures than the apparently assumed indefinite continuation of its early 20th century success as an industrial powerhouse. In New Orleans, by contrast, it was more a failure on the dimension of depth; the hurricane threat was known in the abstract, but it was not taken seriously enough as a concrete prospect to have been effectively provided for in advance, and acted upon when the time came. Both breadth and depth of anticipation are needed, however, and to strike the right balance between them -- clearly a built-in tension exists here -- is part of the art of deploying futures wisely.

The third point also draws on a difference between the cases. The urgency and drama of natural disaster makes it easier to grasp, visualise, and respond to. Detroit's problems, being chronic and slow, and less visible, are less likely to receive attention. Political scientist and economic analyst Laura Reese:

Although there have been many Web sites, books, and individual media reports on the demise of Detroit, this has not come close to the level of media attention focused on New Orleans after Katrina. Not only did the scope of the disaster receive sustained national attention, the underlying issues of race, poverty, governmental capacities, and commitments to public infrastructure (or lack thereof) were also raised and continue to be topics of both national and local discussion. ... The very act of naming the disaster creates an indelible image; the entire tragedy is epitomized in a single word -- Katrina.<sup>157</sup>

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<sup>157</sup> Reese 2006, 224-225.

The logic that applies here retrospectively holds prospectively too, it seems to me: scenarios relating to relatively slow, systemic issues are less readily mediated, and more likely to be overlooked.

The fourth and final point concerns the symbolic importance of the two cities' tales. The hurricane which wrecked New Orleans can serve as quite a potent metaphor for a major issue to be addressed in more detail in a moment: a civilisation-wide Katrina, as it were, to which we are only just beginning to awaken. I am referring to the spectre of climate change, which exemplifies the urgent need for developing smarter, better distributed mechanisms of foresight. Environmental activist and author Bill McKibben introduces a book of photographer Chris Jordan's post-Katrina images: 'Look at the pictures in this book. This is what global warming looks like: wrecked houses, wrecked lives, wrecked communities. Now, deep down, just about everybody knows.'<sup>158</sup> We need to be cautious here: I don't suggest that we *equate* the tragedy of Katrina with climate change. Rather than saying that the hurricane was an effect or symptom of that larger phenomenon (where causation is too deterministic a construct to apply to specific weather events),<sup>159</sup> McKibben is implying something to be drawn out here explicitly: Katrina can stand as a symbol, a sign of bigger problems to come. It was an instance of a category of disruptions which contains other, yet more ominous, possibilities, looming up in the very same blind spot. Given our current trajectory, this kind of sudden event may, in time, work the same kind of mischief on other parts of the planet as that hurricane did to New Orleans: making it ugly, hostile, and nearly uninhabitable.

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<sup>158</sup> McKibben 2006, 12.

<sup>159</sup> '[A]lthough scientists can link the severity of Hurricane Katrina to increased warming in the ocean, it is difficult to distinguish how much of that warming is due to human activity and how much is the result of a natural cycle.<sup>8</sup> Therefore, it is incorrect to say that climate change caused Katrina. Communicators should also be careful not to conflate cause and effect; a variety of factors conspired to make the aftermath of Hurricane Katrina so damaging and deadly. Katrina did, however, provide a powerful example of how costly extreme weather events can be, even if they aren't the direct result of climate change.' (CRED 2009, 10.)

In complementary fashion, journalists have seized on Detroit's story as a warning of things to come in the United States, and perhaps elsewhere. 'Detroit is no longer the nation's worst-case scenario,' according to London's *Financial Times*, 'but on its leading edge, the proverbial canary in the coal mine.'<sup>160</sup> *Time* magazine: 'The ultimate fate of Detroit will reveal much about the character of America in the 21st century. If what was once the most prosperous manufacturing city in the nation has been brought to its knees, what does that say about our recent past? And if it can't find a way to get up, what does that say about our future?'<sup>161</sup> In the documentary *Requiem for Detroit?*, the title of which reveals its basic premise, filmmaker Julien Temple describes it as 'the first post-American city... a darkly cautionary tale for the entire industrialised world', noting that for a visitor 'it is possible to feel you've travelled a thousand years into the future, and that amongst the ruins of Detroit lies a first pioneer's map to the post-industrial future that awaits us all.'<sup>162</sup>

But what might the much-needed improvement in our ability to handle futures look like, and how could we begin to approach it? The next section takes a step closer to answering this by providing a new frame for the problem.

### **Another hurricane, and the experiential gulf**

Edward Mazria, an architect and sustainable building advocate, leads an initiative called 'Architecture 2030', which aims to move towards completely carbon-

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<sup>160</sup> Reed 2009.

<sup>161</sup> Okrent 2009.

<sup>162</sup> Temple 2010.



neutral buildings by the year 2030.<sup>163</sup> I was in the audience for a presentation by Mazria at the architecture school at the University of Hawaii in October 2008. His slideshow included a series of images illustrating some expected impacts of global warming, a series of 'before and after' aerial views of various coastal US cities. First, the way they look now, and then a counterpart visualisation of how they could look in perhaps a century, after a metre or more of sea level rise (without any mitigation measures); blue water digitally overlaid to show the submerged city blocks. His point was as simple as it was disturbing. 'The United States of America could not survive a metre-plus of sea level rise. It would destroy a lot of the urban and social fabric.'<sup>164</sup>

He underlined this point about the devastating impact of climate change with an instance of violent weather then recently in the news, the small gulf coast city of Galveston, Texas. In September 2008, just weeks before the lecture, Galveston had been devastated by Ike, the third most destructive hurricane ever to make landfall in the United States. Mazria showed a slide first of the climate change projection prepared by his team back in 2007, and then a picture that had actually appeared in newspapers after Hurricane Ike: a photograph of an exposed peninsula with rows of houses washed away to their foundations. The difference in impact between this one image and the others was stunning to me. The computer projections which showed rising seas claiming the coasts of grand and familiar cities like New York, Boston and San Francisco had a relatively mild emotional effect, but a single concrete snapshot of the destruction of a marginal town I've never visited took my breath away.

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<sup>163</sup> Architecture 2030, Project website. As part of this campaign Mazria lectures widely (with a slide show like a sort of solution-oriented reply to 'An Inconvenient Truth'), seeking to persuade audiences that 'the road to emissions reduction runs right through the building sector.' No doubt because public understanding of the risks and basis for concern about climate change remains far from uniform, the first half of the talk simply deals with some of the expected impacts of global warming.

<sup>164</sup> Mazria 2008.

Of course, documentation of an actual event (the Galveston photo) was bound to be more affecting than the prospect of a possible event. It's simply more poignant to see evidence of real destruction than a hypothetical projection. Although it was beside the point the lecturer was making, this was what struck me: a single tragic photograph -- not an exceptionally remarkable or artistic piece of work in itself, with just a few wrecked houses, and no people in the frame -- seemed much more eloquent than the projections as an evocation of the experiential potential of climate change. Perhaps the photograph's impact should even have been lower, relative to the post-climate change shots, because it showed the damage wrought by only a day rather than by a century. And yet it seemed to me much closer to bringing out the reality of human suffering, the thousands of individual and family-scale upheavals that would be involved in a climate-level shift. As the talk continued, I found myself thinking about the difference between the way we represent possibilities to ourselves, and the way those things feel when they actually happen. 'What's the gap?' I wondered to myself, in my lecture notes.

I have come to call this gap the 'experiential gulf'. It is the difference between how we imagine or expect something to seem in advance, and what it's actually like *being there*. This denotes something different from the gap between theory and practice -- a large part of which can be due to inaccuracies in the theory. Imagine instead a scenario produced by someone with perfect prescience: the experiential gulf would be the gap between this advance representation, or 'premediation',<sup>165</sup> and the *lived experience* to which it is supposed to correspond. It is the difference between scenario as represented and scenario as experienced.

It seems to me that, if we are to address the challenges of climate change effectively, we absolutely must find ways to bridge this experiential gulf. Our representations are stupendously lacking in texture, affect, and other details that

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<sup>165</sup> Grusin 2004.

comprise lived reality. This helps clarify the nature of our challenge in thinking and feeling through possible futures; for to narrow the experiential gulf implies simulating possibilities in such a way that the sense of possibility comes closer to the sense of actuality.

As things currently stand, however, even when confronting the highest of stakes, the way in which we officially address these futures often remains astonishingly conventional and flat. An illustrative case comes from the IPCC (International Panel on Climate Change), the scientific intergovernmental body established by the United Nations to evaluate the risk of climate change caused by human activity, which was recently awarded a Nobel Peace Prize for its work.<sup>166</sup> IPCC reports are regarded as authoritative on climate change. Its latest comprehensive release, the Fourth Assessment Report (AR4) in 2007, states the global scientific consensus that ‘Warming of the climate system is unequivocal.’<sup>167</sup> The IPCC’s most recent attempt to describe the range of possible future worlds in which this monumental climate shift could play out is in the so-called SRES scenarios<sup>168</sup> (which, intriguingly, exclude from consideration ‘outlying “surprise” or “disaster” scenarios in the literature’).<sup>169</sup>

The *Summary for Policymakers* version of this scenario set does try to acknowledge the magnitude of the challenge it is asking its readers to take on by contemplating paths through the next century. ‘By 2100 the world will have changed in ways that are difficult to imagine -- as difficult as it would have been

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<sup>166</sup> In 2007, the IPCC shared the Nobel Peace Prize with former US Vice-President Al Gore ‘for their efforts to build up and disseminate greater knowledge about man-made climate change, and to lay the foundations for the measures that are needed to counteract such change.’ (Norwegian Nobel Committee 2007.)

<sup>167</sup> IPCC 2007, 5.

<sup>168</sup> The IPCC’s Special Report on Emissions Scenarios (SRES) was published in 2000 ahead of the Third Assessment Report in 2001; the scenario set was not updated for AR4. (IPCC 2000.)

<sup>169</sup> *Ibid.*, 3.

at the end of the 19th century to imagine the changes of the 100 years since.<sup>170</sup> This understated remark seems the sole concession to a truly staggering imaginative challenge. Otherwise, the paper's dry prose and charts leave a yawning experiential gulf between the reader and the various full-blooded worlds they mean to evoke. Bear in mind that this is part of a bid at the United Nations level to help a key audience of policymakers engage a range of scenaric possibilities to which their actions today will manifestly make some contribution. Is this really the best we can do?<sup>171</sup>

My aim here is not to criticise the communicative strategies of climate scientists who face an extraordinary challenge in conveying their work to a nonspecialist audience, persuasively and yet with due regard to its complexities and the very real uncertainty of their projections. The point, rather, is that there is a great distance between the judicious, intellectually careful (often, no doubt, for good political reasons) framing of this research and the sort of qualitative, felt insight that might make a real difference. Climate change scenarios, temporally distant and complex as they are, provide a prime example of the experiential gulf as a serious conundrum.

We can further imagine that various strategies and media for evoking or manifesting possible futures may be laid out on a spectrum with the more abstract, symbolic, and cognitive at one end, and the more concrete, lifelike, and affective evocations of experience at the other end. The closer a premediation is to the latter end, then, the narrower is the experiential gulf.

The vividness of someone's particular inner experience cannot, of course, be inferred solely from the medium used. To take a simple example, when a novel is

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<sup>170</sup> *Ibid.*, 4.

<sup>171</sup> This point about the lack of imagination and dimensionality in the IPCC's scenario output came to my attention at a 2008 seminar on climate change run by Dr Stephen Peake of The Design Group at the Open University. (Peake 2008.)

turned into a film, despite the most sophisticated use of sound and light rather than words, and the greater similarity to real life of acted drama, people frequently find the movie to be an inferior, less effective work. There may be many reasons for this, but it suffices to disrupt any simplistic equation of communicative format with experiential impact.

Even so, it is clear that translation of ideas or stories from one medium to another produces non-equivalent results. There are reasons why Hollywood does not simply publish screenplays and leave the rendering of movie storytelling to audiences' more or less fertile imaginations. One of the premises of this dissertation is that all ideas, stories, narratives, and images can be regarded as experiences, that is, as events occurring on a common bodymind substrate: reading a policy paper about climate change is an experience; and so is watching a film of a climate-themed powerpoint presentation by a former politician; as is standing ankle deep in water; or entering a room where you're cast in the role of a Pacific Islands refugee from climate change in the year 2050. To discuss such seemingly disparate configurations in terms of their experiential features and impact enables a perspective which has X-ray glasses with respect to conventional boundaries of discipline, medium and setting; boundaries that hide their fundamental comparability.

The challenge of imagining and confronting climate change is thus, I would argue, emblematic of the issue facing humanity's futures-oriented thought as a whole: our current strategies are puny and inadequate. This topic, as well as any single theme can, embodies both the potential for 'unthinkable' catastrophe at one end, and for the 'unimaginable' snatched-from-the-jaws-of-defeat rescue at the other. The practice of experiential futures aims to narrow the experiential gulf.

## Reuniting brain and body

The approach set out here fits with what psychologists and neuroscientists are learning how the human mind works.

In his 1994 book *Descartes' Error: Emotion, Reason, and the Human Brain*, neurologist Antonio Damasio presents mounting evidence from cutting-edge brain science that militates for overturning the founding misconception of Western metaphysics, that mind and body are fundamentally separate.<sup>172</sup> This Cartesian assumption has as one of its key consequences that we think of reason and emotion as opposites, overlooking the critical importance of emotion in cognition. This has been empirically highlighted by patients whose capacity for reasoned decision-making is greatly impaired by the loss of specific emotional capacities. Damasio's 'somatic marker hypothesis' suggests that gut feelings, whether positive or negative, help mark out certain possibilities as worthy of our attention, such that the otherwise painstaking (indeed, potentially interminable) logical sifting of options prior to deciding is given a vital boost. Thus they 'provide an automated detection of the scenario components which are more likely to be relevant'.<sup>173</sup>

Damasio goes on to say that 'The automated somatic marker device of most of us lucky enough to have been raised in a relatively healthy culture has been accommodated by education to the standards of rationality in that culture', and hence it 'has been made rational relative to social conventions and ethics'.<sup>174</sup> Although he elaborates no further in this direction, it seems to be implicit in this image of a culturally programmable somatic marker device that we may in principle decide to reprogram or deliberately design our use of these intuitions,

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<sup>172</sup> Damasio 1994.

<sup>173</sup> *Ibid.*, 175.

<sup>174</sup> *Ibid.*, 200.

such that, for example, activities exacerbating climate change would be marked for avoidance, and those more in alignment with our long-term survival would be enhanced.<sup>175</sup>

Not being a brain scientist myself, I must leave it to those better versed in the field to illuminate the connections between their work and the present study.<sup>176</sup> But it is significant that people who do concern themselves with such fields appear to be migrating towards a view that underlines the crucial importance of engaging in decision-making armed with more than 'facts' and the apparatus of dry rationality alone.

So too in psychology, recent scholarship includes an increasing, albeit (to an outsider) seemingly belated, recognition of the emotional and experiential dimensions of decision-making alongside the more rational, analytical processes that have traditionally preoccupied the field.<sup>177</sup>

For instance, psychologist Seymour Epstein offers 'cognitive-experiential self-theory' to posit the existence of two parallel, and interwoven, modes of information processing.<sup>178</sup> For Epstein, the 'rational' mode is analytic, logical, and deliberate, while the 'experiential' mode is more holistic, affective, and

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<sup>175</sup> Consider Susanna Hertrich's concept design for a risk perception prosthesis, noted in the section on 'critical design' in Chapter 4.

<sup>176</sup> See in particular Jake Dunagan's forthcoming PhD dissertation on 'Neuropolitics', being completed at the Department of Political Science, University of Hawaii at Manoa, for further consideration of this possibility.

<sup>177</sup> See Loewenstein *et al.* 2001 for a review of literature concerning the role of feelings in risk perception, and see Finucane *et al.* 2000 for discussion of the 'affect heuristic', which theorises a decision-making shortcut rooted in gut feelings.

<sup>178</sup> Epstein 1994. To my knowledge no one is claiming that the 'dual process' conception of thinking is a brand new idea. For example, Epstein's framework acknowledges an indebtedness to a century of other theories of thought based on similar dichotomies, particularly the 'primary' and 'secondary' processes described by Sigmund Freud. Sloman 1996 investigates the empirical case for a dual process theory comprising 'rule based' and 'associative' strands. Again, these ideas are situated in a long tradition of thinkers reaching as far back as Aristotle, and also including William James, Jean Piaget, and Lev Vygotsky.

automatic.<sup>179</sup> A key implication of the ‘dual process’<sup>180</sup> conception of human experience is that both sides of our processing system need to be taken into account if the major challenges facing humanity are to be met.

Einstein said that unless we learn to think differently, we are doomed to self-extinction. He was, of course, referring to the atom bomb. Today, there are other equally significant threats, including pollution of the environment, global warming, depletion of the ozone layer, overpopulation, the failure of our social institutions, and widespread ethnic strife. Considering that we have made this mess for ourselves, if we ever had to learn to think differently, it is now. As a first step, it is important that we learn how we do think. How we do think, I believe, is with two minds, experiential and rational. Our hope lies in learning to understand both of our minds and how to use them in a harmonious manner. Failing to understand the operation of the experiential mind and its influence on the rational mind, try as we may to be rational, our rationality will be undermined by our inherently experiential nature. Cultivating them both, we may be able to achieve greater wisdom than would seem likely from our past history.<sup>181</sup>

A lopsided self-understanding, privileging the rational mind at the expense of its more narrative, affect-driven counterpart is certain to fall prey to crucial weaknesses in our decision-making as our experiential understanding continues to operate at odds with intentions addressed to the purely logical side of the self.<sup>182</sup> It is crucial to be able to speak in both registers, because the two processing systems are responsible for different things. When the affective (experiential, bodily) side is neglected, as may be the case in more traditional approaches to futures, the felt, gut-level concern necessary to motivate an appropriate response may be not be activated. In relation to a challenge on the order of global warming, this would be disastrous. Elke Weber of Columbia University’s Center for Research on Environmental Decisions (CRED) says: ‘behavioral decision research over the past 30 years strongly suggests that

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<sup>179</sup> Epstein 1994, 711.

<sup>180</sup> Chaiken and Trope 1999.

<sup>181</sup> Epstein 1994, 721.

<sup>182</sup> This, indeed, is not a bad way to summarise one of the core tensions at the heart of 20th century political history, as portrayed in Adam Curtis’s sterling documentary argument *The Century of the Self*. (Curtis 2002.) It is also what lies behind Stephen Duncombe’s compelling argument in *Dream: Re-imagining Progressive Politics in an Age of Fantasy*. (Duncombe 2007.) The ethical implications of this line of exploration are addressed more fully in Chapter 6.



attention-catching and emotionally-engaging informational interventions may be required to inspire the public concern necessary for individual or collective action in response to global warming.’<sup>183</sup> She also notes: ‘While the affective system is only one of two processing systems available to homo sapiens, it has much greater influence over decisions under risk and uncertainty (including actions to address global warming) than the analytical processing system. Visceral reactions like fear or anxiety serve as early warning to indicate that some risk management action is in order and motivate us to execute that action.’<sup>184</sup>

We are beginning to understand the what a bridge across the experiential gulf might look like; the stuff it needs to be made of. The insights of neurologists like Damasio, and of psychologists like Epstein and Weber, echo our intuition that addressing futures properly requires an integrative strategy, working on both sides at once. Now we consider further psychological research with a bearing on this challenge.

### **Mind the gap**

Daniel Gilbert is an expert in the field of affective forecasting: how we think we'll feel in response to certain things happening to us. The main argument of his 2006 book *Stumbling on Happiness* is that when it comes to these kinds of forecasts -- matters as basic as what will make us happy or sad -- we're frequently wrong.

Our ability to project ourselves forward in time and experience events before they happen enables us to learn from mistakes without making them and evaluate actions without taking them. If nature has given us a greater gift, no one has named it. And yet, as impressive as it is, our ability to simulate future selves and future circumstances is by no means perfect. When we imagine future

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<sup>183</sup> Weber 2006, 116.

<sup>184</sup> *Ibid.*, 104.

circumstances, we fill in details that won't really come to pass and leave out details that will. When we imagine future feelings, we find it impossible to ignore what we are feeling now and impossible to recognize how we will think about the things that happen later.<sup>185</sup>

Things we expect to be devastating turn out not to be so bad. Events we expect to transform our lives for the better might not do any such thing. And on top of it all, our recollections of what we expected are distorted in hindsight, with the effect of hiding from our own view how wrong we were.

Gilbert makes his argument with reference to personal events rather than social changes writ large, so his examples almost all deal with our forecasting inaccuracies regarding what it might be like to get or lose a job, to marry or divorce, to win the lottery or break a leg. The persistence of these inaccuracies is especially revealing of the extent and impact of our psychological quirkiness, because these events are the ever-in-evidence stuff of everyday life; there is plenty of documented experience which we could consult (but apparently don't, at least not effectively) for good clues as to how such events are likely to affect us. If it's that difficult to think well about our future feelings concerning relatively straightforward life events, how much more so, we may wonder, for social-level changes -- slower and longer-term, uncommon or even unprecedented ones?<sup>186</sup>

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<sup>185</sup> Gilbert 2006b, 238.

<sup>186</sup> A related phenomenon concerns the extent to which people's expectations at the personal level diverge from their image of the social future. For decades, at the start of each semester, Jim Dator has set a pair of brief writing assignments for his beginning futures students. First they are asked to produce 'a description of a typical day in your life' thirty years hence. Having submitted that, they are then instructed to turn in 'a description of Hawaii (or your home community)' in the same future era. This exercise turns up several interesting patterns. One is the unimaginativeness of images of the future at the social level, for instance, the tendency for whatever is occurring in the news as a backdrop to the students' lives at that time, from bus strikes to terrorist attacks, to show up in spades in their projections. The future anticipated is much the same as the present -- only *more*. Another is the sanguine blandness surrounding the writers' anticipations of their own personal future (of the 'spouse, house, widescreen TV, 2.4 kids, and a dog' variety). Yet another pattern, and the key point in this context, is the divergence between the personal and social imaginaries. The world they imagine living in 30 years later may be going to hell in a handbasket, with bus strikes and terrorist attacks as far as the eye can see, but in the essay about themselves, there tends to be no sign of society's challenges, their lives are mysteriously insulated. To recognise this mismatch, and begin reconciling personal expectations with those at the community level, is among the first signs of increased futures literacy. This could be a fruitful area for further research.

However, Gilbert has also put his mind to the problem of global warming, and the results are worth quoting at length:

No one seems to care about the upcoming attack on the World Trade Center site. Why? Because it won't involve villains with box cutters. Instead, it will involve melting ice sheets that swell the oceans and turn that particular block of lower Manhattan into an aquarium.

The odds of this happening in the next few decades are better than the odds that a disgruntled Saudi will sneak onto an airplane and detonate a shoe bomb. And yet our government will spend billions of dollars this year to prevent global terrorism and ... well, essentially nothing to prevent global warming.

Why are we less worried about the more likely disaster? Because the human brain evolved to respond to threats that have four features — features that terrorism has and that global warming lacks.

First, global warming lacks a mustache. No, really. We are social mammals whose brains are highly specialized for thinking about others. ... Global warming isn't trying to kill us, and that's a shame. If climate change had been visited on us by a brutal dictator or an evil empire, the war on warming would be this nation's top priority.

The second reason why global warming doesn't put our brains on orange alert is that it doesn't violate our moral sensibilities. It doesn't cause our blood to boil (at least not figuratively) because it doesn't force us to entertain thoughts that we find indecent, impious or repulsive. ... The fact is that if climate change were caused by gay sex, or by the practice of eating kittens, millions of protesters would be massing in the streets.

The third reason why global warming doesn't trigger our concern is that we see it as a threat to our futures — not our afternoons. Like all animals, people are quick to respond to clear and present danger, which is why it takes us just a few milliseconds to duck when a wayward baseball comes speeding toward our eyes. ... We haven't quite gotten the knack of treating the future like the present it will soon become because we've only been practicing for a few million years. If global warming took out an eye every now and then, OSHA would regulate it into nonexistence.

There is a fourth reason why we just can't seem to get worked up about global warming. ... Because we barely notice changes that happen gradually, we accept gradual changes that we would reject if they happened abruptly. ... Environmentalists despair that global warming is happening so fast. In fact, it isn't happening fast enough. *If President Bush could jump in a time machine and experience a single day in 2056, he'd return to the present shocked and awed, prepared to do anything it took to solve the problem.*<sup>187</sup>

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<sup>187</sup> Gilbert 2006a (emphasis added).

It is not always possible to fully compensate for the lack of these four features -- personal, moral, immediate, and observable -- from future scenarios. Not every scenario topic lends itself to being rendered *personal*; and if the goal is exploration rather than persuasion, the *moral* implications of an action or omission do not seem to be the most appropriate variable to address (although, public service advertisements on issues such as drink driving or passive smoking can, it seems to me, activate a moral frame for the issue). The most promising avenue for addressing this problem seems to be making otherwise absent, hard-to-imagine possibilities *immediate* and *observable*. As Gilbert suggests, an actual experience of the long-term effects of climate change would instantly change minds. Since time travel is unavailable, this dissertation is really about our next best bet.

A second psychological perspective that may shed light here comes from a literature called Construal Level Theory.<sup>188</sup> CLT tries to account for differences between how we imagine near and far futures, and has found that exactly the same future prospects, with exactly the same profile of advantages and disadvantages, are considered in abstract or concrete terms depending, respectively, on whether they are further away or closer in time. The more distant in time something is, the greater the psychological distance, and the more abstract are the terms in which we represent it to ourselves -- quite different from the terms in which we think about the texture of near-term, everyday life. For example, you may be considering whether to attend a conference in Barcelona one year from now. You might first think about it in broad terms such as, 'Where am I in my career?', 'What kinds of people might I meet there?', and 'Wouldn't it be nice to see Barcelona?'. As the time of the event approaches, you would start asking questions like, 'Who's going look after the dog?', 'How will I get to the airport?', 'Can I afford the hotel?', and generally, 'Is this really worth the effort

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<sup>188</sup> See for example Trope and Liberman 2003; Förster, Friedman and Liberman 2004; Wakslak, Trope and Liberman 2006.

when weighed against the other things that I could be doing with my time?'. As the event swims into view, you engage it in more concrete detail.

CLT deals with 'psychological distance' in general, not just its temporal variety.<sup>189</sup> Among the findings of this strand of research are the similarities between different frontiers of psychological distance: high-level construals are associated not just with temporal distance, but also with spatial, social, and hypothetical<sup>190</sup> distance.<sup>191</sup> These are associated with one another such that -- and here is the relevance of this research for our present purposes -- the more remote a particular prospect or scenario is from direct experience, the less readily can we engage in consideration of its concrete characteristics. (The two fronts that are most obviously relevant here are temporal and hypothetical distance.)

The tendency to construe things that seem further away in time and in likelihood at a low-fi resolution is not surprising. Especially in view of our earlier cone image of expanding possibilities, where more remote futures are bound to be more numerous, uncertain, and spare of detail, our conception of far futures is accordingly more sketchlike, in contrast to the comparative oil painting of the very near-term. The reason for the tradeoff between breadth and depth of scenarios becomes clear in this context.<sup>192</sup>

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<sup>189</sup> Förster, Friedman and Liberman 2004, 186.

<sup>190</sup> 'Hypothetical distance' refers to the spectrum of subjectively evaluated probability, i.e., an event seemed more improbable can be described as more hypothetically distant. 'Whereas low-likelihood events are represented in an abstract, structured manner, high-likelihood events are represented in a more concrete, unstructured manner. These findings suggest that the role of probability is even more fundamental than has been previously assumed; instead of acting only to weight the values associated with various outcomes, the findings suggest that probability influences our perception of the outcomes' very nature.' dings suggest that probability influences our perception of the outcomes' very nature.' (Wakslak *et al.* 2006, 652.)

<sup>191</sup> Wakslak, Trope and Liberman, 2006, 185.

<sup>192</sup> Recall the example of scenarios produced for Canada's Nuclear Waste Management Organisation above, footnote 54.

Indeed, it might be argued that not only are there logical reasons for this lack of concrete detail in contemplating further futures, but there is perhaps a good evolutionary case also, for our not investing more cognitive and emotional effort in that which is less pressing and immediate. But it also has paradoxical effects. For example:

People usually have more information about the near future than the distant future. They should therefore make more confident predictions regarding the near future. The results of the present studies suggest that temporal construal processes may result in systematic violation of this requirement. People tend to base their predictions of the more distant future on more schematic, higher level construals. These construals often afford a high-level of certainty. As a result, people may feel no less and even more confident in predicting the distant future than the near future.<sup>193</sup>

The fact that these overconfident predictions about the distant future may now be more wrong than ever underlines our case for active intervention to counterbalance psychological foibles that have, in some circumstances, become a distinct liability. The world which shaped our evolution and habits of mind changed long ago. It is up to us to assume responsibility for the remaining shortfall in our capacities *vis-à-vis* our needs. Now, with the world around us changing at such a speed that some of the fundamental elements and conditions of experience are hardly recognisable from one generation to the next, an under-specified scenario can be tantamount to a cavalier neglect of genuine potential for radical social change. It may be sufficient to make do with scenarios merely 'sketched', if the worlds that the sketches denote is basically known configurations of the one in which we live. It will certainly not suffice, however, if there is no precedent in our experience to which a sketch may refer.

In futures consulting, generally clients and audiences have a harder time seeing the relevance of futures exercises with longer time horizons. Selecting an appropriate timeframe for a futures or scenario exercise is, then, an art whereby

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<sup>193</sup> Nussbaum, Liberman and Trope 2006, 160.

the workshop designer or facilitator is aiming for a long enough timespan to plausibly allow a really different world -- hence, context for the client's or audience's business, country, or what-have-you, to emerge. But on the other hand, it should be near enough that it is relatable. Consequently, the sort of futures work described here would best be pitched one or two generations out from the present, say 20-50 years.

In looking at change over this sort of timeframe, a central paradox of futures studies comes into sharp relief, as one tries to render our scenarios in sufficient detail to be of use. Faster, more unpredictable change makes more detailed modelling of possibilities *both* more necessary *and* less achievable. The differences at stake between the present and the imagined future are such that they really need to be grasped in more detail, but a denotative referent is unavailable for an unprecedented experience. An experiential scenario, then, would help bridge the experiential gulf by enabling the construal of otherwise distant, seemingly improbable events in a format to render them richer, more accessible, and immediate.

The more detail is provided about a scenario, the more subjectively probable it may be rated.<sup>194</sup> This suggests an important reason for descending from the airy abstractions of continue, collapse, discipline and transform, to concrete stories about future worlds where those trajectories play out. But it also imports the paradox that a more detailed story may be rated subjectively as being *more likely to happen*, even if the added detail reduces objective probability; this is called the 'conjunction fallacy'.<sup>195</sup>

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<sup>194</sup> Gregory and Duran 2001, 519-540

<sup>195</sup> The classic illustration of this point comes from a study in which respondents gave a higher likelihood to the possibility of 'an earthquake in California sometime in 1983, causing a flood in which more than 1000 people drown' than to the more vague, but therefore logically more likely, potential of 'a massive flood somewhere in North America in 1983, in which more than 1000 people drown'. (Tversky and Kahneman 1983.)

Another pattern, observed over years of running futures workshops, is that often when people are assigned to focus on one particular future, initial scepticism is gradually replaced by acceptance.<sup>196</sup> Indeed, acceptance of the scenario may increase to the point where people who have spent time in different scenarios may become passionately attached to ‘their’ assigned future, even if at first they were quite unconvinced. Social psychology may be able to explain this phenomenon through the ‘mere exposure effect’ whereby what is familiar is automatically preferred.<sup>197</sup> It also seems to fit with the broader pattern in human behaviour of becoming deeply attached and entwined, even at the bedrock level of identity, with pretty much whatever happens to be lying around, however arbitrary, at certain formative stages of life -- which is of course how cultures emerge and persist; including favourite foods, football teams, and national flags.<sup>198</sup>

Increased scenario acceptance with increased provision of detail, or increased time of exposure, could both be accounted for by a well accepted phenomenon in cognitive psychology, the ‘availability heuristic’, elaborated by Amos Tversky and Daniel Kahneman: ‘That associative bonds are strengthened by repetition is perhaps the oldest law of memory known to man. The availability heuristic exploits the inverse form of this law, that is, it uses the strength of association as

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<sup>196</sup> To clarify; this is not always the case, but it does appear to be one indication that a scenario is well-built. (Also, it is obviously not a property of the scenario alone, but of the *encounter* -- the workshop participant in question is at least as important a variable!) Our aim, in the Manoa tradition, is usually to combine something that may seem ridiculous at first glance with an eventual understanding that incorporates that potential. This, indeed, is evidence of learning. See the third principle for designing experiential scenarios (‘the art of the double take’) below, in Chapter 4.

<sup>197</sup> Unfamiliar stimulus, once exposed to subjects, is rated more positively than previously unrepresented stimulus. (Zajonc 1968.)

<sup>198</sup> I am reminded of Kurt Vonnegut’s excellent neologism ‘granfalloon’ from his novel *Cat’s Cradle*, which is later put to further good use in his nonfiction writing. ‘A *wampeter* is an object around which the lives of many otherwise unrelated people may revolve. The Holy Grail would be a case in point. *Foma* are harmless untruths, intended to comfort simple souls. An example: ‘Prosperity is just around the corner.’ A *granfalloon* is a proud and meaningless association of human beings.’ (Vonnegut 1965, xiii.)



a basis for the judgment of frequency.<sup>199</sup> This has some unsettling implications. 'The production of a compelling scenario is likely to constrain future thinking. ... [O]nce an uncertain situation has been perceived or interpreted in a particular fashion, it is quite difficult to view it any other way. Thus, the generation of a specific scenario may inhibit the emergence of other scenarios, particularly those that lead to different outcomes.'<sup>200</sup> (Note that here, 'scenario' has a specific meaning; 'stories that lead from the present situation to the target event',<sup>201</sup> and that target events in this research were temporally much closer than the longer-term 'futures' of interest to us.)

So what are we to make of this; does it mean that studying futures is an exercise in systematically leading ourselves astray? Well, generally speaking the idea with futures exploration is precisely to dislodge prior assumptions, and to facilitate the emergence of alternatives. The response will of course vary depending on whether the scenario is part of a set of alternatives, or if it stands alone; whether it is part of a facilitated process including conscious examination of responses, or if it is encountered in some informal setting. (If the latter conditions apply, it may raise more of the ethical complexities discussed in Chapter 6.) It is also unclear how the temporal distance of the scenario in question (e.g., hours versus decades) may affect the operation of the availability heuristic.

In any case these psychological pitfalls undoubtedly militate for caution in attempting to bridge the experiential gulf, lest we take our vivid imaginings too seriously. Still, by far the greater error lies in failing to engage the full spectrum of human thought and feeling, when considering alternative futures. But we should bear in mind two moderating influences to debias, or temper possible 'skew' effects. The first is that we are not arguing for wholesale replacement of our

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<sup>199</sup> Tversky and Kahneman 1973 [1982 republication], 174.

<sup>200</sup> *Ibid.*, 178.

<sup>201</sup> *Ibid.*, 177.

current means of considering futures with experientially-enriched ones, but rather the development of the latter as a *complementary* tradition and methodological set. Reasoned consideration of the likelihood of certain scenarios or details within them are not, in this approach, tossed out the window, but remain in the discourse alongside more experiential explorations. The challenges to which this dissertation is addressed are best met through addressing both sides of the dual process equation.<sup>202</sup> The second moderating influence is in the deliberate logical tensions between the elaboration of alternative scenarios themselves. That is to say, continue, collapse, discipline and transform narratives will map the possibility space in competing directions, and thus lead to a grasp of possibilities, as well as their possible experiential and normative implications, that is *more*, not *less*, well thought out. It is one thing to be swayed by an experience that represents a single theory as to the future's trajectory, but it is quite another to be exposed to a series of compelling experiences that express mutually exclusive logics of alternative futures. In either case one will, at least, have a richer vocabulary of possibility, in the form of real memories (albeit of virtual experience) to draw upon from that point forward.

### **For a mundane turn in futures**

Before we proceed to a detailed case study showing an immersive, theatrical genre of experiential scenario in action, some readers may be wondering about an apparent contradiction arising from the above. This chapter has explored ways to increase 'depth' of engagement with scenarios, following a treatment mainly on 'breadth' in Chapter 1. There I noted that, in considering variations across images of the future, most differences become too minute to matter, and

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<sup>202</sup> 'The most effective communication targets both processing systems of the human brain.' (CRED 2009, 18.) Also note Epstein's observation 'Messages that are appealing to people who process information primarily in the experiential mode may be relatively ineffective for people who process information primarily in the rational mode, and vice versa.' (Epstein 1994, 720-721.)

that the 'generic futures' method (distilling the possibilities down to the minimum set of mutually exclusive, broad social trajectories) aims to capture only the most important variations across the full set of possibilities. Are we, then, somehow counteracting the usefulness of generic futures by replacing generic narratives with specific ones? In other words, do people risk 'overpreparing' for certain futures that are incredibly unlikely to occur in that form? (As noted above, additional specificity means less probability, even if increasing subjective perceptions of plausibility.)

There is an important tradeoff here. Traditional forms of scenario representation have the virtue of being able to capture a great deal -- entire worlds of change -- in just a few words or figures. It is among the wonders of written communication that civilisations can rise and fall in a page of text. In his highly readable account of historical methodology, *The Landscape of History*, Yale history professor John Lewis Gaddis emphasises that the nature of the historian's task is to compress time and space into digestible narrative representations, so that patterns over time may be inferred and apprehended that would not otherwise be seen.<sup>203</sup> What's at stake in these representation decisions, Gaddis says, is a balancing act 'between particularisation and generalisation -- between literal and abstract representation', which 'comes with the territory... when you're transmitting vicarious experience'.<sup>204</sup> The same tension exists for the futurist, and it has tended to be resolved in favour of abstraction: high-level scenarios, which lack human scale -- the detail of a 1:1 scale representation of life, and the experiential or affective impact that could accompany it. However, historians almost always have at their disposal a wealth of concrete, literal details of specific moments and lives which they are able to interweave with the more interpretive level of sweeping, abstract overview. Futurists do not. In writing history, concrete evidence of things that really did happen provide both the skeleton and the flesh

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<sup>203</sup> Gaddis 2002, 17.

<sup>204</sup> *Ibid.*, 14.

for the constructed narrative. Not so for futures. Even though the tension between the general and the particular is equally present in both cases, here is a crucial asymmetry between historical and future narrative: the historian relies *less* on imagination, in a sense taking less risk, the more she focuses on actual concrete day-to-day evidence (as opposed to sweeping interpretive views). The futurist, having broad-brush 'trends' or possible 'emerging issues' in the past and present to draw on for 'evidence', must take *more risk*, or draw to a greater extent on imagination, the more she ventures to say anything in concrete terms. This is not in any way to downplay the imaginative historiographic feat of reconstructing life in the past from fragments left behind, but it shows how intrinsically different are the materials with which the two faces of chronology, forward and back, are made.

A further comment raised by this comparison with historians' methodology. In the 1960s and '70s, new branches of historical inquiry began proliferating around both narrower and more 'interior' subject matter; the textures and patterns of everyday life, the unfolding of highly particular events, the mentalities and perspectives of ordinary individuals in times gone by -- all in marked contrast to the top-down political and military emphasis and 'great man' narratives of traditional histories.<sup>205</sup> The appearance of 'microhistory',<sup>206</sup> the 'new cultural history',<sup>207</sup> the '*histoire des mentalités*' initiated by Annales School scholars

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<sup>205</sup> 'Who would have anticipated that we would today be studying the Inquisition through the eyes of a sixteenth-century Italian miller, or prerevolutionary France from the perspective of a recalcitrant Chinese manservant, or the first years of American independence from the experiences of a New England midwife? Works like Carlo Ginzburg's *The Cheese and the Worms*, Jonathan Spence's *The Question of Hu*, and Laurel Thatcher Ulrich's *A Midwife's Tale* result from the fortunate preservation of sources that open windows into another time.' (Gaddis 2002, 23.) Gaddis is making a point about the historian's power to select her sources (a power circumscribed of course by their physical availability) and use them in unexpected ways, but we also see in these examples the turn to an 'everyday' history.

<sup>206</sup> See for instance Magnusson 2006, a helpfully brief overview; and Ginzburg 1993, wherein Ginzburg discusses the diffuse multiple origins of the term around the same time, and considers this approach both in his own work and as a methodological innovation generally.

<sup>207</sup> Hunt 1989.

Robert Mondrou and Georges Duby,<sup>208</sup> the critical genealogies of madness, discipline and sexuality carried out by Michel Foucault,<sup>209</sup> the analysis of 'everyday life' by Michel de Certeau:<sup>210</sup> all these represent a newfound sense of transdisciplinary adventure (especially into anthropology and sociology); but they also herald a shift of attention in terms of *scale*. Let us call this downward, scalar shift of focus the 'mundane turn'.<sup>211</sup>

An important part of what's at stake in history's mundane turn is a rethinking of the relationship between, to recall Gaddis's terms, 'particularisation' and 'generalisation'. Along with helping (however belatedly) to remedy the neglect in previous historical inquiry of the details and realities of most people's lives throughout most of history, it also manifests a certain scepticism about the value of abstraction in historical reasoning. As the noted 'microhistorian' Carlo Ginzburg has put it, paraphrasing theorist Siegfried Kracauer's 'law of levels': 'no conclusion attained apropos a determinate sphere can be transferred automatically to a more general sphere'.<sup>212</sup> To what extent these same concerns should apply to the trans-level application of insights derived from experiential or other future scenarios must remain an open question for now. However, it may help to remind ourselves that in any exploratory mode, the value of a scenario is not to be judged by the extent to which it 'gets the future right', but solely by the extent to which it enables us to re-perceive the present, leading us to ask more penetrating questions of it.

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<sup>208</sup> Chartier 2006.

<sup>209</sup> Foucault 1973; Foucault 1977; Foucault 1978.

<sup>210</sup> de Certeau 1984.

<sup>211</sup> Meanwhile, philosopher and futurist Jay Ogilvy has noted the import for scenario-based work of a contemporaneous movement in anthropology -- he refers in particular to Claude Lévi-Strauss's 'structuralist turn' and Clifford Geertz's 'semiotic or interpretive turn', and the similarity of (written) scenarios to Geertz's 'thick description'. (Ogilvy 2002, 127ff.)

<sup>212</sup> Ginzburg 1993, 26.

The best strategy for addressing the general/particular dilemma, then, may be to alternate the two, in 'a constant back and forth between micro- and macrohistory, between close-ups and extreme long-shots, so as to continually thrust back into discussion the comprehensive vision of the historical process through apparent exceptions and cases of brief duration.'<sup>213</sup> In the futures field, given the predilection for the abstract which comes with the virtual 'territory', this militates for a 'mundane turn' comparable to that of the historians. Perhaps in an attempt to differentiate itself from the disreputable speculations of science fiction, futures studies has left underexamined the variety of textures and qualities of future persons, lives and moments. While critical futurist Richard Slaughter has spoken eloquently for going 'beyond the mundane' in futures inquiry,<sup>214</sup> we take a slightly contrary position here. It is not contrary in the sense of defending the 'pop futurism' that Slaughter rightly finds wanting in depth,<sup>215</sup> but advocates an alternative approach to depth, a less travelled road to the 'internal' dimension of futures for which he and others have argued elsewhere under the banner of 'integral futures'. Thus our turn to the mundane, our 'microfutures', or futures of everyday life, would be, for reasons already examined, explored and expressed mainly experientially.

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<sup>213</sup> Ginzburg 1993, 27. He is citing Kracauer's view of the 'best solution' to this dilemma, offered by founding Annales historian Marc Bloch.

<sup>214</sup> Slaughter 2002a.

<sup>215</sup> Slaughter 2002a, 495. A similar category suggested by Inayatullah is the 'litany' level of Causal Layered Analysis. (Inayatullah 1998.) The mundane turn in futures suggested here must be distinguished from the both trivia of 'pop futurism' and the 'litany' layer. A good examples of what I am *not* saying we need more of is pollster Mark Penn's 2007 book *Microtrends*, a recent instance of the long established trendwatching genre of future -- not futureS -- themed writing. (Penn 2007.) The work presents a long list of small but increasingly significant demographic groups, such as 'protestant Hispanics', 'vegan children', and 'late-breaking gays'. This sort of what's-up-next-season, statistics-plus-a-good-story approach to the forward view, while providing useful categories for the marketer or voting analyst (Penn's intended readership, reasonably enough) does not illuminate everyday tomorrows in the interior dimension that I am suggesting we can explore through experiential futures. Futures work that stops at the enumeration of trends is certainly 'mundane' in Slaughter's pejorative sense, lacking qualitative insight and depth.

Notwithstanding the asserted 'law of levels', many of us evidently possess some capacity to understand phenomena in our experience in terms of types, not just unique instances, and so to draw broader, analogical lessons from particular cases (i.e., reasoning across levels). If we did not have this capacity, the only possible kinds of education would be pure rote learning, and drill-like training. We would, it seems, be incapable of mapping something seen in one context to another, slightly different context. So regardless of whether a scenario -- 'experiential' or otherwise -- is part of a multiple 'alternative futures' format (as in the case study below), or is focused on a single scenario (intending, for instance, to activate concern about climate change), it is about exposure to a *type* of possibility, and promoting consideration of a perspective or *type* of thinking. This does not entirely dispose of the concern about how futures 'lessons' may be mapped across domains and levels, but that offers a fascinating potential area for further research (both empirical, regarding the psychological aspects, and theoretical, regarding the historiographic literature).

We have seen above that experiential scenarios venture to imagine or hypothesise in more specificity, and are thus (from a probability standpoint) more 'out on a limb' in those details, than most written scenarios. Such experiences 'instantiate' an example from the relevant segment of possibility space, in a way which cannot fully replace the comprehension available through macro-level abstraction, but which can complement it by mediating possibility space on a human scale.

We now consider a specific case study of how experiential scenarios aspire to bridge the experiential gulf. This picks up on the account of the 'Hawaii 2050' project which originally motivated the present dissertation project, as noted in the Introduction.

## **Experiential scenarios: a case study**

In late 2005, the state legislature of Hawaii sought the assistance of the Hawaii Research Center for Futures Studies (HRCFS) in creating a Task Force which would encourage and enable people throughout the islands to contemplate what could become of Hawaii by the year 2050. There was to be a statewide series of conversations and consultations aimed ultimately at engendering a vision for 'sustainability' in Hawaii. The inaugural 'Hawaii 2050' event was set for late summer of 2006, and HRCFS was invited to prepare a series of alternative scenarios set in the mid-21st century to serve as a basis for discussion. The scenario set was generated using the four generic futures framework described in Chapter 1.<sup>216</sup>

We knew from experience that having people take these hypothetical future worlds seriously could be difficult. It is common in futures work to create a series of alternative scenarios, expressed as narrative text, and then to have clients explore and discuss these stories in a report or in a workshop setting.<sup>217</sup> This approach works well, much of the time, but not everyone is equally adept at or interested in reading text and statistics about the future. Even among the self-selected folks that take part in public events of this kind, predisposed to take a strong interest in the subject matter, the complex thought-experimentation called for in imagining various versions of the world several decades forward comes

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<sup>216</sup> Candy, Dator and Dunagan 2006.

<sup>217</sup> For such scenario-based exercises, it is common to select a single time horizon, which in principle could be any amount of time from months to millennia, but in the work of Jim Dator and the Hawaii Research Center for Futures Studies (the tradition in which Dunagan and I have been trained), it is usually 20 to 50 years out. A fixed time horizon enables the generation of a set of alternative futures, which are deliberately incompatible or mutually exclusive (think of universes 'branching' into different versions by that same date -- one in which a social collapse has taken place, one in which current growth and other trends have continued unabated, and so on). These are then systematically brought into juxtaposition and, almost literally, into conversation with each other, as people are exposed to the logic and implications of each scenario, gradually developing an appreciation for the historic contingency in multiple dimensions that the scenario set as a whole encompasses. See Chapter 1 for more on the logic and generative deployment of these alternative trajectories of change, or generic futures.



more easily to some than to others. Possibly in line with variations in thinking and learning style, such speculations on the page invariably spark certain people's imaginations, while striking others as abstract, dry, or worst of all, irrelevant. We had to find some way of earning and rewarding attention to 2050, that would not only launch, but help to sustain, an energetic, ongoing conversation. The approach we adopted sought to reach beyond the purely verbal and cognitive offer of a written scenario, to address participants in a more affective mode.

At the 'Hawaii 2050' kickoff venue, the a ballroom facility in the former Dole Pineapple Cannery near downtown Honolulu, HRCFS team dressed four rooms, each to instantiate a different scenario. Participants would not simply be handed a text about how things could unfold between 2006 and 2050: rather, they would be invited to *live* it. Each room was designed and staged, with the help of a number of graphic designers, two improvisational theatre troupes, and a dedicated group of volunteers associated with HRCFS, to afford those in attendance (up to 150 participants at a time, per room) a half-hour experience of a different version of Hawaii's future. Each was named for a different colour, for logistical reasons (to put on nametags and signage), not to imply anything about the contents of the scenarios, which were kept secret until they stepped in the door.

In the 'Orange' room, attendees found themselves in the audience for a live, on-stage debate between two candidates for Governor of Hawaii, held at the 'Dole Underwater Hotel and Casino' (Figure 2.1). In this 2050 election, both candidates were corporations, since the rights of corporate personhood had been formally extended some years before, to include the right to run for public office and

operate governments as for-profit enterprises.<sup>218</sup> The incumbent was Aloha™ Nuclear and Water, which had leveraged nuclear power to solve, for the time being, many of Hawaii's most pressing energy challenges, and had been mostly able to keep pace with growing demand for potable water thanks to nuclear-powered desalination of seawater. The challenger, Kobayashi™ Virtual Concern, was a kind of next-generation hybrid of Sony and Second Life. Having built up a highly successful, immersive cyberspace empire in which over one billion individuals around the world spent all or part of their daily lives, Kobayashi was making a bid to use Hawaii as a testbed for an unprecedented horizontal



Figure 2.1: The 'Orange' room (continue scenario) for Hawaii 2050 <sup>219</sup>

<sup>218</sup>This conceit, created in 2006, of corporations directly competing for public office, we created as a semi-satirical take on the 'continue' image of the future in 2050. But a Supreme Court decision in 2010, *Citizens United v. Federal Election Commission*, suddenly brought this prospect forward by several decades, and to a public relations firm announcing its intention to run for Congress in Maryland. (Wing 2010.) All of which underlines the lesson that, in building scenarios, it can be difficult to be outlandish enough to encompass the kind of surprising changes we ought to expect over that time period.

<sup>219</sup> Photo by Cyrus Camp, 26 August 2006.

integration strategy -- translating its unparalleled online governance experience into the real world. From the stump speeches, people could readily deduce what sorts of political, economic and cultural changes characterised this future. Also, audience members were cast in the role of members of a Hawaiian electoral college, and after having an opportunity to pose questions of the Aloha and Kobayashi representatives, they were required to indicate their preferred candidate in the lead-up to the election proper.

Meanwhile, in the second room, 'Silver', the future had turned out very differently. People were ushered into rows by uniformed guards, who wore what at first glance looked like camouflage-pattern combat fatigues, but that on a second look turned out to be made of aloha-print khaki material. The new arrivals were treated to a ten-minute propaganda video, outlining the history of the Hawaiian islands from prior to European contact, down to the present day in 2050. This presentation recapped relevant history from Hawaii's perspective, explaining that some ten years before, there had been a post-peak oil global economic meltdown, and that those who could afford to had fled the islands, leaving Hawaii to its fate. Many of these escapees, it seems, were the wealthy owners and managers of previously successful companies which had, in the wake of economic collapse, been identified as part of its cause. They had therefore been declared official enemies of the state and were wanted by the International Criminal Court on counts of Crimes Against the Environment and Future Generations. Fortunately, it turned out that the remainder of the US military had stepped forward to maintain law and order, and ration scarce goods such as food and fuel. Given the ongoing chaos in the wider world, and the effectiveness of this arrangement, the rump military remained at the helm of Hawaiian society. Again, attendees were not mere spectators, but found themselves cast in the role of refugees to Hawaii from low-lying Pacific atolls disappearing under steadily rising seas. They would begin their lives anew in this, the so-called Democratic Kingdom of Hawaii, but first would have to undergo a naturalisation ceremony in

this 21st-century answer to Ellis Island, receive their citizenship cards, and swear a solemn oath of allegiance to the puppet Hawaiian monarchy which the military had strategically reinstated to bolster its legitimacy and local character (Figure 2.2).



Figure 2.2: The 'Silver' room (collapse scenario) for Hawaii 2050 <sup>220</sup>

The third future, unfolding in the 'Maroon' room, was based on an entirely different scenario logic again. Upon entering the Honolulu Ahupua'a Civic Education Center, participants were welcomed by a large, native Hawaiian gentleman in traditional dress. They found themselves under a large marquee tent, with foliage peeking through the gaps, the faintly audible sound of wind rustling the trees outside, and an artificial grass surface laid down where people could comfortably sit and take in the presentations that were about to begin. In this version of 2050 Hawaii, evidently, economic crisis had been averted, and untrammelled growth put aside, in favour of a back-to-nature communitarian

<sup>220</sup> Photo by Cyrus Camp, 26 August 2006.

ethos -- the *ahupua'a* being a traditional unit of governance in Hawaii based on the natural ecological boundary of the valley and watershed. However, participants would have to do their part to sustain this happy arrangement. It transpired that, much like today's civic requirement of jury duty, attendance at the Civic Education Center was a legal duty, determined by lottery, in order to maintain across society a widespread competence in the basics of various subsistence production methods. Participants were required to complete a self-assessment questionnaire concerning the extent of their cultural and agricultural knowledge, as this was the beginning of a course that would take place over several months. Then, two brief educational presentations followed, in which the uninitiated were given their first tips on to how to fashion clothes out of hemp (being this Hawaii's most important all-purpose crop), and about the role of do-it-yourself biofuel from algae in a renewable energy portfolio. This scenario



Figure 2.3: The 'Maroon' room (discipline scenario) for Hawaii 2050 <sup>221</sup>

<sup>221</sup> Photo by Cyrus Camp, 26 August 2006.

was not, then, based on a rigidly past-oriented form of sustainability, but instead, high-tech 'bright green' initiatives also played their part.

Finally, the 'Blue' room was set up as something resembling a cross between a hospital emergency room and an automotive repair shop: MBED™, the Mind Body Enhancement Depot, Pacific Islands Branch. After a few moments taking in the posters on all the walls advertising the Chimera™ series of bodily modifications -- gills, wings, and a prehensile tail were all available options -- the group was greeted by an affable pair of MBED™ staff, sporting white lab coats (Figure 2.4). Father Obenchain (a former priest) and Dr Toyama explained that the World Council had been monitoring the Global Happiness Index, and had determined that unmodified human beings ('premods' or 'naturals') were dragging down the averages. In this posthuman world, ordinary humans were the unhappiest segment of the population. Consequently, the premods assembled there would be given a chance to select from a menu of life-enhancing therapies, mods to be paid for by the World Council on their behalf. Several MBED™ customers came in to offer testimonials to the benefits of their chosen mods, including a fellow who had had the Prominder® Learning System installed so he could instantly pick up expertise in any of thousands of hobbies, knowledges and skill sets. Another had undergone Chlorophyll therapy, which has the curious effect of turning your skin green, but allows you to photosynthesise sunlight directly like a plant, so you hardly have to eat any more (except in cloudy weather). And so on.

The corporate election debate dramatised a *continue* trajectory. The military-run naturalisation ceremony expressed the outcome of a possible *collapse*. The civic education for sustainability was an example of a *discipline* narrative. This last scenario was a tongue-in-cheek take on *transform*, playing with a posthuman,





Figure 2.4: The 'Blue' room (transform scenario) for Hawaii 2050 <sup>222</sup>

technological 'Singularity' scenario<sup>223</sup> (which, by definition, is pretty much impossible to imagine). As mentioned, these four scenarios were developed using Dator's generic futures framework. They were not predictions, nor even forecasts, of Hawaii's future. Each was based on its own carefully researched and constructed narrative and historical logic. And the four experiences deliberately pushed the bounds of credibility, each in a different direction, stretching imaginations and inviting expanded perceptions of Hawaiian history's multidimensional potential. (Recall the value of the 'ridiculous' from Chapter 1; also, the principles of experiential scenario design are addressed in further detail in Chapter 4.) Again, none was intended to suggest a 'most likely' future for Hawaii in the year 2050. Indeed, it is near certain that the actual future will not look much like any of these, although it may well contain recognisable elements of several. Moreover, none was intended to represent an obvious best or worst

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<sup>222</sup> Photo by Cyrus Camp, 26 August 2006.

<sup>223</sup> See especially Kurzweil 2005.

case scenario, with any scenario that may have seemed especially ‘good’ or ‘bad’ at first glance revealing other layers on closer inspection, to forestall any simplistic categorisation.<sup>224</sup>

Some 530 people were thus divided into four groups, each one experiencing a different future, followed by a facilitated discussion in smaller discussion groups, and then another half hour in a second experiential scenario. The experiences were used by facilitators as a catalyst for exploration of participants’ perceptions of the possible, probable, and preferable paths that change could take in Hawaii between 2006 and 2050.<sup>225</sup>

The purpose was to provide *material to think with*, which is to say, shared reference points for conversation among the participants. When entering a workshop, any group of participants has access to personal and idiosyncratic sets of narrative and reference concerning the future; various popular culture elements including novels, movies, TV shows, and comics, together with perhaps more formal references depending on the kind of work they do and how they spend their spare time. Even so, they all leave the room having undergone a shared experience, crafted to speak to dimensions of possibility germane to their

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<sup>224</sup> Two examples. The ‘Maroon’ room manifested a *discipline* future of adherence to green and Hawaiian values; over the years this has proved to be the most popular of the four generic futures among Hawaiian residents. One of our aims was to encourage participants to interrogate their own assumptions about what constitutes a plausible or desirable future of this kind, by providing more concrete details, especially social costs not otherwise considered. In this case the most important was the idea of compulsory community education, the basic premise for that room, as well simplified, less luxurious living; limitations imposed on consumption and so forth (it was the only room of the four where people sat on the floor rather than in chairs, for instance). At the other end of the (conventional) ideological spectrum, the ‘Orange’ room manifested a *continue* narrative of steady economic growth through 2050. Indefinite growth is widely regarded as a worthy and important social goal, but we wanted people to question that assumption, too, by suggesting potential tradeoffs this could entail: a much stronger corporate presence in political process; the use of nuclear power to keep up with energy demands; and the introduction of gambling (indicated by staging the room as being part of an underwater casino). The intention was not to drive the audience towards any particular conclusions, but rather, as we often put it, to ‘hand their assumptions back to them’ in a thought-provoking way.

<sup>225</sup> Short video edits of each experiential scenario can be viewed via the HRCFS website. (Candy 2007a.)



mutual concerns as citizens -- in this case, the fate of the Hawaiian islands (although in principle, it could be anything). Given that future scenarios have no factual, 'evidentiary' referents per se, experiential scenarios and artifacts afford people the rudiments of a common vocabulary, a virtual shared experience, however basic, around which their contributions can cohere, and push off in discussion.

Of course, a scenario in any medium can directly refer to only the most minute fragment of the world that it means to represent. The same is true of an experiential scenario, which will manifest only some tiny portion of the stupendous array of conceivable objects that populate, and moments that comprise, the future at hand. From a design perspective, there is an art to alighting on the most evocative of these that can be staged within the constraints of the exercise (see the discussion of design principles for experiential scenarios in Chapter 4). From the reception side, the mechanism by which this arrangement functions could be seen as an *experiential synecdoche*,<sup>226</sup> where the part of the scenario that is visible stands in for the whole. This may appear complicated but it isn't especially; we are all very used to being able to infer what a 'world' is like from some glimpsed part of it.<sup>227</sup> What makes it somewhat more complicated is that, in the 'generic futures' method, this putative 'whole' -- the world of the scenario -- in turn stands for a whole class of other futures with similar trajectories (continue, collapse, discipline, or transform). So there is a kind

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<sup>226</sup> I have previously used the term 'visual metonymy' to describe a version of this (Candy 2008o), but after consulting historiographer Hayden White's examination of the influence of linguistic tropes on the writing of history, it seems 'synecdoche' may be the more appropriate term. (White 1973, 31ff.)

<sup>227</sup> Watch any 'making of' documentary about a movie set in another time, past or future, and note how that world ends at the edges of the film set; yet the finished film encourages you to imagine yourself peering through a window into a world that goes well beyond the edges of the frame. The economy with which a few quick, relatively inexpensive elements can evoke a monumental whole is especially striking in a brief 'making of' film about the graphics used to illustrate a BBC World War Two-themed documentary called *Bloody Omaha*. (Richard Hammond presents *Bloody Omaha*, 2007.)

of double or *nested* synecdoche, which, described in this way, may sound complex, yet in our experience is not difficult for participants to understand.

The exit survey after the event indicated a favourable response compared to other elements of the ‘Hawaii 2050’ kickoff program.<sup>228</sup> The approach was clearly worth further investigation. And in retrospect, it can be seen how the strategy of staging experiential scenarios begins to address several of the psychological pitfalls we noted before. In this case, it united brain and body, addressing both sides of the ‘dual process’ system by presenting an immersive experience in which the performance of the scenarios in multiple media (giving more of the senses something to connect to) invited a felt response as well as a thought one. It made otherwise distant and abstract prospects more immediate and tangible, and as personal as possible (the large-group setting as an obvious limitation),

<sup>228</sup> A post-event evaluation questionnaire for the Hawaii 2050 Kickoff was produced by the Hawaii Institute for Public Affairs. The third question of the four (**in bold**) is the only one relating specifically to the experiential scenarios exercise. It is unfortunate that this question was framed so as to confound two responses to the exercises -- provoking thought and motivating action, these being quite different levels of engagement.

Program Evaluation (n = 287, of 530 attendees)

	Strongly Agree	Agree Somewhat	Disagree Somewhat	Strongly Disagree
I learned useful information about Hawaii's future and what we all have in common.	151	117	13	4
	53.0%	41.0%	4.6%	1.4%
The presentations and speakers provided new information and perspectives about Hawaii's future.	154	109	12	5
	55.0%	39.0%	4.3%	1.8%
<b>The opportunity to experience alternative futures was thought provoking and motivates me to take action.</b>	<b>169</b>	<b>95</b>	<b>10</b>	<b>5</b>
	<b>60.1%</b>	<b>34.1%</b>	<b>3.6%</b>	<b>1.8%</b>
I was able to express my thoughts and opinions about Hawaii's future.	141	116	17	5
	51.0%	41.6%	6.1%	1.8%

short-circuiting the tendency to construe temporally remote scenarios in airy, high-level terms. In light of this it is perhaps unsurprising that the quality of energy and engagement in workshop conversations was exceptionally high.<sup>229</sup> And, by vividly manifesting multiple, competing scenario logics in parallel, it aimed to offset the potential for increasingly specific narrative elements to increasingly mislead, instead forcing a more comprehensive reckoning with the legitimate theories of change underlying each one. Experiential scenarios may serve as *strategic foils* for the audience's own expectations and hopes, eliciting clearer, deeper engagement with wide range of contingencies and choices faced over the timeframe in question. They provide a heuristic route to activating a more finely honed sense of possibility.

Now, not all cases of experiential futures contemplated in this dissertation have all of these features (experiential exploration of multiple scenarios in parallel, as at the Hawaii 2050 kickoff, is a rarity indeed). Moreover, of course, a workshop setting is very different from some of the less contained, more unscripted settings of later interventions. Yet it is possible to discern from this example how and why the energetic responses of participants stood out to the extent that they did. And, over the series of projects that followed Hawaii 2050, it has become increasingly clear to us that one of the useful ways of enframing and enabling this avenue of exploration is *experience design*. The final section of this chapter describes how an approach to futures springing from this perspective can make an intellectual and practical contribution towards the creation of experiential scenarios.

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<sup>229</sup> Futurist Jamais Cascio was in attendance at the Hawaii 2050 kickoff, having been our guest at a Honolulu Futures Salon that week (Candy 2006a), and he wrote a thoughtful response to the event as a whole, including the experiential scenarios in particular (Cascio 2006). Each person in attendance witnessed two of the four scenarios, in his case, 'Blue' (transform) followed by 'Silver' (collapse). Cascio's remarks raise an interesting question about the possible effects of the *sequence of exposure to the scenarios* on people's perceptions, which suggests a possible avenue for future research.

## Experience design

Experience design is the design of anything, independent of medium, or across media, with human experience as an explicit outcome, and human engagement as an explicit goal.

~ Jesse James Garrett<sup>230</sup>

What do a blow on the head, a Dostoyevsky novel, the sound of a steam-train entering a tunnel, an Alfred Hitchcock movie, the vision of a Hawaiian sunset, and a lecture on quantum physics have in common?

Well, not much. Hardly anything, in fact. They are all, however, part of the continuum of available human experiences. In this final section of the chapter, I will sketch out a view that lets us regard *experience* as the basic working material for the futurist (as well as the designer and political actor).

Let's start with an easy example, the Hitchcock movie. Because of its self-evident boundedness and artificiality, cinema can readily be seen as a highly constructed form of human experience, manipulated within various parameters -- the four corners of the frame, the conventional duration of only a few hours at most, and a sophisticated visual and editorial grammar evolved over a century of film storytelling -- to produce some sequence of cognitive and bodily effects in the viewer. This narrative technology has developed into various, quite distinct, modes of use, which can usually be easily classified depending on the kind of experience it engenders. These modes are often called genres.

The use of the cinematic apparatus to maximise laughter is comedy. Its deployment to toy with our simultaneous fascination and revulsion at the predicament of being mortal, flesh and blood creatures, is horror. Its use to excite a sexual response is optimised in pornographic movies (if you're into that sort of

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<sup>230</sup> Garrett 2009.

thing). And its use to build up and release tension around the arc of a screen character's experience is the stuff of drama, not least in the sub-genre of suspense, of which Hitchcock was a master. As the famed director said to screenplay writer Ernest Lehman on the set of *North by Northwest*:

Ernie, do you realise what we are doing in this picture? The audience is like a giant organ that you and I are playing. At one moment we play this note and get this reaction, and then we play that chord and they react that way. And someday we won't even have to make a movie -- there'll be electrodes implanted in their brains, and we'll just press different buttons and they'll go 'oohh!' and 'aaah' and we'll frighten them, and we'll make them laugh. Won't that be wonderful?<sup>231</sup>

This is a vivid illustration of the idea that what people go to films for is a kind of *experience* -- however vicarious or virtual -- and there are many other ways of delivering or enabling similarly compelling experiences that in no way resemble sitting in a dark room watching a large screen.<sup>232</sup> (Incidentally, the burgeoning field of neuroscience is bringing Hitchcock's curious simile ever closer to reality.<sup>233</sup>)

Experience can be, and in a whole range of human activities, most certainly is, designed. In the design world, it has been common for the relatively new term 'experience design' (or XD, to use the unbearably trendy shorthand) to be used

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<sup>231</sup> Hitchcock quoted in Spoto 1984, 406.

<sup>232</sup> Quentin Tarantino, who built his reputation as a film director on deftly manipulating audiences' emotions around the shocking juxtaposition of violence and humour, has something strikingly similar in content, if not in tone, to Hitchcock's remarks about conducting the filmic experience: 'Part of really what I have to offer in cinema -- because I like things that can switch tones -- is being able to turn on a dime. I mean, I *love* playing with an audience, and *conducting* an audience's response. I love getting people to laugh at things that they would never laugh at, alright? You know, can't even imagine they would laugh [at]. You laugh, you laugh, you laugh. And then I *stop* you laughing, alright, and then I *get* you, right where you *fucking breathe*, alright? And then I make you laugh *again!* Right while you're still in that other thing, I get you laughing again.' (Tarantino 1992, feature commentary, approx. 48 mins in.) Elsewhere, he elaborates: 'I *love* fucking with an audience. I mean, I love taking them on a ride. They're not just watching a movie where images are glazing over them; I'm fucking with them, I'm giving them experience. They may appreciate the experience, they may not appreciate the experience. They're getting their eight dollars' worth, or their nine dollars' worth, or eleven dollars' worth, or whatever the fuck it cost. They *went to the motherfucking movies* that night, alright? They had an experience.' (Tarantino 1992, director interview, approx. 10 mins in.)

<sup>233</sup> Silver 2009.

for relatively instrumental purposes, such as the user's experience of a website.<sup>234</sup> However, this narrowness does not stop us from deploying the term more ambitiously.

Experience design pioneer Nathan Shedroff, throughout his book on the topic, considers an extraordinarily diverse array of examples, including the Star Trek Experience in Las Vegas and the Alien War ride in London; the book *Griffin & Sabine* (made up of correspondence between the two title characters, consisting of letters and postcards which the reader physically takes out of stamped envelopes attached to each page); the annual Burning Man festival held in Nevada; Automatic Teller Machines; the Holocaust Museum at the Simon Wiesenthal Center in Los Angeles; tax forms; restaurants and dinner parties; virtual reality and art installations; websites for everything from matchmaking to satellite tracking; personal technology devices such as the Blackberry; and theme parks.<sup>235</sup> 'Experience' encompasses virtually everything.

Business writers Joseph Pine and James Gilmore, in their influential 1999 book *The Experience Economy*, argue for the increasing importance of attending to customer experience for business success. 'Experiences represent an existing but previously unarticulated *genre of economic output*' -- right up there alongside goods and services.<sup>236</sup> The same year, Rolf Jensen, then Director of the Copenhagen Institute for Futures Studies, published *The Dream Society*, boldly claiming that this concept was the successor to 'Information Society', and that 'Future products will have to appeal to our hearts, not to our heads.'<sup>237</sup> While these are more economic and business flavoured views, Jensen's 'dream'-

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<sup>234</sup> For examples of experience design applied mainly to the web, see Garrett 2002; King 2008.

<sup>235</sup> Shedroff 2001.

<sup>236</sup> Pine and Gilmore 1999, ix.

<sup>237</sup> Jensen 1999, vii. Futurists Jim Dator and Yongseok Seo went on to apply this line of thinking to the example of South Korea, locating it in the vanguard of a potential 'dream society of icons and aesthetic experience'. (Dator and Seo 2004.)

inflected perspective gestures toward the wider political concerns of interest to us. Indeed, media theorist and political activist Stephen Duncombe, in *Dream: Re-imagining Progressive Politics in an Age of Fantasy*,<sup>238</sup> argues for the critical importance for progressive political actors of being both willing and able to appeal to the heart and imagination, not just the intellect or conscience, of their audiences. Duncombe calls for a *dreampolitik* which dares to learn from the pop appeal of advertising, celebrity culture, and video games, in order to have the desired impact (which Enlightenment rhetoric does not), on people's perceptions and actions. This is not a passive capitulation to the 'society of the spectacle' criticised by Guy Debord,<sup>239</sup> but an active engagement in staging and participating in what Duncombe calls 'ethical spectacle', 'a dream self-consciously enacted'.<sup>240</sup> Although neither Pine and Gilmore, nor Jensen, nor Duncombe use the term 'experience design', it offers an approach to mobilising the insight at the heart of their various analyses.

This section began with a quotation by Jesse James Garrett, a principal designer at Adaptive Path, which is one of the firms that has advocated and developed experience design as a frame for its work.<sup>241</sup> The idea of avoiding a pre-emptive choice of media to address the underlying goal of engagement is enormously helpful here. In this approach, then, one might start by identifying the kind of impression, sensation, or insight you would like to create, and so to begin with, it makes sense to treat all conceivable strategies and media as fair game. As legendary information designer Edward Tufte says, in relation to the different but analogous task of communicating information, the best approach to use is

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<sup>238</sup> Duncombe 2007.

<sup>239</sup> Debord 1994 [1967].

<sup>240</sup> Duncombe 2007, 173.

<sup>241</sup> Merholz *et al.* 2008.

'Whatever it takes'.<sup>242</sup> There is not necessarily an intrinsic reason to prefer any particular medium or strategy -- you should choose what is most likely to work the kind of magic you have in mind.

What I have found useful about the language of *experience* is that it provides a substrate for considering as comparable things that normally seem to occupy different universes, bringing them onto the same footing. *Experience* as a vector for ideas and explorations casts the body-mind as a sort of blank screen or empty stage on which anything imaginable may be played out. It is thus conceptually an *interior* mirror to our *external* notion of possibility space, the notional platform on which any future configuration of the world can be placed.

This may at first appear a perplexing thing to do. Collapsing all the categories of medium or discipline that we would conventionally use, under the single rubric of 'experience', may seem like deliberately courting confusion -- but this is not so in a *generative* mindset. In that mode, any and all potential approaches to inviting people into contemplation of a particular future should stay on the table until it's time to take them off.

One can partly deduce, from the requirements of audience, time, space, medium, and narrative, a range of viable options for conveying the desired complex of sensations, emotions, concepts, or narrative elements. I say *partly* deduce, because of course the design of an experience is a creative act, not an algorithmic, logico-mathematical procedure. This is the approach that Dunagan

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<sup>242</sup> '[T]he principle of information integration points to a philosophy of inquiry: a broad, pluralistic, problem-directed view of what constitutes the scope of relevant evidence. Too often in scholarly research, in social science at least, there is a certain narrowness in the choice and use of evidence. ... Pre-specifying the mode of relevant information or the explanatory method may produce a tendentious misalignment of evidence in relation to substantive matters under investigation. The world to be explained is indifferent to scholarly specialization by type of evidence, methodology, or disciplinary field. A deeper understanding of human behavior may well result from integrating a diversity of evidence, *whatever it takes to explain something*.' (Tufte 2006, 131.) The 'Whatever it takes' principle is highlighted at a day-long seminar run by Tufte, which I took in 2007. (Tufte 2007.)



and I have developed for design of experiential scenarios, because design -- optimisation within constraints -- includes working within the scope of resources available and other limitations, while being careful to avoid unnecessary and invisible constraining assumptions.

This design process -- part deductive, part generative -- proceeds backwards from an understanding of the type of impact you would like to have. That means beginning with a sense of one's desired quality of attention, or 'engagement', as Garrett has it. And the upshot of bringing an 'experience design' frame to futures is that it can be untethered from limiting assumptions and traditions around how to engage people in contemplating possible futures. As we shall see in Chapters 4 and 5, experiential scenarios can take a wide variety of forms. *There is no good reason* to adhere to text and charts in facilitating engagement with futures: that habit is a legacy of a bygone era of mid-twentieth century scholarship.<sup>243</sup> Indeed, as futurists there is every reason to diversify our communicative repertoire; as noted in relation to the Hawaii 2050 project, it was designing *backwards from the desired outcomes* -- namely, high quality attention paid by participants to the alternative possibilities, and the hope of fuelling ongoing conversations among them -- that led eventually to the four futures rooms, each offering a window on an alternative vision of the year 2050. We came to the language and frame of 'experience design' only afterwards, but then used it in subsequent projects.

The immersive, theatrical approach finally adopted for Hawaii 2050 was not a self-evident starting point. It was just that the strategy of greeting hundreds of people with a conventional workshop exercise, revolving around written scenarios, seemed unlikely to generate the desired impact. It was not something we had done before, or that our clients had requested, or that we had seen

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<sup>243</sup> Note that I am not claiming that simply any novelty is better than a traditional approach -- I still use plain-vanilla textual scenarios in workshops all the time, because it is so easy and cheap. Moreover, text remains the best way to build out the logic of a scenario. But whether it should be the stuff of the experience ultimately produced is another matter.

elsewhere. Dunagan and I had already discussed in some detail the need for futures work to be more engaging, and to operate in a wider range of media,<sup>244</sup> and in fact the first proposal we explored for making ‘2050’ immersive had been series of future artifacts (based on the four alternative futures we would write) to be displayed in some sort of gallery or museum-like exhibition. I imagined people filing past a sort of futuristic *Wunderkammer* that would provoke surprise, spur conversations, and enrich the sense of possibility around the half-century of change to come. As the design process moved forward, it became clear that, if we wanted to give people anything like an immersive glimpse of these futures, there was a logistical requirement around *duration*. Performance would afford a choreographed unfolding of scenario content so everyone could absorb the core narrative elements, and scheduled sessions would enable a series of different (and smaller) groups to see the same thing. The arrangement consisting of separate rooms for each scenario, playing out in parallel during a specified window, with shades of theatrical experience, theme park ride, and role playing exercise, was progressively ‘deduced’ from the desired intellectual, emotional and community outcomes, together with the day-long format of the kick-off event, the attributes and layout of the venue, and the resources and time available.

I had already noted the thorough pragmatism of this experience-based approach to opening space for the contemplation of futures -- and here I mean *pragmatic* not in the get-ahead, throat-slitting Sun Tzu-Machiavellian sense, but in the quasi-philosophical sense exemplified by such figures as John Dewey, William James and Charles Sanders Peirce -- before encountering this from Dewey:

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<sup>244</sup> Particularly important in this regard, from my point of view, were a series of conversations with Jose Ramos and Jake Dunagan, among others, concerning strategies for renewal of the futures field, at the World Futures Studies Federation Conference in Budapest in August 2005. Some of the sentiment of these discussions was captured by Ramos in his valuable article on ‘the communication of foresight’, particularly his concept of future jamming, discussed in Chapter 5. (Ramos 2006.) Other early and conscious influences on working in the direction of experiential futures were the active support of HRCFS Director Jim Dator, as well as a presentation by consulting futurist and Manoa School alumna Wendy Schultz in 2005 about non-textual approaches to communicating scenarios. (Schultz 2005.) Another influence hovering behind the initial proposal was *Wired*’s monthly feature ‘Found: Artifacts from the Future’. (*Wired* magazine.)

Just as no man lives or dies to himself, so no experience lives or dies to itself. Wholly independent of desire or intent, every experience lives on in further experiences. Hence the central problem of an education based upon experience is to select the kind of present experiences that live fruitfully and creatively in subsequent experiences.<sup>245</sup>

We can make the parallel clearer by substituting, in place of the word 'select', the words 'design' or 'create', but in any case Dewey's insight here raises an interesting paradox. Another way of expressing the idea of enabling experiences 'that live fruitfully and creatively in subsequent experiences', is of deliberately *creating memories*. With experiential futures, then, we are paradoxically creating *real memories of hypothetical experiences*, the point of these strategic memories of course being that they will leave us better prepared for life's actual challenges. Indeed, as Dewey intimates, *all education* is predicated on this same notion: that it is possible to learn real lessons from experiences that are in some sense constructed or simulated. But all this simply becomes a lot more obvious when futures is the subject matter, because the experiences do not have conventionally factual counterparts. They are signifiers with virtual referents, more simulacrum than simulation.

This line of thinking leads back to a crucial recognition that successful experiences are not just memorable, as Dewey implies, but are actually available and worth paying attention to in the first place. It is easy to pay lip-service to so commonplace an observation -- yes; everyone is busy, preoccupied with their own lives. But this mundane observation about the texture of our everyday lives multiplies out to constitute a massive, system-wide political problem. The design of 'futures' themed experiences, with engagement as an explicit outcome, states an important underlying agenda of this work. It will be valuable as we go along to be able to differentiate the various potential purposes for which experiential futures are produced. A moment ago we saw, with Dewey, that education is one. I will add three others: exploration, evangelism, and entertainment.

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<sup>245</sup> Dewey 1997 [1938], 27-28, quoted in Shedroff 2001, 5.

Experience design provides a new way to think about how futurists may ply their trade, but the argument applies equally to political activism -- or, for that matter, to philosophy; which also concern the development and propagation of concepts and perceptions. Experiential futures may be deployed to *explore* (as in design prototyping processes,<sup>246</sup> or in alternative futures exercises like Hawaii 2050), to *educate* (as in the simulation 'Refugee Run' offered to World Economic Forum delegates at Davos in 2009,<sup>247</sup> or the short video teasers about 'climate change' promoting the National Geographic series, *Six Degrees Could Change the World*<sup>248</sup>), *entertain* (like the in-game props or 'feelies' provided with Infocom computer games to help breath life into the narrative,<sup>249</sup> or the futuristic documentary shorts by South African director Neill Blomkamp<sup>250</sup>), or *evangelise* (for instance advancing a political agenda, like the short 'pizza delivery' film produced by ACLU to activate public concerns about surveillance,<sup>251</sup> or the MoveOn video persuading Democrats to vote in the 2008 Presidential election<sup>252</sup>). Whatever the principal purpose of the project, and it may be any or a combination of the above, as Garrett suggests, engagement is the *sine qua non* of the effort.

## Conclusion

This chapter has reframed the problem of the 'unthinkable' and the 'unimaginable', proposing the term experiential gulf to denote the gap between

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<sup>246</sup> See the section on experiential scenario design principles in Chapter 4.

<sup>247</sup> Candy 2009b.

<sup>248</sup> Candy 2008f.

<sup>249</sup> Candy 2009c.

<sup>250</sup> Candy 2007h.

<sup>251</sup> Candy 2008l.

<sup>252</sup> Candy 2008d.

future as thought and reality as lived. Perspectives from neuroscience and psychology encourage us to develop an experiential language to supplement the traditional means of thought and communication used in futures studies, and we considered one particular case study in detail (Hawaii 2050) to see how this can work. Finally, the frame of experience design has been brought into play, aiding our efforts to bridge the experiential gulf by designing experiential scenarios based on desired outcomes and impacts.

To begin the design process at the end, so to speak, with a statement of desired impact, and to use the whole experiential continuum as a canvas, is a liberating way to approach facilitating futures, both from an *exploration* standpoint (such as Hawaii 2050) and a *persuasion* one.<sup>253</sup> Recall Gilbert's thought experiment from a few years ago about what it would take to get climate change seriously on the agenda: 'If President Bush could jump in a time machine and experience a single day in 2056, he'd return to the present shocked and awed, prepared to do anything it took to solve the problem.'<sup>254</sup> This line of thought raises some interesting questions. What if New Orleans residents had had an opportunity to experience, in living detail, a preview of the devastation that could be wreaked on their city *before* Katrina landed? What if Detroiters in the had been given a chance, decades ago, to see their grandest public buildings, and their suburban homes, falling into ruin?

We are developing an understanding here that intellectual, emotional, and material dimensions of experience are interwoven: an intervention in one has

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<sup>253</sup> It is also isomorphic with 'backcasting'. See footnote 128, above.

<sup>254</sup> Gilbert 2006a. In the same vein, a recent publication from a Columbia University group about climate change psychology, aimed at a lay audience, noted: 'CRED research shows that, in order for climate science information to be fully absorbed by audiences, it must be actively communicated with appropriate language, metaphor, and analogy; *combined with narrative storytelling; made vivid through visual imagery and experiential scenarios*; balanced with scientific information; and delivered by trusted messengers in group settings.' (CRED 2009, 2; emphasis added.) The document provides no examples of what is meant by 'experiential scenarios', but rests its argument, as we have here, on the need to address both sides of the 'two information processing systems of the brain'. (CRED 2009, 16.)

consequences for the others. As we will see in the next chapter, this is part and parcel of seeing the world through the 'politics of aesthetics'. As things are remade, when lines are redrawn, on however large or small a scale, the political is activated. A corollary of the above is that a point made via other media and experiences can be at least as intellectually coherent and philosophically profound; as effective, in a word, as any written or verbal statement. Chapter 3 takes up this argument.

## CHAPTER 3

### THE POLITICS OF FUTURES AND DESIGN

We shape our tools, and thereafter our tools shape us.

~ Marshall McLuhan <sup>255</sup>

The practice of experiential futures described and developed in these pages can be seen as a mixture of futures and design. But the portrait is incomplete without a frame accounting for their political implications. Politics, as approached here, provides a theoretical perspective in which to locate experiential futures as an emerging form of thought-into-action.

First I will outline the idea of the political as a distributed, ubiquitous, *aesthetic* phenomenon; equally and inescapably embedded in perceptions, behaviours, and material things. Then we turn to futures and design as practices, examining how they can each be considered as deeply political in this broader sense. This lays a foundation to be built upon in Chapter 4, where the varieties and principles of future experience are examined.

#### **Scoping the political**

What is politics?

Pose this question to most people and, if you don't get a blank stare, a barely concealed disbelief that you dare to broach a topic so incredibly boring, your reluctant interlocutor may murmur something about elections, votes, and

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<sup>255</sup> Anonymous voice in McLuhan and Fiore 1968, side 1, approx. 19 mins in. There's a classic McLuhan pun earlier in this remarkable record of *The Medium is the Massage*; 6:20 mins in, a different voice foreshadows the famous dictum quoted above, declaring, 'We shape our tools, and thereafter our tools *ape* us!'

lawmaking, or perhaps Senators and Congressmen (if you happen to be in the United States). A big-picture thinker might say something that casts a look beyond these institutional crystallisations of political process to the more abstract *function* of those activities; the creation and maintenance of a 'public sphere' wherein the social contract is constantly negotiated and renewed. And a yet more psychologically or anthropologically oriented response may focus on the distinctive types of human behaviour, the strategies and perils of power and persuasion, the goal-oriented scheming and interactions that, aggregated together, seem so thoroughly to characterise the 'political' mode of life.

Each of these ideas of politics, though limited, is valid as far as it goes. The institutional ones mentioned first describe the very obvious tip of a political iceberg, to which the more abstract functional and relational notions begin to add a less immediately visible, although more substantial, body.

These latter aspects, functional and interactional, open out on to a way of thinking about politics that locates it not in narrowly designated settings, but as being fully *distributed, relational, and always on*. By 'distributed', I am referring to something far more pervasive than just the forms of rhetoric or behaviour associated with the political manoeuvre. I am referring to the very conditions of perception and the way that all of our thoughts, behaviours, and preferences are constituted and nudged in various directions, often prior to awareness or the exercise of intent.

This take on the political is a version of what French philosopher Jacques Rancière has called the *politics of aesthetics*, which can be set in contrast to the other, self-evident, dimensions noted above, which we will call the 'politics of the obvious'. In this aesthetic conception of politics; 'Politics revolves around what is seen and what can be said about it, around who has the ability to see and the



talent to speak, around the properties of space and the possibilities of time.’<sup>256</sup> Rancière describes this subject matter as *la partition du sensible*, the ‘distribution of the sensible’, (which could perhaps be rendered in English more intuitively as the ‘distribution of the perceivable’, although we will stick with the standard translation here). The distribution of the sensible comprises ‘a system of coordinates defining modes of being, doing, making, and communicating that establishes the borders between the visible and the invisible, the audible and the inaudible, the sayable and the unsayable’.<sup>257</sup> In this view, then, a ‘political’ moment occurs when these boundaries are redrawn, and thus the sensible is *redistributed*.

The politics of aesthetics aligns with a particular way of understanding power which will come as no surprise to those familiar with critical theory, but which may be less familiar to other readers. In this view, described as ‘immanent’ by the critical French historian Michel Foucault; ‘Power is everywhere; not because it embraces everything, but because it comes from everywhere. ... [It] is not an institution, and not a structure; neither is it a certain strength we are endowed with; it is the name that one attributes to a complex strategic situation in a particular society.’<sup>258</sup> Things are always configured in such a way as to privilege certain interests while marginalising others; to make some ways of life, ideas, practices, or perspectives (etc) seem legitimate, normal, natural, or preferable, and at the same time to cast others beyond the pale. The effect of these pressures, however subtle or overt they may be, is to push people into certain kinds of life and out of others. This is relevant to us because it entails making some kinds of future more likely than others, whether or not ‘the future’ is explicitly mentioned. On the other hand, when the future *is* invoked, that is, in the production and circulation of images of the future, this also has profound political

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<sup>256</sup> Rancière 2004, 13.

<sup>257</sup> *Ibid.*, 89 (from translator Gabriel Rockhill’s Glossary entry for the term ‘Police’).

<sup>258</sup> Foucault 1978, 93.

implications; particularly in respect of those images of the future which are marginalised, or for that matter, those which are never even thought of in the first place.

Where any given image about the possible, probable or preferable future dominates -- whether it be (for instance) supporting technocratic notions about Western society,<sup>259</sup> or the ideology of 'development' in poor countries which casts the present of the 'first world' as *the future* for them<sup>260</sup> -- it entails the short-circuiting of debate, the foreclosure of options, the artificial, anti-democratic constriction of possibility space.

The sense of the term 'political' in this work will usually be to denote a Rancièrian politics of aesthetics, underpinned by a Foucauldian sense of power, rather than the (conventional) politics of the obvious, with its interest in the power that is thought of as being 'possessed' and 'wielded' in self-evident ways. This is not to devalue or overlook the latter dimension, but rather to assert that the field of futures ought to be (and often is) as concerned with the futures that are *not* available as it is with those that are.

It is of course appropriate and good, not to mention inevitable, that communities form; that patterns, rituals and preferences emerge within human collectivities. Indeed no community is imaginable without such tendencies -- these norms and their accompanying narratives. My point is not to deplore such tendencies per se (although when discussing power in the abstract it is all too easy to slip into a mode of critique which appears to resent, or even deny the necessity of, specificity of lived experience as such). The point, rather, is to make these and their consequences visible so they can periodically be evaluated for their

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<sup>259</sup> See Barbrook 2007.

<sup>260</sup> See critiques along these lines as raised in the work of futurists including Sohail Inayatullah, Ashis Nandy, and Zia Sardar, noted in the following section.

justness and suitability. I have long maintained that *tradition is habit on a pedestal*. Sometimes it belongs there, sometimes it does not. But the matter is not up for discussion if someone doesn't raise it.<sup>261</sup>

By using the word 'political' so broadly we do not crowd out other interpretations and disciplinary perspectives. However much this work supports her cause, we are not trying to help the politically-inclined activist to analytically 'own' this situation and exclude other views. Rather, with Rancière, we can posit a unity of politics and aesthetics which greatly expands the scope of politics so the nature and scale of the political stakes in world-making may be better understood. Note that our aim here is less to 'get Rancière right' than to use his ideas to pry open an alternative perspective that we can then use for our own purposes.

In this view, the 'political' dimension has two characteristics: first, it configures and performs power so as to elevate, privilege, and reward certain interests, perspectives, behaviours and agendas, and to suppress others, and second, it is mutable. Both conditions are necessary. Something that can change but that has no implications for human relations is not political. Something that has implications for relations but that is fixed and unchangeable is not political either. What does this include? Well, all human activity, to begin with. And human perceptions, including the uses of nonhuman activity. The weather was not political in this sense until it began to be possible to change it. The climate change debate is, then, the politicisation of weather, which is another way of saying, the humanisation, or intentionalisation of weather. The idea of throwing waste 'away' is revealed as political when we question the idea that there is an 'away', an outside to the system (an example discussed further in Chapter 4). Turning to the future as a domain, all sorts of unlikely, seemingly other-than-human phenomena have been read for omens or signs: animal droppings, tea

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<sup>261</sup> 'This is what dominant myths do: they make some sorts of behaviour ring with recognition and familiarity and value and a sense of goodness, and thus lay deep templates for social cohesion about what would otherwise be very hard-to-discuss topics.' Brian Eno quoted in Brand 2000, 49.

leaves, the flight of birds. Examples from remote times, places and cultures help clarify the notion that a political dimension can be found inherent, but latent, in all these things, and it is activated only by identifying and treating them as such -- as having implications for people's interests, and as being changeable. This definition is closely bound to ethical questions. The potential for an ethical 'should' is activated only by capacity, 'could'. Like power, the dynamics of which it effectively plots, politics is a property of social relations, including all meaning-making activity.

What this ubiquitous view of politics lacks in analytical rigidity it makes up for in immediacy, and the enrichment of perspective it makes possible: once we glimpse this other view, *of course* the political dimension need not be confined to the voting booth or campaign trail, but is thoroughly embedded and intertwined, or (if you prefer) 'immanent' in social life. To begin to look at the world in this way is *itself* a political moment, as is (recalling a point made in Chapter 1) one's introduction to alternative futures thinking: what they have in common is the attention to mutability, to that which is subject to change, and influence.

But why adopt such a diffuse, seemingly complex idea of politics? Certainly it's more demanding than the more familiar terrain of Congressmen, votes, and Machiavellian machinations; is this merely a question of intellectual taste for arcane notions? No, the reason to cultivate a distributed sense of politics is because it is a *more accurate reflection of the situation as we find it*, than is a simplistic conception in which politics is tidily cordoned off into its own area. The things that shape our lives are not resident solely, or even mainly, in the blunt tools of legislation and courtroom, but are deeply embedded in our patterns of perception, habits, and behaviours. This may be why revolutions rarely, if ever, succeed in their stated aims: even if the control of 'power' structures is transferred, changing the faces in government is a relatively superficial adjustment. As the citizens of many African states (for instance) have discovered

in the decades since their colonial governors physically departed, colonial patterns remain. The foundering of many a utopian project can be traced to a failure to understand the profound limitations on the extent to which cultural change can be legislated, or otherwise effected top-down.

Rather than the politics of institutions, the deliberate exercise of 'power over' -- all this being 'the politics of the obvious' -- we can cultivate a sensitivity to these other, more inclusive and far-reaching, yet less apparent, behind-the-scenes considerations that comprise 'the politics of aesthetics'. This is not, by the way, a claim that the politics of the obvious is irrelevant, or that it should be of no concern. Rather, I am saying that to this traditional conception of the political may be added a complementary 'aesthetic' perspective, which, like a superior toothbrush, reaches places that the other ones don't.

My work on politics was an attempt to show politics as an 'aesthetic affair' because politics is not the exercise of power or the struggle for power. It is the configuration of a specific world, a specific form of experience in which some things appear to be political objects, some questions political issues or argumentations, and some agents political subjects. I was attempting to redefine this 'aesthetic' nature of politics by setting politics not as a specific single world but as a conflictive world: not a world of competing interests or values but a world of competing worlds.<sup>262</sup>

We need not go all the way with Rancière, who seems to claim that politics *is* aesthetics, taking place on that plane only, rather than *in addition to* the more conventional and immediately recognisable instances of power's exercise. It may serve us better to regard the 'politics of aesthetics' as another, perhaps *prior*, register in which power works. Even if not exclusive, given the nature of our subject matter, it remains more important than the politics of the obvious. And it militates for a very different approach to theorising, as well as acting, politically. For one thing, it means that institutional, top-down theories and actions may be

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<sup>262</sup> Rancière 2003.

accompanied, and in some cases supplanted, by more subtle and practicable -- and yet potentially more effective -- forms of intervention.

Here's an example. For many years now, the flagship course of the University of Hawaii's alternative futures program (a Master of Arts in the Department of Political Science) has been in the design of political systems (POLS 673). Despite the fact that political systems are human inventions or designs, subject in principle to intentional redesign at any time, a systems-design perspective is almost wholly neglected by political scientists -- who, like lawyers (I was trained as one myself), are rarely encouraged to think of themselves as 'social inventors'.<sup>263</sup> The reader may rightly suspect that political systems design is an exceedingly difficult topic to write and think about well. It lends itself to requiring stupendous amount of comparative or synthetic scholarship (there being hundreds of political systems about which to amass knowledge -- or as is more often the case, ignorance). The form in which the bulk of relevant scholarship is presently conducted, then, is around the writing of constitutions, which is both historically overdetermined in favour of a US model, and limited, presupposing as it does the primacy of the written word, which is among the key assumptions that a truly inventive social inventor ought at least to have the capacity to leave behind.<sup>264</sup> The course as presently taught, then, relaxes the design constraint from the relatively narrow domain of 'constitution', or even 'government', to encompass *governance*. While this is certainly a fitting way to prime a would-be

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<sup>263</sup> On this idea, see the short article by Jim Dator, addressed to beginning futures students, 'Society as a social invention and you as a social inventor' (Dator n.d.) He exhorts us to cultivate our potential as social inventors, adding 'The closest example to what I have in mind here is probably found in the ways in which a faculty of architecture tries to help people to become good architects (in contrast to the way law schools teach people to become successful lawyers).' My most recent academic experience, a few years before arriving in Hawaii to start the MA program in alternative futures, had been finishing law school. It seems to me that a version of legal training oriented to cultivating the ethos and skills of a social inventor could be a very potent combination indeed.

<sup>264</sup> Although these University of Hawaii classes have been run by Professor Dator for several decades already, the first PhD candidate to focus on the general practice of 'political design' graduated less than a year ago, at the time of writing. (Lum 2009.) It is revealing of the difficulty of approaching governance in this wider frame that Lum's dissertation project on political systems design revolves around a comparative study of Constitution drafting.

futurist's capacity to embrace whole social systems, the enormous challenges of doing so, coupled with a broadened conception of 'political' proposed here, suggest another approach.<sup>265</sup>

Very rarely does anyone, absent war or some other cataclysm, have the opportunity to design and implement a political system from scratch.<sup>266</sup> More rarely still is the nonspecialist called on for such an activity. The design of novel governance systems, then, is a challenging and noteworthy thought experiment, but it is all but bound to remain just that. Politics, meanwhile, operates full-time, permeating the very fabric of our lives, every meal we eat, every day at work and every night in bed asleep.<sup>267</sup> When we regard politics as incorporating usually invisible operations of power, the meaning-making and *habitus*-shaping<sup>268</sup> incentives or constraints that extend well beyond the ballot box and the party platform; when we take to heart the by now long-established insistence on the

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<sup>265</sup> It may reasonably be asked whether the whole of society isn't perhaps too big a starting point. A few years ago I described the 'political design' course to a friend of mine in San Francisco whose profession is maintaining computer networks that run on an open-source software platform. He is thus quite a sophisticated systems thinker (and was originally trained in political science), and remarked that he'd be sufficiently impressed if the students could design a satisfactory system for managing parking spaces. He was not scoffing at their abilities, but simply making the point that designing systems is quite complicated, and challenging enough at the modest level of everyday problems.

<sup>266</sup> Although note that the number of countries that have promulgated new founding documents in the past decade (since 2000) is surprisingly long, running to around thirty instances: Afghanistan (2004), Bahrain (2002), Bhutan (2008), British Virgin Islands (2007), Burma (2008), Burundi (2005), Central African Republic (2004), Comoros (2001), Congo [Democratic Republic of the] (2006), Congo [Republic of the] (2002), Cote D'Ivoire (2000), East Timor (2002), European Union (various attempts throughout 2000s), Finland (2000), Gibraltar (2007), Holy See ['Fundamental Law'] (2001), Iraq (2005), Maldives (2008), Montenegro (2007), Qatar (2005), Rwanda (2003), Senegal (2001), Serbia and Montenegro (2006), Sudan (2005), Swaziland (2006), Switzerland (2000), Thailand (2007), Turks and Caicos Islands (2006). (NationMaster website.)

<sup>267</sup> After writing this section I noticed a resemblance in my choice of words to a speech in the 1999 film *The Matrix* by the character Morpheus, played by Laurence Fishburne. The 'matrix' provides rather an interesting metaphor for the operations of political power in the sense considered here. 'The Matrix is everywhere. It is all around us. Even now, in this very room. You can see it when you look out your window, or when you turn on your television. You can feel it when you go to work, when you go to church, when you pay your taxes. It is the world that has been pulled over your eyes to blind you from the truth.' (Wachowski and Wachowski 1999.)

<sup>268</sup> Bourdieu 1990, 52ff.

part of the feminist movement that 'the personal is political',<sup>269</sup> and the Foucauldian revelation of the *dispositifs* (apparatuses)<sup>270</sup> of power at the minute, 'capillary' scale; at this point we may begin to see the need for quite a different mode of engagement with the 'politics of aesthetics' (different from that called for in light of the politics of the obvious). We must elaborate engagements with culture directly, yet on a manageably tactical, rather than grandly strategic, scale.

This perspective was anticipated by Alexander Trocchi, the avant-garde Scottish novelist associated with the Beat generation, and later with the Situationists (about whom we'll hear more in Chapter 5 when we delve more deeply into futures-oriented activism).

We are concerned not with the *coup d'etat* [seizure of the state] of Trotsky and Lenin, but with the *coup du monde* [seizure of the world], a transition of necessity more complex, more diffuse than the other, and so more gradual, less spectacular. ... Political revolt is and must be ineffectual precisely because it must come to grips at the prevailing level of political process. ... So the cultural revolt must seize the grids of expression and the powerhouses of the mind. ... We have already rejected any idea of a frontal attack. Mind cannot withstand matter (brute force) in open battle. It is rather a question of perceiving clearly and without prejudice what are the forces that are at work in the world and out of whose interaction tomorrow *must* come to be; and then, calmly, without indignation, by a kind of mental ju-jitsu that is ours by virtue of intelligence, of modifying, correcting, polluting, deflecting, corrupting, eroding, outflanking . . . inspiring what we might call *the invisible insurrection*.<sup>271</sup>

Where Trocchi's contribution reads as punchy -- like the manifesto that it is -- there are alternative, less overt gestures one can make, that are meanwhile no less political, in terms of challenging the 'grids of expression and the powerhouses of the mind'.

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<sup>269</sup> See for instance Hanisch 1969; Tickner 1992, 18.

<sup>270</sup> Foucault 1980, 194ff.

<sup>271</sup> Trocchi 1963.



Members of the 1960s American countercultural collective the Merry Pranksters, led by Ken Kesey (who wrote the novel *One Flew Over the Cuckoo's Nest*, among other things), used to speak of themselves -- while rolling across the continent on a legendary acid-fuelled road trip in a school bus -- as starring figuratively in their own movie, one which would happily incorporate anyone willing to join the fun.<sup>272</sup> From time to time, this way of looking at things prompted the question, 'Whose movie is this?'<sup>273</sup> One's 'movie' is not just a narrative or script in life, but can be seen as including the perspectives, moods, logics, and frames of reference by which one lives. In the encounter between default reality and the Merry Pranksters' version of things, to stay in their own movie was not just about prolonging the trip, it was a contest of political commitment with far-reaching consequences. If the political dimension of everyday life can be said to consist, as we argue after Rancière, in the distribution of the sensible, then Prankster logic was about turning that on its head: the distribution, we might say, of the ridiculous.

Whether one adopts the programmatic, declarative Situationist approach, or the more orthogonal, performative Prankster approach, to intervene in the politics of aesthetics means to effect a change at the level of perception -- the playing field of the aesthetic. To couch our approach in terms of the triad of politics, design and futures, the relevant task could now be characterised less as the design of *political systems* per se, and more as the design of *interventions in systems* that are thereby rendered political; their inequalities exposed, suddenly contingent, mutable. I would argue that experiential futures interventions -- and especially 'guerrilla' ones, as described in Chapter 5 -- can be seen as exactly that.

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<sup>272</sup> 'It was a great secret life. The befuddled citizens could only see the outward manifestations of the incredible stuff going on inside their skulls. They were all now characters in their own movies or The Big Movie. They took on new names and used them.' (Wolfe 1969, 77.)

<sup>273</sup> Ogilvy 2002, 15. An extension of the metaphor is seen in Kesey's advice to comedian and author Paul Krassner, 'always stay in your own movie' -- a deceptively simple challenge. (Hager 2005, x.)

There are two final points to note before we move on to a fuller consideration of how this expanded 'political' applies in relation to futures and design.

The first is a potential concern about this definition of politics, namely that 'the distribution of the sensible' may appear superficial; it seems to be preoccupied with *what seems*. In other words, on the face of it, this would cover only the *apparent* things about a situation, thus bringing us back to the limited politics of the obvious through the back door. This, however, is a mistaken reading of the concept. The distribution of the sensible equally incorporates the *insensible* -- the unperceived, the unseen, the unsaid, the unthought, the occluded or marginalised -- as well as that which is placed front and centre.<sup>274</sup> It is precisely the selective attention paid to the obvious, 'natural' and 'inevitable' on the one hand, and the nonobvious, unacceptable, or supposedly impossible on the other, that is the central issue in this way of regarding the politics of the world. Likewise, to attend to this aspect of politics -- the hidden, the dissenting, the counterfactual, the potential -- does not mean to ignore the obvious, but to supplement it, in a widened state of politicised awareness; a 'world of competing worlds'.<sup>275</sup>

The second point is that this more capillary, distributed definition of politics, whose complexity we have already noted, paradoxically lends itself to *simplified* consequences for action. This is partly due to the fact that it relocates our focus from the the lofty bird's-eye-view of whole-system implementation, down to a level that acknowledges embeddedness in something larger, engaging it on a scale we can handle. Carrying off a revolution is invariably a tall order, but

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<sup>274</sup> '[L]e partage du sensible refers to the implicit law governing the sensible order that parcels out places and forms of participation in a common world by first establishing the modes of perception within which these are inscribed. The distribution of the sensible thus produces a system of self-evident facts of perception based on the set horizons and modalities of what is visible and audible as well as what can be said, thought, made, or done. Strictly speaking, "distribution" therefore refers both to forms of inclusion and to forms of exclusion.' (Rancière 2004, 85, from translator Gabriel Rockhill's Glossary entry for the term 'Distribution of the Sensible'.)

<sup>275</sup> Rancière 2003.

changing one mind at a time, while never easy, is at least manageable -- and has the potential to scale. The central implication for engaging politics in this form is that, rather than trying to change everything at once, you can act politically by beginning with a modest intervention in the aesthetic register. You can try to make some way of seeing or doing visible, thinkable, or otherwise available in a way that it previously was not.

On the basis of this conception of a distributed, aestheticised political, we now consider futures and design in turn to see how they look in this light.

## **Futures and design, considered politically**

### 1. Critical, political futures

If this is the best of all possible worlds, what are the others?

~ Voltaire <sup>276</sup>

In Chapter 1 we looked in detail at an *exploratory* mode of futures studies, set in a tradition of explicitly *normative* future-creation, the strains of the field which happen to be of greatest interest in this dissertation. When approached in this way, there is inherently, and quite properly, an element of the unusual, of the 'outside', of dissent, about futures. In fact, the tip-off is right there in the name: the pluralising 's' in futures is a perennial goad to generate alternative accounts of what the world -- or some subset of it, whether community, industry, discipline, or polity -- could become, rather than aiming to whittle away the possible until a singular, positivist hypothesis of the yet-to-be is perfected. We considered the possibility space of alternative futures in the dimensions of breadth and depth . Regarding breadth; we assume that the future is unwritten, and that the

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<sup>276</sup> Voltaire 2004 [1759], 14.

processes of change in the world are not fixed and deterministic (it is possible to disagree with this assumption, but not to prove otherwise), then the yet-to-be, so often poorly addressed can be pluralised into futures, and so made easier to grasp. We can think best about 'the future' in terms of futures, alternative possibilities. The other dimension is depth, difference, or otherness itself. Changes in time sooner or later render all things -- people, languages, practices, tools, landscapes -- strange, even unrecognisable.<sup>277</sup> As the late author of *2001: A Space Odyssey*, Arthur C. Clarke, memorably suggested, 'Any sufficiently advanced technology is indistinguishable from magic.' I do not wish to put a narrow, 'technological' complexion on historical change here, but simply point out the easily forgotten fact that everything has beginnings and ends; which makes all of it, considered on a sufficiently generous timescale, temporary, mutable, and, when you get right down to it, *deeply weird*.

In a nutshell, we could characterise the political essence of this form of futures as the problem of imagination. This is a foundational political issue, it seems to me, yet one that seems to be rarely acknowledged as such.

The whole project of critical theory is bound up with the capacity to envision and pursue an otherwise-configured world. I can put it no better than the critical historian of science, Donna Haraway:<sup>278</sup>

Critical vision has been central to critical theory, which aims to unmask the lies of the established disorder that appears as transparently normal. Critical theory is about a certain kind of 'negativity'-- i.e., the relentless commitment to show that the established disorder is not necessary, nor perhaps even 'real.' The world can be otherwise... Perhaps cracking open possibilities for belief in more livable worlds would be the most incisive kind of theory.

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<sup>277</sup> Incidentally, these conceptual dimensions of breadth and depth correspond approximately to the width and length of the cone diagram of 'possibility space' that we saw earlier.

<sup>278</sup> Haraway 1994, 62-63.

Critical theory is of course not the only approach to doing this, and making both the strange familiar and the familiar strange<sup>279</sup> is no one-off matter, but an artform requiring continual renewal. Sven Lindqvist: 'What is currently taken for granted is at any given moment practically impenetrable. It demands an extraordinary force of effort to realize that a thousand other "nows" were once taken just as much for granted, and that yet another thousand 'nows' that never were could be.'<sup>280</sup>

But while a critical perspective of the sort so ably practised by Haraway and many others may, at the level of principle, go hand in glove with futures literacy<sup>281</sup> -- which in this case means the ability to generate and perceive alternatives -- in practice, the former does not imply the latter. The elaboration of alternative worlds calls for a distinct set of intellectual and creative skills, and indeed it is the failure of these to propagate through our culture with sufficient urgency that motivates the experiential futures work on which this dissertation is based. In other words, it is one thing to claim that alternatives are available, but it is another thing to elaborate them specifically and convincingly. Just as Candide wondered, 'If this is the best of all possible worlds, what are the others?', so might we ask the critical scholar, 'If this is *not* the best of all possible worlds, what are the others?' A way to fill the ensuing silence -- the four generic futures approach to scenario generation -- was shown in Chapter 1.

The heart of the challenge, so far as imagining future change is concerned, does not lie solely in lazy thinking, idle conservatism, or some deficit of will (although all these no doubt play their part). There is a rather hairy metaphysical conundrum here, the 'problem of totality'. On what basis can we imagine things

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<sup>279</sup> This formula is so widely used that its origins are undecidable.

<sup>280</sup> Lindqvist 2001, para. 169. (Compare this to the aphorism attributed to *Chronicles of Narnia* author, C.S. Lewis: 'The present is also a "period".')

<sup>281</sup> Miller 2007; Boulding 1990, above, note 6.

being other than they are? What is our *evidence* for entertaining possibilities that are nowhere in evidence today?

Logically, it is not difficult to prove the unfixity of phenomena. Except for ideological blindspots (such as the Creationist's commitment to the earth being just a few thousand years old), one can readily see how everything that currently exists, at one time did not. It all grew from somewhere, and it is equally obvious that everything is bound to pass away, sooner or later. But such a cosmic perspective is clearly not where we spend most of our time, and in day to day life it is all too easy to assume continuities that have no particular grounding apart from the parochial narrowness of our temporal sample.<sup>282</sup>

We don't need the supreme (and difficult to maintain) distance of a cosmic perspective to grant that everything changes. The study of history affords a similar insight. Kurt Vonnegut: 'History is merely a list of surprises. It can only prepare us to be surprised yet again.'<sup>283</sup>

So we may grant the necessity or inevitability of change, but how can we *imagine a surprise*? How, in principle, can we specifically picture anything unprecedented? Surely -- you may insist -- anything we have to tell ourselves is merely recycled 'fact'? This sceptical line of argument is overstated. Our ability to imagine difference is undoubtedly imperfect, and limited, but we do have one, and it can be cultivated: indeed design, futures, and critical politics are all approaches to accomplishing just that. The urge to *predict* the future, to know it in advance, is an insoluble problem, but it is assuredly possible to develop an awareness of the *range* of possibilities, to inventory and contribute to the body of potential scenarios, to become more sensitive and alert to the novel and unusual,

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<sup>282</sup> It appears that several people have independently coined the term 'temporal chauvinism' to describe this phenomenon. See Candy 2007j.

<sup>283</sup> Vonnegut 1976, 226.

to nurture and hone literacy and fluency in a range of media, languages, and knowledges. That's what a capable (and at least minimally politically concerned) futurist aspires to do, and will accomplish always with mixed success.

What at first appears to be a problem of epistemology is revealed as a problem of imagination.

Not that not every self-labelled 'futurist' holds this view. It is common to find work springing from a positivist yearning to produce reliable 'knowledge' of the (usually dazzling, chrome-plated, technocratic) future, as any number of 'nonfiction' airport bestsellers and Discovery Channel specials attest. But it is not part of our responsibility to account for other people's abuses of the future. As we have seen above, the perspective taken and advocated here is located in a more critical tradition.

I am suggesting that futures is inherently pluralising, as well as defamiliarising, simultaneously bringing closer the potentially radical Otherness of worlds to come, and rendering the present strange.<sup>284</sup> But this is not enough to ensure that the practice can be considered critical in any significant sense. This is less an argument than the whiff of one; the details remain to be hammered out below. In order to make that connection work, it is necessary to deal with a few doubts hovering over the enterprise. Futures studies can at times be accused of being shallow, instrumental, or ideologically suspect.

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<sup>284</sup> Note proto-futurist Fred Polak's observation about the intrinsic 'otherness' of the future: 'Man [*sic*] is only able to conceive of the existence of The Other, the something which is basically different from the here and now, because his mental structure has a *dividing property* built into it. ... It is the capacity for mental division which enables man to be a citizen of two worlds, this world and an imagined world. Man builds himself another Realm to stand over against and contrast with the Realm in which he has his corporeal existence. Out of this antithesis between the imagined and the real, the Realm of the Future is born.' (Polak 1961, vol. 1, 17.) Theorist and historian Michel de Certeau makes a similar point: 'Modern Western history essentially begins with differentiation between the *present* and the *past*. ... A structure belonging to modern Western culture can doubtless be seen in this historiography: *intelligibility is established through a relation with the other*; it moves (or "progresses") by changing what it makes of its "other" -- the Indian, the past, the people, the mad, the child, the Third World.' (de Certeau 1988, 2-3, original emphasis.)

Such doubts must not be simply dismissed. Firstly, the elaboration of alternatives does not in itself presuppose or necessitate any kind of sympathy or shared ideology with the 'critical' theorist. Indeed, the pluralisation of possible futures can be instrumentalised towards ends that have little or nothing in common with those: in the futures field it is widely understood that the United States military is the world's largest single consumer of foresight or futures analysis. To make the point a little clearer; in principle the insights afforded by the examination of alternative futures can just as readily be deployed in the service of prevailing powers, ideologies and interests as against them; just as readily towards perpetuation of a (perhaps) repressive, unjust, exploitative, morally reprehensible program, as towards an emancipatory, progressive, humane one. The difference is simply in the framing: 'What alternative futures must we guard against?' versus 'How can we escape the imposition of a single future?'

Yet it would be absurd to hold the whole of futures studies guilty by association with those who take the former path. Each of us -- whether political analyst, novelist, economist, theoretician of any stripe -- deploys our work towards the ends we choose (or that choose us). Herman Kahn, supposedly the model for Peter Sellers's mad genius Dr Strangelove,<sup>285</sup> was indeed a pioneering futurist (some of whose formative contributions to the futures field were noted in Chapter 1), but then so was Robert Jungk, who escaped Hitler's Germany and went on to develop some of the first 'future visioning workshops' (as well as writing a landmark history of the development of the atomic bomb, 'hoping to contribute something to the great debate which may perhaps eventually lead to plans for a future without fear'<sup>286</sup>). Indeed, turning to examine the historical development of the field, precisely the opposite argument can be made: the foresight methods and scenario thinking developed in the corridors of the Pentagon and Royal Dutch/Shell in the first several decades of its existence, have been adopted and

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<sup>285</sup> Kubrick 1964.

<sup>286</sup> Jungk 1958, 341.



developed by various futurist academics and activists with the explicit aim of freeing other voices, views and hopes.

As for the reservation about shallowness, we can grant that this is indeed a problem in a good deal of futures work, but the rejoinder is invited: in what mode of inquiry or production, from exegesis to poetry to questionnaire to laboratory experiment, is this *not* the case? The accusation comes as neither a surprise nor a stinging rebuke if we bear in mind Sturgeon's Law, that 'ninety per cent of everything is crud.'<sup>287</sup> A more serious version of this concern could be that the field as a whole lacks theoretical rigour, and can therefore be 'critical' in only the most superficial or intellectually uninteresting of ways.

Now, the charge that futures studies is theoretically undercooked is a difficult one to answer, not because the shoe fits, but because the only possible way to be convinced otherwise is to spend time in conversation with its practitioners and literature, which many sceptics are (understandably, by virtue of their scepticism) unlikely to do. Where this criticism seems to hit home is in the fact that futures studies lacks a single founding text, and, not being a 'discipline' so much as an antidiscipline, a theme, a site of methodological experimentation and, above all, a lived practico-theoretical orientation, its antecedents are scattered. Moreover, its key *attitudinal* ingredients to me seem most often to be absorbed osmotically, even among students of formal academic futures programs.<sup>288</sup>

This generalist or transdisciplinary nature, ideological and methodological variety, and lack of unitary commitments make it difficult to orient oneself within the field. Moreover, it operates from within an unfamiliar, post-Enlightenment paradigm with respect to the sort of 'knowledge' it comprises, perhaps best characterised in

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<sup>287</sup> Sturgeon's Law, Wikipedia entry.

<sup>288</sup> Note that a progression towards 'influence optimism' regarding alternative futures may be seen as a crucial mode of political engagement emerging from 'doing futures' (described further in the Conclusion to this dissertation).

terms of the 'participatory' paradigm under development within Action Research.<sup>289</sup> As one scholar has noted, 'the gazer into the future has never yet found a really comfortable intellectual position, and perhaps never should unless, that is, he is a preacher'.<sup>290</sup>

My own favourite definition of futures as an intellectual tradition comes from the Indian scholar Ashis Nandy, who says:

Over the years, I have become aware that futures studies span a wide range, from technically sophisticated trend analyses and statistical projections to highly qualitative constructions of possible scenarios of the future, from the local to the global, and from techno-institutional to the cultural-psychological. And some of these types have nothing in common with each other; they cannot be even made to converse.

For me, *futures studies are basically a game of dissenting visions*. They are an attempt to widen human choices, by reconceptualizing political, social and cultural ends; by identifying emerging or previously ignored social pathologies that have to be understood, contained or transcended; by linking up the fates of different polities and societies through envisioning their common fears and hopes.<sup>291</sup>

The sense in which futures can be taken to be critical, then, is that -- when carried out publicly, and towards the project of *multiplying* rather than diminishing or foreclosing possibilities -- it serves as a constant reminder of the contingency of today, provides a series of alternative standpoints from which to re-perceive (and so critique) the present moment, and affirms implicitly, if not expressly, the responsibility of each of us in pursuing preferred possibilities, while forgoing or avoiding others.

True critique, I maintain, lies not merely in dismantling a dominant position, but in the *affirmation of alternatives to domination*: in this way, not only is futures

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<sup>289</sup> Reason and Bradbury 2001; see also Guba and Lincoln 2005. For an examination of the relationships between action research and futures studies, see the special edition of the journal *Futures* (vol. 38, no. 6, August 2006) edited by Jose Ramos and Sohail Inayatullah.

<sup>290</sup> Slaughter 1999, 212.

<sup>291</sup> Nandy 1996, 636-637 (emphasis added).

studies quintessentially 'critical', but it invites a mobilisation of critique and a politicisation of the observer.

As the Islamic scholar and futurist Ziauddin Sardar has written:

Future studies is largely about thinking the unthinkable. Only when we dare to think the unthinkable can we break out of the straightjacket of established trends and trajectories; and only by divorcing ourselves from the dominant trends within the global system can we hope to shape viable and desirable futures. In so far as theory and research in futures studies is about 'unthinkable thoughts', about new departures and new destinations, it is about dissent.<sup>292</sup>

Sardar is no doubt aware that it was no less a pillar of the military-industrial establishment than Herman Kahn who popularised the notion of 'thinking the unthinkable', in his work in the early 1960s on thermonuclear-war-fuelled 'megadeaths'...<sup>293</sup> Yet regardless of Kahn's ideological preoccupations, which neither I nor Sardar share, we all three make the same point: people can and should indeed cultivate a habit of 'thinking the unthinkable'. The difference is one of rationale -- constantly to expand horizons, generate new possibilities, and pursue preferred worlds, rather than to prop up existing ways of ordering things. I am most interested in the use of futures for the purposes of dissent (as articulated especially by Nandy and Sardar). The academic or scholarly futurist in particular has an opportunity to do this without necessarily being stuck in the service of vested interests. Such has long been the ideal of academic freedom of inquiry; it is at least as true and important in futures as anywhere else. This may, however, be one reason for the scarcity of academic futurists.

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<sup>292</sup> Sardar 1999a, 139.

<sup>293</sup> Bell 2003 [1997], 30-33. In his Cold War context, this use of the term 'unthinkable' seems rather disingenuous -- seeming very much like a ploy, whether cynical or obsessive, or both, to have people think about fearful scenarios of World Wars III through VIII, the fearsome prospect of which helped bolster the political and military power of their proponents, like Kahn (echoed many times since, but most obviously four decades later in the neo-conservative use of the spectral 'mushroom cloud' to secure support and compliance in the 'war on terror'). In any case this use of 'unthinkable' as a synonym for dystopia is a forerunner of Sterling's use of it as quoted in our Introduction.

So there is perhaps no better example than this redeployment of Kahn's slogan towards entirely different purposes of the way in which futures studies enables the inversion and subversion of the domination-seeking institutions and interests which stand as some of its key historical tributaries. Throughout its life so far, the field has continued to be loosely defined, and enormously accommodating of divergent ideas, which to be sure is a source of strength as well as weakness, but in any case enables it to persist in meeting, as Nandy has it, 'the challenge of futures studies': 'to keep open the option of a plurality of dissent, too, partly by articulating it in a language that will not be fully comprehensible on the other side of the global fence of academic respectability'.<sup>294</sup>

The above argument does not imply that 'critical' futures is being claimed here as a *new* idea. I wanted to start from first principles to show how critique can be built in to the effort, regardless of the use of the term by those before me. However, in an article first published in 1984, former academic (now consulting) futurist Richard Slaughter wrote 'An Outline of Critical Futures Studies', labelled such 'in part to declare its relationship to critical theory, and also to suggest a similar ideal of self-reflection and self-analysis'.<sup>295</sup> He adds: '*there is simply no neutral standpoint outside history upon which the futurist can stand.*'<sup>296</sup>

Interestingly, this last point echoes almost verbatim a sceptical remark made to me by a professor in the Department of Political Science during our first ever conversation. I went on to pursue both an MA and a PhD in this focus area, and in the intervening years I have grown intellectually confident enough to offer the following reply: (a) this difficulty is not the fault of futurists (however soft minded or naïve some of them may in fact be) but rather an inescapable product of the recalcitrance of our subject matter, and (b) far from nullifying the possibility of

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<sup>294</sup> Nandy 1996, 638.

<sup>295</sup> Slaughter 1999, 221.

<sup>296</sup> *Ibid.*, 220 (original emphasis).

inquiry, this provides an extraordinarily rich starting point, because each alternative future is in effect a (more or less well thought out, more or less well articulated) value-laden, personal account of social change, which -- however fantastical on the one hand or pedestrian on the other, has concrete, 'productive' impact.

The future, then, is literally *as political a domain as it is possible to imagine*; and alternative futures as a field of study articulates perfectly with a 'critical' political understanding.

Sohail Inayatullah has offered a version and vision of 'critical futures' which differs from Slaughter's in several respects, but the scholarly agenda of which is fully compatible with what I have sketched so far. For him the central goal of critical research is:

to disturb present power relations through challenging our categories and evoking other places or scenarios of the future. Through this historical, future, cultural and civilizational distance, the present becomes not only less rigid, but remarkable. This allows spaces of reality to loosen and new possibilities, ideas, and structures to emerge.<sup>297</sup>

The self-aware futures practitioner cultivates a sensitivity to her own position and values in the inquiry process, and seeks to enable others to excavate their own, parallel, commitments. Whether the task involves confronting residents of an historic urban district with the unexamined possibility of local businesses being ousted to make way for national chains and the juggernaut of 'gentrification'; or suggesting to tourism industry representatives that the still-inchoate Hawaiian sovereignty movement may one day soon lead to a rejection of United States occupation and a reestablishment of the traditional *ahupua'a* as an ecologically-aligned unit of governance; or urging Korean authorities to contemplate the possibility that a much-feared downward trend in population may provide

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<sup>297</sup> Inayatullah 2004, 7.

unimagined advantages in the long run (all these are examples of projects I've worked on), the future provides a mainline to many matters about which people care most, and thus contains keys to a critical adjustment of perceptions and sensibilities.

We can extend the notion of the 'politicality' of futures by considering it as a technology of 'decolonisation', a metaphor which invites us to find a parallel between certain uses of futures thinking and the critical role of postcolonial theoretical perspectives. In a 1975 article, Dator wrote:

[I]n spite of our recent 'futuristic' trappings, we really are still a very backward society. Indeed, we seem to be becoming more backward rather than less as existing power structures gain greater control over the future, while 'the peasants' remain in ignorance and structural impotency. We discover that we are being colonized in what truly seemed to be 'the last frontier: the future'.<sup>298</sup>

This appears to be the first time of the notion of 'decolonisation' was applied to the future. Other futurists have also alighted on the idea. Sardar opens the 1999 multi-author collection of essays, *Rescuing All Our Futures*, with his own article, 'The Problem of Futures Studies', which begins with this declaration: 'It is simple. The future has been colonised. It is already an occupied territory whose liberation is the most pressing challenge for the peoples of the non-West if they are to inherit a future made in their own likeness.'<sup>299</sup>

For Sardar, a Western-dominated, technocratic futures studies is implicated in the project of 'globalisation' -- including its political (liberal democracy) and economic (capitalism) strands -- that is destroying the capacity of the 'non-West' to imagine, let alone actively pursue, a future of its own.

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<sup>298</sup> Dator 2005 [1975], 102.

<sup>299</sup> Sardar 1999b, 9.

With him, then, we have not ‘decolonisation’ as a metaphor broadly construed as in Dator’s use of it, but a fairly literal argument that the Western history of colonisation (of the ‘non-West’) continues, temporally and conceptually, into the future. Since this history is the source of the metaphor, we should take a moment to appreciate it a bit more.

Though more graceful where Sardar is strident, Nandy has argued that the central institutional apparatus of modernity -- including the nation-state, science, and even history itself -- are all necessary targets for a social criticism addressing the needs of contemporary victims.<sup>300</sup> He makes an eloquent case for repressed (non-Western, or more particularly non-modern) cultures to assert their own values and categories. Modernity’s categories and systems of knowledge function, says Nandy, to bring about the ‘theft of distinctive futures’.<sup>301</sup> Indeed, a powerful argument has been mounted that the colonial project continues unabated in the guise of ‘development’, wherein the *present* of industrialised economies is figured and ‘vended’ (Nandy’s vivid verb) as the *future* of developing countries. Inayatullah has used the phrase ‘used futures’, extending the metaphor of a corrupt transaction in which the dominant culture sets the terms of the deal.<sup>302</sup>

From this constellation of troubling ideas, Nandy’s analysis most gives me pause for thought. A psychologist by training -- although his works cover much wider territory, in disciplinary terms -- he argues that the experiences and pathologies of oppressor and the oppressed are inseparable. (We could call them symbiotic syndromes.) His essay ‘Towards a Third World Utopia’ highlights the ‘continuity

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<sup>300</sup> Nandy 2004a.

<sup>301</sup> Nandy 1996, 639.

<sup>302</sup> See Inayatullah 2008. It is worth noting here that the trio of South Asian scholars so far mentioned -- Inayatullah, Nandy and Sardar -- are among the most insightful ‘critical’ voices circulating in the futures field. There at least three more worth adding to the list: Rakesh Kapoor, Vinay Lal, and Shiv Visvanathan. The region seems to have contributed disproportionately generously to this strain of futures-oriented thought.

between the victors and the victims'<sup>303</sup> and the damaging 'refusal to take full measure of the violence which an oppressive system does to the humanity and to the way of life of oppressors'.<sup>304</sup> Nandy is no apologist for colonialism, but I am persuaded by his argument that its apparent victims, the colonised, are not the only ones adversely affected by the experience.

What does this mean for 'decolonising' futures? It means, I think, that 'decolonisation' is not solely a problem for those most readily labelled as victims. It also means, I suspect, that the reassertion or *revival* of traditional, nonmodern knowledge categories and understandings may not be enough. The mere inversion of existing patterns of domination, giving Western imperialists their turn under the thumb, is unlikely to be the best option. First, it may well be impossible -- since you can't just swap out one episteme for another like so many lightbulbs -- and in any case, this would simply exchange one colour of cultural corruption for another.

When it comes to futures, as I have said above, decolonisation is a metaphor. It is a powerful and useful one, to be sure, but it is a metaphor all the same, and we need to be aware of what this means. Cognitive linguist George Lakoff: 'Metaphors have entailments; they map source domain reasoning to target domains. If one is not careful, the metaphorical entailments may be hidden and go unnoticed, but they will have effects if the model is actually used as the basis for policy.'<sup>305</sup>

What does a 'decolonisation' metaphor entail when applied to times to come?

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<sup>303</sup> Nandy 2004b, 445.

<sup>304</sup> *Ibid.*, 446

<sup>305</sup> Lakoff 2009, 212. A particularly penetrating analysis of metaphor's simultaneous effects of enabling and constraining meaning, with reference to specific arguments by Dawkins on the one hand, and Deleuze and Guattari on the other, is provided by Hayles in an excellent article examining their contrasting rhetorical strategies, describing 'posthuman' subjects, respectively the 'selfish gene' and the 'body without organs'. (Hayles 2001.)



Colonisation involves spatial occupation, and *de*-colonisation implies a physical departure or evacuation of space. But this does not fit when it comes to a domain of ideas and images. Even if pure effacement of the offending 'colonial' ideas were possible, it is not clear that it would be desirable, as we shall see in a moment. Indeed, even where actual territory is at issue, as in geopolitically, physically getting rid of the colonising agent is no guarantee of the end of the colonial project; as the last several decades of world history clearly attest. The relevance of colonisation, it seems to me, consists in the establishment, maintenance and exploitation of *patterns of domination*.

The future happens, whether or not we explicitly address it as a category of thought. A decolonised future is not, therefore, *an empty space*. In other words, we cannot successfully decolonise the future by refusing to think about it; that is precisely the route to ensuring that it will remain colonised by 'common sense' reinscriptions of the status quo. Ideological impostors of all shapes and sizes steal into the vacuum. Nor can we plausibly entertain a 'culturally pure', decolonised future in which the differences and dissent of our Others have been wished away: such a breed of Utopia is the stuff of which the worst 20th century nightmares were made. Given that our ideas about the future do ultimately need to map on to a shared, global, physical space, and given that vast differences of worldview (against all odds, perhaps) persist; paradoxically, when it comes to the future, *decolonisation* can be best found in plurality.

This same argument is perhaps the best rejoinder to the doubts I periodically entertain about the value of examining futures explicitly, as opposed to 'living in the present' and letting the future take care of itself (as the Taoist in me would insist). I see no way around the critical political necessity of engaging the future directly, but the next question is whether, or to what extent, we all need to do it, or if only some of us do... which is a close relative of the question posed in Chapter 7 of this dissertation. How inbuilt to culture and 'ambient' the capacity for

foresight be made?

If colonisation is the inscription of patterns of domination, then decolonisation of the future entails identifying and challenging these patterns, and providing multiple viable alternatives. I repeat, *pluralisation of the range of plausible futures is the key to decolonisation*.

The decolonisation process does not stop at 'critique', but actively elaborates and enables alternative, actionable perceptions. As Jungk says in his introduction to *Future Workshops* -- a handbook describing the futures method that he founded:

I was a victim of Hitler's regime, leaving Germany in '33. I felt powerless about the holocaust, although I was one of the first to know about it. Living as a refugee in Switzerland during the war, I tried to persuade foreign correspondents to write about it, but they did not believe me that people were being murdered in their thousands -- at that time I did not know it was millions -- they thought it was a propaganda lie. This game me a feeling of powerlessness. Ever since then I have looked for ways that people can fight back and influence the course of events.

The future workshop is such a way. It helps people to develop creative ideas and projects for a better society. For trying to resist something is just part of the story. It is essential for people to know what they are fighting *for*, not just what they are fighting against.<sup>306</sup>

Developing alternative visions of the future in both dimensions noted earlier (breadth, variety, mapping the scope of agency and contingency, as well as depth, the vividness of detail, the challenge of strangeness) is, then, a *decolonising* practice that embodies and mobilises a perpetual critique of the present, and the pursuit of better things.

It is perhaps no coincidence that one of the great postcolonial scholars, the late Edward Said, provided a image with which we may think the value of alternative futures.<sup>307</sup>

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<sup>306</sup> Jungk and Müllert 1987, 5.

<sup>307</sup> Said 1984.

[The exile has a] plurality of vision [which] gives rise to an awareness of simultaneous dimensions, an awareness that -- to borrow a phrase from music -- is contrapuntal. For an exile, habits of life, expression, or activity in the new environment inevitably occur against the memory of these things in another environment. Thus both the new and the old environment are vivid, actual, occurring together contrapuntally.

What Said says of the exile might equally be said of the futurist. The crucial difference between the exile's counterpoint and that of the futurist is that the former, being based on nostalgia,<sup>308</sup> is tinged with regret, while the futurist's, being based on what has been called 'aiglatson' -- yearning for the future<sup>309</sup> -- may be coloured more by hope, or better, by a *sense of possibility*, in contrast to the exile's impossible dream of return.

A further important feature of the futurist's perspective stems from the fact that, for any given present, she can generate not just one, but *many* alternative futures in counterpoint. The generation of alternative futures, then, provides a series of virtual standpoints from which to critique (or for that matter *appreciate*) the present, and principles of action to act within it. Thus each theory or account of

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<sup>308</sup> An interesting contrast to Said on the contrapuntal awareness of the exile: Nassim Nicholas Taleb, in his highly readable book dealing with the psychology of future-orientation, *The Black Swan*, discusses his own experience with this mode of thought. Himself an exile from Lebanon, as a result of the Civil War there, Taleb came to scorn the excessive nostalgia which he found to permeate the attitudes of his fellow exiles. 'I decided to avoid the exile's obsession with his roots (exiles' roots penetrate their personalities a bit too deeply), I studied exile literature precisely to avoid the traps of a consuming and obsessive nostalgia. These exiles seemed to have become prisoners of their memory of idyllic origin—they sat together with other prisoners of the past and spoke about the old country, and ate their traditional food while some of their folk music played in the background. They continuously ran counterfactuals in their minds, generating alternative scenarios that could have happened and prevented these historical ruptures...' (Taleb 2007, 9.) Here the usefulness of the exile's 'contrapuntal' mindset is contested.

<sup>309</sup> The term 'aiglatson' is a neologism which means 'yearning for the future', and it has been used by Dator as an embodiment of the ideal attributes of a futurist: 'to symbolize the yearning for things to come; revering the future; without being disrespectful to the past (remembering that once it was all that was humanly possible), preferring the dreams of the future to the experiences of the past; always desiring to try something new; to go where no one has ever gone before in all areas of human -- and non-human, and, soon, post-human -- experience.' (Dator 1996b.) Dator says that the term came to him from Gabriel Fackre, formerly of the Church of the Crossroads, Honolulu. A recent newsletter by Fackre and his wife Dorothy sheds a little more light on its origins: 'Back in 1969, Dot, then a button and banner-maker, invented the word "aiglatson." It became so popular as a button that the World Future Society wrote an article about it. Aiglatson is nostalgia spelled... "forwards." Live toward the Not Yet!' (Fackre and Fackre 2007[?].)

'what could eventuate' is offset against the observed present, such that the present may be 'read' -- or better, 'experienced' -- not just contrapuntally but *polyvocally*; with each voice adding to a sense of possibility and action that is at all times, multidimensional.

To sum up, our analysis in this section has applied a 'politics of aesthetics' lens to futures studies, finding in it an inbuilt criticality, perceptual 'decolonisation', and contrapuntal awareness in the elaboration of alternatives. However, we need to acknowledge that none of this guarantees a transformation in the perceptions of those with whom the futurist or her work comes into contact. The fact that these potentials are available, and that futures appears singularly (or even multiply) well equipped to realise them, is neither here nor there if one's interlocutor is a stubborn client, distracted student, or ideologically-driven audience member. It is quite possible to remain unmoved by an encounter with futures thinking, an admission we shouldn't mind making because it is no less true of any other (non-pharmaceutical) technology of perception, work of art, or discursive act. What we can affirm with certainty is *what it does for the person practising it*. As this form of foresight-plural is cultivated, whether by an aspiring or self-labelled 'futurist', or by anyone else, it begins to produce a markedly different political subjectivity.

In this view, then, futures affords us the means to come to grips with an important and seriously under-utilised site of political engagement, revealing the future as essentially mutable, and at the same time opening up its potential dimensions of influence -- two features of the 'political' which go hand in hand.

Now, what about 'design': how is it political?

## 2. The politics of design

This section examines design, writ large, with the politics of aesthetics in mind. It is divided into two takes; one looking from the intent and ideas towards materiality or outcomes, the other perspective cast in the opposite direction. I am not a trained designer myself, thus what follows may seem haphazard to those with more orderly and canonical conceptions, but I trust that it will ring true nonetheless, as we consider just how politically vital all design activity is.

### A. Take One: Design as a signal of human intention.

Our starting point for investigating the political dimension of design comes from the American architect William McDonough, who says that 'Design is the first signal of human intention'.<sup>310</sup> This tidy aphorism is probably his best known statement, but it seems a bit enigmatic out of context, more provocation than definition.

McDonough's view is neither entirely original, nor complicated to state, but it has far-reaching ramifications. He wrote a book about it, *Cradle to Cradle*, with German chemist Michael Braungart.<sup>311</sup> The 'cradle to cradle' concept is a biomimetic (nature-imitating) design principle, a coinage and notion set in contrast to what they describe as the 'cradle to grave' approach of material culture in the industrial era: produce something, use it, then throw it away. The last several hundred years of industry in this mould have in recent decades been revealed as having had a systemic and cumulative ecological impact, ultimately affecting ourselves and most, if not all, other species, through the production and distribution of mined, processed and manufactured materials not previously part

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<sup>310</sup> William McDonough and Partners, company website, Design philosophy. Accessed 18 May 2010.

<sup>311</sup> McDonough and Braungart 2002.

of the biosphere in that form. The habit of throwing waste 'away' is becoming unacceptable, because in a closed system, there is no 'away' -- it's just that the consequences happen to occur out of sight; elsewhere and later. Therefore, as we have come to understand the finiteness and boundedness of the larger system of which we are part, argue McDonough and Braungart, to continue in current patterns and habits has become irresponsible.<sup>312</sup> This ethical moment in the argument is worth underlining: when previously unintended and unseen consequences come to be realised -- for example, the deterioration of certain shoe sole materials being linked to brain death<sup>313</sup> -- the patterns of behaviour behind them acquire a different valence. What was acceptable by dint of ignorance, is acceptable no longer in this new light: outcomes unintended but unknown, effectively become intended if continued once known; a 'strategy of tragedy' that cannot be defensibly continued. Hence the notion that design signals intent: We designed our way into this mess, we must design our way out.

This ethical moment is also a *political moment* par excellence in our 'aesthetic' terms. For this other-worldly 'away', where we previously supposed our waste was going, does not actually exist in a finite system. The waste is bound by the laws of physics to exist somewhere still, under a sort of law of conservation of garbage.<sup>314</sup> This 'end of away' exemplifies a dramatic redistribution of the sensible, with the previously invisible, unthought, or ignored consequences of certain patterns of production and consumption coming forward to demand an adjustment to priorities and actions.

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<sup>312</sup> All this could of course be seen as a (belated) design-inflected response to the Club of Rome's global 'problematique'. See Meadows *et al.* 1972.

<sup>313</sup> 'Current rubbers for shoe soles and so on have lead stabilisers which means that if you abrade them you're leaving behind brain death for children.' (McDonough 2001.)

<sup>314</sup> In the virtual domain of Second Life, there is a term 'persistent world', describing the fact that it is set up in such a way that things left behind will not disappear when you leave them. Physical reality is much the same way -- things do not simply cease to exist when you stop paying attention to them.

I encountered McDonough's work three or four years ago when first getting acquainted with design practices. Stewart Brand's excellent book *How Buildings Learn* had for me awakened an interest in architecture by giving buildings *temporality*; the impression of designing for appearances never interested me much.<sup>315</sup> And what drew me to design -- broadly defined, such that architecture for example is a subset -- was that it fused theoretical with practical questions; as well as the functional with the aesthetic. (Here 'aesthetic' is meant as I understood the term at that time; conventionally.) By definition, designers were responsible for creating things, for intervening concretely in the world, remaking it here and there, in however grand or modest a way. McDonough's idea of design as a 'signal of human intention', and its ethical corollary, that legacy habits need to be re-examined in light of current knowledge and responsibilities, interlocked at a deep level with what I think futures studies says of the world in general. Alternative possibilities exist, and failure to act is also a choice, in effect, for the momentum of the status quo.

Seen in this light, as a site of implementing intentions, design is profoundly political, in the ethically-freighted sense we have considered above.

Further to the theme of design as mobilising intention, my favourite definition of it was suggested to me a year or two ago by an interior decorator at a design firm cocktail party in Honolulu's Chinatown. Her idea of design was this: 'optimisation within constraints'. Every project I have ever been involved in that could possibly be called design -- the outcomes of which have varied from a class syllabus, to a commercial shopfront, to a road trip itinerary, to a Rube Goldberg machine -- meets this definition. Of course, a good definition should not only include everything that belongs; it should exclude things that don't. To my mind, optimisation within constraints implies a care, planfulness or calculation (loosely speaking) at the level of the 'rules' themselves that would tend to exclude the

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<sup>315</sup> Brand 1994.

fully rehearsed, reflexive, or expressive: most arts, the playing of sports, music or games, or ritual. To *create or substantially modify* such things would be an act of design, whereas to repeat a known action or carry out a performance, however skilfully, would not.

This characterisation is, we may admit, not very definitive: for instance, does *writing* count as a design process? How large does a variation have to be from a repeated action or pre-existing plan before it becomes a work of design? And so on. Then let me add: design is foremost a practice, or process, to which what is said and written about it serves a supporting function. To define it, for me, is about clarifying its core elements and thereby to assist in engaging that process. What is called for in a definition of 'design' is thus very different from, say, a definition of 'taxable income', or 'sin'. Unlike most theological or legal examples, much less is riding on how precisely how 'design' is understood and defined in language, even by practitioners, than on how it is carried out (although the latter will to some degree reflect the former). Establishing a rigid perimeter or limit to the concept, as opposed to characterising its centre as I have tried to do, is not only redundant, but may be harmful to the creative dimension of the work.

So what insight, then, does this duly relaxed (perimeterless) characterisation of design afford? Evidently both 'optimisation' and 'constraints' are contextual or situational characteristics rather than absolutes in any sense. The first part implies the approach of an ideal, the second refers to the circumstances in which the approach is attempted. 'Constraint' should not necessarily be taken to connote frustration -- for constraints are also enabling.<sup>316</sup> (Gravity may stop you from jumping as high as you might like, but it also stops you from disappearing into the atmosphere.) 'Constraints' refers simply to conditions that cannot be removed at the whim of the designer, and must therefore instead be creatively

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<sup>316</sup> See Hayles 2001, on 'enabling constraints' in relation to the use of metaphors for understanding. Here I am suggesting that this idea -- what constrains simultaneously enables, and vice versa -- can be applied as a broader principle, in design situations.



and pragmatically accommodated. The notion of optimisation within constraints as it applies here will be seen more clearly with the help of some examples.

The kind of design I have in mind here is not that usually conjured by the word in everyday speech. 'Design' seems most commonly to be associated with ordinary household objects such as teapots and chairs. There is a simply vast literature, and an even vaster body of practice, associated with this area, which accounts for a significant chunk of human enterprise. As the late American designer Paul Rand (best known for his corporate logos -- ABC, IBM, UPS, Westinghouse) famously averred: 'Everything is design. Everything!'<sup>317</sup> We might, indeed, make a precisely parallel claim based on the politics of aesthetics visited earlier: 'Everything is politics. Everything!' Nearly 40 years ago, the American multidisciplinary designer Charles Eames was asked, 'What are the boundaries of design?'. He replied, 'What are the boundaries of problems?'.<sup>318</sup> These are not merely grandiose pronouncements to make designers feel good about themselves; in fact, they could be taken to signify an acknowledgement of the dauntingly profound, but also inescapable, extent to which humanity is responsible for its own situation.<sup>319</sup>

Moreover, of course, this far-reaching conception of design maps on to the contours of our 'politics of aesthetics'. The two can be intimately related: they both regard the world as fundamentally subject to change, to reinvention. Design and politics may or may not be 'everything', but anything political can surely be seen as a matter of design, and vice versa. Ideas of 'intent' and 'optimisation' are as politically loaded as it is possible to imagine, implying pursuit of a normative agenda -- which comes from *somewhere* -- and a set of underlying values. Whatever the outcome may be of mobilising that agenda and those

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<sup>317</sup> Kroeger 2008, 1.

<sup>318</sup> Charles and Ray Eames, cited in Burns *et al.* 2006, 8.

<sup>319</sup> On this point see Dator 1997; Anderson 1987.

values -- and it could in any given example be completely the opposite of what was intended, and the point I am making would still stand -- *their pursuit is an intrinsically political act.*

The description above comes at the relationship of materiality/expressed effects from the *intention* standpoint. Our next take on the politics of design, below, comes at this idea from the opposite end -- working backward from materiality to deduce ideas and intentions. This perspective contains a few more moving parts and will take more space to elaborate.

## B. Take Two: Design as reshaping the material world

Even on the most narrow, materialist of conceptions -- dealing less directly with ideas and perceptions engaging the political as defined above -- design is bound to be just as political as we found futures to be, if in different ways. I want to suggest how designed artifacts and systems can be regarded as an extension, or embodiment, of discourse. In other words, here we consider a view that discourse is not something that happens in mind and language alone, swarming and circulating around inert matter, but that it is in part figured, congealed, reflected and embodied in materiality.

We should begin by acknowledging that our 'problem' of reuniting these opposites is one native to the tradition of Cartesian dualism, rather than inherent in the nature of things themselves. That is, the common-sense, seemingly self-evident idea that discourse occurs, or ideas are conveyed, via language only, and that the physical world provides merely a backdrop, is a myth. It is twin of the myth that mind/reason and body/emotion are basically separate, addressed in Chapter 2. The idea of design and materiality having a discursive dimension is therefore *remedial*: it is intended to restore the continuity, complementarity and complicity -- which has really been there all along -- between what we say and

what we do, and the situations and objects with and around which we say and do things.<sup>320</sup>

By no means do we claim that the line of thinking seeking to unify the ideational and the material is new; many before me have noticed that the conventional distinction between substance and language is, if not downright illusory, then certainly overdrawn. The reason we take it up here is to explore what kinds of activity this insight enables, once properly digested, in terms of putting more sophisticated, accessible, numerous, and provocative ideas about both design and futures into play.

Let us briefly sketch out six alternative approaches to this ‘figuration’ of materiality as a discursive and political force. The last of these we will then examine in more detail, providing a very clear example of the political stakes of design.

One: a century and a half ago, Marx proposed a notion of commodities as ‘merely definite quantities of congealed labour-time’.<sup>321</sup> Similarly, though much more recently, there has emerged a notion of ‘embodied energy’, which describes the amount of energy that was used in the making of a product.<sup>322</sup> The last few years have also seen the rapid uptake (thanks to a contagion of belated ecological guilt) of a concept derived through the same logic, the ‘carbon footprint’.<sup>323</sup> These are symptoms of quite complex *systems thinking* beginning to

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<sup>320</sup> The psychologist David Krech used the playful term ‘perfink’ to effect a similar reconciliation, remembering that we perceive, feel, and think at once. It’s a funny word, of course, but also a much closer fit with what actually goes on than the three separate verbs. (Bruner 1986, 69.) The drift between language and reality, which hardens into subsequent perceptions, is captured rather well by Edward de Bono (a great advocate of design and creative thinking, and of the corollary need for linguistic inventiveness): ‘Language is a museum of ignorance.’ (de Bono 1991, 20.)

<sup>321</sup> Marx 1859.

<sup>322</sup> Embodied energy, Wikipedia entry.

<sup>323</sup> Carbon Trust (UK) 2010.

acquire mainstream currency. They also exemplify what we may call a 'logic of embodiment'<sup>324</sup> which treats physical artifacts not simply as things *ex nihilo*, but as embodying the historical processes that called them forth.

Two: Marshall McLuhan's 'extensive' definition of media: 'All media work us over completely. They are so pervasive in their personal, political, economic, aesthetic, psychological, moral, ethical, and social consequences that they leave no part of us untouched, unaffected, unaltered. The medium is the message.'<sup>325</sup> For McLuhan the category of media, 'extensions of man', includes not only the 'cool' of television and the 'hot' of print, but the *wheel* as an extension of the *foot*, the book an extension of the *eye*, clothing, an extension of the *skin*, and electric circuitry an extension of the *central nervous system*.<sup>326</sup> The reciprocal or mutually informing relationship of all these technologies with the creatures that created them -- we shape these tools, and meanwhile they shape us -- leaves the distinct impression that the utterances of discourse cannot reasonably be divorced from the increasingly, obviously *artifactual* circumstances of their production.

Three: the poststructuralist media theorist Friedrich Kittler deploys his analysis of 'discourse networks' in the same thematic ballpark, but with considerably more methodological intrigue, and an insistence on the primacy of the technological half of the equation. His *Gramophone, Film, Typewriter* begins without pulling punches: 'Media determine our situation.'<sup>327</sup> Writes one interpreter: 'Kittler is one of the pioneers of what might be called *media materialism* -- an approach that privileges, at all costs, analysis of the material structures of technology over the meanings of these structures and the messages they circulate'.<sup>328</sup> Perhaps the

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<sup>324</sup> For an earlier take on this notion see Candy 2007f.

<sup>325</sup> McLuhan and Fiore, 2001 [1967], 26.

<sup>326</sup> *Ibid.*, 31-40.

<sup>327</sup> Kittler 1999, xxxix.

<sup>328</sup> Gane 2005, 25.

most telling vignette in Kittler's *Discourse Networks 1800/1900* is of a half-blind Nietzsche who, despairing of being able to continue in his vocation, buys a typewriter shortly after its first appearance in the 1870s, and who shortly afterwards, in one of his letters -- *typed*, mind you -- notes: 'Our writing materials contribute their part to our thinking.'<sup>329</sup> So too, we need hardly add, does the body, which ought to soften Kittler's determinism a little; an ailment which led the philosopher to pursue the recently-invented option of typing can stand as a reminder that the media constitute a key condition of possibility, but they don't do *all* the work.

Four: the notion of 'thought as a system' from the late physicist David Bohm.

Thought is always doing a great deal, but it tends to say that it hasn't done anything, that it is just telling you the way things are. But thought affects everything. It has created everything we see in this building. It has affected all the trees, it has affected the mountains, the plains and the farms and the factories and science and technology. ... Thought has produced tremendous effects outwardly.<sup>330</sup>

Bohm does not use the word 'discourse', but it is clear that his analysis incorporates what we mean by that name, and sees it as continuous with other human activities and products.

I would say that thought makes what is often called in modern language a *system*. A system means a set of connected things or parts. ... That system not only includes thoughts, 'felts' and feelings, but it includes the state of the body; it includes the whole of society -- as thought is passing back and forth between people in a process by which thought evolved from ancient times.<sup>331</sup>

Five: Gilles Deleuze (in the *Dialogues* with Claire Parnet) similarly, though in a different style, points to the same connectedness.

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<sup>329</sup> Kittler 1990, 196.

<sup>330</sup> Bohm 1994, 5.

<sup>331</sup> *Ibid.*, 18-19.

[I]n an assemblage there are, as it were, two faces, or at the least two heads. There are *states of things*, states of bodies (bodies interpenetrate, mix together, transmit affects to one another); but also *utterances*, regimes of utterances: signs are organized in a new way, new formulations appear, a new style for new gestures.<sup>332</sup>

Here Deleuze and Parnet use the assemblage 'man-horse-stirrup' to illustrate the point that a supposedly *technical* product of the feudal era was, in fact, first and foremost *social*. The mutual dependence, interpenetration -- and ultimately, indissolubility -- of the material or technical, and symbolic or social, or communicative planes, is the point I wish to emphasise here.

Six: Langdon Winner, a political scientist and philosopher of technology, has pointed out two ways in which 'artifacts can contain political properties'. The first lies in the details of how a particular technical device or system is deployed, while the second refers to 'inherently political technologies'.<sup>333</sup> Below we delve further into Winner's example to cement the argument that design is inescapably political, and that this politicality consists in the effects of intervening in the material world.

The first set of cases outlined in Winner's argument includes such examples as the mechanical harvesters which replaced farm-workers who used to pick the tomato crop by hand; pneumatic moulding machines used at a reaper manufacturing plant in Chicago in the 1880s -- an innovation which proved to be economically inefficient in the long-run but which in the short run was effective in breaking the National Union of Iron Molders; and, most famously, the story of Robert Moses's low-hanging bridges over the parkways on Long Island, New York, which apparently prevented buses, and hence bus-riding black and other low-income patrons, from accessing Jones Beach. The lesson of type one cases, then, in a nutshell: 'The issues that divide or unite people in society are settled

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<sup>332</sup> Deleuze and Parnet 1987, 70-71.

<sup>333</sup> Winner 1986, 22.

not only in the institutions and practices of politics proper, but also, and less obviously, in tangible arrangements of steel and concrete, wires and semiconductors, nuts and bolts.<sup>334</sup>

The second set of cases -- technologies which import particular socio-political tendencies or requirements -- includes, says Winner, the rigid discipline required of workers in a cotton mill in order to maintain production; the strict hierarchy that forms around the atom bomb; and the development of elaborate administrative structures in business that accompanied the rise of the railroad; as well as (finally a less ominous example, illustrating that not all material technologies are political in the same hierarchy-and-control-o-genic direction!), the idea that a solar electricity generation is more conducive to decentralised, democratic and egalitarian social arrangements.

A key question here is to what extent these technologies are *determinative* of the human arrangements around them. Do they *cause* these political configurations in some regular and predictable way, or just *influence* them? (Hard and soft determinism respectively.) Or do the two have nothing to do with each other, the 'political' being a creature of discourse -- I mean to say, of language -- alone?

This question is at the heart of how the *material* aspect of designed artifacts or systems -- whether bridges, tomato harvesters, pneumatic moulding machines, railroads, cotton mills, solar panels or atom bombs -- can be considered political. I have no hesitation in dismissing outright the hypothesis that there are *no* political implications embedded in material design. Just as we saw before that confining our conception of politics to designated areas -- those institutions and practices that comprise merely the most obvious sites of contesting power -- fails to account for all the other ways that a given arrangement works on and through us, so we can be confident that there is at least *something* political about the

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<sup>334</sup> *Ibid.*, 29.

human-designed material world, which inevitably reflects, if not literally serves as, the 'distributed sensible' in which the politics of aesthetics consist.

Indeed, as we have defined 'political', human designs on the material world could hardly be more so. Every design decision, from the largest scale to the smallest, is riddled with political implications -- consequences for power relations between people. In the crudest terms, we could describe it as who wins and who loses, but this is too simplistic to apply literally in most cases, and I invoke it here only to suggest the differential political impacts (Deleuze might say 'intensities') at play in any given decision. To clear a tract of forest for development rather than leave it as green space; to construct a prison on the now vacant lot, versus a shopping mall; to build the structure out of concrete, wood, or granite; to install solar panels, or to rely on mains for power... for the electrician to bring tofu for lunch rather than chicken. There is no level on which these political implications of material contingencies (alternatives) in the ever-unfolding drama of human affairs, however sweeping or incremental in scale, fails to apply. By no means do I suggest that these various 'design' decisions, and their counterpart vignettes of shifting power relations (which, due to limitations of space, I have left to the reader's imagination), are all equally significant. We should be highly context-sensitive in assessing such significance. The list above was given in descending order of scale and gravity, by which I want to suggest that initial, larger-scale decisions provide a context, or set enabling constraints, within which smaller-scale ones will subsequently be played out (recall the notion of path dependence in Chapter 1). But gauging politicality in real life is much harder than on paper, of course, so we face a major challenge in deciding to what degree any given design decision matters, and especially, what to do about it.

Let me put it in other words. The hard issue is not whether the outcomes of human-designed materiality can be seen as political: by now that is obvious. The hard issue is the relationship -- central in design -- between intentions and



outcomes. Do the power-relevant consequences of our material decisions happen in some regular, expected way? Or, looking at it from the other direction, can we deduce intention (and therefore liability) from observed outcomes?

This is the fundamental relationship at issue in a critique of Winner's case by Bernward Joerges, who characterises the account of Robert Moses's racist bridges as the centrepiece of the Winner argument that artifacts are political, then proceeds to counterargue that it is based on flimsy evidence. According to Joerges, Moses did not necessarily intend to use low bridges with the nefarious goal of keeping black people out of Jones Park, nor, even if he had, did it necessarily have that effect. Joerges concludes that Winner's account is simply good storytelling, highly successful as a parable, but not as a piece of analysis.<sup>335</sup>

But Joerges's rebuttal of Winner looks less substantial on closer inspection than it appears at first blush. The fact that the Moses story lends itself to retelling (and 'Chinese whispers'-like distortions by other authors) is not Winner's fault, and leaves intact the general logic, as well as the other examples he adduces (many of which we saw above), to support the proposition that artifacts are political. It does however allow Joerges cleverly, and insightfully, to invert the Winner formula that artifacts have politics, insisting that 'politics have artifacts', too, and that the story about Moses's bridges is precisely such a political (but quintessentially discursive-linguistic, not material) artifact. Joerges casts similar scorn upon the 'classic architectural parable of control theories of social change', the Bentham-Foucault Panopticon,<sup>336</sup> which, he points out, was never actually built. But what for Joerges is evidently the primacy of storytelling and language over physical material -- mind over matter -- may make excellent sense to someone who spends all day surrounded by words, but he overstates his case.

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<sup>335</sup> Joerges 1999.

<sup>336</sup> Foucault 1977.

Things, including bridges and other built artifacts, are like words. ... [T]he power represented in built and other technical devices is not to be found *in the formal attributes of these things themselves*. Only their *authorization*, their legitimate representation, gives shape to the definitive effects they may have.<sup>337</sup>

Which leads me to wonder whether Joerges has ever actually crossed a bridge.

*Things*, in their physicality, have what designers call *affordances*, simultaneously enabling some actions and prohibiting others. It requires a counterfactual (better, contrapuntal) sensitivity to *paths not taken* -- versions of the world that are not visibly in evidence, but which could be, or could have been -- in order to make the case stick, which is why it's hard to argue... but the world in which a bridge is built, is tangibly, *politically different* from the one in which it is not built, or yet in which it is slightly higher or lower. Likewise, the world in which a particular forested area is cleared into a vacant lot, and then becomes a prison, is politically different from the parallel universes we can imagine in which things happen otherwise. A world in which the atom bomb exists is different from one in which it does not -- compare it either to the world we lived in before, or the counterfactual one we would inhabit now had that invention not been unleashed. And so on and on. The world in which the bomb is dropped, and explodes, and destroys a city, is also politically different. Matters of life and death, as opposed to simply access, surely comprise the most vividly apprehended intersections of materiality and politicality: when anything dies or is born (a human being only the most obvious example), the political world is thereby remade.

So too, in accordance with our politics of aesthetics, do the stories that we tell (or that we do not tell; that we frequently fail even to imagine) about these alternative possibilities, alternately reinforce or remake the distribution of the sensible.

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<sup>337</sup> Joerges 1999, 424 (original emphasis).

Where the contribution of the Joerges article is most useful, I find, is his suggestion that social theories tend to belong to either of two traditions, the master narratives of Control or Contingency. If we accept his contention that Winner's belongs to Control, then his corrective move of emphasising a case for Contingency is reasonable. I don't read Winner as being so one-sided as all that, but we can see value in Joerges's point that Control is not the whole story.

And truly, in their extreme form neither Control (pure determinism) nor Contingency (anything can happen) accounts capture the way things really go. What Winner does, successfully in my judgment, is present a case that *we ought to pay better attention to the otherwise invisible or unconsidered political tendencies that our artifacts bring into play*. Even if there appear to be a range of possible ways of configuring any sociotechnical ensemble, 'to say that some technologies are inherently political is to say that certain widely accepted reasons of practical necessity -- especially the need to maintain crucial technological systems as smoothly working entities -- have tended to eclipse other sorts of moral and political reasoning.'<sup>338</sup>

Technologies, certain configurations of materiality, carry a political weight all their own. Or, in the words of Frankfurt School theorist Theodor Adorno, 'Every work is a force field'.<sup>339</sup> Winner again:

It is still true that in a world in which human beings make and maintain artificial systems nothing is 'required' in an absolute sense. Nevertheless, once a course of action is under way, once artifacts such as nuclear power plants have been built and put in operation, the kinds of reasoning that justify the adaptation of social life to technical requirements pop up as spontaneously as flowers in the spring.<sup>340</sup>

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<sup>338</sup> Winner 1986, 36.

<sup>339</sup> Theodor Adorno, quoted in Ziarek 2004, 19. Adorno, a theorist of aesthetics, may have had art works in mind, but the easy redeployment of this idea for technological assemblages further underlines our point about the interpenetration of aesthetic and other registers of materiality -- anything that 'redistributes the sensible' has political force.

<sup>340</sup> Winner 1986, 38.

For Winner, we really need to be considerate, and as foresightful as possible, *while we are shaping our tools*, about how our tools are meanwhile shaping us.

## Conclusion

In this chapter we have elaborated a conception of the 'politics of aesthetics' which, moving beyond the 'politics of the obvious', pays due attention to the underlying perceptual orders to which we are often oblivious, yet by which we live our lives. We saw how this understanding is built into the DNA of alternative futures, considering, with the help of several futures scholars (Nandy, Slaughter, Sardar, Inayatullah) the intrinsically 'decolonising' role of elaborating accounts of the future which refuse and dissent from a dominant narrative, whatever it may happen to be. In particular it was noted that a pluralising move in futures exceeds the political offer of thought which critiques, but which stops short of fleshing out alternative accounts. And we also delved into the fundamentally 'political' character of design, as an explicit signal of intention, and as an implicit dimension of the way things are configured. A range of theoretical perspectives were enlisted (from McLuhan to Deleuze to Winner) to show how politics -- much of it potent in unseen and unwitting ways -- is performed, embodied and crystallised in, and can be 'read off', materiality.

The upshot of this part of our investigation is that the political, and with it the theoretical, can not only be *interpreted*, but also *enacted*, through material and aesthetic forms. Putting the three together, then -- politics, futures, and design -- ideas about the future can (but do not necessarily for all who encounter them) reorder the 'distribution of the sensible' by the design of interventions and perform future narratives experientially. There is at this three-way intersection a potential for a critical and politically charged hybrid political practice.

We also noted the shift in political subjectivity which tends to be produced as a corollary of cultivating a plural futures orientation. Of course, subjectivities are notoriously slippery, we can't simply assert that they are 'produced' the way milk is produced by a goat, but a deepening engagement with the domain of the future does progressively engender a form of political engagement, a heightened sensitivity to the mutability of the world, and with that, a sense of one's own capacity, however modest, to nudge things in one direction or other.

In Chapter 4 we consider more closely the flourishing relationship between futures and design, examining them as complementary fields of endeavour whose convergence can strengthen the practice of both for 'political' purposes. What constitutes a politically effective intervention is considered further there, in our discussion of experiential scenario design principles, as well as Chapter 5, through a comparative case study of guerrilla futures interventions.

## CHAPTER 4

### WHY FUTURES AND DESIGN ARE GETTING MARRIED

As creators of models, prototypes, and propositions, designers occupy a dialectical space between the world that is and the world that could be. Informed by the past and the present, their activity is oriented towards the future.

~ Victor Margolin<sup>341</sup>

It's pretty simple, really. Designers need futures. Futurists need design. Each speaks to something that the other lacks -- as we shall see next.

In our Introduction, and in Chapter 2, we considered the civilisation-wide challenges that make necessary the development of new approaches in thinking and manifesting possibility in greater breadth and depth. Through the 2050 case study, we saw a concrete example of how experience design and futures thinking come together to enable 'experiential futures', and the 'politics of aesthetics' embedded in both sides of this equation were plotted in Chapter 3.

This chapter provides a context for the marriage of design and futures. First; we consider the grounds for the union, the structural basis which enables them to fit together so well, and the need as identified, or hinted at, by both families. Second; we look at how the two practices are reaching towards each other in various ways, considering specific sites of convergence and overlap. Third, and finally; we turn to discussion of three working principles of design that have emerged for experiential futures. This last segment provides elements of a conceptual lexicon for both the (design-oriented) futurist and the (futures-oriented) designer -- as well as some indications as to how their offspring may look.

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<sup>341</sup> Margolin 2007, 4.

## A good fit

Futures studies is basically *ideational* in character. It is about images, narratives and perceptions -- the contents of our minds, insofar as they have a bearing on the future. Ultimately, of course, these influence our actions and inactions, thus making their way into the phenomenal world and into materiality, which effects ultimately motivate our interest in them. But the starting point in any case for futures inquiry is decidedly internal. Design, by contrast, can be seen as primarily a matter of, well, *matter*; the external environment, the material domain. Its foremost icons -- chairs, teapots, cars -- are the stuff of everyday life, as solid and, by and large, as mundane as it is possible to be. Below we go further in to the theme raised in the previous chapter, how the ideational and the material interpenetrate and shape each other. We should be careful not to make this later reconciliation seem excessively dramatic by exaggerating the contrast at the outset, but to the extent that a distinction between thoughts and stuff holds, futures and design can reasonably be typified as being traditionally concerned with these two complementary domains, respectively.<sup>342</sup>

Futurists have recently been paying more attention to design. The Hawaii Research Center for Futures Studies is not the only consultancy to have incorporated futures artifacts or performative experiential scenarios into its practice. Others include Institute for the Future, Global Business Network and Collective Invention in California, Global Foresight Associates in Boston, and Pantopicon in Antwerp. In March 2009, the Association of Professional Futurists had as the theme for its annual spring gathering, 'Futures by Design', held at the Art Center College of Design in Pasadena, a major American design school. Bruce Sterling, who started out as a science fiction writer and futurist, has become an important figure in bridging the discourses of long-term forethought

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<sup>342</sup> The perspective offered here is in no way intended to be an authoritative statement of how design 'ought' correctly to be understood; here we make a case for one way in which it *can* be understood, opening up some promising avenues of exploration.

and industrial design. He spent a year at the Art Center College in 2005 as 'Visionary in Residence', with the remarkable book *Shaping Things* -- a manifesto of how the human relationship to materiality must change, a sort of *Cradle to Cradle 2.0* -- as a result.<sup>343</sup>

From the other side, some designers have begun to notice the resemblances between their *métier* and that of the futurist.<sup>344</sup> Experience designer Nathan Shedroff, in an interview with Belgian futures consultant Nik Baerten, describes futures and design as fundamentally similar. 'Whether the design process is being applied to future studies or current offerings doesn't really matter. It's still, mostly, the same process.'<sup>345</sup> User experience researcher Nicolas Nova of LiftLab in Switzerland finds two important questions linking conventional design exploration and FoundFutures artifacts; 'the relationships between design and foresight as well as how to engage people (be it [*sic*] entrepreneurs, designers, researchers, 'users', policy-makers) with the 'future(s)'.<sup>346</sup> Peter Merholz of 'experience strategy and design' company Adaptive Path observes, 'Design is an inherently futurist activity — planning and sketching things that don't yet exist.' However, he adds, 'in our practice at least, our application of futures thinking pretty much stops 3-5 years out.'<sup>347</sup> Merholz's remark is a clue to what may be the key difference between futures and design: *scale*. Generally futures is concerned with longer time-frames and wider problem sets, often whole

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<sup>343</sup> Sterling 2005.

<sup>344</sup> On a personal note concerning the courtship of futures and design, this writer has recently given invited lectures at a number of design and art schools about the intersections of the two fields. This chapter is based in part on work presented at and developed in conversations at these places, and the substantive contribution of the various design professors and their students is gratefully acknowledged; in particular, Tony Dunne and Fiona Raby at the Royal College of Art, London, Nathan Shedroff at California College of the Arts, San Francisco, and Scott Klinker at Cranbrook Academy of Art in Bloomfield Hills, Michigan.

<sup>345</sup> Baerten 2008.

<sup>346</sup> Nova 2008.

<sup>347</sup> Merholz 2008.



companies, industries, or countries, and the changes they may confront or implement over decades or more.

Yet, we can point to a number of recent instances of designers reaching up and out from the confines of traditional projects, whether teapots or skyscrapers, towards the habitually high-minded fate-of-civilisation-type preoccupations of the futures field. The 'Cradle to Cradle' ethos provides one vision in which designers tap a broader, more aspirational sense of purpose; 'Imagine a building like a tree, a city like a forest.'<sup>348</sup> Another example; several years ago Bruce Mau launched *Massive Change*, a noble, if nebulous (nobulous?) 'international discursive project', with the tagline 'It's not about the world of design. It's about the design of the world.' Mau's effort aimed to actively amplify public awareness of 'the power of design to transform and affect every aspect of daily life'.<sup>349</sup> And in *Design Issues*, a preeminent design journal published by MIT Press, editor Victor Margolin argues that design practices are yet to awaken to their full potential:

Paradoxically, designers united as a professional class could be inordinately powerful and yet their voices in the various fora where social policies and plans are discussed and debated are rarely present. While the world has heard many calls for social change, few have come from designers themselves, in part because the design community has not produced its own arguments about what kinds of change it would like to see. Notwithstanding the discursive and practical potential to address this issue, the worldwide design community has yet to generate profession-wide visions of how its energies might be harnessed for social ends.<sup>350</sup>

Even outside of design, the cumulative impact and significance of the field, and thus its potential for engineering change in a more concerted manner, have been noted. Leadership writer Richard Farson calls for designers of all stripes to band together and undertake 'metadesign', 'a transcendence of regular design' to

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<sup>348</sup> McDonough and Braungart 2002, 139.

<sup>349</sup> Mau *et al.* 2004. See also Massive Change website.

<sup>350</sup> Margolin 2007, 4.

tackle the world's problems.<sup>351</sup> 'They could make a difference everywhere and in practically every area of public concern -- health, education, criminal justice, environment, and family life as well as in fostering democracy, creativity, community, and affection.' This view rightly sees design, broadly understood, as a site where intention and materiality intersect (as our review of the 'politics' of design in Chapter 3 suggested). It is a political interface where the world is incrementally made and remade.

New strands of practice are beginning to emerge within design in explicit recognition of this potential. The ambitions of 'transformation design', for example, are fully as grand as they sound; a holistic, big-picture approach to some of the trickiest problems we face.

The process involved in designing the world's most successful products, services and innovations is a highly transferable one. It's a process that can be applied to almost any problem. Employing a design approach brings with it a number of crucial benefits. These include a mechanism for placing the person -- the 'user' -- at the heart of a solution; a means for experts to collaborate equally on complex issues; a rapid, iterative process that can adapt to changing circumstances; and a highly creative approach to problem-solving that leads to practical, everyday solutions.

However, design also goes beyond problem solving. Solutions to today's most intractable issues -- such as the rise of chronic health conditions, the impacts of climate change, or the consequences of an ageing population -- depend on the choices that people make in their everyday lives: how they eat, consume energy, or form relationships. Good design creates products, services, spaces, interactions and experiences that not only satisfy a function or solve a problem, but that are also desirable, aspirational, compelling and delightful. These are the qualities desperately needed by organisations in both the public and private sector which are seeking to transform the way in which they connect to individuals.<sup>352</sup>

If this sounds like a design-inflected approach to the invention and implementation of pursuit of preferred futures, not to mention of governance, it

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<sup>351</sup> Farson 2008, vii.

<sup>352</sup> Burns *et al.* 2006, 9.

probably is. Indeed, the similarities between design and futures are built into their very structure.

I recently took up the challenge of attempting to produce a diagram of the 'creative process' for experiential futures 'in the square footage of a dollar bill.'

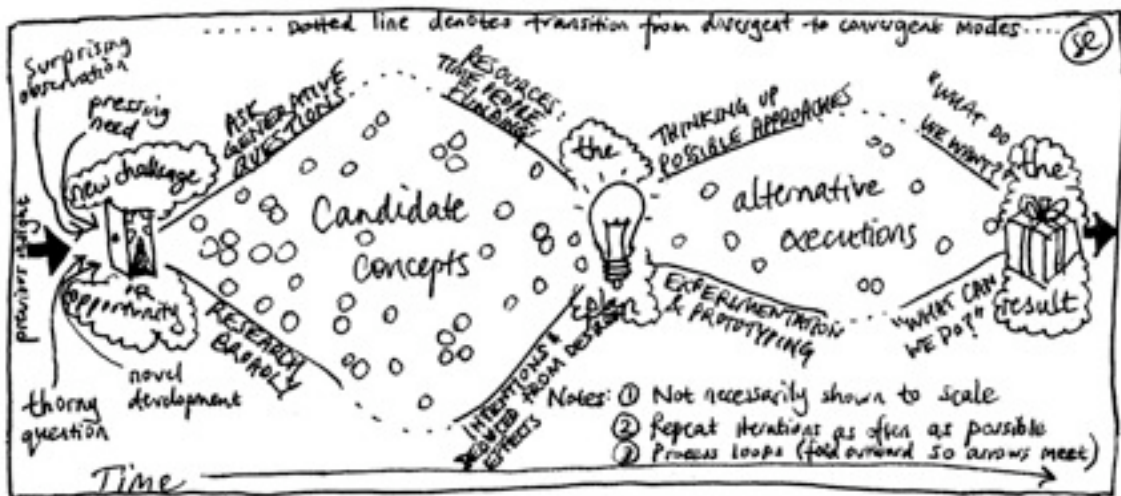


Figure 4.1: A design process for experiential scenarios

The diagram has several characteristics:

- 1) It is based on a pattern of divergent (broadening) followed by convergent (narrowing) phases.
- 2) These phases are iterative -- you go through them more than once. Here I show two iterations; one for producing concepts leading to a plan, the other for execution. In practice there may be many more than this, and the concept- and execution-oriented elements often overlap. Even so, as model it stands as a reasonable, if simplified, reflection of the phases of designing an experiential futures intervention.

- 3) The divergent phase entails a 'creative' process of producing and researching ideas, which feed each other as they open on to a space of potential approaches.
- 4) The convergent phase depicts a dialectic or interplay between capacities and desires (or, if you prefer, facts versus values). The diagram frames this as resources versus intentions in the first phase and the questions 'what can we do?' versus 'what do we want?' in the second. These semantic variations gesture to the same basic tension, which is, as we saw in Chapter 3, *optimisation within constraints*.
- 5) Neither phase, convergent or divergent, stands alone.
- 6) The process revolves around the production of a desired (but iteratively determined) outcome.<sup>353</sup>

In light of the above, it seems to me that at the macro-level of the practices overall, futures and design can be regarded as *isomorphic* enterprises; they have the same basic shape. Both are iterative processes, with alternating divergent (generative/exploratory) and convergent (visioning/implementation) phases. In this first, intrinsically exploratory phase, alternative and diverging paths are generated and tested. In the second phase, they lead to a convergent phase, culminating in decision and execution. Thus, both futures and design prove to be ultimately interested in praxis, effecting desired change in the world, and so require explicit acknowledgment of values and normative commitments.

Accordingly, both are by nature 'creative', producing among their practitioners a self-understanding as agents with intent and desires -- and (at least some of) the means to act on these. The futurist is always already a kind of designer, and vice versa, so, the fact that designers and futurists appear to have so much to talk

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<sup>353</sup> See footnote 128, above, for more on 'backcasting'.

about these days is a product of their involvement in the same basic process: deliberately changing the world.

The fact is, however, that these developments within design, which I characterise as groping toward futures (just as futures has, meanwhile, groped its way towards design), have taken place without much engagement with the vocabulary, tools, and methods of the futures field as such. *Design Issues* editor Margolin again:

Envisioning the future is a problematic enterprise, given the cacophony of competing visions that describe how the world could or should be. This puts designers and the design professions in a difficult situation. As mentioned previously, they have a unique ability to give form to plans and propositions, yet they lack broad and coherent social scenarios to guide their work. Although design is implicated in all human activity, there is little in the typical design curriculum that prepares students to imagine such scenarios.<sup>354</sup>

Futures studies (that is, the academic strand of the futures field), as well as the literature and methods of scenario planning (which by now are quite widely known in management consulting settings) both have much to offer in managing the 'cacophony of competing visions', and generating 'broad and coherent social scenarios' in which to situate design's work. Thus, I would hope that more designers will find their way to these specific sources and traditions, in their travels noting key similarities and complementarities between futures and their own core work.

Why is this overlap happening and being recognised now? Perhaps it is because the links between small and large scales of space and time -- particularly the revenge of unintended consequences arising from their neglect, dating back at least to the dawn of industrialism -- are finally becoming impossible to ignore. Also meanwhile, as in all knowledge-based activities, electronic network-driven cross pollination has accelerated.

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<sup>354</sup> Margolin 2007, 10.

In any case it is a propitious match, although it is difficult to make out whether the basis for this mutual curiosity, and the various signs of convergence towards common ground, means that the two fields of practice will necessarily merge in any systemic way. But it is unnecessary to make a definitive judgment on that. The argument we have mounted so far for experiential futures, which is itself a combination of the two, is enough to stand for the proposition that these fields should continue to get to know each other better.

This section has shown how design and futures practice are engaged in a timely and promising courtship. The key argument has been that futures studies and design are fields of practice specialising in complementary pieces of a common puzzle, which (simplified) could be characterised respectively as longer-term and more ideation-oriented, compared to shorter-term and more material-oriented. This does not entail a proprietary or disciplinary claim for futures over the all-important call to 'envision, invent, create and re-create preferred futures': those functions are part of an emergent social capacity in which designers and futurists stand to make a particularly rich contribution if they can mesh more effectively.

The next section considers some work emerging from within design which shows great promise for more direct engagement with futures, or with a 'critical' view of the present (entailing deeper contemplation of potential social changes), or both.

### **Deepening discourse by design**

In the last chapter, we saw how the 'political', the redistribution of the sensible, can be effected in relation to futures, through material expression. We are not the first to pursue this communicative, performative, political potential within design. 'Discursive design' and 'design fiction' have both recently been proposed as categories with which to think the deployment or appropriation of designed

artifacts, media or experiences for enabling deeper conversation about, among other things, alternative futures.

### 1. Discursive, critical and interrogative design

A typology of industrial design recently set out by professors Bruce M. Tharp and Stephanie Tharp includes ‘discursive design’, which ‘refers to the creation of utilitarian objects whose primary purpose is to communicate ideas—they encourage discourse. These are tools for thinking; they raise awareness and perhaps understanding of substantive and often debatable issues of psychological, sociological, and ideological consequence.’<sup>355</sup>

This term seeks to serve as a catch-all for a variety of relatively new design practices which explicitly acknowledge, and actively try to mobilise, this discursive dimension. Things in this area are evolving so quickly that it is not clear whether that particular name will catch on; but the more important point for now is simply that these reflexive conversations about design’s role and potential are indeed occurring within the field.

Two particular examples of what could be called discursive design, which have clearly ‘political’ ambitions in the sense detailed in the previous chapter, are ‘critical design’ and ‘interrogative design’.

‘Critical design’ is a practice pioneered by Anthony Dunne and Fiona Raby of the Design Interactions Department at the Royal College of Art (RCA), London. They write:

Critical design, or design that asks carefully crafted questions and makes us think, is just as difficult and just as important as design that solves problems or

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<sup>355</sup> Tharp and Tharp 2009. (The Tharps are working on a forthcoming book about Discursive Design, information on which may be found here [http://www.discursivedesign.com/discursive\\_design.html](http://www.discursivedesign.com/discursive_design.html).)

finds answers. ... At the moment, this type of design is neglected and regarded as secondary. Today, design's main purpose is still to provide new products -- smaller, faster, different, better.<sup>356</sup>

Elsewhere, Dunne says: 'Design approaches are needed that focus on the interaction between the portrayed reality of alternative scenarios, which so often appear didactic or utopian, and the everyday reality in which they are encountered.'<sup>357</sup> Although in their own work together Dunne and Raby claim to not to be interested in futures so much as in 'alternative nows: how things could be right now if we had different values',<sup>358</sup> they recently (July 2009) graduated their third cohort of students from the MA program in 'Design Interactions' at RCA, and the embodiment of potential futures in a recognisable 'critical design' (or 'design for debate') idiom is evident there.<sup>359</sup> The whimsical *Cloud Project* by Cathrine Kramer and Zoe Papadopoulou, for instance, tries 'Using ice cream as a catalyst for interesting dialogue', with a concept design for an ice cream van equipped with nanotechnology to make ice-cream snow fall from the sky.<sup>360</sup> *BEES* by Susana Soares 'explores how we might co-habit with natural biological systems and use their potential to increase our perceptive abilities'. The objects produced by Soares, beautiful, organic-looking blown-glass instruments, are 'alternative diagnostic tools using bees to detect general health and fertility cycles'.<sup>361</sup> Finally, for *Fear Tuners*, Susanna Hertrich conducted a series of experiments 'to explore whether our natural inability to assess risks could be replaced by devices. The objects are a set of *hypothetical prostheses*

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<sup>356</sup> Dunne and Raby 2001, 58.

<sup>357</sup> Dunne 2006, 84. Recall our idea of a 'mundane turn' in futures, set out in Chapter 2.

<sup>358</sup> Dunne and Raby interview in Moggridge 2007, 589.

<sup>359</sup> For the sake of conceptual clarity we should note that the phrase 'design for debate' is more commonly used by Dunne and Raby in their pedagogical context, while 'critical design' designates the sensibility of their own design practice. For the present purposes, however, the terms are interchangeable.

<sup>360</sup> Dunne 2009, see insert between pp. 50-51.

<sup>361</sup> RCA 2007, 108.



for instincts that we have not yet developed.’<sup>362</sup> (Hertrich’s ‘hypothetical prosthetic’, an ingenious and provocative concept design in its own right, also suggests a useful frame for our agenda with experiential scenarios generally. The discursive and design technology developed here could be considered instances of ‘prosthetic foresight’.)

Critical design has both antecedents and variants that are equally noteworthy, but it has emerged as one of the more prominent signs of designers’ increasing political and discursive self-awareness.<sup>363</sup>

‘Interrogative design’ is a term used by Polish designer and professor Krzysztof Wodiczko, whose work has been particularly noted by critical theorists.<sup>364</sup>

Wodiczko, who at the time of writing heads the Interrogative Design Group<sup>365</sup> at MIT writes:<sup>366</sup>

Design as a research proposal and implementation can be called interrogative when it takes a risk, explores, articulates, and responds to the questionable conditions of life in today’s world, and does so in a questioning manner. Interrogative design questions the very world of needs of which it is born.

His ‘critical vehicles’ (the term registers both literally and figuratively) have included vehicles designed in collaboration with, and responding to the particular

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<sup>362</sup> Dunne *et al.* 2008, 81 (emphasis added). See Debatty 2008 for images. In this same vein, note theorist Sandy Stone’s McLuhan-inspired take on technology, and especially communication technology, as prosthesis: ‘[P]rosthesis communication and the things it creates, specifically interactive entertainment software, the Internet, cyberspace, and virtual reality, are not a question of market share or even of content. In a fundamental McLuhanesque sense these things are part of ourselves. As with all powerful discourses, their very existence shapes us. Since in a deep sense they are languages, it’s hard to see what they do, because what they do is structure seeing. They act on the systems -- social, cultural, neurological -- by which we make meaning. Their implicit messages change us.’ (Stone 1996, 167-168. See also 15; 36-37; 100.)

<sup>363</sup> For an overview of the ‘state of the art’ in the design world, and a sense of Dunne and Raby’s work within it, consult the catalogue of the recent MoMA exhibition, ‘Design and the Elastic Mind’. (Antonelli 2008.)

<sup>364</sup> Ziarek 2004, 133-138; Highmore 2006, 171-175.

<sup>365</sup> Interrogative Design Group website, Massachusetts Institute of Technology.

<sup>366</sup> Wodiczko 1999, 16.

needs of, the homeless.<sup>367</sup> One of the most striking illustrations of in this genre of design in action is paraSITE (1998) by Michael Rakowitz,<sup>368</sup> a former student of Wodiczko at the Center for Advanced Visual Studies (CAVS).<sup>369</sup> Rakowitz says this is 'an ongoing project in which the artist custom builds inflatable shelters for homeless people that attach to the exterior outtake vents of a building's heating, ventilation, or air conditioning system.'<sup>370</sup> The design thus serves purposes both functional (of rendering public space temporarily 'private' for the user, of repurposing 'waste heat') and symbolic (of drawing attention unmistakably to the tragic disparities of access implied in the ensemble as a whole).



Figure 4.2: ParaSITE, an instance of 'interrogative design'<sup>371</sup>

Both critical and interrogative design are about material forms being deployed to embody challenging ideas, with clear 'political' potential in our Rancièrian sense. There are differences between the two. For instance, critical design typically addresses or portrays the future more directly, while interrogative practice may be more of an activist intervention; the former is mainly a creature of gallery or

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<sup>367</sup> *Ibid.*, 79-94.

<sup>368</sup> Thompson and Sholette 2004, 19.

<sup>369</sup> Center for Advanced Visual Studies website, Massachusetts Institute of Technology.

<sup>370</sup> Michael Rakowitz Faculty Biography, Department of Art Theory and Practice, Northwestern University (Illinois).

<sup>371</sup> Photograph from Michael Rakowitz personal website, paraSITE project.

museum settings, while the latter typically involves installation 'in the wild'. Since each has an accompanying body of work, informed by its own distinctive philosophy and founding practitioners, it is uncertain to what extent either of these terms can comfortably encompass the broader trend under discussion here (as opposed to denoting the particular work of their founding designers and protégés). But in any case, these deployments of design, aspiring to trigger questions and conversations around social, technological and other developments, constitutes an important piece of evidence that a hybrid political practice marrying futures design is already underway.

## 2. Design fiction

'Design fiction' is an emerging category around the fertile territory that design and future-oriented thought share. Introduced by sci-fi-author-*cum*-design-critic Bruce Sterling,<sup>372</sup> it is where design and science fiction sensibilities and skills are fused.

I'm a science fiction writer, and as I became more familiar with design, it struck me that the futuristic objects and services within science fiction are quite badly designed.

Why? That's not a question often asked. The reason is pretty simple: Science fiction is a form of popular entertainment. The emotional payoff of the science fiction genre is the sense of wonder it conveys. Science fiction 'design' therefore demands some whiz-bang, whereas industrial design requires safety, utility, serviceability, cost constraints, appearance, and shelf appeal. To these old-school ID [interaction design] virtues nowadays we might add sustainability and a decent interface.

The classic totems of sci-fi: the rayguns, space cruisers, androids, robots, time machines, artificial intelligences, nanotechnological black-boxes. They have a deep commonality: They're imaginary. Imaginary products can never maim the consumer, they get no user feedback, and lawsuits and regulatory boards are not a problem. That's why their design is glamorously fantastic and, therefore, basically, crap.

...

I like to think that my science fiction became somewhat less flaccid once I learned to write 'design fiction' as I now commonly do.<sup>373</sup>

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<sup>372</sup> Sterling 2006c, 63ff.

<sup>373</sup> Sterling 2009.

Design brings rigour to sci-fi, sci-fi returns the favour by bringing greater imagination to design.

Exploration of what lies past the currently achievable, where prototyping and speculative storytelling meet -- hypothetical invention -- is a long tradition. (Leonardo Da Vinci may have been the prototypical design fictioneer, five centuries ago.) But since the practice is directly (if not self-consciously) concerned with the mediation of possibility space, and since the means for doing so have recently exploded -- consider access to, fluency in, and audiences for a range of media -- design fiction is an idea whose time has come.

In contrast to critical and interrogative design, design fiction is not a banner under which a substantial body of original design work has been developed, yet. At this time it is principally a lens through which to examine past and existing practices, identifying and drawing together existing threads, and out a heretofore underappreciated genre. However, now that there is a term for it, and a discussion growing around it, these may gradually inform the discussions and decisions of designers seeking to spend more time exploring futures.

Julian Bleecker, originally trained as an engineer and now working at Nokia Design, is to be credited with giving the fullest expression to date of what 'design fiction' is and could be. He is worth quoting at length; articulating as he does the relationship between design fiction and future 'worlds' (a.k.a. scenarios) with great clarity:

Science fiction can be understood as a kind of writing that, in its stories, creates prototypes of other worlds, other experiences, other contexts for life based on the creative insights of the author. Designed objects -- or designed fictions -- can be understood similarly. They are assemblages of various sorts, part story, part material, part idea-articulating prop, part functional software. The assembled design fictions are component parts for different kinds of near future worlds. They are like artifacts brought back from those worlds in order to be examined, studied over. They are puzzles of a sort. A kind of object that has lots to say, but it is up to us to consider their meanings. They are complete specimens, but foreign in the

sense that they represent a corner of some speculative world where things are different from how we might imagine the 'future' to be, or how we imagine some other corner of the future to be. These worlds are 'worlds' not because they contain everything, but because they contain enough to encourage our imaginations, which, as it turns out, are much better at filling out the questions, activities, logics, culture, interactions and practices of the imaginary worlds in which such a designed object might exist. They are like conversations [*sic*] pieces, as much as a good science fiction film or novel can be a thing with ideas embedded in it around which conversations occur, at least in the best of cases. A design fiction practice creates these conversation pieces, with the conversations being stories about the kinds of experiences and social rituals that might surround the designed object. Design fiction objects are totems through which a larger story can be told, or imagined or expressed. They are like artifacts from someplace else, telling stories about other worlds.

...

Design fiction as I am discussing it here is a conflation of design, science fact, and science fiction. It is a amalgamation of practices that together bends the expectations as to what each does on its own and ties them together into something new. It is a way of materializing ideas and speculations without the pragmatic curtailing that often happens when dead weights are fastened to the imagination.<sup>374</sup>

Design fiction includes a whole host of small-scale art and design projects that are produced specifically to explore design possibilities, as well as, to a greater or lesser extent, their sociocultural implications. Consider the speculative projects carried out in design schools<sup>375</sup> or competitions.<sup>376</sup> The genre of 'critical design' seen a moment ago would also comfortably fit within these bounds.

To the above we may add the concept designs and videos produced by design firms, like the 'augmented reality' visualisations created at Frog Design,<sup>377</sup> or the Charmr diabetes treatment device<sup>378</sup> and the Aurora web browser of 2019<sup>379</sup> from Adaptive Path. Then there are also 'design probes' conducted by companies

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<sup>374</sup> Bleecker 2009, 7, 6.

<sup>375</sup> See for example: Design Led Futures website; RCA 2009.

<sup>376</sup> See for example the Greener Gadgets competition (Candy 2008g), the Timex 2154 competition (Candy 2008e), and White House Redux (Candy 2008n).

<sup>377</sup> Candy 2008j.

<sup>378</sup> Charmr: Adaptive Path diabetes management design concept, YouTube.

<sup>379</sup> Cascio 2008.

such as Philips,<sup>380</sup> Nokia,<sup>381</sup> Whirlpool;<sup>382</sup> and Microsoft Office Labs,<sup>383</sup> some of which are clearly at least as concerned with advertising the visionary qualities of the company, as they are about any product development process (much of which would, for obvious reasons, be kept confidential).

Already in these examples of design fiction, exercises for education and exploration begin to shade imperceptibly into the purposes of evangelism (more specifically, advertising).



Figure 4.3: Gestural interface in *Minority Report*, an instance of design fiction<sup>384</sup>

However, Bleecker's framework also prominently features elements of popular culture -- there's our fourth category, entertainment -- including parts of Hollywood feature films such as *2001: A Space Odyssey*,<sup>385</sup> which portrayed an exhaustively researched, rigorously imagined future incorporating space travel

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<sup>380</sup> Royal Philips Electronics (Netherlands) website.

<sup>381</sup> Nokia Morph Concept (short), YouTube.

<sup>382</sup> Whirlpool (UK) website.

<sup>383</sup> Microsoft Office Labs: Future of personal health concept, YouTube.

<sup>384</sup> Image via Gamma Squad <http://tiny.cc/figure4point3>

<sup>385</sup> Kubrick 1968.

and artificial intelligence,<sup>386</sup> and *Minority Report*,<sup>387</sup> which contains ‘a wonderful prototype of a ubiquitous computing future’<sup>388</sup> (see Figure 4.3). To reframe and reinterpret mass entertainments as agents in technosocial exploration and change is a canny and revealing manoeuvre. Design fiction is an apt term not only for material deliberately undertaken in the furtherance of design-related goals, but for other cultural artifacts which serves a like role in any case, by dint of its potent presence in the economy of future images. Films such as *Minority Report* and *2001*, as well as TV series such as *Star Trek*, are acknowledged by designers and technologists as exerting a formative influence on what occurs in the engine rooms of the technology industry, and in the minds of the people who enter the that line of work in the first place.<sup>389</sup>

So, if a rich, multimedia expression of a future technology that was *not* produced specifically to explore design space, but simply to entertain, can be adopted as a case of ‘design fiction’, how about the opposite number -- a deliberate gambit to trigger design-related conversation, but one not yet given visual or concrete

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<sup>386</sup> Film director Stanley Kubrick’s space masterpiece was released in 1968, and the story set of course (mostly) in the year 2001. However, the unforgettable character of HAL -- the icily intelligent computer on board the spacecraft where much of the action takes place -- had, according to the narrative, been born (or ‘became operational’) on 12th of January, 1992. A few years after that fictional date, and just a few more shy of the milestone immortalised in the film’s title, a collection of essays was published by MIT Press to examine how close Kubrick’s 1960s vision of artificial intelligence was by now to being replicated in reality. I already knew and loved the film, and the monitory note of the tale, viz. the alienation wrought by high technology, and especially the machine’s Frankensteinian revenge on his human supervisors, was unmistakable. I was therefore struck by the irony of this book dutifully measuring our collective scientific ‘progress’ towards the realisation of so problematic a future vision. Bleecker does not mention the book in his essay on design fiction, but for me it intensifies the power of this example, *2001*, to illustrate how films regarded as ‘design fiction’ may serve not only as a diffuse, popular guide to the future, but also as more or less explicit input into specific technoscientific research processes. This includes their (potential) value in raising, through drama, certain ethical and political questions, some of which the 2001 book also considers. (Stork 1997.)

<sup>387</sup> Spielberg 2002.

<sup>388</sup> Bleecker 2009, 35.

<sup>389</sup> Shedroff and Noessel 2010 (forthcoming); Stork 1997.

form? This conceptual branch of design fiction adds an interesting twist.<sup>390</sup>

A first example of conceptual design fiction is the 'Clock of the Long Now', a ten thousand-year, architectural-scale timepiece, the design of which began in the mid-1990s, and which eventually will be built inside a mountain in the Nevada desert.

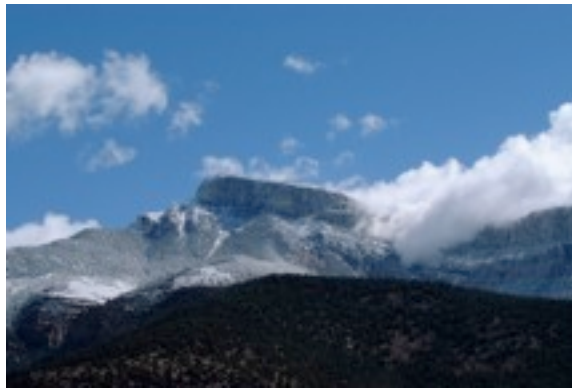


Figure 4.4: Mount Washington in eastern Nevada, site of the Clock of the Long Now <sup>391</sup>

Its purpose is not so much to keep time as to change how we think about it.<sup>392</sup> To build *any* structure with an intended lifespan twice as long as Egypt's pyramids have existed is a tall order. But to design something mechanical to withstand the slings and arrows of a multi-millennial timeframe requires an approach to temporality that has never existed in our civilisation. A prototype (just eight feet tall) has already been sitting in the Science Museum in London since 1999, but for most of the people whose thinking has already been altered by this initiative, its physicality is almost beside the point; the *idea* of its physicality has already begun to do the work. 'Fostering long-term responsibility' is the mission of the

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<sup>390</sup> This portion of the discussion emerged from a panel at South by Southwest 2010 on which I was a panelist, together with Bruce Sterling, Jake Dunagan, Julian Bleecker, and Sascha Pohflepp, moderated by Jennifer Leonard. Thanks to my copanelists and especially to its coordinator, Julian Bleecker. (Bleecker *et al.* 2010.)

<sup>391</sup> Image courtesy of Alexander Rose, The Long Now Foundation.

<sup>392</sup> Brand 2000.



sponsoring organisation, the Long Now Foundation, and this, its flagship project, could be called a high-concept, remarkably patient piece of design fiction, aiming to catalyse thought, at a very broad cultural level, in that direction.

And so to our second conceptual design fiction. In the mid-2000s, Sterling wrote a book (mentioned earlier) called *Shaping Things*, 'about created objects and the environment, which is to say... a book about everything.' He added sardonically, 'Seen from sufficient distance, this is a small topic.'<sup>393</sup> In the procession of humanity's 'technocultures', went his story, we have already undergone a series of stages, each adding a layer of materiality; a signature category of objects, with their accompanying modes of production and ways of life. The first was the *artifact*, followed by the *machine*, the *product*, and, most recently, the *gizmo*. Sterling went on to forecast the next generation of objects, which he expects will become the key player of this young century: it is the *spime*, a portmanteau mashup of 'space' and 'time'. 'Spimes', he explained,

are manufactured objects whose informational support is so overwhelmingly extensive and rich that they are regarded as material instantiations of an immaterial system. Spimes begin and end as data. They are designed on screens, fabricated by digital means, and precisely tracked through space and time throughout their earthly sojourn.

Spimes are sustainable, enhanceable, uniquely identifiable, and made of substances that can and will be folded back into the production stream of future spimes. Eminently data-mineable, spimes are the protagonists of an historical process.<sup>394</sup>

This is an exceptionally rich concept, and it may be hard to digest in one sitting, but its essence is that an object with all these features would never get lost, nor become 'waste'. The idea and the term 'spime' is a revolutionary stake in the ground, instantly providing an outline agenda for the creation of the (currently still hypothetical) Internet of Things, and with it, crucially, a way to approach a

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<sup>393</sup> Sterling 2005, 5.

<sup>394</sup> *Ibid.*, 11.

hitherto largely ‘unimaginable’ ecological sustainability *not* based on rewinding to an earlier era. Arguably, as a conceptual ‘design fiction’, the spime promises to unleash a working over of our relationship to materiality as thoroughly as the Long Now Clock ultimately hopes to do for our attitudes to temporality. Spimes may or may not end up accomplishing all these things, or even any of them, but among potentially game changing, one-word conversation pieces, it’s a doozy; its provisional, heuristic usefulness for examining this area of possibility space for the time being, at least, is certain.

Let’s pause here to recap. Design fiction is a new analytical category, retrospectively applied to a whole range of cultural outputs at the intersection of design/media production and forward thinking, including concept videos, advertising spots, and other speculative imagery. It incorporates artifacts ranging from ‘critical design’ to segments of Hollywood sci-fi movies that portray possible technologies in compelling detail. It is also, now, a lightly curated retrospective corpus of interventions and outputs of all of the above (quite a few instances of which could also count as ‘experiential scenarios’) that, having been gathered together, offers a way of illuminating and enabling this kind of work in the future. Design fiction is, in other words, a conversation site.

Before concluding this section, we will loop back to a key theme raised in Chapter 3, about the interoperability of discursive and material expressions. Bleecker suggests, very much in line with that logic, that the creation of physical artifacts can be regarded as a kind of discursive intervention. ‘[T]he process of creating artifacts and objects is a sort of theoretical activity. I mean that in the sense that creating objects are ways to “do” theory, for example, in an articulated, working-through of some questions, or as a way to frame certain questions.’<sup>395</sup> This captures one of the core propositions of my dissertation; that not only ‘theory’ in general, but specifically theories about various futures -- scenarios --

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<sup>395</sup> Bleecker 2006.

can be, and increasingly are, coherently and compellingly performed in experiences and instantiated in artifacts. Generally, objects which perform this kind of work may be called 'theory objects' (Bleecker credits the term to USC critical studies professor Tara McPherson<sup>396</sup>), or, similarly, 'Evocative Knowledge Objects' (attributed to composer/designer/writer Rich Gold<sup>397</sup>), 'a kind of object that is meant to generate thought and inspire the evolution of ideas'. Such objects need not strictly be 'designer' artifacts, produced by skilled artists in order to begin particular kinds of conversations. In fact, anything can be a conversation piece. Even accidents (perhaps *especially* accidents) serve as potent, strange attractors in discourse -- as demonstrated with Hurricane Katrina and Detroit in Chapter 2.<sup>398</sup> However, the skill of the artist, or of the political activist, or of the futurist, in wading into an ecology of ideas about the future will consist in their ability to create and contribute to it those theory objects which are the most likely to elicit engagement, and to nudge attention and concern in desired directions. This represents one measure of political 'effectiveness': successfully guiding conversation and attention in a culture's discursive ecology.

Seen from this angle, design fiction is *itself* an artful 'theory object' -- as is the word 'spime'. Sterling birthed the term deliberately to give it a life of its own:

When I made up this word, and attached it to this grab-bag of concepts, I wanted that word to be googleable. ... Because it's a new word, but it's also a new tag. The Semantic Web is turning into the wetlands of language. Because a word placed in the semantic web is not just a word. It is a theory object. Which is a tagged idea. Which is not just a meme, or an intellectual conceit, or a literary neologism, it's a whole cloud of associated commentary and data. Which can be passed around, from mouse to mouse, by people - and linked to, by people. A theory object is a word that's a platform for development. And every time I go to an event like this, this word, this tag, 'spime': it grows as a theory object.<sup>399</sup>

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<sup>396</sup> *Ibid.*

<sup>397</sup> *Ibid.*

<sup>398</sup> Bruno Latour makes much the same point through 'actor network theory' -- that 'things' are social too. (Latour 2005.)

<sup>399</sup> Sterling 2006b.

At this point our attention may move (recursively) to some of the spimelike qualities (digital, searchable, trackable) of the coinage 'spime' itself, as an example of how *all* ideas and terms are increasingly embedded in a densely networked discursive ecology. Things that are created and set loose in that ecology, whether physical objects, or video clips, or photoshopped images, or... you name it; all play their part in configuring and reconfiguring the distribution of the sensible.

This helps us, now, to put a finer point on the form of capillary, aesthetic political intervention which we noted as necessary in the previous chapter. Recall Trocchi (chapter 3):

'[T]he cultural revolt must seize the grids of expression and the powerhouses of the mind. ... It is... a question of perceiving clearly and without prejudice what are the forces that are at work in the world and out of whose interaction tomorrow *must* come to be; and then, calmly, without indignation, by a kind of mental ju-jitsu that is ours by virtue of intelligence, of modifying, correcting, polluting, deflecting, corrupting, eroding, outflanking . . . inspiring what we might call *the invisible insurrection*.<sup>400</sup>

The notion of 'experiential futures' is, in the same spirit, a theory object into which this document aims to breathe life.

### **The dance depends on who leads**

We have seen in this chapter how, at the macro-level, futures and design are involved in basically similar things; although at the micro-level, they clearly retain important differences, rooted in the contrast between ideational and material, and the corresponding differences in terms of temporal immediacy and concreteness. So where design and futures converge there are two different kinds of work, depending on which agenda takes precedence. The first is *futures in support of*

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<sup>400</sup> Trocchi 1963 [as republished 1991], 178-179.

*design*, and the second is *design in support of futures*. Futures in support of design describes work in which the exploration of one or more future scenarios is finally subservient to a bounded design task -- the creation of products, services, or whatever. Design in support of futures, by contrast, describes that type of practice where the design 'output' is not the end in itself, but rather is used as a means to discover, suggest, and provoke. When futures and design dance, they move very differently depending on which one takes the lead.<sup>401</sup>

Experiential scenarios, such as the four future rooms for Hawaii 2050, and all FoundFutures projects, are instances of design in support of futures. Here, Conversation is King. For our purposes futures is favoured as the leader with good reason. As we saw in Chapters 1 and 2, our current capacity for foresight lacks coherent, deep, qualitative, and affective or experiential engagement with scenaric possibilities. To be sure, some of the largest challenges that humans presently face could be said to result from insufficient 'futures' being built into the designed world (this is one way to restate the argument of *Cradle to Cradle*, for instance) and so, using alternative futures to produce things more wisely, in a more future-proof fashion, as it were, would be a way to address this. That's an argument for ensuring that concrete application, the design-side, is not lost in the shuffle.

We ought not to let the convenience of this rule of thumb differentiating design-led from futures-led projects obscure the fact that the exploration of futures and development of specific designs are not true opposites, complementary

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<sup>401</sup> Another gloss on this complementary pair is that futures in support of design is driven by the development of *applications*, while design in support of futures is driven by the exploration of *implications*. (I am grateful to Tony Dunne and Fiona Raby for drawing this valuable distinction, in the context of design, to my attention.) It follows, then, that design is primarily a search for killer apps, while the futurist hunts *killer imps*. (See Candy 2009a.)

processes which can, and for many purposes should, be used simultaneously or in alternation, and which also at times may be difficult to tell apart.<sup>402</sup>

And the exploration of *implications*, ramifications, potential consequences, before they happen, is the essence of futures work. It makes the difference between lurching blindly through possibility space from one catastrophe to another, on the one hand, and the exercise of foresight in support of wiser decisions, on the other. To engage in the exploration of alternative futures' implications is a political moment precisely in the 'aesthetic' sense discussed -- a rendering visible of something previously invisible, a rearrangement in the order of the sensible.

### **Three principles for designing experiential scenarios**

In concluding our exploration of the convergence of futures and design, we now consider three important rules of thumb for designing experiential scenarios and their *raisons d'être*.

Alongside the experimental, experiential efforts undertaken by Dunagan and myself, starting with 'Hawaii 2050', an *ad hoc* lexicon has evolved, distilling certain hard-won insights, and enabling more efficient ideation and iteration on

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<sup>402</sup> A borderline case, where it is not entirely clear whether design or futures is leading the agenda, could be the use of futures to explore alternative backdrops for particular industries, professions or disciplines in which designers work, including the design disciplines themselves. For example, I held an introductory futures workshop for graduate students in the 3D design program at Michigan's Cranbrook Academy of Art in January 2010, and began by having participants tell me about the various products and industries they either expected or hoped to work in during their careers as designers. The resulting list included items of furniture, toys, and transportation systems. After they had examined instances of each of the four generic images of the future -- continue, collapse, discipline, transform -- I asked them to consider how the designer's role could look, taking into account factors such as the availability of construction materials, within each type of future society specified. What would become of toys in a post-collapse economy? Or what about furniture in a world where Open Source designs can be selected online, then fabricated on the spot from the molecular level on up, by a black box in the corner? Such broad exploration is closer to 'pure' futures than when scenarios are used as a conceptual wind tunnel for particular designs, but could also feed into the development or testing of specific design ideas.

design possibilities, especially once our collaborators shared this language.<sup>403</sup> Examples given from others' work does not imply that they approached the design using those principles; only that they illustrate a point well. In any case the principles are not intended to provide rigid boundaries, but rather heuristic levers, helping to produce the desired effects in *the encounter* where a person meets an experiential scenario. which as we have seen, may occur in any medium or setting, from immersive, 'theatrical' intervention (such as the four rooms staged for Hawaii 2050), to stand-alone 'artifacts from the future'.<sup>404</sup>

### 1. Don't break the universe

This phrase, offered by our frequent design partner Matthew Jensen, became something of a master principle for developing experiential scenarios. It means that a scenario or artifact should ideally be presented on its own terms, as if transplanted from a fully realised, coherent, concretely existing alternate (or rather, future) universe.

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<sup>403</sup> These terms were originated in conversations between Dunagan and myself, sometimes with our graphic design collaborators, and periodically documented, interrogated or illustrated with found examples at my blog, *The Sceptical Futuryst*. <http://futuryst.com>

<sup>404</sup> The term comes from a feature in tech magazine *Wired*. (*Wired* magazine, 'Found: Artifacts from the Future', monthly back-page feature.) These photo-illustrations images, run on the back page of almost every issue since February 2002, playfully depict a product or service from some time in the future. Given the publication's theme these concepts have frequently been for high-tech gadgets or commercial products, incorporating some twist on an existing brand. The 'experiential' approach to producing stand-alone artifacts goes further by making concepts tangible, and even when they stand alone, they are usually embedded in a fuller narrative/ scenario context. Among designers, the 'artifacts from the future' meme has been developed furthest towards experiential futures by Jason Tester of Institute for the Future. (See Null 2006; and Tester 2007, for his articulation of 'human-future interaction', a design approach named by analogy with 'human-computer interaction'.)

This is a principle of realism in representation, similar to the actor's commitment never to 'break character' or 'break scene' during a performance.<sup>405</sup> It also invokes the theatre's invisible 'fourth wall' through which the audience supposedly watches the world of a play, although rather than being an argument *against* breaking that wall (a traditional imperative aimed at preserving the audience's suspension of disbelief), our conception of preserving the 'universe' entails the exact opposite. That is, if an experiential scenario is literally performed with an audience present, this principle argues for removing the fourth wall from the beginning, treating them not as a separate 'audience' but rather as an organic, *diegetic* part of the scenario, internal to the narrative.

Some examples. In the Hawaii 2050 scenes (described in Chapter 2), when participants entered any one of the four rooms, they were, we decided, entering the future world we meant to evoke. So in the *continue* future, featuring the on-stage political debate, they would be members of a state electoral college. In the *collapse* future they were asylum-seekers in a totalitarian island kingdom. Participants entering the *discipline* world were trainees in a compulsory community education program for sustainability. And in the *transform* condition, they were part of a human underclass in a posthuman world. All this was not simply to provide a shallow interactivity, giving people 'something to do'; the aim was to draw them in to the logic as well as the affect of the narrative, their comprehension and participation in the given universe requiring active engagement.

As the above implies, this principle especially affects how a scenario is introduced. It may be tempting, in staging these situations, to be ploddingly

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<sup>405</sup> I recently learned that Disneyland employees use a similar phrase for intrusions of reality on the theme park experience: *breaking the dream*, defined as 'behind-the-scenes action that shatters the illusion, e.g. dismantling of an audio-animatronic figure'. The 'dream' is carefully imagineered with the help of the Disneyland *manifesto*, 'rigid park rules outlined in employee handbooks and drilled into cast members during indoctrination'. Those who 'disobey the manifesto, from speaking while on duck duty to varying from the jungle cruise's prepared scripts' are said to *incur the wrath of Walt*. (Le Cuyer 1996.)



explicit about what is going on. 'You are about to enter a role play for a hypothetical future; do not be alarmed...' Perhaps this is sometimes necessary. But it is not the approach recommended here, which holds instead that the scenario is better not being so literal, instead drawing the audience in.<sup>406</sup> There is in this an echo of what performance theorist Richard Schechner calls 'dark play'. ('Playing in the dark means that some of the players don't know they are playing.'<sup>407</sup>) However, the art of it is to generate a hook, a moment of intrigue, and a path of discovery into the material, rather than to create a persistent state of confusion. Intrigue is tantalising, confusion is irritating, and it can be a fine line separating the two. At one level, the difference may simply be duration: confusion is intrigue that doesn't pay off soon enough. Generally, though, the encounter is more effective if unannounced. (See for instance the *New York Times Special Edition*, a guerrilla futures intervention described in Chapter 5. There is also the related ethical issue surrounding people being actually misled, especially in 'guerrilla' interventions, discussed in detail in Chapter 6.)

The reason to refrain from providing more explicit context for the story, but instead, to drop people into the middle of things (*in medias res*, as the Roman poet Horace put it), is to encourage a different quality of attention during the encounter. But it also behooves the experience designer to unfold the scenario's content artfully, so the narrative can be sniffed out without the reek of clumsy exposition. A related concept is 'no flashing arrows', from popular science writer Steven Berlin Johnson's book *Everything Bad is Good for You*.<sup>408</sup> In it Johnson contends that, while vacuous content may give them a bad name, the narrative

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<sup>406</sup> The encounter with a future artifact could be compared to a romantic overture from a stranger. If someone tells you baldly 'I want to go to bed with you', this may or may not produce the desired result (generally speaking). At the other extreme, if they simply try to take you and have their way with you on the spot, that too would rarely be a successful approach. The middle ground is a seduction, whereby you are drawn in gradually... and *voilà*: before you know it, you're in the future.

<sup>407</sup> Schechner 2002, 119.

<sup>408</sup> Johnson 2005.

vehicles of TV, movies and video games are in fact becoming increasingly demanding and sophisticated from a cognitive point of view. Part of his argument is that the cues in televisual narratives have become increasingly subtle and rely on viewers' semiotic astuteness and media literacy, so that 'flashing arrows' are no longer necessary to draw attention to salient plot information.<sup>409</sup> 'Don't break the universe' is thus a strategy to produce heightened engagement, one which also credits the intelligence of an audience with being able to work out the difference between 'scenario' and 'reality'.

Still, a degree of 'strategic ambiguity' is desirable because of the sort of questions it raises. Most of the examples above describe experiential scenarios in performance form, but the principle 'don't break the universe' also applies to stand-alone future artifacts including video clips, still images, or physical objects.

For instance: during the course of one week in May 2007, a cross-section of Hawaii's influential business, political and community leaders received a series of mysterious postcards in the mail from the year 2036.<sup>410</sup> On Monday, it was a missive from the sovereign 'Commonwealth of Hawaii', congratulating the recipient on a personal invitation to visit the islands, but stipulating that an RSVP was required, including medical certification of fitness to work. On Tuesday came a promotional flyer, in the form of a vintage Hawaiian postcard, from a virtual reality company advertising a proprietary, fully immersive virtual experience of the mythical 'Blue Hawaii' of the 1960s. On Wednesday, a souvenir postcard appeared from the Two Seasons Underwater Hotel and Casino, adjacent to the East-West Maui Bridge in buzzing 'Mauihattan'. Finally, Thursday brought a plea for help addressed to the United Nations, headquartered in Beijing, on behalf of a beleaguered Hawaii suffering mob rule and guerrilla warfare in the wake of 'Hurricane Cyrus'. Today, with tourism being a crucial economic engine in the

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<sup>409</sup> *Ibid.*, 73ff.

<sup>410</sup> Candy 2007d.

islands, each of the cards was designed to embody questions about the viability, over the next 30 years, of the industry in its current form.<sup>411</sup> The matter was raised, in a sense, by the mere existence of the cards, implied by their contents rather than an explicit deliberative procedure. The ‘FoundFutures’ postcards project also involved depositing the cards in local cafés and bookstores where people would come across them in the midst of their everyday lives. A local journalist interviewed some of the recipients and reported on the project following the campaign:

Last week Bob Maynard, CEO of Aloha Petroleum, received four postcards, one a day beginning on Monday. The first was an invitation to visit ‘the Commonwealth of Hawai’i’ and asked for an R.S.V.P. by June 31, 2036. ‘I thought maybe it’s something to do with sovereignty,’ said Maynard’s executive assistant, Joan Ellis. ‘Then I thought it was some sort of promotion that someone was using to pique interest.’<sup>412</sup>



Figure 4.5: The back of a FoundFutures postcard from 2036 <sup>413</sup>

<sup>411</sup> In fact we first produced the postcards as a workshop handout in an alternative futures exercise for tourism industry representatives, run by HRCFS in conjunction with the University of Hawaii’s School of Travel Industry Management. Only afterwards did the notion arise of putting these artifacts to even more effective use ‘in the wild’.

<sup>412</sup> Griffith 2007.

<sup>413</sup> Graphic design by Yumi Vong for FoundFutures.

The future 'universe' of each of the postcards was kept intact by allowing them to speak for themselves, sometimes initially prompting a certain puzzlement. By the time the fourth postcard arrived, however, the executive assistant reflected that each Hurricane season, Hawaii was 'dodging a bullet'.<sup>414</sup>

Recalling Merry Prankster Ken Kesey's movie metaphor (Chapter 3), there we may discern a deeper rationale for *not breaking the universe* that one creates as a futures designer; or to put it another way, for maintaining an experiential scenario's 'diegetic integrity'. If there is a reason to take care to build coherent future universes that can, as it were, stand on their own, it is to lend them sufficient authority to withstand their encounter with the default movie in which people live. An important consequence of insisting on an internal coherence to the scenario is that it holds the work itself to a higher standard, and forces the designers to maintain a high degree of rigour about the story being told. It can require considerable work to ensure that the experiential scenario makes sense on both its own terms (internally) as well as to an audience (externally), but the payoff is considerable, literally. A well made experiential scenario speaks not timidly, but commandingly, from a sovereign plot of possibility space. Then, in confronting consensus reality, it will be the latter movie whose plot one begins to question, its apparent solidity which begins to give way.

## 2. The tip of the iceberg

It is both physically and metaphysically impossible to render a complete experience to-scale of a whole future. Such an ambition would be, to use a Borgesian figure, like trying to create a map the size of the territory<sup>415</sup> (putting aside the not insignificant point that, as Lakoff might remind us, the future is not a 'territory' to be 'mapped'). An approach to handling this situation is suggested by

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<sup>414</sup> Personal communication with Lesa Griffith. See also Candy 2007c.

<sup>415</sup> 'On Rigor in Science', Borges 1964, 90.

the metaphor of the 'tip of the iceberg', where the visible part is only a fraction suggesting the whole. (A popular, usually unattributed, 'iceberg model' of culture is used in cross-cultural education, dividing culture into the visible 'tip' -- things of which we are consciously aware, such as language and customs -- and the 'submerged' remainder -- things like priorities, motivations and attitudes.<sup>416</sup>) The 'iceberg principle' urges us to select whatever 'tip(s)' of the scenario iceberg will evoke, by triggering the imagination, the rest of it. Like a good caricature drawing or sketch, this also has the virtue of economy; important in a (breadth-oriented) exploratory mode examining multiple options, multiplying the necessary investment of time.

An example. For his graduation project at the Harvard Graduate School of Design, self-described 'rogue architect' Bryan Boyer produced an audacious replacement design for the iconic US Capitol building in Washington, DC.<sup>417</sup> This was an ambitious undertaking for both technical and political reasons (American government is not without its sacred cows), but some of the methods he selected to portray his design were of particular interest. In addition to the usual elevation plans, exploded views and interior mockups, he also created 'spinoffs' of the design, not only as if it were to be constructed, but as if it were absorbed into everyday life and popular American culture. These 'tips of the iceberg' included a back-seat passenger view of the new structure through the windshield of a vehicle on New Jersey Avenue; a series of souvenir plates adorned with the proposed building's imagery; and a US fifty dollar bill with his Capitol on the reverse. While it is standard practice in architecture (including speculative projects produced for discussion purposes) to include 'artist's impression' imagery and models, these unusual perspectives were selected to show more than just the structure itself, which is as far as conventions of architectural representation usually go. Boyer chose to refract his hypothetical scenario

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<sup>416</sup> See for example Lago 2006, 58.

<sup>417</sup> This section based in part on Candy 2008a.

through a prism of everyday life, with each 'embedded' glimpse of the Capitol being a different 'iceberg tip' suggesting, with great economy, a much larger story beneath the surface -- his conversation-starting hypothesis about the reach of transforming an architectural icon.



Figure 4.6: Bryan Boyer's redesigned US Capitol building mediated via a \$50 bill <sup>418</sup>

A second example. The geology of San Francisco Bay Area is such that devastation could strike at any time. Everyone knows the city was destroyed by an earthquake in 1906, and it suffered moderate damage in 1989, well within living memory for many. Yet despite this history, and knowledge of the risks at an intellectual level, it is extremely difficult for many people living there to imagine the sort of upheaval, in both senses, that such an event would bring, and the Red Cross estimates that only six per cent of residents are prepared for a natural disaster, and periodic reminders of the risks encourage more to take appropriate measures.<sup>419</sup> So a recent Bay Area Red Cross earthquake awareness campaign included a single portable billboard installed at the bottom of San Francisco's Market Street in front of the Ferry Building (a busy and photogenic area),

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<sup>418</sup> Image courtesy of Bryan Boyer. <http://bryanboyer.com/>

<sup>419</sup> Zjawinski 2007.

featuring how that very view might look, in both directions, after a major shock. This quasi-guerrilla intervention elegantly and powerfully illustrates how showing a carefully chosen ‘tip of the iceberg’ in an experientially immediate form can speak volumes.



Figure 4.7: A Red Cross billboard urging earthquake preparedness in San Francisco <sup>420</sup>

We see from these instances that, although any given future is in principle impossible to map 1:1, we can model *parts* of it at that level of fidelity -- an easily apprehended, personal scale -- and count on a kind of experiential synecdoche, noted in Chapter 2, to allow the part to speak for the whole. (As Jensen has asked, in a trademark comic provocation, why create a whole ‘snake-dog’ -- whatever that is -- if the *snake-dog leash* will suffice?) Detailed fragments of future worlds may be designed, then staged or distributed in any form, as

<sup>420</sup> Image via Zjawinski 2007.

imagination-triggering devices; conversation starters; objects to think with. Boyer's speculative replacement for the US Capitol is a design proposal, while the flash-forward to an earthquake aftermath is a public service announcement promoting disaster preparedness measures; two very different purposes. They also deploy different media strategies; Boyer's approach being to make physical 'souvenirs' of his future, while the Red Cross creates a window on the post-earthquake city, from which the rest of the scene may be inferred.<sup>421</sup> Both, however, accomplish the telling of future scenarios on a far larger scale than they in fact access, through the use of carefully selected experience fragments. As indicated earlier in discussing experience design (Chapter 2), those fragments can in principle be anything.

Now, a kind of thinking which helps put this notion into practice, selecting and producing the most evocative manifestations of a particular scenario, is what we have called -- here comes another metaphor -- 'reverse archaeology'. I'll explain. After an archaeologist digs up an artifact of a past civilisation -- an urn, or a clay tablet, for instance -- she sets about trying to deduce from its features things about the society which produced it: rituals, social structure, economy, and the like. In designing future artifacts, we almost always start from a written scenario of the future in question, the drafting of which provides the opportunity to consider its internal cohesion, its coherence with the present and with history, and so on. Whereas the archaeologist tries to deduce the 'world' from the 'fragment', we as multimedia futurists attempt to distill and then manifest in tangible form the most potent fragments expressing the world of the scenario.<sup>422</sup>

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<sup>421</sup> 'Avenirs' would be the etymologically correct term for 'future artifact'; the noun 'souvenir' is from the French verb 'to remember'; the noun 'avenir' means 'future', literally '(yet) to happen'.

<sup>422</sup> See for example Candy 2008k. Since then futurist Alex Soojung-Kim Pang has made a similar point: 'Cultural anthropologists and scholars of material culture are able to reconstruct the outlines of a civilization, or the shape of world-views, from artifacts. Futurists must learn to work in reverse: to crystallize future worlds in designs that can help people make better-informed choices about their own futures-- and hence the future of the world.' (Pang 2009b.)



A near-identical approach was independently developed by London-based 'service design' firm Live|work, a practice they call 'evidencing'.

Evidencing, or the making of evidence from the future, can be used as a rapid way to prototype future service experiences. You can use the evidence as a stimulus with users or in Roleplay to test the ideas. This type of 'archaeology of the future' enables service providers to make early qualitative judgments about the implications of a design. Ultimately it allows customers and collaborators to 'play back' their own assumptions as concrete experiences rather [than] abstract evaluations.

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Evidence can represent the effects of possible designs as much as the design of the service itself. Therefore evidence are [*sic*] not only core service touch-points, but often third parties' response to an service such as newspaper articles describing the results of the service.<sup>423</sup>

The importance and value of evidencing becomes obvious as one considers that a company selling services needs to be able to evaluate potential changes to its way of doing things, but unlike a business selling products, the experience their customers have cannot be captured by prototyping a stand-alone object. The 'touch-points' of the service are analogous to our visible parts of the iceberg, and the technique of producing these can be used equally for exploration or evangelism. Exploration: Live|work developed a range of hypothetical artifacts for the telecommunications company Orange, 'the touch-points of services, such as 'magazine articles, packaging, web sites, newspaper advertisements, letters and television news items', using them 'as discussion points and provocations for the Innovations team'.<sup>424</sup> Evangelism (also in a corporate consultancy setting):

Michael Bierut of the design firm Pentagram used mocked-up *Wall Street Journal*

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<sup>423</sup> Live|work 2008. Design maven John Thackara notes that the founders of Live|work studied interaction design at London's Royal College of Art, where Tony Dunne and Bill Gaver developed the technique of 'cultural probes' in the late 1990s. Dunne became one of the main exponents of 'critical design', a practice with a family resemblance to evidencing, with an art rather than business emphasis. Says Thackara, the Live|work team brought evidencing to the (now defunct) Interaction Design Institute Ivrea in Italy, of which Jason Tester, who later brought 'future artifacts' to Institute for the Future, was an alumnus. (Thackara 2005.) In other words, some of the apparent family resemblances across future oriented methods in the design world diaspora are more than coincidental.

<sup>424</sup> Live|work 2005(?).

articles to help persuade a low-cost airline client to adopt a recommended branding strategy.<sup>425</sup>

We have come to recognise that the iceberg principle, like ‘evidencing’, is a variant of prototyping, a practice long used by designers to loop their exploration process through materiality.<sup>426</sup> The isomorphism noted earlier in this chapter between futures exploration (especially experiential scenarios) and design activity is seen with particular clarity when it comes to prototyping. Indeed, some see it as the production of ‘tangible futures’.<sup>427</sup> The CEO of international design firm IDEO, Tim Brown, uses the evocative phrase ‘building to think’ (which recalls our interlacing of thought and materiality elaborated in Chapter 3).<sup>428</sup> And Peter Coughlan and Ilya Prokopoff, who co-lead the practice in ‘transformation design’ at IDEO, have described rapid prototyping as one of the key methods in design that organisations can use to face the future more effectively:

Rapid prototyping helps people to experience a possible future in tangible ways. These include rough physical prototypes of products or environments, or enactments of processes and service experiences, as well as the internal infrastructure and business plans that will be required to deliver them. It allows a very low-risk way of quickly exploring multiple directions before committing resources to the best one.<sup>429</sup>

Innovation consultant Michael Schrage discerns in the practice of prototyping a significant potential, one in resonance with a central contention of this dissertation -- namely, the increasing promise of manifesting alternative futures:

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<sup>425</sup> See Freitas 2006; Merholz 2006.

<sup>426</sup> Coughlan and Prokopoff 2004, 191.

<sup>427</sup> New York-based design strategist and consultant Victor Lombardi has already been using the term for several years. (Candy 2008m.) Information architect Peter Morville also uses it in his recent book *Search Patterns*. (Morville and Callender 2010, 155ff.)

<sup>428</sup> Brown 2009, 87ff.

<sup>429</sup> *Ibid.*, 191.

As prototypes become ever more powerful and persuasive, they will compel new intensities of introspection. To paraphrase philosopher Alfred North Whitehead, they will become conceptual machine tools for postindustrial innovation -- not because we are now gifted with finer imaginations but because we have better instruments for imagining and rehearsing the future.<sup>430</sup>

The tip of the iceberg, where the 'iceberg' is a future world to be evoked, is thus a design principle for experiential scenarios which most clearly shows the intersection of design and futures practice. We may expect of their continued mutual development not only new intensities of *introspection*, but also new intensities of *prospection*.<sup>431</sup>

### 3. The art of the double take

The third principle for designing and staging experiential scenarios is what we have called 'the art of the double take'. The basic idea springs from an playful, exploratory, 'decolonising' ethos best captured by Dator's so-called 'Second Law of the Future', which holds that 'Any useful statement about the future should at first appear to be ridiculous'.<sup>432</sup> In this view, a key contribution of futures thinking is specifically to encourage the examination, as opposed to the automatic reinforcement, of expectations and assumptions. Ridiculousness is a necessary but not sufficient condition (that is, all useful ideas must be ridiculous, but not all ridiculous ideas are useful). Here the point is that what 'at first appears' soon gives way to a deeper understanding. What seemed ridiculous is later revealed, or rather re-perceived, as genuinely viable. Some realisation, some form of learning, has taken place. The 'double take' mobilises this notion, embedding it in experiential scenario form by aiming for an encounter that unfolds in two parts.

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<sup>430</sup> Schrage 2000, 36.

<sup>431</sup> Prospection: 'the activity of purposefully looking forward to create forward views.' (Voros 2003, 15.)

<sup>432</sup> Dator 2003. Note that the 'second law' has appeared with slight variations, another being 'Any useful idea about the future should appear to be ridiculous.' (Dator 1996a.) The words 'at first' import a qualification that is important for the point at hand.

At first, the scenario proposition will seem absurd or foolish, even comical. It is right on the borderline of being rejected outright. But there is something intriguing, even compelling, beneath that, and as you find yourself thinking about it more, you gradually discern an underlying logic which was not at first apparent. As we have seen (Chapter 2), all four of the Hawaii 2050 experiences were designed to walk the fine line at the edge of plausibility; to seem ridiculous at first, and yet eerily possible on reflection.

An alternative arc for the double take, beginning from the opposite end, is where a challenging concept about the future is packaged in the form of something quite ordinary and unremarkable. But perhaps something does not seem quite right about it, and it invites a second glance; and on a closer inspection its meaning begins to unfold.

An example of this second form. American artist and activist Steve Lambert carried out a project in June 2005 at the University of California, Davis, as it was undergoing rapid expansion. He explains, 'Throughout the campus there are signs announcing construction of new buildings. [S]ome of the signs announce construction for buildings which funding has changed priorities, or are so early in the planning stages no one knows if or when they will ever be constructed. Essentially, the signs announce construction for building which may never be built.'<sup>433</sup> Lambert used this as a springboard to create his own sign, mimicking the official version, and installing on campus. It announced the (marvellously lavish) \$368 million construction, over the next three years, of an Institute for Anarchist Studies, to boast facilities including the Sacco & Vanzetti Learning

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<sup>433</sup> Lambert n.d.

Center, the 24-hour Kropotkin Café, and the Emma Goldman Dance Studio.<sup>434</sup> The sign, presented in house style, at first blends seamlessly with the university environment.



Figure 4.8: Signage for the Emma Goldman Institute for Anarchist Studies <sup>435</sup>

Once the content is engaged, however, it raises questions about the possibility of major resources being devoted to so politically marginalised a tradition, allowing

<sup>434</sup> Although the university gave permission for the sign to be installed (interestingly, it was officially accepted as a 'sculpture'), this also stands as an excellent example of a guerrilla futurist action (see Chapter 5). (Lambert n.d.) For Lambert, one of the gratifying outcomes of the project was that local news reports about it were obliged to explain what anarchism is, and who these anarchist figures were. (Lambert 2010, approx. 9 min 30 sec in). In this we can see that the project served as a way of creating some degree of exposure for anarchist thought, a widely maligned, and even more widely ignored, political tradition.

<sup>435</sup> Images by Steve Lambert. (Lambert n.d.)

people 'to recalibrate their sense of reality'.<sup>436</sup> It is also, we should concede, conceivable that a good number of passers-by would fail to register anything unusual about a third of a billion dollars in corporate sponsorship being spent on memorialising anarchy, and that for them the question never came up. No principle is a recipe for reaching everyone, yet in Lambert's piece we discern an experiential scenario ingeniously inviting the double take.

Depending on how an experiential scenario is set up, one may be struck in the encounter by ridiculousness first, or by ordinariness and plausibility. Both routes can work. Tangible objects and signage, such as Lambert's Anarchist Institute, assert themselves in materiality with such force that, at some level, they demand to be taken seriously first; certainly this is so when they adopt the idiom or 'disguise' of a part of the ordinary semiotic surroundings or 'mental environment'.<sup>437</sup> An immersive experience unfolding over time before a captive audience, on the other hand, like the four rooms for 'Hawaii 2050', can lead with absurdity and allow those encountering it to find their way to the logic beneath.<sup>438</sup>

Either way, the principle of the 'double take' is that one comes to the scenario twice; the first time fast, a snap judgment, and the second time slow, a rethinking of the initial impression. What is important is the journey from one to the other -- from acceptance at first towards questioning, or from questioning to acceptance. The point is that the 'double take' entails raising a fundamental tension, and allowing the audience to arrive at its own response, and reconcile or negotiate this tensions (in whatever manner) is essential. Political theorist and activist Steve Duncombe (with whom Lambert has collaborated) makes a similar point,

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<sup>436</sup> Lambert 2010, approx. 10 mins in.

<sup>437</sup> I borrow the term 'mental environment' from the magazine *Adbusters*. (Arnold 2004.)

<sup>438</sup> There seems to be a structural similarity to how humour can operate politically, in both of these varieties. Some humour projects a seriousness of intent but has a hidden comic agenda. Other humour, stand-up or parody for example, wears comedy on its sleeve, seeming silly or unserious, but it may harbour a powerful, even dangerous, critique just beneath the surface.

arguing in support of the frequently undervalued role of the 'impossible' in politics. To treat the supposedly impossible future as a perfectly viable option, or even a *fait accompli*, enables the discussion of possibility in a different way.<sup>439</sup>

If an idea about the future can be instantly and unthinkingly accepted, and the process ends there, it is without real value. Nothing has been learned, no challenge mounted and met. It is merely reinscribing common-sense, cliché, or extrapolation. If, on the other hand, an idea is rejected, and it bounces harmlessly off a wall of assumptions, and the process ends there, this too is a failed encounter. It is possible to err in one way or the other, but the sweet spot sits in between. The liminal zone of interest here is captured rather well by the slogan 'Most Advanced Yet Acceptable' (MAYA), known to designers as the signature precept of no less a figure than the 'father of industrial design', Raymond Loewy (1893-1986).<sup>440</sup> Loewy believed that 'The adult public's taste is not necessarily ready to accept the logical solutions to their requirements if the solution implies too vast a departure from what they have been conditioned into accepting as the norm.'<sup>441</sup> The domain in question may be intellectual, commercial, or educational, and Loewy's idea applies equally well.

It is not required -- at least not for purposes other than evangelism -- that every encounter result in a particular outcome of acceptance or rejection, either in expectations or in normative terms. With the double take principle, *acceptance* of a scenario is not necessarily the goal, although to invite people in to the space between it and *advanced* (weird, improbable) certainly is. To effect a double take in the moment of encounter -- pushing people to think possibility space in a new way, and sometimes revealing unthought possibilities -- is in any case a

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<sup>439</sup> Duncombe 2008.

<sup>440</sup> The application of MAYA to futures scenarios was noted by Bruce Sterling in a presentation on 'design and futurism' at California College of the Arts. (Sterling 2006a.)

<sup>441</sup> Official Site of Raymond Loewy 2003(?).

quintessentially political accomplishment, a redistribution of the sensible. To what extent it works in any given case is another question; therein lies the 'art'.

## **Conclusion**

Futures and design are complementary enterprises, doing similar things on different scales. Futures has historically tended to err on the side of ideation and exploration, and to fall short of effective implementation (often even of effective *communication*), whereas design's shortcomings have tended to result from a practice in materiality that has often paid insufficient attention to its long-term, cumulative implications. These sets of activities seemed to inhabit different worlds, and in a discursive sense perhaps, until recently, that was entirely true. Yet designers increasingly recognise the importance of issues traditionally associated with futures, and meanwhile, more futurists are taking an interest in design, the concreteness of which provides an essential counterpoint to the built-in abstractness of considering the possibilities of distant times to come.

So, futures can lend design a richer temporal context and big-picture meaning-making -- a framework within which to process the stupendous question of, to use Mau's phrase, the 'design of the world'. Design lends futures solidity, communicative as well as exploratory effectiveness (as Sterling noted regarding his own writing process); a direct interface to materiality, a place to begin pursuit of preferred futures in the concrete. Together, they provide the tools of a more complex and yet more intuitive exploration of possibilities, with the 'theory objects' of futures -- which scenarios have always been -- now assuming irresistibly tangible forms.

Now we turn to what all this looks like when performed in unexpected contexts.



## CHAPTER 5

### GUERRILLAS IN THE WILD

The mass communication universe is full of these discordant interpretations; I would say that variability of interpretation is the constant law of mass communications. The messages set out from the Source and arrive in distinct sociological situations, where different codes operate. ... And yet I believe it is wrong to consider the battle of man against the technological universe of communication as a strategic affair. It is a matter of tactics. ... So for the strategic solution it will be necessary, tomorrow, to employ a guerrilla solution. ... The battle for the survival of man as a responsible being in the Communications Era is not to be won where the communication originates, but where it arrives.

~ Umberto Eco, 'Towards a Semiological Guerrilla Warfare'<sup>442</sup>

This chapter proposes some tools to facilitate the staging of high-impact experiential futures, examining some case studies to think through the benefits and hazards of this kind of practice, and mobilising many of the insights at which we have arrived so far.

Let's recall the stakes for our work. The usual ways of thinking about the future are falling desperately short of our needs -- the worst and best future worlds we could create for ourselves seem to be either unthinkable or unimaginable -- and a crucial, under-utilised mode or dimension of futures exploration is experiential. Typically what 'the future' lacks is immediacy, concreteness, and affective, bodily representation. A successful practice of experiential futures would redress this lack, and begin to bridge the 'experiential gulf' between future life as imagined and as lived.

Within the subset of relatively novel, impactful deployments of media and materiality for futures exploration (many of which we have touched on in earlier chapters), the more provocative, affective, and learning-intensive cases are of greatest interest here. Since this dissertation's intended contribution is towards a

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<sup>442</sup> Eco 1986 [this essay 1967], 141-142.

practice that addresses our burning need to think the unthinkable and imagine the unimaginable, in what follows the focus will be on what I will call, with a faint echo of Eco, *guerrilla futures*.

### **Situating guerrilla futures**

Guerrilla futures is the uninvited critique and pluralisation of futures scenarios -- often, although not necessarily, via experiential intervention. Its aim as a practice is to introduce sceneric possibilities to publics that otherwise may not be exposed to them, or that, while perhaps aware of the possibilities in question, are unable or unwilling to give them proper consideration. It's the tactical, activist strand of futures practice.

It is about enabling people to become aware of and to question their assumptions about futures -- possible, probable or preferable -- by rendering one or more potentials concrete in the present, whether or not they have asked for it. A guerrilla intervention may address either breadth or depth in scenario thinking (see Chapter 1), or both at once. In the same way that the framework of experiential futures has been offered in response to a need -- to make futures thinking address both sides of the human 'dual process' system, affective as well as logical (see Chapter 2) -- guerrilla futures also responds to a need. That need, which springs from the same ultimate agenda, is to actively bring such thought to wider attention.

The particulars of the media used, and the subject matter in question, can vary enormously. One example could be giving out an ostensible 'future artifact' to urban commuters, such as a newspaper (dated the following year) and containing impossibly good news, as if the world had suddenly transformed. In another case, it could be drawing a line in blue chalk on the sidewalk, running for

several blocks through an urban neighbourhood, and labelled so that residents and passers-by understand they are seeing a projection of where the sea level could reach by the end of the century. Or it could entail putting up a bronze plaque, 'memorialising' a hypothetical community tragedy that, in the world of the scenario, isn't going to happen for another ten years. What these examples all have in common is the deliberate, concrete intrusion of future possibilities into the present to encourage as well as enable deeper engagement with those possibilities.

There is an overlap between experiential and guerrilla futures, but they are non-identical. Not all experiential scenarios can claim the guerrilla activist's level of direct engagement with the Rancièrian 'political'. Certainly, as some of the examples in the previous chapter also suggested, there is a strain of what could technically be called 'experiential futures' which is deeply complicit with (decidedly non-guerrilla) status quo thinking, and which gets us no closer to improving engagement with alternative futures. Indeed, some of the most prominent futures experiences we can cite could be said mainly to encourage uncritical acceptance of an 'official future'.

This is a structural problem: to be formally commissioned, paid for and installed necessitates prior institutional acceptance of the contents, which results in the circular problem that the kind of future scenarios that would be least expected, or most challenging to conventional ways of thinking -- and hence most valuable -- are also among the least likely to be manifested. Indeed, we would be hard pressed to find an expression of a possible future that is more congenial to existing patterns of domination and less disruptive of extant assumptions of the day than GM's Futurama, or Disney's Tomorrowland. If, as Dator's Second Law claims, 'Any useful statement about the future should at first appear to be ridiculous',<sup>443</sup> then we are not very likely to find many useful statements about the

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<sup>443</sup> Dator 2003.

future emerging in such circumstances. These are instances of official-future (continue) propaganda, rather than offering serious critical, decolonising potential.<sup>444</sup>

This is a result of what I call the 'Futurist's Catch-22'. Life in futures work entails constant labour on the frontier of acceptability. Those whose thinking would benefit most from a plural futures perspective are sceptical or uninterested, while those predisposed to be aware and interested for that reason do not need it as much. The Catch-22 is replicated in relation to specific emerging issues. If [emerging issue X] were already a mainstream idea, there would be plenty of interest in it, but if it were already mainstream, it would no longer be an emerging issue. Thus, the ever-evolving time horizon and preoccupations that by definition are of greatest interest to a serious futurist tend to be difficult for people to grasp and value.<sup>445</sup>

In any case the principal feature that distinguishes guerrilla handiwork from other futures work is the fact that it is uninvited and unexpected on the part of its audience. This element of surprise is crucial -- a bid to break the Catch-22.<sup>446</sup> The very fact of a future's presentation in *expected* contexts may diminish the likelihood of genuine surprise as a component of the experience, thus, as we shall see, depriving it of the ontological ambiguity that makes guerrilla futures at

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<sup>444</sup> Just as experiential futures work is not necessarily either 'politically' disruptive or 'guerrilla', guerrilla futures work is not necessarily 'experiential futures'. Picture an intervention in which all copies of an economic history textbook in a particular bookstore are surreptitiously 'corrected' or provided with an addendum on alternative futures. 'Experience design' may be brought to bear on putting this project together, conceiving and executing it around the experience that that a casual bookstore customer would have. It would certainly be an 'experiential' intervention in a loose sense, but it would not be an 'experiential scenario', manifesting a particular future narrative.

<sup>445</sup> Which brings us back, as ever, to Dator's Second Law. (Dator 2003; Dator 1996a.)

<sup>446</sup> I like Stewart Brand's take on the importance of surprise as an element in learning. 'Surprise plus memory equals learning. Endless surprise, diligent memory, endless learning.' (Brand 2000, 163.) To my mind, Dator's formula encouraging 'ridiculous' ideas in futures studies is a variant of the same logic. Ridiculousness and surprise are closely related, and require a realignment of perception and understanding in which anticipating ridiculous and surprising futures can provide the engine for a 'virtual' (quasi-experiential) learning process.

once richer as well as more dangerous. Guerrilla work may be accomplished in highly scripted, unscripted or only semi-scripted situations -- this form of futures 'in the wild'<sup>447</sup> is perhaps most obvious when it takes place in city streets, subways, or personal mailboxes, rather than in relatively controlled environments like classrooms, galleries, museums, and theme parks. An intervention could in principle be staged in any of these other places, but it may not be a formal part of the scheduled programming.

Before we proceed to the main body of the chapter, let us locate this guerrilla focus with respect to our distinction between the 'politics of the obvious' and the 'politics of aesthetics'. I have not argued that the former category (political stuff that occurs in self-evident ways or designated political settings) is less important; indeed, it is precisely its obviousness, centrality and consensually-agreed importance that make the consideration of its less self-evident counterpart, the political dimensions of perceptions and of everyday life, worthwhile as a subject of inquiry. In the same way, here again we opt to consider more closely that subset of experiential futures which colours outside the lines, erupting in places not officially set aside for it, in spaces and at times seized *ad hoc*, catch-as-catch-can, to make vivid, challenging, and unexpected incursions of various futures into the now.<sup>448</sup>

This chapter on futures in the wild proceeds in two parts. We start with an examination of a pair of kindred practices to guerrilla futures, 'prefigurative politics' and 'culture jamming' (together with its offshoot 'future jamming'), the aim being is to arrive at a higher understanding of how to approach the political use of experiential futures, especially staging 'guerrilla futures' interventions that

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<sup>447</sup> 'In the wild' in this context is appropriated from the book *Cognition in the Wild* by cognitive scientist Edwin Hutchins. 'The phrase "cognition in the wild" refers to human cognition in its natural habitat -- that is, to naturally occurring culturally constituted human activity.' (Hutchins 1995, xiii.)

<sup>448</sup> We will see below how this distinction also runs in parallel to the twin modes of activity made famous by Michel de Certeau, the *strategic* and the *tactical*. (de Certeau 1984.)

stand the best chance of having the desired impact on their audience. Then we document three contrasting interventions, considering their attributes in terms of space, time, media, narrative, and audience, towards sketching out a performative aesthetics for guerrilla futures.

## **Culture jamming and prefigurative politics**

### 1. Jamming the future

What shape does an engaged politics assume in an empire of signs? The answer lies, perhaps, in the 'semiological guerrilla warfare' imagined by Umberto Eco. ... [T]he desperate project of reconstructing meaning, or at least reclaiming that notion from marketing departments and P.R. firms, requires visually-literate ghostbusters. Culture jammers answer to that name. 'Jamming' is CB slang for the illegal practice of interrupting radio broadcasts or conversations between fellow hams with lip farts, obscenities, and other equally jejune hijinx. Culture jamming, by contrast, is directed against an ever more intrusive, instrumental technoculture whose operant mode is the manufacture of consent through the manipulation of symbols.

~ Mark Dery <sup>449</sup>

'Future-jamming' might be considered the activist and communications parallel to academic critical futures studies. Future-jamming would extend this [culture-jamming] concept, by employing savvy communications methods to debunk future-oriented propaganda.

~ Jose Ramos <sup>450</sup>

The first passage above comes from cultural critic Mark Dery, who is credited with bringing the concept of culture jamming, coined by the band Negativland in 1984, to the mainstream media in 1990.<sup>451</sup> The second is by futures scholar and activist Jose Ramos, who in the 2006 article quoted proposed the concept of

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<sup>449</sup> Dery 1993.

<sup>450</sup> Ramos 2006, 1121-1122.

<sup>451</sup> Dery 1990.

future jamming. In this section we consider future jamming in pursuit of a better understanding of what we are calling guerrilla futures: the two ideas are closely related, but not identical. Guerrilla futures may 'debunk future-oriented propaganda' as Ramos suggests, or it may not; and future jamming may be executed in a guerrilla-style intervention, or it may not, appearing instead as part of a magazine, art show, or website. Guerrilla futures, then, has more to do with the possibilities afforded by the element of surprise, which would usually come from the setting and circumstances of an intervention, while future jamming focuses on the sensibility and semiotic techniques deployed.

The practice of culture jamming (which precedes both future jamming and guerrilla futures) aims to subvert the authority and messaging strategies of dominant cultural institutions. This often takes the form of playful reworking of corporate logos and advertising, rooted in a hybrid of humorous irony and profoundly earnest social critique, a sensibility which lies somewhere between *Mad* magazine parody and French poststructuralism. Among its most prominent exemplars are the Canadian publication *Adbusters*, as well as such activist-performance collectives as the Billboard Liberation Front,<sup>452</sup> the Cacophony Society,<sup>453</sup> and the Yes Men.<sup>454</sup>

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<sup>452</sup> See Branwyn 1997, 259ff.

<sup>453</sup> The Cacophony Society was a formative presence in the annual Burning Man festival, where a culture-jamming approach is, 20 years later, very much in evidence in many theme camps and artworks. (Cacophony Society, Wikipedia entry: given the nature of the organisation, it seems entirely appropriate to use Wikipedia as the authority here.)

<sup>454</sup> See for example the Yes Men's multi-part campaign to culture-jam The Dow Chemical Company (The Yes Men, n.d.b.) and in particular the beautifully executed 'Dow Ethics' website (a representative tagline: 'Aiming for Zero Responsibility'). (The Yes Men, n.d.a.) The signature approach of the Yes Men, very clearly on display here, consists in what they describe as 'identity correction', 'since our aim is to give a more accurate portrayal of powerful public figures and institutions than they themselves do.' (The Yes Men, 2004, 182.) See also the two Yes Men documentary feature films produced to date, for a comprehensive insight into the range of their performative interventions. (Ollman, Price and Smith 2003; Bichlbaum, Bonanno and Engfehr 2009.)

While there are multiple lineages of art, humour, performance and activism that can be traced into this form of political provocation,<sup>455</sup> among the most important forerunners to culture jamming is the Situationist International,<sup>456</sup> and in particular the strategy first elaborated by Situationist-in-Chief Guy Debord, of *détournement*.<sup>457</sup> (The term could be translated as ‘derailment’, although the original French is almost always used by English-speaking theorists, in more or less conscious *homage* to Debord and friends.)

What *détournement* ‘derails’ is the intended or established meaning of ‘pre-existing aesthetic elements’.<sup>458</sup> It is a strategy that demands a reconsideration of the default interpretation, including affects, associated with a media object, and some underlying person, institution, brand, or idea. For instance, in October 2005, six weeks after Hurricane Katrina, the Billboard Liberation Front adjusted a

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<sup>455</sup> ‘Jamming is part of a historical continuum that includes Russian samizdat (underground publishing in defiance of official censorship); the anti-fascist photomontages of John Heartfield; Situationist *détournement* (defined by Greil Marcus, in *Lipstick Traces*, as “the theft of aesthetic artifacts from their contexts and their diversion into contexts of one’s own devise”); the underground journalism of ‘60s radicals such as Paul Krassner, Jerry Rubin, and Abbie Hoffman; Yippie street theater such as the celebrated attempt to levitate the Pentagon; parody religions such as the Dallas-based Church of the Subgenius; workplace sabotage of the sort documented by *Processed World*, a magazine for disaffected data entry drones; the ecopolitical monkeywrenching of Earth First!; the random acts of Artaudian cruelty that radical theorist Hakim Bey calls “poetic terrorism” (“weird dancing in all-night computer banking lobbies...bizarre alien artifacts strewn in State Parks”); the insurgent use of the “cut-up” collage technique proposed by William Burroughs in “Electronic Revolution” (“The control of the mass media depends on laying down lines of association...Cut/up techniques could swamp the mass media with total illusion”); and subcultural bricolage (the refunctioning, by societal “outsiders,” of symbols associated with the dominant culture, as in the appropriation of corporate attire and *Vogue* model poses by poor, gay, and largely nonwhite drag queens).’ (Dery 1993.) On the humour front, a Letter to the Editor published in the *New York Times* after Dery’s 1990 article about Culture Jammers adds the Harvard Lampoon and National Lampoon to the list of culture jamming’s ‘distinguished antecedents’. (*New York Times* 1991.)

<sup>456</sup> The SI, also known as Situationism, was a revolutionary European art/political collective that existed from 1957 to 1972, with the height of its cultural influence coinciding with the French student uprising in May 1968. (Home 1996.) There is a large literature on the Situationists, whose work I first discovered, and resonated with, separately from the *Adbusters* and culture jamming route. (Home 1997.)

<sup>457</sup> Without discussing its origins, *Adbusters* founder Kalle Lasn notes the key importance of *détournement* as a tool for any ‘meme warrior’. (Lasn 2000, 131-132.)

<sup>458</sup> This definition of *détournement* appeared in the first issue of the journal *Internationale Situationniste* in 1958. (Knabb 2006, 52.)



billboard in Santa Cruz, California, advertising the aid organisation Red Cross (see Figure 5.1).<sup>459</sup>



Figure 5.1: A Billboard Liberation Front action shortly after Hurricane Katrina <sup>460</sup>

Although the charity's billboard was the physical target of this intervention, it is clearly not an attack on the organisation, but a form of support for it; an editorialising intervention that mocks government inaction in the archetypal jester's spirit of subversive truth-telling. In its more literal applications, a *détournement* will reference, comment on, and reorient the message of a specific media artifact. For instance, one *Adbusters* 'subvertisement' plays on the promotion of the Calvin Klein fragrance 'Obsession' with an artfully composed, black-and-white image of a young woman purging into a toilet bowl, accompanied by the words 'Obsession for Women'.<sup>461</sup> The design so successfully mimics the fashion company's distinctive style and branding that, at a casual glance, it might almost be mistaken for part of the actual campaign, but on a second look, both the parodic strategy and the serious social message behind it become apparent. And, importantly, to the extent that it has succeeded, one can never see the original in quite the same way again.

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<sup>459</sup> Santa Cruz Independent Media Center 2005.

<sup>460</sup> Image via Santa Cruz Independent Media Center 2005.

<sup>461</sup> Adbusters Media Foundation n.d. (Image too small for reproduction here.)

Culture jamming can be regarded as a sort of propagation-by-performance of critical theory, with similar thematic preoccupations to its academic cousin -- alienation, capitalism, the mass media -- but revealing abusive techniques and technologies of domination not through commentary from outside, but through appropriating and undermining them. The 'culture jamming' agenda is generally geared toward challenging existing power structures by a form of infiltration; such as the elaborate media hoaxes of Alan Abel or Joey Skaggs, which are intended to expose the credulity of the press via ingenious entrapments into reporting on absurdities they are later obliged to sheepishly retract,<sup>462</sup> or Kalle Lasn's pet project of using the forums and idioms of advertising to 'uncool' not only global brands, but also, more ambitiously, consumption in general.<sup>463</sup>

And, much as we saw in our discussion of critical theory (Chapter 3), at one level culture jamming, too, is profoundly aligned with the basic agenda of our strain of futures. Media theorist, professor and activist Stuart Ewen:

The dominant culture utilizes media to promulgate the notion of the commodity as the highest form of existence. Cultural jammers draw upon this cacophony of fragmentary media images. *At the heart of their reassemblings is the hope that there could be another kind of world, a world where rather than a devaluation of the human in favor of the commodity, there could be an understanding of the commodity in the service of the human.*<sup>464</sup>

So, there is no doubt that culture jamming offers a body of interesting examples, and a set of principles and strategies of intervention (loosely defined), all of which are potentially helpful fodder for the politically motivated futurist or designer, or the futures-oriented activist.

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<sup>462</sup> Dery 1990. For an introduction to Alan Abel's remarkable career as a media prankster see Abel and Hockett 2005; for a gallery of pranks staged by Skaggs see Joey Skaggs personal website, Retrospective section.

<sup>463</sup> Lasn 2000, 169.

<sup>464</sup> Stuart Ewen, quoted in Dery 1990 (emphasis added).

The practice of future jamming, Ramos says, would run parallel to critical futures studies (Chapter 3) on the one hand, and on the other, would represent a cousin to the activist tradition of culture jamming.<sup>465</sup> His call for future jamming practice to occupy these roles makes good sense, and I fully support that motivation. But does it take us far enough? I don't want to pour cold water on the nascent concept of future jamming, which may be the single closest conceptual offering in the futures literature to 'guerrilla futures', our tactical counterpart of experiential futures. Still, the question arises as to whether the notion of future jamming contains potential for much more than a *future-themed* version of culture jamming.

Technically, and semantically, we are of course free to use any name we like for the practice we want to see, but it seems that Ramos intuited the limitations of his parallel coinage, saying: 'Regardless of whether future-jamming has any future at all, futures research needs to incorporate savvy communications strategies into research designs. This means moving beyond researcher mode into new roles: the artist, the producer, the narrator, the film maker, the socio dramatist.'<sup>466</sup> We can wholeheartedly endorse the notion that these new roles, and their corresponding media and modes of engagement, unavailable or underexplored by earlier generations of futurists, deserve our attention. In 'experiential futures' we have a handle to accommodate this broader practice and the variety of relatively new roles that futurists may explore within it. But 'future jamming' is not without baggage, and so I suggest that what we need is less a practice crafted to parallel culture jamming, and one shaped more according to the unusual contours of the future as a domain, and especially, the persistent challenge of the experiential gulf.

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<sup>465</sup> Ramos 2006.

<sup>466</sup> *Ibid.*, 1122.

The content of Ramos's call to arms is spot on.

Future-jamming would incorporate these multiple communications approaches with an aestheticised sensitivity to the symbolic logic that forms popular consciousness, in order to disrupt hegemonic futures, and reflect alternative futures back upon the world as options otherwise unseen.<sup>467</sup>

But note the two parts; the first 'to disrupt hegemonic futures', and the other to 'reflect alternative futures back upon the world as options otherwise unseen'. We saw earlier (Chapter 3) that critical theory's argument against the necessity or inevitability of the existing order of things does not automatically improve our sense of what those other possibilities might concretely be.<sup>468</sup> The same issue applies with respect to culture jamming, and indeed (as a parallel concept) to future jamming also. The actual illumination of future possibilities, both broader and deeper, is afforded neither by general cultural critique, nor by mocking the inadequacy, narrowness, foolishness or other shortcomings of a given image of the future. A 'jamming' strategy may disrupt the hegemony of monofuturism (similarly to how a teenager's snide remarks to her father might 'disrupt' his household hegemony) but they stop short of actually providing viable alternative ways forward. If 'jamming' is essentially an interrupted signal to which commentary or critical feedback are added (as its etymology and principal exemplars suggest), then it does leave us needing something else. Jamming might point out, in a sidelong way, the existence of a hegemonic future, which can be a vital point of departure. But revealing other, unseen options -- as opposed to claiming explicitly or implicitly that they exist ('Another world is possible'<sup>469</sup>) -- is another step. I suggest that 'future jamming' will be better used to designate future-themed culture jamming, but that it is not the key to our

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<sup>467</sup> *Ibid.*

<sup>468</sup> This is what our 'decolonising' version of critical futures studies pursues directly in a way that critical theory alone rarely, if ever, does, and it was the reason for laying out the four generic futures as a methodological foundation for this dissertation, in Chapter 1.

<sup>469</sup> This is the slogan of the World Social Forum, a large annual event of the 'anti-globalisation' or 'global justice' movement held annually since 2001, in counterpoint to the World Economic Forum in Davos, Switzerland. (See World Social Forum, Wikipedia entry.)

broader mission. As best we can, we must go beyond 'jamming' existing futures communications, and actively elaborate alternatives.

Jamming and *détournement* are therefore undoubtedly handy semiotic weapons in the guerrilla futurist's arsenal, but to wage the war against monofuturism, other tools are called for. These would actively expand the range and concreteness (or: breadth and depth) of available futures. On the breadth dimension, an intervention should, ideally, expand the range of images of the future, by introducing some unfamiliar or 'disowned'<sup>470</sup> scenario(s), which may be literally portrayed, or signalled more subtly. In respect of depth, an intervention might offer a more fully considered (or simply *different*) kind of texture, so even a clichéd image of the future could be expanded or enriched by the inclusion of unexpected details.<sup>471</sup> In either case, the disruption of hegemonic futures (default patterns of thought), which we have previously described as decolonising, requires also generating and exposing unseen options (or, unseen aspects of existing options) implies a *critical* ingredient about guerrilla futures interventions: the element of surprise.

## 2. Performing the preferred future

Next we consider experiential futures in light of a second form of activism, 'prefigurative politics'. The term denotes a mode of action which seeks actually to promote a desired future state of affairs by enacting or embodying it in the present. A bumper sticker encapsulation of prefigurative politics: Gandhi's exhortation, 'Be the change you wish to see.'

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<sup>470</sup> On 'disowned' futures see Inayatullah 2008.

<sup>471</sup> This approach of 'handing an audience's assumptions back to them' with added scenaric detail was described in greater detail in Chapter 2; see footnote 224, above.

Political activist and media theorist Stephen Duncombe provides this example: 'The early civil rights movement in the United States was an instance when organizers, black and other, tried *within* their organizing to create an interracial "beloved community" as a model of what they were trying to create *through* their organizing.'<sup>472</sup> A second example comes from anthropologist David Graeber, describing the prefigurative political agenda of World Trade Organization protests in Seattle in 1999: 'When protesters in Seattle chanted "this is what democracy looks like," they meant to be taken literally.'<sup>473</sup> He explains:

The organization of these actions was meant to be a living illustration of what a truly democratic world might be like, from the festive puppets to the careful organization of affinity groups and spokescouncils, all operating without a leadership structure, always based on principles of consensus-based direct democracy. It was the kind of organization which most people would have, had they simply heard it proposed, written off as a pipe-dream; but it worked, and so effectively that the police departments of city after city were completely flummoxed with how to deal with them.<sup>474</sup>

Guerrilla futures can be set apart from this 'prefigurative' form of political life in two ways. First, guerrilla futures interventions are only sometimes about promoting a specific preferred future, whereas prefigurative politics always is.<sup>475</sup> Second, and more important, both the longer time horizon and greater magnitude of change of relevance to futures studies always put those possibilities out of 'prefigurative' reach.<sup>476</sup> That is, potentials that can in principle be activated immediately are options *today*, rather than longer-range 'futures'. The former

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<sup>472</sup> Duncombe 2007, 171 (original emphasis).

<sup>473</sup> Graeber 2004, 84.

<sup>474</sup> *Ibid.*, 83-84.

<sup>475</sup> In the space where guerrilla futures and prefigurative politics overlap, the best example I know of -- the uninvited performance of a preferred future -- is the *New York Times Special Edition*, described in the following section. (The Yes Men *et al.* 2008.)

<sup>476</sup> Recall Figure 0.1 from the Introduction, depicting Futures Research in relation to Planning and Administration.

subject matter is the basis of much conventional political discussion, and is not where the futurist's unique contribution lies.<sup>477</sup>

These distinctions do not imply any opposition on our part to prefigurative politics, normative activism, or direct action. It is simply that their purposes are different. Consequently, futures is liable to seem insignificant, politically speaking, within a perspective exclusively focused on what can be carried out immediately. Social movements historian Barbara Epstein, describing prefigurative politics, has written: 'To most [direct action] movement activists, a vision of the future is meaningful only if it is acted upon in the present, even if doing so disrupts daily life and produces organizations that often do not function smoothly within a political structure based on different values.'<sup>478</sup> Its value is also liable to be similarly neglected by those whose conception of the future is binary -- because in such a view, everything of relevance is already known, and all that remains is ideological pitched battle between one outcome and the other.

By contrast, in the perspective we adopt here, a multidimensional sense of futures' possibility space is also politically meaningful. Intervention at the level of perceptions, yielding insight that will feed into today's decisions (even if the futures most preferred or avoided are more remote in time) is no less important a use of the future. In principle, however, prefigurative politics is entirely

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<sup>477</sup> To revisit one of the themes of Chapter 1; there is a perennial tension between those who regard the future as fundamentally predictable, on the one hand, and those who see it as fundamentally unpredictable, on the other. The resolution to this conundrum of course lies in the fact that it is *both* these things at once, a mixture of the two; but which is the more appropriate characterisation depends entirely on the focal question. The main point to make here, then, is that the area of interest to us is precisely the grey area between predictability and randomness. Randomness (complete irregularity) is as disempowering -- as useless for the exercise of agency -- as complete determinism. The horizon of the unknown may shift somewhat as certain types of modelling improve -- consider how the reliability of weather forecasting has changed over the last generation -- but it does not remove the horizon. It is logically and in principle *impossible* to remove that horizon, but it is in these borderland of thought, where the known shades into mystery, that we locate our work.

<sup>478</sup> Epstein 1991, 16.

compatible with activism of a further out future-orientation; they are not alternatives in mutual tension.

With this analysis we have begun to make out resemblances between guerrilla futures interventions, on one hand, and the strategies of 'culture jamming' and 'prefigurative politics' on the other. Jamming critiques or mocks existing ideas (which may or may not directly concern the future imaginary), while prefiguration pursues and performs a desired alternative that is already available in the present. Guerrilla futures necessarily goes 'beyond' both in a temporal sense, reaching out to the elaboration of possibilities, in either the breadth or depth dimensions, that are *not yet accessible*. Guerrilla futures performs hypothetical alternatives with an eye to the longer-term, or deepens engagement with the current array of available futures, or both.

An intriguing contradiction arises from this analysis. While the virtual terrain of the future is, as we have seen, quintessentially one of ideas, signs, and symbols, the ideal for our guerrilla futures intervention is to reach out from the play of the semiotic toward the register of lived experience. The productive tension at the heart of our strategic oxymoron, 'experiential futures', finds its apotheosis in the guerrilla futures intervention that strives to render the always-already virtual future momentarily real.

### **Three guerrilla futures interventions**

According to the argument developed so far, futures stands in need of democratisation. This is not to suggest that it is currently an elitist or exclusive field. On the contrary, compared to other academic communities it displays a remarkable openness to all comers -- to a fault, some would say -- *vis-à-vis* academic background, methodological preferences, ideological commitments,



style of expression, and so on. Nevertheless, it does remain a largely 'expert' enterprise, whereas even to contemplate decolonisation of the future (as described in Chapter 3) to my mind implies a widespread, distributed, ideally culture-wide exercise. Just as the replacement of colonial powers with local elites in Africa and Asia did not all by itself complete a decolonisation process, neither should we expect the propagation of 'critical' futures thinking among futurists to suffice if we hope to decolonise the future (and it far from a ubiquitous way of thought even in that meagre group).

For the purposes of this analysis, we will compare three quite different futures interventions. They all, however, have in common some version of the above agenda, and the use of public, urban settings for their performance. All these instances of 'guerrilla futures' are, by my lights, successful in certain respects, and less so in others. To assess the nature and extent of this success is part of the analysis carried out here. First we will take a brief introductory look at each of the projects, before proceeding to examine and contrast them on five fronts: space, time, media, narrative and audience involvement. Finally we will draw some tentative conclusions about the performative and aesthetic elements that appear to be most significant in determining how politically effective such experiential futures interventions may be.

### 1. *New York Times Special Edition*

On November 12, 2008, thousands of New Yorkers were given copies of the *New York Times* announcing out of the blue to a bewildered city that the US War in Iraq had finally ended (Figure 5.2).<sup>479</sup> But that wasn't all. This special edition of the *Times* also revealed that former President George W. Bush had been indicted on charges of high treason, that the PATRIOT Act was to be repealed, that the economy would be restructured around measures including a federal

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<sup>479</sup> Chan 2008; The Yes Men *et al.* 2008.

maximum wage and mandatory ‘true cost accounting’, that the oil industry would be nationalised and its profits put towards climate change mitigation and alternative energy sources, and that public university education would henceforth be free. Scattered between the news items were advertisements for the likes of HSBC, DeBeers, and former Halliburton subsidiary KBR, the contents of which indicated that these multinational corporate entities had, like the news, suddenly turned over a new leaf.<sup>480</sup> (The new ExxonMobil slogan: ‘Peace. An idea the world can profit from.’)



Figure 5.2: *New York Times Special Edition*, distributed in September 2008, dated July 2009 <sup>481</sup>

Of course, neither the American government nor the corporate monoliths had in fact spontaneously transformed into the soulful institutions depicted in the pages of *The Special Edition*. Neither had the *Gray Lady* gone wild with utopian visions and decided, in place of the usual litany, to report, as the masthead motto now said, ‘All the news we hope to print’. Rather, the whole thing was a guerrilla

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<sup>480</sup> The satirical HSBC ad reportedly prompted a cease and desist letter from the banking company. See Figure 5.3 and Linkins 2008.

<sup>481</sup> Photograph by Conway Liao. (Lambert 2009.)



Figure 5.3: Mock-HSBC advertisement in the *New York Times Special Edition* <sup>482</sup>

futures intervention, the product of some nine months' work by an army of skilled, discreet volunteers, led by New York-based veteran political performance collective the Yes Men and artist Steve Lambert. The paper was dated July 4, 2009, eight months into the future.

## 2. Hawaii Blue Line Project

On 30 January 2008, the Hawaii state chapter of the venerable grassroots environmentalist organisation the Sierra Club (established in 1892 in San Francisco) held a community event to raise awareness of the potential impacts of climate change. The idea behind the 'Hawaii Blue Line Project' was simple enough: to trace a blue line through the streets of Honolulu showing where the sea level is expected to reach by the century's end.

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<sup>482</sup> The Yes Men *et al.* 2008, A11.

Using physical media in urban spaces to represent or ‘foretrace’ the threat of sea-level rise associated with a changing climate is a strategy that has been independently generated and implemented elsewhere. After the Honolulu event, I spoke to then-President of the Sierra Club’s Hawaii Chapter, Jeff Mikulina, who indicated that he at first had thought this was an original idea, before discovering that it had been done before, which suggests that it is a tactical intervention very much of the moment. In my own research around that time, I was able to track variants of this concept that had surfaced independently in San Francisco, Seattle, New York, and Santa Barbara, and since then, another instance in Bristol, England. For comparative purposes, the better to illuminate this performative aesthetics of guerrilla futures interventions, we will also make reference to these kindred ‘blue line’ efforts.



Figure 5.4: The map used as a basis for the Hawaii Blue Line Project <sup>483</sup>

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<sup>483</sup> Photo by Stuart Candy, 30 January 2008.

### 3. FoundFutures: Chinatown <sup>484</sup>

Honolulu's Chinatown is among the city's oldest and most iconic districts. It's a bastion of small family-owned businesses, where no franchise stores or national restaurant chains have opened to date.

On 5 October 2007, large posters appeared on a prominent, long-vacant corner building, announcing that it would shortly become a Starbucks coffee shop. At another empty property, posters boldly declared that a TGI Friday's bar and restaurant franchise would be coming soon. A hipper-than-thou 'American Apparel' clothing store was moving in to the space of a former local vendor. Also, a six-foot-square vinyl banner on the second floor of the historic Mendonça building indicated that luxury loft apartments, starting at \$2.1 million dollars, were



Figure 5.5: An element of the 'McChinatown' installation <sup>485</sup>

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<sup>484</sup> More detailed descriptions and additional images of FoundFutures: Chinatown can be found at The Sceptical Futuryst blog: Candy 2007b; 2007e; 2007g.

<sup>485</sup> Posters by Mark Guillermo and Jesse Arneson for FoundFutures, photo taken 5 October 2007.

about to go on the market. For those who looked more closely, the fine print on all these announcements revealed that an international real estate development conglomerate called 'Aloha Land and Water'<sup>486</sup> was responsible for this sudden, stealthy hyper-commercial incursion into Chinatown's long-standing, local, endearingly ramshackle business community.

This near-term vision of gentrification (imagined as being about three to five years out) was the first of three possible futures for the Chinatown district that were manifested physically in the streets by the futures art collective FoundFutures.<sup>487</sup> We called this scenario 'McChinatown'.

The second future was set some twenty years forward, and envisaged a China that had cleaned up its act ecologically, while the United States had continued with bold unconcern for environmental hazards and the political consequences thereof. This geopolitically ascendant China had begun to exercise its influence partly through the worldwide network of 'Chinatown' districts, which for so long had been marginal, minority enclaves, but had gradually transformed into unofficial embassies for this 21st century superpower.

The 'Green Dragon' (as the scenario was called) had also been cultivating an interest in nurturing Hawaiian loyalty and friendship, sponsoring the rise of an independence movement called 'Sovereign Green' and making a gift to the Hawaiian people of a 'Statue of Harmony' to honour the friendship between the two groups (see Figure 5.6).

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<sup>486</sup> We imagined this as a sort of precursor to Aloha™ Nuclear and Water which had appeared in the 'Orange' experiential scenario for Hawaii 2050 (see Chapter 2). From a scenario-building perspective it can be useful (as well as fun) to cannibalise or rework elements of existing scenarios, which may provide a sense of depth or historicity to a narrative that otherwise may be starting from scratch. The best example of this was the appropriation for an experiential scenario by Jake Dunagan and me at South by Southwest 2008 of the world of the movie *Boogie Nights* (Anderson 1997). For details see Dunagan 2008a; 2008b.

<sup>487</sup> Credits for FoundFutures: Chinatown can be found at Candy 2007i. The list of collaborators is long, but designers Matthew Jensen and Yumi Vong deserve particular acknowledgement for their significant contributions.



Figure 5.6 (left): An element of the 'Green Dragon' installation <sup>488</sup>

Figure 5.7 (right): An element of the 'Bird Cage' installation <sup>489</sup>

The third scenario, called 'The Bird Cage', was set in the mid twenty-teens, and imagined that a virulent strain of avian influenza had passed into the Hawaiian population with Chinatown as ground zero (see Figure 5.7).

A fourth scenario was also developed in some detail, but its performance had to be abandoned for reasons to be described in due course.

In the comparative analysis that follows, the three interventions outlined above -- the Yes Men's *Times Special Edition*, the Sierra Club's Blue Line project, and FoundFutures: Chinatown -- our attention will be trained mainly on the external elements of these guerrilla 'performances'; space, time, media, narrative, and audience involvement.

<sup>488</sup> As part of this scenario, in 2026 the Chinese government makes a gift to the people of Hawaii of a 'State of Harmony' (not unlike the French gift to the US of the State of Liberty). The statue depicts Chinese revolutionary Sun Yat-Sen together with the last Hawaiian monarch, Queen Lili'uokalani, holding a torch aloft in Honolulu Harbor. The photo shows souvenir magnets from the future, as 'droplifted' into Chinatown souvenir shops alongside present-day ones. Artwork by Yumi Vong for FoundFutures, photo by Stuart Candy, 17 October 2007.

<sup>489</sup> Design by Matthew Jensen for FoundFutures, photo by Stuart Candy, 21 October 2007.

## A comparative case study

### 1. Space

Among the three projects under consideration here, the property of space is most directly addressed in the Blue Line project, which literally charts the outline of a possible future on to the urban environment, showing where, other things being equal, the rising ocean water could reach by the century's end. This communicative approach is poised between experiential and symbolic modes of representation; *experiential* insofar as the climatologists' forecast is rendered literally on location (as opposed to being read off a map, or seen out of context elsewhere); *symbolic* in that the simplicity of the line belies the massive complexity and richness of the potential reality it gently signals. (There remains a stupendous experiential gulf between a simple blue line in the road, and the century-long, slow-motion catastrophe of a one-metre sea level rise. However, yet the former is sufficient to open out onto a contemplation of the latter.) Blue line projects mount a spatial argument about climate change. The distinctive configuration and use patterns of space being the fundamental condition of the urban experience, foreshadowed encroachment by the ocean is reason enough, at least for those with long-term real estate investments close to the future waterline, to pay attention.

For the *Special Edition* project, space (or rather, setting) was exploited in a less obvious way. Rather than mapping a scenario on to the streetscape itself, here the future was projected on to the routine activities of New Yorkers' daily business. The physical artifacts (80,000 copies of the newspaper) were put into circulation by a battery of volunteer distributors, against the backdrop of a busy weekday commute.



The spatial case is more complex with FoundFutures. The three Chinatown stories were not approached through a single vector (unlike the line in the climate-themed project or the *Special Edition* newspaper). Instead the approach was more akin to making over a movie location with set dressing, turning a contemporary street into another place, or a version of itself at another time. Still, without the economic engine of a feature film or TV series -- which can be leveraged to suspend ordinary constraints and let filmmakers to do their thing -- more limited means were available here.

Each scenario was 'translated' into an experience consisting of fragments to be distributed throughout the district, based on the particular narrative requirements and possibilities of the scenario. These elements were like traces or fragments of evidence spun off and left behind in the wake of future history carving its hypothetical path (developed using the 'tip of the iceberg' principle described in Chapter 4). Across the trio of Chinatown scenarios, the artifacts or installation elements included stickers, magnets, posters of various sizes, flyers, a framed print, a vinyl banner, window transfers, custom-made fortune cookies, a bronze plaque, and two websites -- with the URLs given on a number of the tangible artifacts. This was my own first involvement in an attempt to capture public space and attention with guerrilla 'art', and our diversity of implementations, a deliberately experimental approach, enabled insight into the unpredictable destinies of installed items. To enumerate and disaggregate these elements for proper analysis would be the work of a longer commentary, but a few examples will suffice to illustrate the perils of performing multimedia futures in an urban environment.

When posted without permission, the active life of a particular image was usually brief. The Starbucks and TGI Friday's posters, strikingly large (two for each location, each poster three feet wide by six feet high), lasted for perhaps an hour before they were noticed as 'out of place' by someone sufficiently authoritative

(or irritable), and promptly torn down. Where permission could be secured on the spot, to place something in a shopkeeper's window, these items stood an excellent chance of remaining for weeks -- but by the same token, of being overlooked as simply part of the scenery.



Figure 5.8: An element of the 'McChinatown' installation <sup>490</sup>

Two of the most impactful uses of space were enabled by more playful permissions. One was the vinyl banner advertising 'luxury lofts' (for the 'McChinatown' scenario), suspended over the second floor of an eye-catching corner of a block, which enjoyed perhaps the highest evening rate of foot traffic in the district (Figure 5.8). The other was the bronze memorial plaque (part of the 'Bird Cage' story) which we affixed to the corner of an old stone building with moderate foot traffic (Figure 5.13). Both were installed with the cooperation of the respective buildings' owners, figures in the Chinatown arts and business community who were sympathetic to the project's unusual intentions.

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<sup>490</sup> Banner design by Mark Guillermo for FoundFutures, photo by Matthew Stits, 5 October 2007.

Without the security of such permissions, however, the general rule of thumb that emerges is that the more easily a space is accessed, the more readily its use is either ignored or overturned. The more visible it is, the more valuable, but also vulnerable:  $\text{impact} = \text{attention} \times \text{duration}$ . Impact and expected lifespan stand in inverse proportion to one another. Hundreds, even thousands of flyers can be generously distributed, but such ephemera disappear overnight. Posters mounted in a location designated for advertising upcoming events may be safer, but also stand out less. Such are the politics of public space and attention in Chinatown, Honolulu; it is reasonable to suppose that similar principles and tradeoffs would apply in many other public places.

## 2. Media

As we have noted, the variety of media deployed in FoundFutures: Chinatown was diverse and, we might add in retrospect, probably too complicated. The main lesson here, in terms of physical media, militates for simplicity. A single element -- a mock newspaper reproduced 80,000 times; a simple blue line traced in the street -- may be enough for an intervention to evoke effectively and memorably a specific array of political 'future' concerns, and thus to 'redistribute the sensible' of an urban scene.

The Blue Line project's use of media was elegantly simple. For the Honolulu intervention, a stout stick of pale blue chalk was provided to each participant (all volunteers), as well as rolls of blue duct tape, although I didn't see anyone using those. Equally important to the Hawaii project were the presence and involvement of *people* -- fifty or so of us, mostly dressed in blue, as the organisers had requested -- actually walking the line, materially figuring the climate change process for commuters and residents to notice during the afternoon.

This 'performance' approach was emphasised even more in Seattle's version of this initiative, with people walking the 'future shoreline' repeatedly, and sometimes marking it symbolically with a trail of soil, or water.<sup>491</sup> Other 'blue lines' have plotted out the sea-level change in other ways, varying by visibility and degree of permanence.<sup>492</sup> In New York, a chalk line was laid down with a line marking machine, rather than by hand,<sup>493</sup> while in San Francisco, a roll of custom-made sea-level tape was used, with the URL of the responsible organisation's website printed on it.<sup>494</sup> This was intended for placement on the outer walls of waterfront buildings; which highlights one of the choices to be made in a 'blue line' project, between signalling the 'new watermark' on existing buildings, or the 'new shoreline', following the contours inland, on the ground between them.

Regarding Blue Line projects, the question of efficacy in relation to media is dramatised by two opposing poles, which happen to be the first and last (the most recent I know of) among such projects. Bruce Caron in Santa Barbara, California, who in 2006 seems to have been the first to propose a line in the streets to mark the expected effects of climate change,<sup>495</sup> encountered a degree of resistance which proved fatal to his plan to use permanent paint marking a blue line through the city's downtown area, due to concerns over its possible effects on property values.<sup>496</sup>

In contrast, Chris Bodle in Bristol, England, early in 2009 eschewed the permanence of paint, and accompanying controversy, for a more ephemeral

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<sup>491</sup> Watermark: Visualizing the Effects of Climate Change in Seattle, Project website.

<sup>492</sup> Candy 2008h.

<sup>493</sup> HighWaterLine, New York City, Project website.

<sup>494</sup> Future Sea Level, San Francisco, Project website.

<sup>495</sup> lightblueline, Santa Barbara CA, Project website.

<sup>496</sup> Welsh 2007.

alternative, light. Bodle's 'Watermarks' project superimposed anticipated sea levels on the sides of buildings at night, using a high-powered projector. Not only was the projector approach the most intangible of the media deployed across this group of projects, but there's a twist. In the considerable media coverage it received in the arts/technology world (*Wired*,<sup>497</sup> BLDGBLOG,<sup>498</sup> Britain's RSA<sup>499</sup>), on closer inspection I noticed that all the photographs used to illustrate their stories seemed to be the photoshopped mockups produced for publicity purposes, *prior to* the intervention (see Figure 5.9). A couple of weeks after the show, I contacted Bodle by email, because I was curious about photographs documenting the actual event. He noted with surprise that this was the first time he had been asked about them.<sup>500</sup> This example points to a curious hypothesis: that for certain purposes, the very *proposal* of a public futures intervention, if accompanied by vivid visualisations, may be enough to generate significant attention, and could even make the actual performance redundant. But the conclusion to be drawn on the testimony of the 'blue line' projects is not necessarily that we inhabit a Baudrillardian universe where the simulation has, once and for all, displaced reality.<sup>501</sup> For Caron's 'failed' attempt to paint a blue line in Santa Barbara actually succeeded in galvanising public discussion of the issue<sup>502</sup> and, despite resolving against his plan, fleshes out the real lesson here: the 'performance' of the intervention begins before a drop of paint has been spilled or a projector switched on. The guerrilla futures intervention is not just for the 'here and now' of the performance, but for the absent, though potentially much larger, audience reached later and at leisure, especially via the web. It can

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<sup>497</sup> Sorrel 2009.

<sup>498</sup> Manaugh 2009.

<sup>499</sup> Shaw 2009.

<sup>500</sup> Personal email communication with Chris Bodle, 27 February 2009.

<sup>501</sup> Baudrillard 1994.

<sup>502</sup> Welsh 2007.

also conceivably make a real difference, whether or not actually carried off as planned; it may accomplish work as a theory object even in proposal form.



Figure 5.9: Photoillustration used to promote Watermarks project, Bristol <sup>503</sup>

We have not yet addressed the *Times Special Edition* on the media front. Eighty thousand copies of the newspaper, using authentic *Times* newsprint, fonts, layout and reporting style, all with spectacular verisimilitude, were printed for distribution by volunteers, and international media immediately picked up the story. The primary audience of this intervention, then, takes part directly in the encounter: a moment of (mis)recognition between this newspaper and that commuter. The *New York Times* announces the end of the Iraq War?! This, multiplied by the thousands. And the secondary audience -- paradoxically, parasitic on the first, yet far more resonant; an echo that amplifies -- is the one around the world, reached through CNN and *The Guardian*, and *Time* and, of course, the *New York Times* itself.<sup>504</sup> This secondary impact is what we have come to refer to as the 'afterlife' of a project, and we have learned that thorough documentation of the design and installation processes -- through photographs, video, notes of conversations, changing impressions, and decisions made -- are usually at least as important as

<sup>503</sup> Image by Chris Bodle, via Noisy Decent Graphics <http://tiny.cc/figure5point9>

<sup>504</sup> Co-organiser Steve Lambert's Curriculum Vitae includes a partial list of media coverage of the event <http://tiny.cc/LambertCV> [pdf]

substantively 'imagineering' the primary layer, the experiential scenario itself. The politically effective futures intervention is one that is attentive to, and makes ingenious use of, media for both primary and secondary audiences. The organisers' initial claim that 1.2 million copies of the paper had been distributed (rather than the actual number of 80,000), a masterstroke of media manipulation, was uncritically reported by most journalists, adding subtly to the propagation and intrigue of the secondary story.<sup>505</sup>

### 3. Time

This section deals with the specific timing and duration of the projects. The 'time' of the future scenario evoked, and how this is overlaid on the present, is dealt with as an aspect of Narrative.

The temporal aspect is of course closely related to those of space and media discussed above, and thus incorporates some of the same considerations. The 'when' and 'how long' of an experiential future is very much tied to the 'where' and the 'how'. For example, for the 'Bird Cage' scenario, the final element was what we called the 'missing wall'; part memorial, part public noticeboard, fashioned after the haphazard outpouring of messages from friends and loved ones, common amid major emergencies. The primary physical media used in producing this piece were home computer-produced missing persons posters, overwritten with comments and graffiti, and held together with different kinds of adhesive tape, suggesting the work of many hands. The piece was meant to be encountered in a Chinatown alleyway; the ensemble being completed by that

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<sup>505</sup> Steve Lambert: 'We knew what we needed to tell the media to make it irresistible, and it worked. The story was on local evening television news across the United States as well as the national evening news in Germany, the Netherlands, and Russia -- that we know of. There were very few outlets that even tried to verify it -- the 1.2 million number is totally absurd. But at the same time it created a sense of mystery about how this could happen, which was also to our advantage.' (Lambert 2009.)



Figure 5.10 (above): The 'missing wall' installed as part of the 'Bird Cage' scenario

Figure 5.11 (below): Detail of the 'missing wall' <sup>506</sup>



<sup>506</sup> Design coordinated by Matthew Jensen for FoundFutures, photos by Stuart Candy, 21 October 2007.



specific use of public space to trigger a recognition of this category of disruptive event. Our 'missing wall' had been in place in an alleyway for all of about three minutes, when a man claiming to be the owner of the alleyway -- which turned out to have featured in *Magnum P.I.*, *Hawaii Five-O*, and *Lost*; a veritable star among Chinatown alleyways -- marched up, fist waving, and demanded that it be removed at once. He was insistent. Fortunately the all-important photographs had already been taken, so the 'afterlife' of the piece was secure, although no one but him and us saw it *in situ*.

The most successful of the three Chinatown scenarios in terms of media attention was largely a function of the timing selected for the intervention. On the first Friday of each month, for several hours in early evening, the streets of Chinatown are closed to vehicles and the art galleries throughout the district host a few thousand wandering visitors, mostly Honolulu residents. The monthly First Friday Art Walk, then, we identified as the moment when the 'McChinatown' scenario -- the one envisaging sudden gentrification and the jostling of local businesses by national chains -- could probably make the greatest impact. The fact that some of the main posters were only up for a short period of time was judged a reasonable tradeoff given the hundreds of people who saw, and were duly intrigued by, the installed elements during their brief tenure that evening. In addition, we had arranged for a group of protesters to stand outside the ostensible Starbucks-to-be, wearing 'Save Chinatown' t-shirts and buttons, handing out postcards, flyers, and fortune cookies directing passers-by to the 'Save Chinatown' campaign website, which described the Aloha Land and Water company's stealth takeover of the community. This was a way of further dramatising the scenario during the brief few hours of intensive public presence in the district.

The 'time' dimension of the *Times Special Edition* has two aspects. First, the newspaper distribution campaign all took place all on one Wednesday morning,

one week after the election of Barack Obama to the US Presidency. Although, months earlier when the lead-in process began, victory could have been anyone's, by the time of the intervention, an abrupt reorientation in the political climate was occurring after eight years of neo-conservatism. This probably elevated sensitivities to sudden shifts, and we may suspect that this increased the initial impact of the Special Edition headlines. The second notable aspect of this plan from a temporal perspective was the element of surprise. The Special Edition's release was staged for brevity and maximum impact, designed and executed flawlessly as a media event. Secrecy beforehand was of the essence; had information about it been known publicly ahead of time, its impact would have been much diminished.

Finally, the Honolulu Blue Line project was also calculated to attract media attention, and with careful timing, but with the difference that public knowledge was sought beforehand, to maximise participation. The effort was intended to serve as a counterpoint to the US-sponsored 'Major Economies Meeting on Energy Security and Climate Change', held at the end of January 2008 at the East-West Center (a federal cultural and research institution adjacent to the University of Hawaii's Manoa campus, and just a few blocks away from the site of the 'Blue Line' intervention in Mo'ili'ili, behind Waikiki).<sup>507</sup>

By definition, as we have seen, a 'guerrilla futures' intervention is *uninvited*: it is undertaken, if not necessarily in desperation, then certainly as an act of passion, precisely because the standard semiotic diet has been identified as imbalanced and thus in need of a supplement -- an infusion of futuristic alterity. The use of space, time, and media outlined here, then, are all opportunistic, and their responses always somewhat unpredictable.

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<sup>507</sup> Arakawa 2009.

#### 4. Narrative

For the *Times Special Edition*, the future manifested was an unabashedly utopian -- but, crucially, witty and tongue-in-cheek, not oppressively earnest -- vision of a United States where not just *some* good news happens, but 'all the news we hope to print', in one day. For the Hawaii Blue Line, the future scenario urgently put forward for consideration was a local, concrete manifestation of climate change, raising public awareness of the high-level stakes of the international talks taking place nearby at that moment. For FoundFutures: Chinatown, it was a set of three possible scenarios, each of which had been identified in the preparatory research stages as an intriguing possibility that seemed to receive too little consideration in the ordinary course of things, but that could be resonant with the histories, interests and concerns of local residents and businesses.

Most of the futures presented in these guerrilla intervention case studies are instances of *static* scenarios -- snapshots of a future which diegetically (in-world) has already arrived.<sup>508</sup> They still contain narrative elements (such as the individual news stories in the Special Edition), but do not fully recount the path from the present through the future time in question. A partial exception is the Bird Cage scenario, which sought to tell the story of the bird flu from outbreak in 2016 ('missing wall') to resolution, 18 months later (memorial plaque).

We noted above that a dimension of 'time' would be dealt with as an aspect of narrative; the chronological or historic *timeframe of the scenario* being extruded into the present in the given intervention.

The Blue Line plotted the longest time horizon, looking almost a century forward to a one metre sea-level rise, based on studies by a coastal geologist at

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<sup>508</sup> Recall the distinction between static and dynamic scenarios; see footnote 125, above.

University of Hawaii.<sup>509</sup> This project, and others like it, refers symbolically to the forecasts on which they are based. The blue line is in this sense a gesture, a reminder, a trigger, rather than a story in itself. It is a minimalist approach that relies on recruiting previously known, or suspected, ideas about climate change. This interpretation finds support in the fact that the blue line projects began to appear in the wake of the 2006 documentary *An Inconvenient Truth*<sup>510</sup> (indeed, Bruce Caron attributes the genesis of the Santa Barbara proposal directly to that film<sup>511</sup>). The fact is that these interventions avoid offering internal *narrative* (that of the future depicted or evoked), instead focusing on promoting or enabling an external narrative (the story about community members taking action on climate change). It seems possible that this ellipsis of narrative content at the scenario level is a deliberate way of inviting public attention and contested narrativisation -- in a word, politicisation -- of this issue through the next century. The one thing these interventions do *not* want is for climate change to be ignored.

The *Times Special Edition*, rather than presenting a utopian master narrative of 'how the unimaginable could happen' used the newspaper medium to offer a constellation of realised ideals. Put another way, most of its significance lay not in the plausibility or otherwise of the stories that recount 'how the war ended', and so on -- although these are, to be sure, tremendously entertaining -- but in making a *tangible experience* of the political aspirations of the writers. It deploys the realist, documentary language of the daily newspaper, at the level of content, certainly, but also at the level of *form* -- the metalanguage which is spoken by the very existence and importance of how news circulates in daily discourse of the paper itself. The upshot is, for the primary audience (those who unexpectedly received copies on the day), to stage a moment of cognitive dissonance between the absurdly hopeful contents and their concrete manifestation. And, for the

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<sup>509</sup> Kim 2008.

<sup>510</sup> Guggenheim 2006.

<sup>511</sup> Caron 2006.

secondary audience (the story about these encounters that the rest of us, not in New York that day, heard second-hand and online) it is brazen and novel enough to be worth repeating. The recruitment of the *Times* brand and other identities added both verisimilitude and fuel to an engine of controversy that simply adds to the repeatability of the tale.

Finally, as to the Narrative aspect of FoundFutures, as we have seen, it was somewhat complex, staging (in sequence, but with some overlaps in installation) multiple distinct scenarios for the Chinatown district. Of our trio of guerrilla cases, this was the sole instance that sought to bring more than one future narrative explicitly into consideration. It could be argued that, without a captive audience, since they were staged using different media and in different parts of the district, they were effectively three separate interventions. In contrast to the usual pattern in alternative futures consulting, the FoundFutures scenarios were each on different timelines (3-5 years for 'McChinatown', a decade for 'The Bird Cage', and 20 years for 'Green Dragon').<sup>512</sup>

As guerrilla futures interventions aimed at raising awareness and discussion, all of the above contain both internal and external narrative layers. The 'internal' layer is the scenario; that is, the story told, or implied, about the future. The 'external' layer is the story about the staged *encounter* with the future. The most narratively complex instance described here (FoundFutures, with its multiple pieces and sometimes scattershot distribution) ran the highest risk of being overlooked or misinterpreted, while the stories told by the Blue Line and the *Special Edition* were comparatively straightforward and easily understood, and could be apprehended in a glance, or perhaps a second glance. In this light, we can see how the internal and external layers may need to be plotted out so as to

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<sup>512</sup> Note that this FoundFutures intervention was based on research which we undertook in the district to generate scenarios that would be most likely to resonate during the outdoor 'exstallation' phase. However, the project culminated in an art gallery display and a free workshop on the futures of Chinatown for residents and proprietors in the area. (See Candy 2007i.)

minimise the tension, or more specifically, the potential distraction of the external from the internal narratives.

One particular risk in this vein is that a controversial approach to staging the intervention may generate plenty of attention, but risks sending the resulting discussion off the intended course, if it focuses too much on the intervention tactics rather than the substantive issues sought to be raised. A report arising from the 'McChinatown' scenario, for instance, appeared on the front page of the *Honolulu Advertiser*, headlined (in the print edition) 'Pranksters want Chinatown debate'. Much of the coverage focused on the legitimacy and impact of the supposed 'prank' tactics, with the substantive questions about Chinatown's future and character assuming a secondary importance.<sup>513</sup> It was largely for this reason, that the fourth and final phase of the Chinatown intervention -- which we had conceived around leveraging the ontological ambiguity of certain installed artifacts -- was put on hold. After the 'pranksters' article, Dunagan and I were cautious about anything that might contribute to the misapprehension that our main intention was to fool people. (See Chapter 6 for analysis of the ethics surrounding this kind of ambiguity.)

## 5. Audience Involvement

Again, it is possible to distinguish two layers here. Primary audiences, those who see the intervention directly at the time; and secondary audiences, those who hear or read about it later. (Note that this pair does not correspond one-to-one with the distinction made a moment ago between 'internal' narrative of the future in question, and the 'external' narrative, about the encounter. The primary audience experiences the 'external' narrative first hand; the secondary audience hears about it later, but will also ideally still access and consider the 'internal' narrative for which the staged encounter was the vector.) The design of the

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<sup>513</sup> Vorsino 2007.

intervention should be approached with a sensitivity to both primary and secondary audiences -- the first-hand experience, and its 'afterlife'. A third element also warrants mention in this setting; the involvement of and impact on the 'performers' or activists themselves.

The Blue Line project in Hawaii attempted to maximise public participation in staging the intervention. In this, it was quite successful, and about fifty people took part, with perhaps several hundred witnessing the project first-hand, and an audience orders of magnitude larger than this hearing about it via brief national and international coverage. The mode of engagement was the staging of a public spectacle, a mildly 'artistic' demonstration, pointing experientially and symbolically to the climate issue. The primary audience, people who happened to be passing by while the line was drawn, or shortly after, were perhaps prompted



Figure 5.12: Participants in the Blue Line Project in Hawaii, a performative event to raise awareness of climate change <sup>514</sup>

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<sup>514</sup> Photo by Stuart Candy, 30 January 2008.

to consider the climate issue concretely. But I would surmise that the greatest impact was probably on those who took part in the project, spending one or two hours actively mapping potential climate change onto their neighbourhood -- the effects of such participatory 'futuring' would be worthy of further research.

The *Times* newspaper intervention was a beautiful example of what Douglas Rushkoff has called a 'media virus' (a successfully self-replicating meme). It reached a primary audience of tens of thousands, and a secondary one of many millions. It did not ask any particular action of its audience, but was framed as a sort of guerrilla futurist spectacle. What we could call its 'memetic force' came from encouraging people, by dint of sheer ingenuity, narrative novelty, and experiential impact, to tell others the story.<sup>515</sup>

The various pieces of the FoundFutures project were encountered first-hand by thousands of Chinatown urbanites, an audience multiplied by local Hawaiian media coverage and, certainly in the district itself, word of mouth. It may be that the most effective of the three scenarios staged was so because of the element of direct, personal engagement (the 'Save Chinatown' protest in 'McChinatown'). Audience involvement, in the sense of emotional interest, was also effectively brought about with the anomalous future-dated memorial plaque, covered in fresh leis each day, and surrounded by candles and photographs mourning the flu victims in Honolulu's so-called 'Weeping Spring' of 2016 (Figure 5.13).

### **Evaluating political effectiveness**

In gauging the effectiveness of guerrilla interventions, a major challenge is that impacts are extremely difficult to observe, let alone to measure. One may

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<sup>515</sup> Rushkoff 1994. The 'meme' concept is a coinage of Richard Dawkins. See Dawkins 2006 [1976], 192ff.



estimate the size of the audience reached (similarly to the way that advertisers attend closely to the ratings of television shows), which would constitute a crude index of political *potential*, but to make any sort of connection between a 'hit' and political impact is very difficult. With political impact, of course, we do not mean changes in voting preferences or party membership (although such specific actions would be a suitable measure of impact if that were the explicit goal). We have a wider, more subtle ecology of perceptions and ideas in view.

We have already argued that when a possible future scenario is made available for consideration, a 'redistribution of the sensible' is effected. This constitutes a *political* moment, a meaningful change in the perceptual order, with considerable potential for further politically-charged ramifications. This is a subtle, qualitative, and interior shift, which helps clarify why the transformations at issue here are, by and large, inadequately supported by evidence.

It should be recognised, as hinted in the foregoing analysis, that the context of guerrilla futures work is, by its nature, bound to operate in circumstances well short of ideal. It is likely to be under-funded (if funded at all); may be legally borderline; and is dedicated to articulating subversive or marginal perspectives, by definition unpopular! It is, in sum -- gesturing back to Ashis Nandy on futures -- an art form of dissent.<sup>516</sup> And, as the quotation by Eco suggests, its modes of operation have to be *tactical*, rather than *strategic*. (In this, Eco echoes Michel de Certeau's take on that same distinction, the latter's 'biggest export' as a theoretician.<sup>517</sup>) *Strategy* typifies the programmatic, agenda-setting capacity of main actors; *tactics* characterise the capacity of a dissenter to talk back, to create and exploit small holes, to slip through and widen them in the imagination until other dreams pour through. The use of tactics is, in Certeau's phrase, 'the art of the weak'. We can now situate this pair with respect to two others raised before:

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<sup>516</sup> Nandy 1996, discussed in Chapter 3.

<sup>517</sup> Highmore 2006, 177; Certeau 1984, 34-39.

politics of the obvious	-->	politics of aesthetics
client-commissioned futures work	-->	guerrilla futures
strategies	-->	tactics

It is at least straightforward to assert reasons why a mind shift *ought* to occur. As co-organiser of the *Times* intervention, Steve Lambert, explains:

It might be hard to imagine now, but when you're holding that paper in your hands having no previous knowledge of it, your brain has to do a lot of processing. Set the paper aside for a moment and if I were to say to you, 'imagine if the war was over' you might think for a moment and say 'yeah, sure, that'd be great.' But if I can present that reality, literally put it in your hands, in the form of the national paper of record, then -- well, there's a lot more brain activity. It makes a theoretical idea or possibility something you can actually hold in your hand, look at, and live in for a moment.<sup>518</sup>

It makes excellent sense that this should be the case, but we also need to admit that sometimes an intervention that *should* work simply misses the mark, for whatever reasons. One of our favourite responses throughout FoundFutures: Chinatown, which illustrates this point, was from a woman who came across our flu-pandemic memorial bronze plaque in the street. The text on it read as follows:

In memory of those who suffered  
and perished during the  
Weeping Spring of 2016.  
Our community has grown stronger  
in the wake of your sacrifice.

Dedicated this 16th day of October, 2017,  
by the Honorable Mayor C. Ballesteros,  
on behalf of survivors  
of the H8N2 pandemic (Hang Ten Flu)  
and future citizens of Honolulu.

*A hui hou kakou.*<sup>519</sup>

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<sup>518</sup> Lambert 2009.

<sup>519</sup> A Hawaiian expression, which in English means, 'Until we meet again'.

She stood before it for a good few minutes, taking it all in -- the fresh leis; the scale of the tragedy outlined in the inscription (the likes of which the city has not in fact seen since the 19th century); and the occasion of the memorial's supposed dedication (almost ten years forward, to the day). 'Ha!', she snorted, 'They got the date wrong!' And she trundled off down the street.<sup>520</sup>



Figure 5.13: Passers-by examine the bronze memorial plaque, part of the 'Bird Cage' scenario for FoundFutures<sup>521</sup>

How do you measure whether someone's mind has been changed by a futures encounter? This is an instance of a broader problem of how one can know whether any 'political' art is actually having the desired impact.

Hollywood filmmaker Oliver Stone is famously one of the most political of mainstream American directors. However, his 1986 film *Wall Street*, a cautionary tale about greed and corruption personified by the character Gordon Gekko (an Oscar-winning performance by Michael Douglas, whose famous line 'Greed is

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<sup>520</sup> This story first appeared in Candy 2008k.

<sup>521</sup> Photo by Bram Goots for FoundFutures, 21 October 2007.

good' became a signature of the era's Reaganomics), had precisely the opposite of its intended effect on a certain portion of the viewing audience.

As social documentary, even as art, [the film] was a great success. ... As a vehicle for social change, however, the movie was a catastrophe. It did not show Wall Street in its best light, yet Wall Street was, by far, the movie's most enthusiastic audience. It has endured not because it hit its intended target but because it missed: people who work on Wall Street still love it. And not just any Wall Street people but precisely those who might have either taken Stone's morality tale to heart or been offended by it. ... Michael Douglas often expresses his astonishment at the many Wall Street males who have sought him out in public places just to say, 'Man, I want to tell you, you re the single biggest reason I got into the business. I watched *Wall Street*, and I wanted to be Gordon Gekko.' The film's equally perplexed screenwriter, Stanley Weiser, has made the same point, in a different way. 'We wanted to capture the hyper-materialism of the culture,' he said. 'That was always the intent of the movie. Not to make Gordon Gekko a hero.' <sup>522</sup>

Merely to *assert* a connection between an intervention (or artwork, or what have you) and its desired effect is not enough. Even so, it seems many political artists and interventions, and academic analyses thereof, are content to rest on the implication, assumption, or hope of a carry over from intent to outcome.

Literature and art theorist Krzysztof Ziarek spends all of 200 pages in his book *The Force of Art* describing the remarkable (theoretical) process by which a truly effective piece of art deploys its 'forcework', not as an explicit challenge to power (in the form of existing perceptions, understandings, priorities etc), but *outside* it.<sup>523</sup> By the end, however, we are none the wiser as to *how* to effect this wondrous escape. What we do learn is that the likes of Gertrude Stein, Krzysztof Wodiczko and Marcel Duchamp manage it in their work -- in Ziarek's good opinion -- somehow.

We are not entirely deprived of evidence of 'political' effectiveness, of awareness being shifted or perceptions altered. As noted in Chapter 4 in the example of the FoundFutures postcard intervention, one recipient was moved to reflect, after

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<sup>522</sup> Lewis 2010, 128.

<sup>523</sup> Ziarek 2004.

seeing the piece that embodied a 'collapse' narrative for Hawaii, that each hurricane season it survived was a case of 'dodging a bullet'.<sup>524</sup> Following the 'McChinatown' installation, one of the nearby business proprietors confessed to us that, had she been asked beforehand, she would have objected to a Starbucks opening on the corner, but for the brief period in which she had imagined it was actually going to happen, she was surprised to note a sense of excitement at the prospect of more foot traffic on the block.

Two points arise from this discussion.

First; there is a sound basis for believing that experiential futures interventions have a qualitatively different impact on participants than other kinds. This comes from the psychological and neurological perspectives described in Chapter 2, and at the theoretical level, from the political 'redistribution of the sensible' which is methodologically and tactically built in to the practice. Moreover, we have (non-scientific, anecdotal) observations from several interventions that people's attitudes and assumptions can be challenged, and that novel insights do arise, with material staged in these forms. The important qualification to all this is, of course, that individual, anecdotal responses are bound to vary. Individual stories are not decisive evidence of the success or otherwise of an intervention or artwork, but only indications of the sorts of reactions that people may have. A valuable next step in the research agenda suggested by this would be to design and implement more systematic evaluations, such as ethnographic observation or post-intervention questionnaires of participants across different conditions. This dissertation, being a summary overview of what remains a very much nascent practice, indicates the potential value in elaborating this work, rather than offering unassailable proof.

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<sup>524</sup> See footnote 414, above.

The second concerns the definition of 'political effectiveness', which must depend in part on the match of intentions and outcomes on the part of the originator. Stone's film failed to evoke universal disgust with Wall Street avarice; indeed encouraging it in some quarters, to the extent even of providing a slogan -- 'greed is good' -- and thus as a vehicle for social change, in that demographic at least, the film was a 'catastrophe'. In Chinatown, by contrast, the calculus changes because our intentions were different. The experiential scenario about development of the neighbourhood aimed to raise a topic of discussion that, according to our preliminary research, was being inadequately addressed through more formal avenues. Had we been aiming specifically to elicit negative attitudes towards national chain stores, the business owner's self-surprising reperception in favour of Starbucks would have been a disaster. As it turned out, however, that surprise was for us a small sign of success: the experiential scenario revealed something that mere hypothetical rumination had not. As Stephen Duncombe has pointed out, 'if we shift persuasion from persuading people to *think X*, and instead simply persuading people to *think*, then it's a whole different ballgame.'<sup>525</sup>

In Chapter 2 we suggested four kinds of objective that may be distinguished in staging an experiential scenario: entertainment, education, exploration, and evangelism. What fails on some fronts may succeed on others. Stone's film (granted -- not an experiential future, but a film with political ambitions) entertained but failed to evangelise, at least in part; FoundFutures: Chinatown may not have entertained as much, but did help to explore and, perhaps, educate; evangelism was not the goal. For those occasions where evangelism (a.k.a. persuasion) is specifically intended, though, we may take a cue from Eco's 'semiological guerrilla warfare' that the decisive, interpretative moment occurs at the reception end, rather than the broadcast end; which seems to argue for

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<sup>525</sup> Duncombe 2010.

increasingly target- and moment-specific interventions, as opposed to scattershot advances on an unspecified wider audience.

A full elaboration of the success conditions for each type of experience necessarily awaits another occasion, once a larger body of evidence, more systematically gathered, is available. What we can reiterate is that any successful experience is founded on *engagement*, the minimal condition for any kind of impact. A scenario offered for *exploration* purposes, dramatising a complex issue, will be impactful and useful not because its audience comes to share a particular (ideological) position and produce the same responses -- that is more like advertising, a very different practice -- but precisely because it elicits *different* responses. It does not get people thinking *the same things*, but encourages them to think *about* the same things. A well crafted 'theory object' in any form calls or compels a degree of attention, enabling a debate and exchange of views, some or all of which, in the case of a future scenario, may have been unavailable before it.

### **A checklist for guerrilla engagement**

Below are some of the questions, as suggested by the foregoing analysis, that a guerrilla futurist might ask of her efforts, towards evaluating their engagement potential, which is a prerequisite for political impact. These are not overarching, masterly interrogations -- 'effectiveness' is not a binary matter subject to an objective threshold of success -- but, fittingly, a piecemeal, tactical checklist:

- 1) To which *spaces* of display and/or performance can we gain access, and what are the risks and potentials afforded by each? (impact = attention × duration)

- 2) When is the most appropriate moment, in terms of scheduling, to stage the intervention? Is it dependent on some broader context or event (e.g. an election, an international round of talks), or is one date as good as any other? Are there times of day, week, or month at which the risks are lowest or the rewards are highest?
  
- 3) How long does the artifact need to stay as installed? If it can be rapidly photographed, and then removed, the photographic evidence may enjoy an 'eternal afterlife', even if the assemblage it captured lasted only an instant. Have we planned for sufficient documentation for the afterlife of the project?
  
- 4) What materials and media should be used? Can they be reused, moved around and redeployed, or must they necessarily be treated as 'disposable'? Are our resources being used wisely? This may seem a prosaic or distastefully non-theoretical consideration, but in guerrilla futures interventions, one must take account of cost. The expenses associated with a project are not only a key ingredient separating the ingenious from the wasteful, but this concern is also ultimately differentiates the conditions enabling the *strategic* from those necessitating the *tactical*!
  
- 5) What is the main point of the story? Who are the primary and secondary audiences, and is the real or most meaningful impact that of the encounter for the former, or does it really make sense only when seen in context later?
  
- 6) Is a physical intervention, with the labour-intensiveness that entails, strictly necessary, or there an easier way to accomplish comparable results, for example online?

Some of these questions are the same as one might ask of an experiential scenario in an officially sanctioned, bounded, and *non-guerrilla* context. Up to a



point, the two are similar enough. The design of any experiential scenario in any setting requires one to take account of the same generic factors: Who are the audience members, and what kind of experience would you like them to have; what is the future narrative in question, and to what extent will it be a 'static' scenario (providing a snapshot of some future world) versus 'dynamic' (setting out the whole backstory from the actual-present to the future-present of the scenario); what are the spaces and media at one's disposal; if it is a live experience, as opposed to a film or gallery artifact, whether it will be 'immersive' in the sense of incorporating the audience's presence in the scene, or whether it will instead rely on the traditional 'fourth wall' of the theatre, and pretend that no one is watching.

The key difference is that a conventional experience is bound to be more or less replicable and regularised, like a theme park ride, or the four rooms staged for Hawaii 2050. By contrast, a guerrilla intervention has more variables that you *don't* get to control; more unpredictability, and more scope for strategic ambiguity and genuine surprise on the part of its audience.

In any case the fundamental question to be asked of any guerrilla artwork aiming for political impact, it seems to me, is *why should anyone pay attention* to it? 'Art', Edward de Bono has said, 'is a choreography of attention'<sup>526</sup> -- and earning attention is an art too. It is a *sine qua non* of impacting perceptions and behaviours. This is so not only in relation to futures, but also for political activism and philosophy; and these are competitive attentional economies indeed. All too often, the 'urgent' (short-term, pressing matters) outshines the 'important' (longer-term, and slower-moving, but ultimately weightier matters) in our thinking, at all levels. With that in mind, a key framing question will surely be; what about it makes this a story worth telling, and *retelling*, and where, how and by whom will that occur?

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<sup>526</sup> de Bono 1991, 135.

## Conclusion

This chapter has presented a brief preliminary sketch of considerations that may arise in a performative aesthetics of futures 'in the wild', situating this form of activism alongside other approaches with comparable goals (culture jamming, prefigurative politics). While we look forward to the opportunity to stage and evaluate experiential futures interventions more systematically, here we have mapped some of the characteristics of several examples, and found that to process them in terms of their various relational dimensions (space, time, media, narrative, and audience involvement) is a helpful step towards articulating what works -- or for that matter, *plays* -- best in this area.

In the next chapter, we will locate experiential and guerrilla futures in a wider consideration of ethical concerns, looking at the potential benefits and hazards when the experience of *ontological ambiguity* is built into our practice. We will incorporate consideration of some antecedents that are slightly orthogonal to experiential futures per se, to generate some alternate perspectives, and then consider what the import of these views may be for the ethics of experiential scenarios generally.

## CHAPTER 6

### SCENARIO, SIMULATION, HOAX

It is the business of the future to be dangerous...

~ Alfred North Whitehead <sup>527</sup>

In this chapter I want first to situate scenarios, a form of hypothetical thought, with respect to other activities and modes of thought which, at first glance, may not appear to relate, but which considered together are mutually illuminating. Then we will move towards an understanding of how ‘guerrilla futures’ can make tactical use of these varieties, and finally, to consideration of the ethical implications of such use or abuse for experiential futures generally.

#### **An ontological spectrum**

It seems to me that, rather than a simple binary Logic of Truth (‘is’ vs ‘is not’), when it comes to human thought and experience, it’s better thought of as a continuum.<sup>528</sup> There are those propositions that we take to be true, there are those that we treat as if they were true (however sound, or not, our basis may be for believing that they are), and there is the domain of speculation, where we let ourselves off the ontological hook a little, and allow ourselves to explore possibilities or imaginings of various kinds, even if we don’t necessarily have evidence for them. We can imagine these modes as falling on a kind of spectrum of representations ranging from completely real to completely imaginary. The three key markers to plot are the reality bedrock ‘*is*’ at one end, the pure supposition of ‘*what if*’, at the other end, and the mimetic ‘*as if*’ in between. We’ll call this the *ontological spectrum*. It is not supposed to be a definitive framework,

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<sup>527</sup> Whitehead 1967 [1925], 207.

<sup>528</sup> I acknowledge the influence of ‘fuzzy logic’ on this part of the argument. See Kosko 1993.)

but we will use these below to sketch out some distinctions and clarify the ethical implications of performing futures guerrilla-style.

We are constantly alternating back and forth between these modes of operation. Ordinary experience bears this out: given the impossibility at times of determining what *is* so, and the frequent need to act despite not having access to certain or complete information, we must resort to *what if* and *as if* to navigate those potentials. You may not know, for instance, whether it *is* the case that a colleague reported to your superior that you showed up to work drunk (by the way, let's assume that you didn't, and that this is the result of some sort of wacky misunderstanding). At any rate, if this is your suspicion, you would use a *what if* mode of thought to test whether that hypothesis squares with your observations as to how they both behave towards you when you next see them. You may then decide to behave *as if* nothing had happened in the hope that the whole thing will blow over. That's an example about dealing with uncertainty in past events, but at least as great a degree of uncertainty is bound to accompany much thinking about the future, since there aren't any hard facts to start from.<sup>529</sup>

A moment ago we started at the end of the ontological spectrum rooted in observed fact, but we can just as easily start from the other end, proceeding from the purely hypothetical, from *what if*, to *as if*, to *is*. We can treat *what if* speculations *as if* they were the case, or we may even endorse as fact a proposition which others would regard as the most unfounded, outlandish speculation. Consider how religions (or, for that matter, political parties, or university departments) often seem to require that people accept that such and such 'is' the case, making an investment of belief, or faith, in what others might gingerly treat as a weird hypothesis at best.

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<sup>529</sup> '[T]here are no past possibilities, and there are no future facts. It follows that we have created an unreal problem in our uncriticized assumption that the concepts of causation, truth, law, and determinism, which hold elegantly for the factual past domain, must also apply to the future. That past time is a fair sample of all time is a mistaken metaphysical assumption.' (Brumbaugh 1966, 649, original emphasis.)

The flimsiest of these three may seem to be *what if*, because it appears to have the least philosophical ‘substance’ to work with. I would suggest, however, that the category of *is* should be regarded as the most tenuous of the three, because it constantly requires verification to shore it up (or at least it *ought* to, since it makes the most sweeping claims about the nature of things). Certainly, much hard work can be avoided by simply assuming that whatever *appears* to be indeed *is* the case, which is exactly what the most naïve of realist positions does.

Still, whatever our declared membership or outlook may be philosophically, much of everyday life is enabled by an unselfconscious pragmatism, whereby we take philosophically problematic things for granted -- things that are in principle impossible to verify in any rigorous way, or that we may never have seen with our own eyes -- things like the national debt, or the ozone layer, or love, or the American public. We’ll reify a convenient construct at the drop of a hat. As the psychologist and educator Jerome Bruner has observed, ‘We are natural ontologists but reluctant epistemologists.’<sup>530</sup>

None of this is intended to lament the hard fact that hard facts are so hard to come by. Quite the opposite: in the pragmatist tradition,<sup>531</sup> or that of the Kantian philosopher Hans Vaihinger,<sup>532</sup> I am suggesting that we can afford to be much less hung up on the distinction between certified truths on the one hand, and fictive possibilities on the other. The attitude suggested here is to drop both unreflectiveness and embarrassment about our situation, to deliberately embrace and exploit the quirks of our human processing system instead. Where we have to resort to workarounds or ‘mind hacks’ to deal with the future more effectively than we have in the past, so be it. *Whatever it takes.*<sup>533</sup> This is not the crass

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<sup>530</sup> Bruner 1986, 155.

<sup>531</sup> Menand 1997.

<sup>532</sup> Vaihinger 1968 [1924].

<sup>533</sup> Recall Edward Tufte’s mantra, cited above, footnote 242.

opportunism of exploitation, but the opportunism of practical invention (including evolution itself, which has never offered an apology for trying things out to see what works). But to become adept hackers of the historical process we must first master hacks of the mind, at first our own, and then those of others whom we may wish to engage in conversation.

My aim here is not to invoke a relativist position, regarding facts and facticity, in order to produce confusion. On the contrary, I want to remove an important source of confusion. The confusion here comes with the idea (even if is left unarticulated) that futures and other modes of hypothetical thought are somehow philosophically second-class, and not to be trusted. (This strikes me as an offshoot of the Cartesian error that we visited in Chapter 2, which holds that the mind and rationality exist in splendid isolation from the body and its sensations. In this dualistic schema anything imaginative may smack of irresponsibility.) But the world we live in is not made up simply of facts on the one hand and non-facts (errors, fictions) on the other. As it happens, we all, including -- perhaps especially -- scientists, necessarily spend a good deal of time in the much more grey area of supposition, fantasy, counterfactual or future-possibility. Neuroscientist and fiction writer David Eagleman recently described the unsuspected similarity of his two jobs.<sup>534</sup> 'What's written in the textbooks is completely untrue. Science never goes as a linear process of discovery, it's always people making creative leaps. You go into the lab every day, and you make up the wackiest stories that you can, and you see [from] which ones you can build a bridge of evidence back to what we already know.' This turns out to be logically identical to the process of 'incasting' by which the logics of alternative futures are tested and fleshed out.<sup>535</sup> Science, futures and fiction may not be so

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<sup>534</sup> Eagleman 2010, at approx. 1 hr 16:30 mins. The 'creative leaps' Eagleman mentions were captured under the heading of 'abduction' (as opposed to the traditional logical operations of deduction and induction) by the American pragmatist C.S. Peirce. In Peirce's philosophy of science abduction is the first phase in the scientific method, the formulation of an hypothesis as to what is going on. (Stanford Encyclopedia of Philosophy, 2001.)

<sup>535</sup> On 'incasting' see footnote 127, above.

different from each other after all. Indeed, brain science has revealed that *most of the time*, our thoughts are not carefully attending to the present moment, but are instead time-travelling into recalled past and fantasised future states, plumbing what psychologist Daniel Gilbert calls ‘the dark network’.<sup>536</sup> Any futurist should cultivate an awareness of these categories so they may be put to good use, and the guerrilla futurist in particular is bound to become an expert on charting new reaches of her own, as well as our collective, dark network.

Now let’s map a few types of activity on to our simple three-part continuum of *what if*, *as if*, and *is*. We’ll consider scenarios, simulations, and hoaxes. I am greatly simplifying, as well as grouping quite disparate phenomena together under these headings, so there are other ways it could be sliced, but this approach has a rationale which will become clear.

### **Three discursive technologies**

A future *scenario* is a discursive technology at the *what if* end of the spectrum. It is first and foremost a thought experiment. We might not call it that by convention, but that this is principally how it functions and what it is for. We use the premises and logic of scenarios as a basis for creating, sharing, testing and refining mental models about change that we cannot observe at that moment

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<sup>536</sup> Gilbert and Buckner 2007. This echoes Dator’s question about the unproblematically assumed existence of the present. ‘[J]ust when is “the present?” Is it now? Or now? Or now? Or now? No! It does not exist or rather, it is so excruciatingly thin that it whizzes by before we can grasp it. In fact, we are the present -- our conscious selves. And of what are we usually conscious? Not the present, for the most part. Rather, we are dreaming or daydreaming; remembering; regretting; recalling -- or planning, scheming, plotting, anticipating. We live in the past and the future far more than in the present.’ (Dator 1987, 97.)

because, by definition, the events at issue are yet to happen (or yet to *not* happen, as the case may prove to be).<sup>537</sup>

*Simulation* is an activity which belongs in *as if*, between the abstract *what if* of the scenario and the concrete *is* of supposed reality. A simulation may be thought of as an enacted scenario. When a building's inhabitants are evacuated in a fire drill; when a pilot learns to fly a complex aircraft using a mockup that never leaves the ground; or when a trainee surgeon operates on a dummy; when actors rehearse a play in an empty theatre; or when a complex model of weather systems is run inside a computer to produce next week's forecast -- all these things involve using a representation or simplified version of a 'real' situation or system, in order to produce insight as to the workings of that system, or to use a low-risk test run to found confidence in preparing for the 'real' version of it. It seems that much of education is based on the principle of simulation: simplified, virtual, and artificial situations can usefully prepare us to handle or understand real ones.<sup>538</sup> In this framework, role playing and gaming -- so long as you are aware that you are playing a role or a game -- would also be included under *as if*, this area of simulation.

A *hoax* is a deliberate deception, which belongs at the *is* end of the spectrum. The defining characteristic of a hoax is the way it bifurcates actuality and perception. It engineers a false sense of what *is*. The thing that links it to scenarios (*what if*) and simulations (*as if*) is that it can be seen as a hypothetical that the audience does not know is a hypothetical. To write a bad cheque is a kind of hoax, as is to publish a false memoir, or to pass off a new painting as the long-lost work of a Renaissance Master. All these examples are classed as

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<sup>537</sup> From this angle, the discussion in Chapter 2 of 'The Experiential Gulf' could be characterised as a disquisition on the inadequacies of *purely mental*, schematic, logical modelling. (Indeed, it is quite astonishing how clunky, sketchy, and low-fi this unadorned technology of thinking about the future is, compared to what's available for 'thinking' sound and light differently, for example.

<sup>538</sup> For a persuasive argument on the promise of (mainly computer-mediated) simulations in learning and education, see Aldrich 2004.



criminal activity, which shows just how ethically unacceptable society deems certain things at this end of the spectrum to be.

But it grows more complicated. We have situated our three categories on a spectrum, and there are spaces in between that we haven't touched on yet.

### **Experiential concreteness and indispensable mimesis**

What sorts of things lie between *what if* and *as if*?

Consider narrative cinema. I have always been captivated by the power of film to capture and serve as a kind of repeatable, virtual or vicarious experience. I have argued before that every film can, in a sense, be considered a thought experiment, a *what if*.<sup>539</sup> But I was never entirely satisfied with this classification, probably because what the medium offers is a step closer to experience than a mere *gedankenexperiment*. If the film is well made, or rather, if it happens to work for you, the *what if* of a narrative (whether about the future or not) begins to be upgraded to the *as if* of a simulation. Sound designer and film editor Walter Murch (who worked on *The Godfather*, *Apocalypse Now*, and *The English Patient*) has said that watching film is akin to running a software program on your mind; that film edits are keyed to a neurological and emotional rhythm such that you will be drawn in to the events depicted.<sup>540</sup> You are invited and induced to feel your way into the hypothetical, engaging emotion, moderately increasing experiential concreteness, and finally performing something closer to a a

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<sup>539</sup> 'Every narrative film is, in a sense, a thought experiment. Every plot is a 'what if'. The way the characters behave and interact, the decisions they make, the consequences that ensue, and the backdrop against which it all occurs, are strands which together comprise a hypothesis about how things would or could unfold if x, y, and z were the case. They are in that sense elements of a theory about how the world works, although very few films explicitly set out to explore specific futures in a plausible way.' (Candy 2006b.)

<sup>540</sup> Murch 2001.

*thought-and-emotion* experiment; a *virtual experience*. This perhaps captures the essence of what musician, producer and artist Brian Eno has described as the very function of art: ‘the rehearsal of empathy’.<sup>541</sup>

To watch a film about war, or a love affair, or a death in the family, is obviously still a very long way from experiencing those things yourself. But it is closer to an evocation of those experiences than a mere mention of them, or a sketch outline, or nothing at all. Here’s that pragmatic ‘hacker’ sensibility again: no one is arguing that perfect simulation is available (even in principle, let alone in practice); the argument is that we can do better, and entertain scenarios at deeper levels unreached by purely cognitive exercises, by turning up the experiential concreteness.

Considering this movie example with closer regard to our subject matter. A good science-fiction film is typically much more vivid than the average futurist scenario (for now, disregard the vastly different resources involved in producing the two; the issue lies elsewhere). A very well written novel can perform some of the same functions, but text is, generally, intrinsically less experiential or simulation-like, more abstract and cognition-heavy than film. In earlier chapters we established the importance of increasing experiential concreteness from the domain of scenarios, the traditional staple of hypothetical future-exploration). For some purposes, of course, the hypothetical tools dealing in *what if* and *as if* may be perfectly adequate. For others, however, we must venture into more ethically fraught territory. As we move up the ontological spectrum from *what if* towards *as if* (as a narratively involving film does) and from *as if* towards *is*, the experiential gulf grows ever narrower.

Let’s consider a second, and much older, example between *what if* and *as if*. Toying with these boundaries for the purposes of urging political conversation

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<sup>541</sup> Kelly 1995.

has a longer history than one might think. Thomas More's *Utopia*, rather than being a dull and earnest account of his idea of social perfection (as one may well assume from a five hundred year-old political text that has launched a million dull and earnest discussions), is even now very engaging to read, and strikes an intriguing balance between seriousness and mischief that anticipates the sensibility investigated in these pages ('don't break the universe'). A recent commentator notes, 'the work encourages taking a new view of social and political problems by seeing alleged (and strange) solutions to them and challenges readers to try to find out what they approve or disapprove of and why..' <sup>542</sup> However, it is not a scenario held at arm's length; the reader is aided in treating the extended thought experiment as *if*, via a thoroughly playful ambiguity about the status of the work.

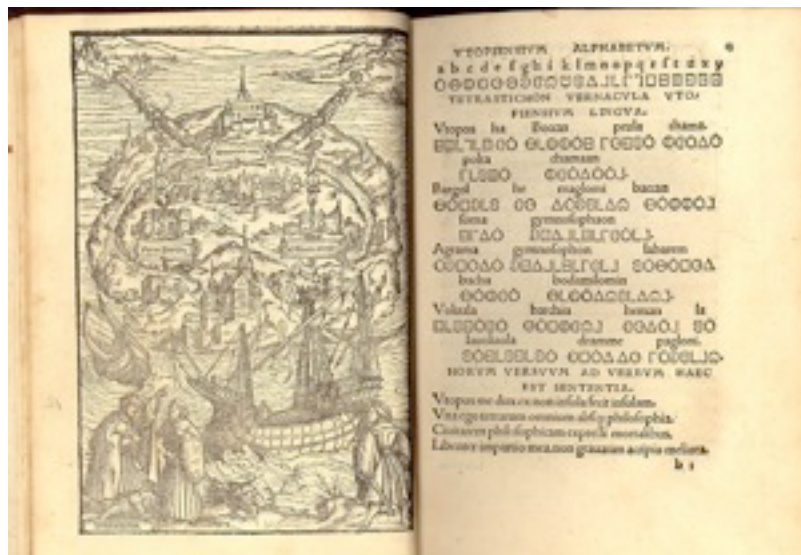


Figure 6.1: The map and alphabet from Thomas More's *Utopia* <sup>543</sup>

The text is presented as a memoir, replete with historical figures both real (including More himself and his friend Peter Giles) and fictitious (including the

<sup>542</sup> More 2001 [1516], ix-x.

<sup>543</sup> Image from 1518 edition of *Utopia* published in Basel; digital reproduction hosted by Universitätsbibliothek Bielefeld, Germany. <http://tiny.cc/figure6point1> (position 8)

narrator Raphael Hythloday, whose name means ‘peddler of nonsense’<sup>544</sup>), and it is introduced with a diegetic (in-scenario) frontispiece containing a map of Utopian territory and the alphabet of the people who live there (see Figure 6.1). On second thought, perhaps it ought not to come as a surprise that ontological ambiguity is built into this, a founding text of speculative political discourse.

What lies between *as if* and *is*?

Many design fictions (described in Chapter 4) and ‘artifacts from the future’ have this odd composite property. As concrete instantiations of a potential world, they assert their reality with sheer *presence*. The four FoundFutures postcards from 2036 look and feel just like postcards today, but after a moment’s closer inspection they are clearly expressing a narrative that does not correspond to what is currently going on. The mandate ‘don’t break the universe’ invites (but does not force) you to meet them on their turf, as it were. They declare *is* as a way to seduce you into considering -- and feeling, if only for a moment<sup>545</sup> -- *as if*.

The difference between *as if* and *is* resides in awareness of the ontological status of the thing. A hoax is not a hoax if no one is fooled. A simulation would move towards being a *hoax* if it included deception about the fact of it being a simulation.<sup>546</sup> Given the potential for harm and opprobrium at the hoax end of the spectrum, why would anyone want or need to go near it?

One possible reason to induce a person’s belief in something that is not so could be to reveal to them something about themselves. Here’s a straightforward

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<sup>544</sup> *Ibid.*, viii.

<sup>545</sup> See Lambert 2009, cited above, footnote 518.

<sup>546</sup> Although this could have its uses too. In Orson Scott Card’s bestselling science fiction novel *Ender’s Game*, the central character undergoes rigorous training for space battle in a series of increasingly demanding and realistic simulations, and -- spoiler alert -- at the end of the story, he discovers that in the context of the simulation or ‘game’, they had switched seamlessly over to real battle, and won the war, without ever realising it. (Card 1985.)

example. In the popular 1990s TV sitcom *Friends*, at one point the character Rachel suspects, but isn't sure, that she is pregnant, but she is wavering about the relationship with the would-be father, and isn't sure it's the right time to become a mother. Her friends Monica and Phoebe are on hand to help her check the results of the pregnancy test.

Rachel: I can't. I can't look at it. Somebody else tell me please.

[*Phoebe looks at the pregnancy test*]

Phoebe: It's negative.

Rachel: What?

Phoebe: It's negative.

Rachel: Oh. Well, there you go. Phew. That's great. That is really really great news. You know because the whole not being ready and financial aspects, all that stuff. This all just the way is supposed to be.

Monica: [*solemnly*] Well, then great.

[*Phoebe hands Rachel a tissue. Rachel starts crying*]

Rachel: Thanks. God, this is so stupid. A baby's something I've never had. It's negative?

Phoebe: No, it's positive.

[*Monica and Rachel are stunned*]

Rachel: What?

Phoebe: It's not negative. It's positive.

Rachel: Are you sure?

Phoebe: Well, yeah. I lied before.

[*Rachel looks at the pregnancy test*]

Phoebe: Now you know how you really feel about it.<sup>547</sup>

Rachel has an opportunity to glimpse a counterfactual universe in which she is not pregnant, and in it, her genuine disappointment with that 'fact' is revealed to her. Evidently, not everything at the hypothetical *is* end of the spectrum, although deception may be involved, counts as a hoax, or is reprehensible.

A weightier example. Social psychologists -- those among us who make it their business to try to figure out human thought and behaviour -- have been dealing with an aspect of this problem for quite some time. If you want to understand what people really think or feel about things, to just go ahead and *ask* people is one possible approach. However, it's plagued with the difficulty that we humans

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<sup>547</sup> Bright 2001.

are not that transparent to ourselves. Our understanding of what makes us tick is incomplete, and riddled with mixed motivations. We may like to believe that we think or do one thing, while in fact thinking or acting consistently in some other way. As a result, experiments intended to get at the real story may deploy 'methodological deception'.

One of the most famous psychological studies ever conducted, and actually the first I remember ever hearing about, at a high school science camp at age fifteen, was Stanley Milgram's research on obedience to authority. The experiment's design, in Milgram's own words:

[T]wo people come to a psychology laboratory to take part in a study of memory and learning. One of them is designated as a 'teacher' and the other a 'learner.' The experimenter explains that the study is concerned with the effects of punishment on learning. The learner is conducted into a room, seated in a kind of miniature electric chair; his arms are strapped to prevent excessive movement, and an electrode is attached to his wrist. He is told that he will be read lists of simple word pairs, and that he will then be tested on his ability to remember the second word of a pair when he hears the first one again. Whenever he makes an error, he will receive electric shocks of increasing intensity.

The real focus of the experiment is the teacher. After watching the learner being strapped into place, he is seated before an impressive shock generator. The instrument panel consists of thirty lever switches set in a horizontal line. Each switch is clearly labeled with a voltage designation ranging from 15 to 450 volts.

...  
Each subject is given a sample 45 volt shock from the generator before his run as teacher, and the jolt strengthens his belief in the authenticity of the machine.

The teacher is a genuinely naive subject who has come to the laboratory for the experiment. The learner, or victim, is actually an actor who receives no shock at all. The point of the experiment is to see how far a person will proceed in a concrete and measurable situation in which he is ordered to inflict increasing pain on a protesting victim.<sup>548</sup>

The first of these studies was carried out at Yale University in 1961 (three months after the start of the trial of Nazi administrator Adolf Eichmann for war crimes). Milgram found that many of his subjects would administer apparently painful, even lethal electric shocks, as far as they knew, to a stranger, at the instruction of

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<sup>548</sup> Milgram 1973, 62-63.

a labcoat-wearing supervisor, and they would do so despite experiencing increasing distress at the orders given. These findings, which have been replicated numerous times, represent a landmark in our understanding of power, helplessness, and obedience to orders despite what may be a sincere desire to resist. What the experiment reveals about human behaviour in certain contexts remains as important now as it was then.

The question raised many times since, including at that science camp years later, was whether the research was ethical. Was the price in suffering of the knowledge derived thereby worth the paying? Milgram's experiment is an essential ethical dilemma -- a situation where competing goods make the decision genuinely fraught, and the best response non-obvious -- because, when it comes to human intentions and perceptions, paradoxically, there are some issues you may not be able to get a clear look at without an element of deliberate, carefully engineered misdirection.

We need not try to draw any definitive conclusion here as to whether Phoebe's white lie to Rachel, or Milgram's calculated misleading of his experimental subjects, were justified in those cases. These examples simply illustrate two different reasons, both defensible in principle, why someone may engage in the risk-laden 'hoax' (or *is*) end of our ontological/hypothetical spectrum, rather than simply posing a direct question (*what if*) or setting up a conscious simulation or role-play (*as if*).

No such justifications apply automatically, of course. It might be very interesting and educational for your friend to find out how they would respond to the (untrue) news that their daughter had been killed in a car accident. But if you were to try that out on your friend, you should be prepared to lose the friendship, or worse. Similarly, the practice of a fire drill, if advertised as such at the time, may seem deplorably artificial, and it could be valuable to observe how people would

respond if they thought they were in danger from an actual fire. But that offers no excuse for shouting fire in a crowded theatre.

The calculus is not self-evident, it depends on the situation, and it may change over time. However great their value in our present psychological understanding, it would be impossible to pass Milgram's experiments with a research ethics review board in the same form today,<sup>549</sup> and there is an ongoing debate about the circumstances in which any deception is acceptable in academic research.<sup>550</sup> Even in the deliberately simplified laboratory setting there are complex trade-offs at work. Some such research may be highly illuminating, while other cases may serve little more than the machinery of the discipline or the researchers' careers. In a lab, the circumstances of a deception are relatively controllable (such control is the reason to experiment there in the first place), in contrast to interventions 'in the wild' where things may become quite a bit more tricky, as it may not be possible to ascertain who is being deceived, or for how long. By the same token, the results of such an intervention are less readily observed and gathered, in order to prove an offset to the moral 'cost' to individual participants of being confused or 'duped' temporarily.

However, it is shallow, moralising, and ultimately, intellectually indefensible to see all deception as equivalent. An optical illusion or *trompe l'oeil*, or magic trick may involve 'deception', but of a purely trivial kind. A great deal of humour is ambiguous as to what's really going on, or sets things up to appear one way as a backdrop or precondition for the delight of seeing in another way (e.g., the TV show *Candid Camera*, or its descendant, *Punk'd*). Here too, most of the time the use of 'deception' is benign, in part because it's very *brief*. Granted, we need to be careful lest this be misunderstood as implying that the 'bad' end really isn't

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<sup>549</sup> For ethical reasons -- not only because the issue has already been extensively studied. See Slater *et al.* 2006, 1.

<sup>550</sup> See for example Bortolotti and Mameli 2006.



that bad, a form of moral obfuscation that we would be right to regard as pernicious. But to draft things into a false dichotomy between 'honest thought experiment' and 'nasty hoax' is no better. The ancient Greek *mimesis* (imitation, representation) may allow us to get at the same conceptual territory in a less morally loaded way, and is thus better suited for an evaluation of an intervention on its merits.

To recap our two candidate categories where this form of mimesis may be indispensable and yet its audience unaware: the first situation is where it may afford the subject herself with an insight or understanding that otherwise would have been unavailable to them (what Phoebe did for Rachel, concerning her pregnancy). The second is where it may serve a greater good to know how people really feel, think or behave in certain situations (an argument in support of Milgram's investigation). We now see how the 'is' end of the spectrum may be vital to certain forms of inquiry, and its ethical status is not so black and white.

Below, two examples are introduced to shed further light on the ethical stakes of experiential futures.

### **Two Halloweens (Tricks, or treats?)**

This section examines two performative cases concerning the mimetic *is* end of the ontological spectrum, further to illuminate the principles before drawing conclusions for futures work. Neither is an experiential scenario per se: the practice of experiential futures is new, and hence the body of documented examples at this time still thin. But instructive examples may come from seemingly unrelated fields, deploying communicative and performative strategies from which the emerging practice of experiential futures stands to learn. We will note the relevant differences at the end.

Both case studies, as it happens, are associated with the annual North American custom of Halloween (not entirely a coincidence, perhaps, because it is traditional at that time to permit a certain relaxation of some of the usual social rules). The first is the legendary 'War of the Worlds' radio broadcast for CBS, by Orson Welles and the Mercury Theatre on the Air, on Halloween in 1938. The second is the 'Hell House', a species of 'evangelical drama'<sup>551</sup> developed by fundamentalist Christian groups in the United States, and staged each year around Halloween.

### 1. *War of the Worlds*

*War of the Worlds* (hereinafter WOTW) was adapted for radio from the eponymous science fiction novel, written by H.G. Wells, and based on the premise of an invasion of Earth by creatures from Mars.<sup>552</sup> In the radio dramatisation, taking place forty years after the novel was first published in 1898, this improbable narrative was given a startling makeover. Welles and his co-conspirators cast the story arc as an item of breaking news, interrupting the ostensibly scheduled musical program with increasingly alarming bulletins about an unfolding crisis, starting with a report on strange activity detected by astronomers on the surface of the red planet. The names of institutions and individuals were fictionalised, at the behest of concerned CBS overseers, but the place names they used were real, including the supposed alien landing site transposed to the United States from H.G. Wells's original setting of Horsell Common in greater London, England; now Grovers Mill, New Jersey, some 50 miles southwest of New York City.

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<sup>551</sup> '[E]vangelical dramas are exactly what their names suggest: an opportunity to evangelize through theatre, celebrating belief while trying to convert non-believers.' Wetmore 2007 (127 of pdf).

<sup>552</sup> Wells 2003 [1898].

Many decades later, it remains an astonishingly effective performance.<sup>553</sup> I had known about the 1938 broadcast for many years before I actually heard the full recording in late 2009, playing off an iPod connected to the stereo in my friend's van. We were rattling along a dark highway north of San Francisco towards a Thanksgiving weekend in Sonoma, and had to contend not only with the imperfections of a recording made 70 years ago, but also with noises from the van and from the road outside. What I found surprising and revealing, though, was how this interference actually helped to heighten the drama. On reflection it makes sense; the broadcast was originally designed as an audio overlay upon ordinary life, an exciting intrusion into the mundane affairs of households around the country.

A key to the show's impact is pacing, the building of suspense with a deft touch worthy of Hitchcock. The script and performances capture the rhythms and mannerisms of the characters being played, and, even more subtly, nuances of the medium itself -- the sudden interruptions, slight delays and conversational confusions of live news radio of the era, all of which play on the listener's emotions at least as effectively as the substance of the reportage.<sup>554</sup> All these elements were impeccably simulated and woven together; and in a pre-war atmosphere of generalised apprehension, in a media landscape where radio was the authoritative lifeline to the goings-on of the wider world, and in circumstances where a theatrical manipulation of this kind was without precedent, with hindsight one can easily see how the show was poised to make an impact.

Infamously, of course it was not the theatrical elements alone which made the program so remarkable. What decisively transformed Welles's version of WOTW from a mere performance into a media event was that, of the 12 million-strong

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<sup>553</sup> Welles *et al.* 1938.

<sup>554</sup> One example is that the palpable distress of the reporter describing an emerging alien creature was explicitly modelled by that actor on the immortal live narration during the Hindenberg tragedy -- 'Oh, the humanity!' (WNYC 2008.)

audience to the 1938 broadcast, some proportion, estimated at about one million listeners, believed that they were hearing actual news unfolding, and panicked.<sup>555</sup> The extent of the chaos may be debated, but the *nature* of the reaction among a segment of the listening public is clear. In their experience the world was indeed under attack; a Martian invasion was actually happening. The result was authentic mayhem. The *New York Times* reported the following day:

A wave of mass hysteria seized thousands of radio listeners between 8:15 and 9:30 o'clock last night when a broadcast of a dramatization of H. G. Wells's fantasy, 'The War of the Worlds,' led thousands to believe that an interplanetary conflict had started with invading Martians spreading wide death and destruction in New Jersey and New York.

The broadcast, which disrupted households, interrupted religious services, created traffic jams and clogged communications systems, was made by Orson Welles, who as the radio character, 'The Shadow,' used to give 'the creeps' to countless child listeners. This time at least a score of adults required medical treatment for shock and hysteria.<sup>556</sup>

Despite the broadcast of a disclaimer not only before the show, but once in the middle, and also afterwards, explicitly mentioning its fictional character, some listeners mistook the fictive Martian invasion for reality.<sup>557</sup> In his history of American broadcasting, *The Golden Web*, Erik Barnouw adds a broader, more colourful perspective to the scene:

All over the United States people were telephoning newspapers to ask what they should do. The New York Times alone is said to have received 875 calls. The Associated Press sent out an explanatory bulletin to its member papers. Police stations were also swamped with calls. Priests had calls from people seeking confession. But many people were not waiting to make telephone calls. By 8:30 [half an hour after the start of the program] cars were racing along highways between New York and Philadelphia. Police were helpless. Some people dug old gas masks out of closets. Sailors on shore leave in New York were summoned back to their ships. Outbreaks of panic occurred throughout the country. In

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<sup>555</sup> WNYC 2008.

<sup>556</sup> *New York Times* 1938.

<sup>557</sup> As a result CBS was moved to amend its policy, thereafter forbidding 'the technique of a simulated news broadcast within a dramatization when the circumstances of the broadcast could cause immediate alarm to numbers of listeners'. (Estrin 2002, 6-10.) Although in the broadcast I was struck by the fact that the initial warning and the next one comes much later than halfway through the program, once the 'diegetic' (in-scenario) radio segment has ended.

Indianapolis a woman rushed into a church service screaming that the world was coming to an end; she had heard it on the radio. The service broke up hurriedly. A power failure in the state of Washington convinced its inhabitants that the end had indeed come. In various parts of the country, as people rushed about in a panic, some said they had seen the Martians.<sup>558</sup>

Welles and the Mercury Theatre aimed to entertain and to thrill, and in so doing made the scenaric premise experiential, vivid, and for part of their audience, at least, as good as real. For them it functioned precisely as a hoax, a deliberate *is* intervention, rather than an *as if* radio-based simulation (akin to the *thought-emotion experiment* view of film). Thus in fact it proved dramatically effective to an extent that transcended the safe boundaries of conventional performance to really impinge on the political stage of real life.

So much for Orson Welles and Halloween 1938. We now turn to a different kind of performance. The 'Hell House' is Evangelical Christianity's answer to the traditional Halloween 'haunted house', a temporary installation or theatre experience.<sup>559</sup> Since this is an evolving genre, as opposed to a specific event (like Welles's *War of the Worlds*) the description below is indicative rather than definitive.

## 2. Hell House

A Hell House experience consists in audience members touring a building where each room stages a scene dramatising life's evils, as defined by this variant of the Christian belief system -- suicide, gay marriage, abortion, rave parties -- and their eternally regrettable consequences for the wrongdoers. Masked demons

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<sup>558</sup> Barnouw 1968, 87-88.

<sup>559</sup> This section draws on Elisabeth Ann Nixon's 2006 doctoral dissertation in anthropology at Ohio State University, *Playing Devil's Advocate on the Path to Heaven: Evangelical Hell Houses and the Play of Politics, Fear, and Faith*. (Nixon 2006.) Various popular sources may be consulted for more media-rich insight into Hell House than I can offer on the page. There is a feature length documentary (Ratliff 2001); an edition of the radio program *This American Life* (Chicago Public Radio 2002); and an episode of the British documentary *Root of All Evil?* hosted by biologist and celebrity atheist Richard Dawkins (Barnes 2006).

guide a series of small groups through the house, providing commentary, and dragging the sinful characters to meet their fate. Among the Hell House rooms may be a portrayal the agonies of hell itself, complete with lost souls writhing in pain, a smell of rotting fish or Limburger cheese.<sup>560</sup> Maximising experiential and emotional impact is clearly an important priority:

Hell House dramas capture participants' imaginations and attention with the theatrical elements of performance: special effects, costuming and play-acting. Simulated abortions, for instance, are emotionally charged by the addition of bloodied animal entrails for fetuses and vacuum cleaner sound effects. Suicides are enhanced by a shutting off house lights while the audience is sprayed with water to simulate the splatter of blood and brains.<sup>561</sup>

Hell Houses are an outreach tool, a way to change hearts and minds, aimed at advancing the theological mission of believers. This intense commitment, and its embeddedness in a wider ideological program, is reflected in the growth of Hell Houses into something of a national phenomenon. They have been staged and locally adapted over the past two decades across hundreds of communities in the US.<sup>562</sup> 'It is not unusual for Hell House productions to average attendance figures of over 3,000 people per production night.'<sup>563</sup> And they have become enough of a national phenomenon to be satirised in the 2007 Halloween edition of *The Simpsons*.<sup>564</sup> 'Enormous amounts of time, money, energy, and emotion go into each dramatic production.'<sup>565</sup> Evidently, as a strategy for evangelical Christians, this is a highly successful 'media virus'.<sup>566</sup>

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<sup>560</sup> See Nixon 2006, 242-243. In this example, happily, the relief of heaven -- complete with air-conditioning and harp music -- is offered immediately afterwards.

<sup>561</sup> *Ibid.*, 26.

<sup>562</sup> *Ibid.*, 24.

<sup>563</sup> *Ibid.*, 27.

<sup>564</sup> Sheetz 2007.

<sup>565</sup> Nixon 2006, 24

<sup>566</sup> Rushkoff 1994.

Whereas fear and panic were apparently an accidental side-effect of *War of the Worlds*, here provoking strong, distressing emotions is pretty much the whole point. There is an explicit agenda of evangelism, literally. Indeed, at the end of the Hell House tour, audience members are given the opportunity to affirm their commitment to Jesus in prayer, sometimes in writing. And, from the organisers' point of view, the stakes of their enterprise are the salvation or damnation of each and every visitor to the event, so no punches are pulled, and no apologies are due.

Hell House dramas are designed to be intense and shocking, staging realistic incarnations of death. Many of the tactics employed are graphic, violent, and deeply disturbing—audiences bear witness to horrors not normally experienced up-close and first-hand. Spectators weep, faint, and become physically ill, ironically all indicative of a positive aesthetic response. Because Hell Houses strive for realism, role-players are often just as moved and affected as the audience by the event, especially the youth cast as the victims.<sup>567</sup>

For part of his British television series, *The Root of All Evil?*, evolution writer and atheist crusader Richard Dawkins interviewed Hell House innovator Pastor Keenan Roberts, who indicated during their conversation that the optimal target age for their audience is around 12 years old.

Dawkins: Would it worry you if a child of 12 coming to see your performance had nightmares afterwards, or would you like that?  
Roberts: I would like for their life to be changed no matter what. I would rather for them to understand that hell is a place that they absolutely do not want to go. I would rather reach them with that message at 12 than to *not* reach them with that message, and have them live a life of sin and to never find the lord Jesus Christ.<sup>568</sup>

In a nutshell, as ethnographer and Hell House expert Elizabeth Nixon puts it, 'the ultimate goal of a Hell House is to save souls through fright.'<sup>569</sup>

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<sup>567</sup> Nixon 2006, 25.

<sup>568</sup> Barnes 2006, approx. 21:30 mins in.

<sup>569</sup> Nixon 2006, 211.

## Two ethical risks

Neither WOTW nor Hell House are experiential scenarios per se, but their examples help to shed light on experiential futures. Intentions in the two cases are very different. WOTW was for entertainment, and Hell Houses are for evangelism. In both, however an important threshold comes into the picture as the scenarios portrayed begin to venture from the relative safety of *what if* and *as if* into claims, explicit or implicit, about how the world *is*, or how the future 'will' be. When this happens, two primary ethical considerations for those staging an experiential scenario may arise; that it is *distressing*, or *misleading*. Merely to assert or assume good intentions in any given case is not enough, of course, in the same way that an artist's declared political agenda does not establish that their art actually has the desired impact.

WOTW, even if inadvertently, represented an intervention at the *is* or 'hoax' end of the ontological spectrum, manifesting in the present a conceivable -- if far-fetched to modern ears -- alien invasion-based future scenario. Orson Welles and company aimed at producing an entertaining, emotionally involving Halloween diversion, not to urge the audience to entertain the possibility and ramifications of a hostile takeover by extraterrestrials. But had this been the intention, in those circumstances it is hard to imagine doing better than the approach actually taken. Hell House is also not an experiential scenario, although it does seek to manifest, in an experiential form, a theory about the future, one imagined as playing out on an individual, soul-by-soul basis. By contrast with WOTW, the intentions of Hell House quite deliberately go beyond entertainment. It was the *unintended* consequences of WOTW that make it an ethical object lesson, while the *intended* impact of Hell House make it more ethically problematic.



## 1. Distressing?

As Dawkins noted regarding Hell House, one ethical question concerns whether people are distressed or even traumatised by what is presented to them. Distress responses apply in both of our examples here, as well as in the Milgram experiments. Evidently this possibility is associated with any emotionally effective insight on to a risky, unpleasant, or unwanted situation. A milder version (disappointment) applied with our *Friends* example, but one never knows exactly what a response will be, and importantly, this risk is not confined to the *is* end of the spectrum, to 'hoax' territory. A child may be disturbed by movie violence due to an unsophisticated ability to distinguish reality from film simulation, *is* from *as if* -- but adults may be disturbed by the same imagery even knowing it's 'only a film'. The responses are somewhat unpredictable, being a product not only of people's specific experience, but also contextual factors such as mood, which influence susceptibility to certain affects in a given moment.

Hell House does not try to convince people that the scenes they witness are 'really' happening, but it *does* seek to convince them that there are cosmic, everlasting consequences for their decisions in life, and that the alternative afterlives of heaven and hell are real places. Hell House thus simulates a variety of supposed morally-determined outcomes, or plays *as if* with specific events, but in no uncertain terms roots these in an *is*, an ontological commitment that is the actual subject of the event, and the true focus of the encounter with each audience member.

Turning to WOTW, some portion of that 1938 radio audience somehow missed or ignored the warnings that, we might imagine, would have put their fears to rest. However, seen in its historical context, the 'extraterrestrial' element of the Welles scenario -- which all these years later may seem a bit silly -- is not the point; a generalised 'invasion' anxiety seems to have been activated or evoked by the

program. (Recall the *Times* headline: 'Radio Listeners in Panic, Taking War Drama as Fact'<sup>570</sup>). This aspect of WOTW, an event which seems to stand in the public mind as the prototypical media 'hoax', should give us pause for thought from an ethics-of-experiential-futures point of view: it had this impact, *despite* containing several explicit mentions of being a radio play, *and* relating a quasi-allegorical event that one might not have imagined, beforehand, could have had such far-reaching consequences.<sup>571</sup> So this is another factor; to what extent one does or might be expected to foresee adverse consequences of an intervention. These days, a media event leading to even a fraction of the chaos supposedly precipitated by the War of the Worlds broadcast in 1938, we can confidently surmise that the issue would not stop at level of ethical disputation; class action lawsuits may well be in the offing.<sup>572</sup>

## 2. Misleading?

The second key ethical question has to do with unwarranted assertions, or resulting interpretations, from an experiential scenario. In principle, a vivid experience could be made from any future scenario however absurd or ideologically slanted. Obviously, though, the fact that something can be made experientially vivid doesn't necessarily make it more true. (The issue applies to scenarios in any form, as we saw in Chapter 2, citing the 'availability heuristic' in psychology. Moreover, it obtains whether or not the proposition at hand relates to the future; consider the Pensacola, Florida-based creationist theme park, Dinosaur Adventure Land, which, like Hell Houses, performs a rather extreme,

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<sup>570</sup> *New York Times* 1938.

<sup>571</sup> The same defence cannot be made for later versions of the program. The trick was in fact pulled again, not once but *three times*, using the same strategies. In Santiago, Chile (1944), Quito, Ecuador (1949) and Buffalo, New York (1968) *The War of the Worlds* was again adapted, with (by now) predictably chaotic consequences. (Lubertozzi and Holmsten 2005; WNYC 2008.)

<sup>572</sup> The 'bomb scare' induced by light installations promoting the 'Aqua Teen Hunger Force' movie in Boston in 2007 provides a demonstration of how rapidly and humourlessly even a misunderstanding, let alone a deliberate hoax, may balloon into a bigger issue in the contemporary media context. (Pombo 2007.)

Christian faith-based account of the world, in this case concerning not a putative eternal afterlife, but prehistory.<sup>573</sup>) In any event this concern does go to the heart of 'experiential futures', a consciously contradictory term and practice, juxtaposing as it does the abstractness of future with the concreteness of experience. By definition it involves manifesting some notion, theory or image of the future, and in so doing, it makes one scenario, or several, more readily available and more concrete than they would otherwise be. However, this inbuilt tension between real experience and hypothetical futures is not an invitation to final resolution, but to ongoing exploration. If someone 'resolves' this tension by mistakenly embracing the scenario as factual, then the key questions must be more specific; to what extent, for how long, and with what consequences did this confusion occur, and was it a reasonable response on their part in the circumstances?

We can differentiate two layers in these responses; there is the initial feeling itself (which may or may not be unpleasant; there's the distress which some listeners certainly felt on hearing WOTW in 1938, but there's also the elation that some New York commuters surely experienced momentarily on first seeing the Yes Men's headline 'Iraq War Ends' in 2008). And then, on top of that first affective impact, there is often a post-facto sense of having been misled once the 'truth' is revealed, which may be delighted and comic (as in the scenes usually selected for *Candid Camera*), or which may intensify an initial negative response, because it is revealed as an authentic response to an 'inauthentic' experience; an *unnecessary* emotional expenditure.

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<sup>573</sup> At the time of writing, the website's front page reads, in part: 'Our ability to minister as a creation theme park here in Pensacola, Florida has been recently impeded. On Thursday, July 28, 2009, a federal judge gave the United States Government permission to seize ministry property as a substitute for payment of fines (not tax related) imposed upon our founder, Dr. Kent Hovind. While we are trying to raise funds, if we fail to meet the Government's requirements, we will have to forfeit the property. This would mean a temporary disappearance of Dinosaur Adventure Land.' (Dinosaur Adventure Land website.)

Interestingly, any ethical *disapproval* that attaches to an intervention that has elicited a ‘false’ response as a result of an ontological curveball is precisely a result of the sense (on the part of the disapproving party) that it was neither necessary nor voluntary. In other words, implicit in such a reaction is a counterfactual proposition that it wasn’t necessary, it didn’t have to be that way; *the world could be otherwise*. The irony is that to reveal the plurality of worlds is precisely the point of a deliberate *is*-level mimesis. After a period of time the post-facto irritation may give way to a more studied consideration of the substantive issue raised in the scenario in question, but the party considering such an intervention must weigh whether possible disputation over the means deployed will or will not overshadow the more substantive parts of the conversation (as in the newspaper coverage of FoundFutures: Chinatown described in Chapter 5).

Here we have tried to shed light on the ethical stakes of experiential futures by taking two ethical edge-cases from similar fields in order to see what they may tell us about our emerging practice. Both are highly engaging, but as we have seen, this engagement comes at a possible ethical cost. In any given case, however, as we have suggested, one needs to evaluate both sides -- risks and reasons -- on their merits. And we have not given proper consideration yet to the arguments *for* deliberate ontological ambiguity.

### **Towards an ethics of experiential futures**

As framed so far, we have considered only the ethical *risks* of futures intervention, neglecting the other side of the story. The exploration is incomplete without asking what are the ethical reasons *for* elaborating alternatives in this way? Or, to put it another way, what are the ethical risks of *not* exploring alternative futures, or of doing so with insufficient imagination and daring?

Those risks may be considerable; sometimes they will be much greater. In Chapter 2 we noted New Orleans' experience of Hurricane Katrina, and Detroit's experience of the collapse of the automobile industry. These were complex situations, but a failure to engage the future, to dare to foresee with sufficient breadth or depth, played a decisive part in each. Those cases are harbingers of the sort of collective and emergent failure -- whether by slow decline or knockout punch -- that we may expect to see if our ability to think and feel through alternative futures does not dramatically improve. In probing alternative futures, then, and in encouraging others to do likewise, it is certainly possible to be reckless. It is also possible to be too careful. One cannot defend against all conceivable misunderstandings. And in the past our future projections have often been too narrow, shallow, and timid. Desperate times, sometimes, call for desperate measures.

Importantly, and in contrast to the two cases noted here, generally our interest in experiential futures will concern *longer-term* potentials in possibility space, rather than something that could happen immediately, today.<sup>574</sup> (A similar point was made in the previous chapter differentiating guerrilla futures from prefigurative politics.) Accordingly, the confusion around an *is/hoax/mimetic* futures intervention is unlikely to last very long, because quite quickly, other things being equal, some other evidently incongruous element (e.g., a future date, or the fact that there are no other newspapers reporting the end of the war), will 'correct' the 'misperception'. Yet we saw in Chapter 4's discussion of design principles that the 'art of the double take' positively argues for a moment of dissonance; this is where learning can happen. Most of the time, this will be mild -- not highly

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<sup>574</sup> The narrative was 'ahistorical' in the sense that alien invasion was no more likely in 1938 than when Wells's tale was published in 1898 -- although, as we saw, historically it was certainly very 'timely', insofar as it was able to play on prewar invasion anxieties. As noted in Chapter 5 under the discussion of 'prefigurative politics', immediately available paths are less relevant to our discussion where these are addressed by existing, shorter-term, mechanisms of foresight. But there are situations where such is not the case, and our hypothetical question at the end of Chapter 2, about experiential guerrilla futures interventions in New Orleans that might have helped people to anticipate and stave off the worst effects of a Hurricane Katrina, provides one example.

personal, like our example of falsely breaking tragic news to someone, or likely to elicit actual panic, like shouting fire in a crowded theatre. And it will be brief enough that no real harm can be said to be done. In other cases where the impression given by a scenario is sustained for longer ('McChinatown' is the only scenario narrative we've experientially manifested that was so near-term -- 3-5 years -- that it was both immediately plausible and sustained belief for more than a minute or two.)

As Dunagan and I have said repeatedly in advocacy of experiential futures, sometimes it's better to be surprised by a simulation than blindsided by reality. When this rationale applies, and when it does not, is a matter for would-be activists to weigh on a case by case basis.

## **Conclusion**

In this chapter we have explored the 'ontological spectrum', a range of modes of expression for hypothetical thought which invests the hypothesis or scenario in question with varying levels of realism or experiential concreteness, from *what if*, to *as if*, to *is*. Generally the experiential gulf narrows the more concretely future possibilities are made available, and we noted that in the process, the ethical implications of the 'availability heuristic' may become more acute. At the *is* end of the spectrum, a complex ethical calculus may be involved weighing the case for the scenario to be 'entertained' seriously, as against the possible downside of a person being distressed or misled by a belief in its 'virtual' facts. The ethical implications of experiential scenarios work were refracted through a range of examples sited in very different relationships -- by a lab psychologist to student subjects, by one friend to another (in the universe of a TV sitcom), by a radio theatre troupe to an unwitting national broadcast audience, and by an evangelical church to groups of potential converts.

Although it is a difficult art to execute (and also to prove) in any particular case, the general point here is that the value of enabling someone genuinely to contemplate a compelling alternative future universe -- if perhaps only for a moment or two -- may be profound. Everyone can recount instances in their own life where sudden, contingent insights have led to momentous changes in direction. The value of these interventions and futures perspectives should not necessarily be sought in their enabling a particular or permanent future orientation (although those are conceivable outcomes). Even small glimpses of other worlds may make the effort worthwhile. It is not usually necessary to go to the lengths suggested here, but ontologically pointed strategies are available, and are sometimes needed. As Whitehead reminds us, it is the business of the future to be dangerous -- which makes it our business to be able, at certain times, to conjure with that danger in order to navigate it more wisely.

## CHAPTER 7

### THE FUTURES OF EVERYDAY LIFE

What one needs is not a common future but the future as a commons.

~ Shiv Visvanathan <sup>575</sup>

In the previous two chapters we have explored 'guerrilla futures', and the ethics of ontological ambiguity in performing futures as experiences. The reason for extending our attention to these topics is simply that they represent the sharp end of the experiential futures stick: the 'safer' settings of workshops, galleries and the like have great value, but bringing these lived modes of exploration to people who have *not* consciously opted into them may be the only way out of the 'Futurist's Catch-22'.<sup>576</sup>

Bruce Sterling has posed an astute and provocative question about this line of research.

Candy: Our idea has been to inject futures into everyday life via guerrilla interventions...

Sterling: I wonder what would happen if you changed 'Everyday life' into 'highly specialized situations' and 'guerrilla interventions' into 'a regular standing army.' What does that look like?<sup>577</sup>

What would happen if 'guerrilla interventions' became 'a regular standing army'? It is the *urgency* of various issues that justifies, and sometimes necessitates, creative and dramatic demands for attention to the future. But permanent urgency is not viable, and crisis is an unsustainable state. Our analysis at the outset suggested that in the longer term these dramatic, attention-seeking modes of work may cease to matter very much, for at some stage, systematic foresight

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<sup>575</sup> Visvanathan 1991, 393

<sup>576</sup> See the discussion early in Chapter 5. The Futurist's Catch-22 is, in short, that those who most need futures work don't 'get it', while those who 'get it' don't need it so much.

<sup>577</sup> Email exchange between the author and Bruce Sterling, 11-12 December 2008.



will find its way into currency, or the 'unthinkable' will, quite literally, force itself upon our attention. Somewhere along the line the balance needs to shift from guerrilla futurist agitation, to a more mundane, ordinary, and embedded use of futures thinking.

With this chapter, then, it is time to draw the argument together, considering experiential futures in the context of the futures enterprise and its direction as a whole. The chapter is structured as a series of three questions (with responses) followed by a reconsideration of the problem.

### **Has futures studies failed?**

As we bring our investigation of experiential futures practice to a close, let's revisit the two points of departure for this dissertation. The ultimate motivation is a potentially lethal lack of collective imagination; the culture- or even species-wide problematic of broad-scale futures seeming either 'unthinkable' or 'unimaginable'. Our proximate starting point was the more bounded challenge of staging a public discussion of alternative futures for Hawaii in half a century, a task which at the start seemed principally a question of effective communication.

The notion that communicative (in addition to structural or organisational) innovation and rejuvenation was overdue in the futures field had featured in some formative conversations for me in the lead up to 'Hawaii 2050', but this came against the backdrop of a much longer-standing suspicion that the field had not been especially effective at infiltrating mainstream thinking during its decades of existence. The fact that I still find myself repeatedly having to explain even to highly educated and culturally savvy people, the existence of futures as a field of study, and especially the frequent need then to dispel a variety of myths and unhelpful assumptions about what working in it entails (that it is repackaged

crystal ball-gazing; or a subset of finance; or fixated on mathematical modelling; or pure technophilia) -- all this suggested something of a chronic disconnect. The very existence, let alone the particular content, of rigorous, progressive, politically engaged, alternatives-based futures work was obviously not being conveyed to a wider audience.

For better or worse, I am not alone in having these far-reaching concerns. A version of the topic periodically raised in futures publications at the highest levels is the pleasingly recursive question 'what are the futures of futures?' While it lies beyond the scope of this study to situate the ideas explored here with respect to all the perspectives offered by futurists on that broad question, it is necessary to acknowledge this strain of self-critique and reflexivity within the field, with which all attempts at methodological innovation should sooner or later be brought into dialogue.<sup>578</sup>

The more alarmist version of the question, 'has futurism failed?',<sup>579</sup> and its variants, may make for good copy, but on closer inspection come off a lot like 'Where's my jetpack?' with an intellectual veneer.<sup>580</sup> The principal implication of the latter question is, since popular images of the future, notably from the 1950s to '70s, but really all the way along, have proven wildly different from what has come to pass, that the notion of foresight is bunk. Arguments in this vein commonly miss the all-important fact that there is a tradition of futures work which is not a continuation of, but rather a response to, this poor record of

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<sup>578</sup> See for example Sardar 1999b, Dator 1986, Pang 2009a.

<sup>579</sup> Rejeski and Olson 2006. This is an example of a perspective from the periphery of the field; few practitioners describe their work as 'futurism', the 'ismic' connotation of narrow ideology leading many to avoid the term completely. This article's title is rather more dramatic than the argument mounted in it, which is more about the idea that futures work seems to have enjoyed its heyday around 1980; no criteria for assessing success or failure are explicitly elaborated there. Still, this provocation was one of the two contributing factors specifically cited by Slaughter and Riedy in their recent special edition of the journal *Foresight*, dealing with the 'State of Play in the Futures Field'. (Slaughter and Riedy 2009.)

<sup>580</sup> Wilson 2007; The Economist 2007; Salam 2006, and my response, Candy 2006c.

'prediction', and more importantly, a rejoinder to the underlying episteme -- lurking beneath both that poor record *and* the dismay about it -- which imagines prediction to be the only feasible angle of approach. Ironically, however, when people outside the field wonder whether 'futurism' or 'futuresology' has failed, that in itself lends some small measure of evidence to the case that, in some degree, it probably has, or they wouldn't ask that question in that way. An evident and widespread non-exposure to quality futures work does not bespeak a high level of cultural penetration. It would be the task of a much longer work than this to do justice to all the excellent things that the field and its many wonderful practitioners have accomplished, and those cited in this dissertation are merely (to repurpose yet again our overused metaphor) the tip of the iceberg. But with an eye on the larger problems that continue to loom, and considering these gains in light of the magnitude of the remaining challenges, I confess that there is much yet left to do, and this will remain our focus.

And so, to my mind a more interesting question, raised by the one about failure, concerns the definition of success. Success for futures is surely more than being recognised as a legitimate field of inquiry that is not too often or too grievously misunderstood. There are, as the spectres of the 'unthinkable' and 'unimaginable' remind us, bigger fish to fry. Futures may be 'losing' the battle of disciplinary recognition,<sup>581</sup> but the war for a wider shift in culture is still on. The veteran Canadian futurist Ruben Nelson makes the important point that futures, the field as such, is not 'the work'; changing the world for the better is 'the work', and futures is a set of instruments to try to do this. From this point of view, our

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<sup>581</sup> The consolidation of recognition as an 'discipline' is of no interest to many futurists; some are actively hostile to the idea on the grounds that this would represent the further 'colonisation' of an enterprise which otherwise 'decolonises'. See for instance Sardar 1993, 179, where he notes: 'It is simply a matter of time until futures studies acquires all the cachet of a respectable academic discipline. When that crucial transformation takes place, futures studies -- like development studies, anthropology and orientalism -- will become another academic instrument for the subjugation and marginalization of non-Western cultures.' More recently Sardar (since 1999 the editor of *Futures*, the foremost academic journal in the field) has added; 'we need to abandon the idea that futures studies is a 'discipline' with rigid boundaries, fixed theories, esoteric terminology and 'great men'... I think the discussion of whether futures studies is a 'multi' or 'trans' discipline mode of inquiry is also fruitless.' (Sardar 2010, 182.)

response to the question whether futures has failed is simple. No... but it is taking too long to succeed. And this is reason enough to improve and diversify our methodological arsenal, 'whatever it takes'. (Pacifists, fear not, the war metaphor was a figure of speech we'll now proceed without.)

### **What would it mean to succeed?**

To infuse futures thinking into wider culture is the agenda of interest here. But which 'direction' for futures to use as a guide?

Some thinkers have suggested an approach towards the sort of large-scale perspectival shift we have in mind by highlighting long-term thinking. One is Elise Boulding's 'two hundred year present';<sup>582</sup> another is the 'long now' proposed by a brains trust including Danny Hillis, Brian Eno and Stewart Brand.<sup>583</sup> Here we are most interested in describing what the world might actually look like after this kind of idea has taken root.

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<sup>582</sup> 'On the one hand are such great sweeps of time that individual human events seem insignificant; on the other is such a brief present that it is gone before we know it. Between these extremes there lies a medium range of time which is neither too long nor too short for immediate comprehension, and which has an organic quality that gives it relevance for the present moment. This medium range is the *200-year present*. That present begins 100 years ago today, on the day of birth of those among us who are centenarians. Its other boundary is the hundredth birthday of the babies born today. This present is a continuously moving moment, always reaching out 100 years in either direction from the day we are in. We are linked with both boundaries of this moment by the people among us whose life began or will end at one of those boundaries, five generations each way in time. It is our space, one that we can move around in directly in our own lives and indirectly by touching the lives of the young and old around us.' (Boulding 1990, 3-4.) See also Boulding 1978, cited in Slaughter 1996a, 760.

<sup>583</sup> 'Civilization is revving itself into a pathologically short attention span. The trend might be coming from the acceleration of technology, the short-horizon perspective of market-driven economics, the next-election perspective of democracies, or the distractions of personal multitasking. All are on the increase. Some sort of balancing corrective to the short-sightedness is needed -- some mechanism or myth that encourages the long view and the taking of long-term responsibility, where 'the long term' is measured in centuries.' (Brand 2000, 2.) 'Brian Eno proposed 'the long now' as what we are aiming to promote. Peter Schwartz suggested 10,000 years as the appropriate time envelope for the project: 10,000 years ago was the end of the Ice Age and beginning of agriculture and civilization; we should develop an equal perspective into the future.' (Brand 2000, 4.)

To my knowledge, the most comprehensive effort to articulate such a vision, in terms of an ideal for the eventual impact of the futures field, comes from a 1996 essay by (then Professor of Foresight, now full-time consultant) Richard Slaughter, in which he describes the potential emergence of a *social capacity for foresight* (later shortened to 'social foresight', the term we will use hereinafter).<sup>584</sup> Let's start with the vision, then proceed to the theoretical framework that undergirds it.

It is not the 'noosphere' dreamed of by Teilhard de Chardin, nor the full-blown 'wise culture' sought by visionaries and far-sighted observers. It does not solve all the world's problems overnight, but it does establish a different outlook and perhaps the preconditions of humanly compelling futures. The new quality is a collective capacity for, and commitment to, long-term thinking. A foresight culture therefore emerges at the dawn of the 21st century. It is a culture that routinely thinks long-term, takes future generations seriously, learns its way towards sustainability and brings the whole earth back from the brink of catastrophe.

The old material growth economy is steadily replaced by a 'restorative economy'. Growth itself becomes a dubious concept-unless it is preceded by the term 'qualitative'. Corporations become intelligent, value-based and systems-aware. The earlier commercial outlook disappears and re-emerges in notions of service and long-term quality. Education is transformed. The schools are vital nodes within the new culture, the springboards for society-wide foresight. Universities finally get the message and begin to break down the old interdepartmental barriers: interdisciplinarity thrives. Futures study and research are seen to be one of the emerging disciplines of the new century. A whole new generation of scholars discovers a realm of enquiry that their ancestors would have thought impossible.

The world is no Utopia. Wars still break out. Viruses ravage certain areas. It is a nervous time and many species could not be saved. There is a collective sense of loss and grief. But a different sensibility is abroad. It is one that sees each generation as a link in a chain, not only as inheritors of the past but also as guardians of the future. The species looks out on a newly enchanted world and universe. It grows beyond the primitive ego states and destructive technologies that drove so much of earlier history. Finally it grows toward maturity.<sup>585</sup>

I have quoted Slaughter at length to establish one way that social foresight might operate, but, I hardly need add, this is just one person's view. Our interest is

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<sup>584</sup> Slaughter 1996a.

<sup>585</sup> *Ibid.*, 761.

more in the conceptual space around *social foresight* -- its catalytic potential as a 'theory object' -- than in the details of this version. So, what potentials can thought in this area evoke and enable? This chapter aims to provide the start of a response.

Yet why use *social foresight* as a guiding concept in surveying the potential of experiential futures work in the first place? The reason is that it fills our need in this context, for a vision, a preferred future, a success condition for the futures field itself. This vision for the field is in clear contrast to our familiar patterns. It is not like foresight today -- carried out here and there, only by certain people, institutions or campaigns. Current futures practice is one of special occasions; here we are speaking of a futures of everyday life.

Since any preferred scenario is a 'theory object' of one's own devise, we may supplement Slaughter's description by stipulating in our definition that any society in which social foresight were properly implemented would thereby have addressed the fundamental conundrum of the unthinkable and the unimaginable. This society would not be without problems, as Slaughter indicates. There would surely still be destructive acts of nature like Katrina, larger than human intent can encompass, but in such a case instead of shock and disarray, the levees would be well maintained, or very few people would be lying in the known path of destruction in the first place (or both). There may still be communities whose way of life is transformed, as Detroit's was, but they would be empowered to reinvent and reorient themselves deliberately, not falling into ruin through neglect. The notion suggested here would comprise an *emergent foresight* counterpart and antidote to the *emergent failure* diagnosed in Chapter 2, with New Orleans and Detroit.

What appeals to me here is the notion of futures-orientation and awareness as a *distributed and persistent property* of the thoughts and behaviours of the many,

as opposed to the preserve of a few designated specialists and institutions. Yet by what mechanism, and in what manner, could such a shift come about? It is well and good to shape a preferred vision, but can we backcast from there an accessible path out of our present predicament?

We turn now to the theoretical side of Slaughter's argument. He proposes that all forward-thinking efforts, however formal or informal, can be situated in a conceptual framework comprising five layers or levels of ascending sophistication.<sup>586</sup> At base, level one, lie the 'raw capacities and perceptions of the human brain-mind system'. Level two is where 'futures concepts and ideas enable a futures discourse'. At level three, 'futures tools and methodologies increase analytic power'. Level four is marked by futures processes, projects and structures being 'embodied in a variety of applications'. The fifth and final level imagines a 'social capacity for foresight as an emergent property'. For Slaughter, the passage a community would take from raw, individualised foresight to a refined, social foresight is through increasingly widespread adoption of the components of futures studies discourse. Although some aspects of this analysis may be problematic, the following discussion is undertaken constructively to engage a thesis with which I fundamentally sympathise. We will consider two points. First, whether there are avenues besides futures studies towards our preferred vision, and in any case, second, to what extent the futures route does indeed hold potential for giving rise to social foresight.

The first issue on the path to social foresight is whether futures is the only way forward. One conceivable, and mightily different, approach from Slaughter's prescription, could be through the application of high technology (neurological or genetic-level therapies) to intervene directly in the human foresight capacity and

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<sup>586</sup> Slaughter 1996a, 753, Table 1.

address its systematic shortcomings.<sup>587</sup> This is a fascinating area of potential, and one which no futurist on the ‘future of futures’ kick can defensibly ignore. It is also, however, currently little more than science fiction, and Slaughter would surely reply that to count on any form of high-tech fix is simply a more of the same technocratic mentality which brought us to the fine mess in which we find ourselves today. (There was an old lady who swallowed a fly...) A further possible objection is that personal-level biological interventions do not enable an approach to a *shared* capacity. This is more questionable -- the tongue-in-cheek provocation of ‘telepathy implants’, featured in Hawaii 2050’s *transform* scenario suggest otherwise -- but the basic point is fair. It would seem, therefore, that the idea of approaching social foresight via technology is not a viable alternative to the spread and development of futures discourse.

A second potential alternative, in dramatic contrast to the first, is the possibility of a foresight culture spreading from a tradition other than futures studies. Slaughter’s analysis builds on humanity’s ‘raw capacities’ for foresight (level one), although it is difficult to see exactly what these would be, divorced from their inevitable embeddedness in a range of particular cultural contexts and practices. Of course, we can recognise that this first level, posited as part of a five-step theoretical framework, is perhaps not meant to be understood as really existing prior to such contexts. Yet, this putative ‘rawness’ helps to cast futures studies in an emancipatory role (from level two on up), but it overlooks the possibility of a culture entirely unfamiliar with futures studies cultivating such a capacity, and hence approaching some equivalent of these higher levels by other means. The much repeated item of lore concerning the tradition of the Haudenosaunee Confederation (League of the Iroquois) looking to the possible impacts of any major decision upon the next seven generations may qualify as an indigenous forerunner of and analog to futures, pointing up a potential

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<sup>587</sup> See Jake Dunagan’s forthcoming PhD dissertation on ‘Neuropolitics’, in the Department of Political Science, University of Hawaii at Manoa.



alternative route to social foresight.<sup>588</sup> In counterpoint to this, though, we must acknowledge that to consider seven generations' worth of change in a comparatively socio-technically sedate pre-colonial setting is a vastly different proposition than to entertain possibilities over a similar timeframe (nearly 200 years) today. This Native American tradition, while undeniably potent as an anecdote, and a salutary reminder that other civilisations have systematically and ritually engaged the future much more than our own to date, does not appear to offer a solution. It may be the case that this is what the whole of futures discourse is uniquely attempting to do.

A third area of possibility, in a sense located conceptually between these first two, lies in the direction of cultivating new techniques of consciousness, psychedelic or shamanic, which could in principle represent steps towards a form of social foresight while leaving futures methods as we know them out of the loop. This is an intriguing and worthwhile line of inquiry in principle, but it is the subject of another, very different kind of study. Here we confine our attention to modes of deliberation and collaboration that are accessible in the ordinary operating range of conscious states. Meanwhile, however, we must be careful not to assume that the solutions considered in these pages are the only ones in any absolute sense; they are simply the best we have for now.

This last point foreshadows our other key question point about Slaughter's social foresight framework: to what extent the futures route holds potential for giving rise to social foresight; or, to put it another way, whether social foresight is possible given our current tools.

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<sup>588</sup> Morris 1995. A corollary possibility may appear to be that other cultures, including our own, could move towards social foresight *without* following a route through futures studies. However, it does seem extremely unlikely that an unforesightful culture, one lacking an established tradition of foresight or intergenerational justice akin to that just mentioned, would spontaneously develop a fully-functional counter-tradition. The futures field, for all its shortcomings, *is* precisely -- or fuzzily -- the collection of thinkers and actors who have found their way, by a multitude of routes, to an explicit acknowledgement of the importance of renovating our relationship to 'the future'.

It is unclear whether or how level-five social foresight would be a natural or inevitable outcome of increasingly widespread, institutionalised futures processes. In fact, it is quite impossible to know, because we appear to have no precedent to work from. (As Slaughter points out, 'At the social level, a capacity for foresight barely exists at the present time.'<sup>589</sup>) Certainly one might say that stages two, three and four are analytically hard to distinguish, all variations of the same idea, namely the deliberate deployment of futures terms, tools and methods. Framed as separate points, they shore up the notion of a developmental trajectory. Yet the real issue is in the transition between levels four (futures 'embodied in a variety of applications') and five ('social capacity for foresight as an emergent property'). Compared to the other incremental steps, this may require more of a quantum leap. There is a commonsense appeal to the notion that more futures-oriented people and organisations will eventually amount to an 'emergent', shared capacity. But we should not be too sure: the process of emergence may be more complex than that (if it is indeed possible at all), and it may therefore not be an additive, or automatic, outcome.

In case it is not obvious already, I agree with Slaughter that we do, urgently, need to pursue some version of social foresight. *But can we achieve it?* If it has never been done before, how would we do such a thing? In his vision, it happens like this:

[F]utures concepts are taken up universally, integrated into many different fields and also developed within an advanced futures discourse. The latter influences other discourses-particularly those of politics, business and education. The change is catalytic. Insights which had been mulled over quietly by perceptive people all over the world steadily emerge into the light of day where wider populations can respond to them. The old idea of the future as an empty space fades away and is replaced with a new set of reflexive understandings about the constitution of human cultures and responses in space and time. The future is no longer an abstraction. Rather, a 'grammar' derived from a much wider range of ideas and images becomes widely shared. This strengthens the newly emerging futures discourse. Suddenly the human race begins to grasp the predicament it is in-and the many ways of dealing with it.

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<sup>589</sup> Slaughter 1996a, 760.

Futures tools and methodologies spring up everywhere. A whole growth industry develops as a new, more enlightened generation of consultants, motivational speakers and men and women in all professions and fields begin to adopt, shape and apply these resources in their own lives and work. It is a part of the dynamic 'service sector' which is based on qualitative growth, facilitative processes, communication-and hence involving minimal environmental impacts. The growth of social innovations accelerates and foresight, futures thinking, is implemented just about everywhere. Governments are startled out of their complacency and short-term habits. They are not reformed overnight. But they do ensure that the very best futures thinking is available to them at source. So a new generation of research institutions and IOFs [Institutions of Foresight] spring up, many sponsored by anxious governments themselves.<sup>590</sup>

Evidently, in this understanding, the role of *institutions* and of *futures discourse* are crucial. But this leaves aside some important, perhaps less official, avenues of exploration for the development of social foresight, which seem to me to have continued to be largely overlooked since. A more recent statement by Slaughter of the case for social foresight concludes with a statement of next steps:

[S]ustaining social foresight suggests a number of lines of further action and commitment to:

- continue the process of disciplinary development: tools, practices, practitioner support;
- embed the perspective in different environments, eg, planning, education, government, business, the third sector;
- create a number of further 'centers of excellence'; exploring new relationships;
- stay in touch with similar initiatives overseas; and
- constantly demonstrate value through quality, relevance and public outreach.<sup>591</sup>

These ideas about 'public outreach' and 'embed[ding] the perspective in different environments' positively hum with potential, yet are left tantalisingly vague, inviting the suggestion here that the development of experiential futures could play a previously unrecognised role in the pursuit of social foresight.<sup>592</sup> Returning

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<sup>590</sup> Slaughter 1996a, 760-761.

<sup>591</sup> Slaughter 2006, 34. This is the last in a series of ten monographs originally published as the 'AFI Monograph Series'; the Swinburne Strategic Foresight Program was formerly known as the Australian Foresight Institute.

<sup>592</sup> The 'communication of foresight' advocated by Ramos 2006 (see also the section on 'future jamming' in Chapter 5) is perhaps the closest approximation of the argument made here that has appeared in futures literature to date. Schultz 2005 also explicitly mentions this multimedia potential, but does not connect it with the broader stakes or 'social foresight' scenario sketched here.

now to a 'backcasting' mode to help flesh out our necessarily still-inchoate vision; in a society where foresight is distributed and embedded, clearly many, if not all, institutions would have a foresight capacity also. So too would individual people, at any rate to a higher level than the untutored 'level one' capacity we all have by default.

In short, for futures to succeed would entail its making a critical contribution to development of a foresight capacity embedded, as necessary, throughout all the social contexts in which we operate -- from particular technological artifacts and assemblages, to political systems, schools, markets, and more: a whole *ecology* of foresightful thought and action. In the short- to medium-term, the development and deployment of experiential scenarios may help make this kind of thinking more available and engaging, and ultimately, catalytic of social foresight.

### **How are we approaching it?**

What are the immediate and actionable next steps towards embedding foresight or futures thinking in everyday life? This question has lurked behind the development of experiential futures throughout our experimentation, and, as described in our Introduction, it was in fact the failure of the institutional route that gave rise to our attempts to engage people more directly; to earn a 'public' that would be enabled to join in exploring futures.

Alongside the principles of experiential scenario design (Chapter 4), explorations to date have given rise to two complementary concepts or 'theory objects' that came to be used by Jake Dunagan and me in our evolving practice. One is 'future shock therapy', the other is 'ambient foresight'. As we shall see below, these are ideal types, facing in opposite directions, and describing two very different modes of engagement. We begin by considering this pair, then proceed

to examine the most promising candidate ‘seeds’ of social foresight, and finally go on to discuss the implications of these for the futures field.

### 1. Future-shock therapy vs ambient foresight

‘Future-shock therapy’<sup>593</sup> is concerned with creating maximum impact, ideally triggering some sort of realisation that a particular future scenario, perhaps insufficiently considered up until that point, may be possible. This effect may be sought by a practitioner manifesting (creating and distributing) supposed ‘evidence’ of that future having come to pass. Future-shock therapy is the guerrilla futurist’s tactic of first resort. Among the principles articulated earlier it highlights the ‘art of the double take’, as well as a willingness to ‘break the universe’ of consensus and ordinary expectations with alternatives. It may be compared, though should not be confused, with the Poetic Terrorism described by anarcho-theorist Hakim Bey in his work on Temporary Autonomous Zones.<sup>594</sup>

‘Ambient foresight’ is a contrasting idea of building futures awareness subtly, into the mental environment. Rather than demanding attention with fireworks, an ‘ambient’ future awareness is gentle, or perhaps almost invisible. It would be integrated by reflex, right at the threshold of conscious awareness, and seems to

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<sup>593</sup> This is a play on the title of Alvin Toffler’s 1970 book, *Future Shock*, the astonishing success of which continues to hound futurists even today, via people of a certain age whose main mental association for futures studies is a mishmash of Tofflerian hyperbole. (Toffler 1970.) Although the concept of ‘future shock’ is by now showing its age, the underlying diagnosis and argued social importance of accelerating change, and corollary prescription for concerted attention to the future were spot on. However, the hope of carrying out such an agenda on a scientific, empirical basis looms large, and the fatal philosophical misstep that Toffler makes, it seems to me, is his insistence on a *singular* (even if ever-changing) conception of ‘the future’. For a recent scholarly re-evaluation of the work see Slaughter 2002b.

<sup>594</sup> ‘The audience reaction or aesthetic-shock produced by PT ought to be at least as strong as the emotion of terror — powerful disgust, sexual arousal, superstitious awe, sudden intuitive breakthrough, dada-esque angst—no matter whether the PT is aimed at one person or many, no matter whether it is ‘signed’ or anonymous, if it does not change someone’s life (aside from the artist) it fails. ... An exquisite seduction carried out not only in the cause of mutual satisfaction but also as a conscious act in a deliberately beautiful life — may be the ultimate PT. The PTerrorist behaves like a confidence-trickster whose aim is not money but CHANGE.’ Bey 1985, 10 (in pdf version).

presuppose a cultural infrastructure or distributed, internal, embodied awareness of the future which makes its external, 'ambient' counterpart difficult to envision. It highlights an analog to the 'tip of the iceberg' principle by arguing only for those 'tips' required at any given time, to be silently insinuated into the semiotic stream.

These are of course ideal types, heuristic 'theory objects' rather than algorithmic recipes,<sup>595</sup> and we use them to think through our desired direction for experiential futures, to provide some kind of concrete steps towards embedding foresight or futures thinking in everyday life. They are, then, a pair of fundamentally different ways of choreographing attention, polar opposites in a sense. Both are valuable, but for different purposes; they both adjust how we experience time, but use different temporal strategies. The former optimises for impact now, the latter for sustainability. One is explicit, uninvited, disruptive, provocative; the other is implicit, incidental, enabling, and subtle. Future-shock therapy is fireworks, ambient foresight is wallpaper.

'Future-shock therapy' characterises much of the guerrilla futures work considered in Chapter 5. And, as we saw by the end of our treatment of ethics in Chapter 6, this kind of insistent activism suits matters of urgency -- desperate times call for desperate measures, and all that. But at some point along the road to social foresight, these sorts of aggressive tactical procedures need to give way to a gentler approach; a more strategic, built-in vector for futures awareness as a background condition.

'Ambient foresight' represents a more elusive and subtle, yet equally vital, design approach to the vision described above. It is a property of particular arrangements or designs, as opposed to whole cultures, and is therefore a

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<sup>595</sup> The distinction heuristic vs algorithmic is borrowed from cyberneticist Stafford Beer, via Brian Eno. (Kelly 1995.)

provisional theory object that may help mark out the ideational territory we are exploring around social foresight.

## 2. Foresight that is like falling off a log

We may take the discussion forward by way of ‘sustainability’, a newly sought-after property of human systems, much like the aspiration for foresight that is set out here (indeed, the former may depend in part on the latter). A fascinating perspective on the idea is offered by ecologist and entrepreneur Paul Hawken in his book *The Ecology of Commerce*:

To create an enduring society, we will need a system of commerce and production where each and every act is inherently sustainable and restorative. Business will need to integrate economic, biologic, and human systems to create a sustainable method of commerce. As hard as we may try to become sustainable on a company-by-company level, we cannot fully succeed until the institutions surrounding commerce are redesigned. Just as every act in an industrial society leads to environmental degradation, regardless of intention, we must design a system where the opposite is true, *where doing good is like falling off a log, where the natural, everyday acts of work and life accumulate into a better world as a matter of course, not a matter of conscious altruism.*<sup>596</sup>

This is persuasive logic: if business practices are to become sustainable, it will, finally happen only by building sustainability into the system, so we *don't* have to think about them all the time. If we have to rely on every shopper dutifully adopting a two hundred-year perspective each day at the supermarket checkout, we will fail.

To what extent can foresight be ‘baked in’ too? Is a futures-oriented society the same thing as a society containing a lot of futures-trained individuals and organisations? Does everyone ultimately need to be a futurist, or is it sufficient to

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<sup>596</sup> Hawken 2005 [1993], xiv. After writing this section, and several years after noting the resemblance between Hawken's conception of sustainability and Slaughter's ‘social foresight’, I was pleasantly surprised to find that another author had independently made the same connection: Morgan 2008, 40.

have 'futurised' leaders -- or futurised supermarket supply chains? It seems to me that the final aim, the noble end-game for the futures profession (albeit rarely articulated within the field), as being actually *to make itself redundant*. In a social foresight culture, the job description 'futurist' would probably be unnecessary.

The real question is, in this hypothetical victory condition, *where exactly would the foresight capacity have gone?* The answer is deceptively simple: everywhere. In a society where futures are a reflexive, ordinary part of everyday life, we would be constantly envisioning, forecasting, fine-tuning and collectively deciding what to do next. We would be designing and redesigning society on a collective, ongoing basis. But, while this helps move us beyond an institutional focus, into the operations or functions orientation for futures, it does seem to beg the question already posed. What does it mean for the way this work could and should develop in the present? Let's consider work that could be seeds of ambient foresight. We divide them into two categories: *nodes*, places where a foresightful support system crystallises into specific information outputs or objects, and *networks*, platforms for gathering futures-related insight.

### 3. Ambient foresight nodes

Prototypical instances of ambient foresight *nodes* could include the following existing elements:<sup>597</sup> The real-time mileage information and 'distance to empty' fuel calculators included in some recent vehicles. The health warnings on cigarette packets, which in the United Kingdom recently switched from text to graphic images of the long-term effects on smokers' bodies. The nutrition facts now routinely provided on packaged foods. The carbon and energy consumption estimates increasingly (for instance, Jamais Cascio's 'cheeseburger footprint'<sup>598</sup>).

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<sup>597</sup> I assembled the examples mentioned here for a March 2009 presentation, 'Designs on a Longer Now', to The Long Now meetup group at Demos in London. Designer/blogger Matt Jones's rough notes provide a flavour of this initial effort to connect 'ambient foresight', 'social foresight', and present design practices. (Jones 2009.)

<sup>598</sup> Cascio n.d.



The umbrella (marketed by a company called 'Ambient Devices') which is networked, glows several hours ahead of time when a forecast calls for rain, so you'll know to take it with you.<sup>599</sup> A yet more basic example might be the signage on napkins in a restaurant that simply reminds us, 'paper = trees'. All these provide information, in more or less sophisticated and systemically-integrated ways, that help illuminate a narrow segment of possibility space and take incrementally wiser, more informed actions.

We have already touched upon the move that Sterling suggested from a 'guerrilla' operation to a 'regular standing army'; at this point we seem to have found a clue touching the other part of his question, about replacing 'everyday life' as a context of intervention with 'highly specialized situations' (as in Eco's implicit argument for target- and moment-specific semiotic interventions). Ambient foresight contains the seed of an idea for gentle suggestions and decisional inputs, relating especially to *you*, right *now*, that may help.

The mechanism and usefulness of ambient foresight 'nodes' may be illuminated with the recent concept of the *nudge*, based in behavioural economics, which helps describe this genre of informational shift. A nudge is 'any aspect of the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives. ... Nudges are not mandates. Putting the fruit at eye level counts as a nudge. Banning junk food does not.'<sup>600</sup> Academic futurist Alex Soojung-Kim Pang has suggested several nudges that could become routine:

Now imagine this kind of real-time feedback available in all kinds of products and use contexts, and using that feedback to illuminate the path to long-term goals. Imagine credit cards that give you information about your balance and recent spending patterns when you pull them out of your wallet. Imagine bicycles that tell you how much carbon you'll save today by bicycling to work rather than

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<sup>599</sup> Candy 2007f.

<sup>600</sup> Thaler and Sunstein 2008, 6.

driving, and how much carbon you'd save over the course of a year (or ten years, or twenty) if you bicycled several times a week. Imagine household appliances that tell you how much it would cost to run them right now based on electricity grid load, water price, or the day's weather forecast (which would affect how much electricity the solar panels on your roof would produce, or how much energy the house would need to maintain a comfortable temperature). Imagine houses that tell you how close they are to being carbon neutral, compare themselves to other houses in the neighborhood, and tell you how many barrels of oil they saved this year. In other words, imagine having the ability to see how your consumption and spending habits, transportation patterns, even specific ways you use devices, can affect your future, and world's future, over the long term.<sup>601</sup>

We incrementally approach social foresight when information relevant to decision-making is designed to be built in, embodied, or attached to nodes of our semiotic environment. Mobile devices are rapidly spreading and becoming equipped with applications that enable sophisticated informational loops to be completed more easily, in more and more settings (consider an 'augmented reality' application that would allow relatively complex information like Cascio's cheeseburger footprint, using RFID tags and other scannable identifiers, to be automatically associated and displayed with purchase decisions). Such potentials are not far away, they are already being realised in a basic form. 'Google Goggles', an application for Google smartphones, already users to search the web by simply taking a photograph of a landmark, wine bottle, logo, book, or other item.<sup>602</sup> An iPhone app called 'The Good Guide' allows you to scan an item's barcodes in a supermarket to learn on the spot about the nutritional, environmental and social values of the product and the company behind it.<sup>603</sup> The rapid mass-mobilisation of complex and customisable informational overlays carries in its train a whole set of possibilities for nudging us toward more foresightful reflexes through the nodes in our personal datastream.

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<sup>601</sup> Pang 2009a, 39-40 (in pdf). Pang uses one of the same examples as given above (mileage estimator) to illustrate the idea of 'future-oriented technological nudges'.

<sup>602</sup> Google Goggles website; Google Goggles Wikipedia entry.

<sup>603</sup> The Good Guide website.

#### 4. Ambient foresight networks

A second embryonic element of ambient foresight can be seen in *networks* that collect and synthesise futures-related insight. These, too, may eventually feed into realisation of our social foresight scenario. They are also rather more complex on the face of it than *nodes*, which are the crystallisation points for a system;<sup>604</sup> with *networks* by contrast we are forced to consider the whole system, rather than just a visible point of it. We'll touch on two emerging examples of ambient foresight networks: *prediction markets* and futures-themed *alternate reality games*.

Prediction markets, also known (less commonly) as 'information markets' or 'event futures', are about the synthesis of information and insights held by many different people, through market mechanisms. They enable people to buy and sell stock in propositions about the future.

Consider a contract that pays \$1 if Candidate X wins the presidential election in 2008. If the market price of an X contract is currently 53 cents, an interpretation is that the market 'believes' X has a 53% chance of winning. Prediction markets reflect a fundamental principle underlying the value of market-based pricing: Because information is often widely dispersed among economic actors, it is highly desirable to find a mechanism to collect and aggregate that information.<sup>605</sup>

Whether using real or play money, in principle the profit motive facilitates the extraction and synthesis of insight from market participants. So, let's say Bill happens to have some information that he thinks increases the likelihood of Candidate X's success in the election, and Bill he believes that this information is not reflected in the current price. He could buy shares in X-as-winner at 53 cents, the motive being that he would be paid out at \$1 per share when X wins. But the purchase itself would also incrementally push the price up, hence that

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<sup>604</sup> Any product or image like the ambient foresight nodes listed here does remain part of a system, regardless of electronic mediation; the 'unplugged' version being systemically connected via patterns of meaning-making.

<sup>605</sup> Arrow *et al.* 2008, 877.

information is automatically incorporated into the market's 'forecast'. The details will differ greatly from case to case, but that's how the mechanism works.

Prediction markets are used internally within companies, for instance, to estimate release dates or market for forthcoming products,<sup>606</sup> or they may be used to try to shed light on more public interest questions, such as the spread of disease.<sup>607</sup>

James Surowiecki has famously dubbed the underlying principle for this kind of information aggregation 'the wisdom of crowds'.<sup>608</sup> The key limitation of this mechanism, of course, comes with the built in problem that there is no source of information 'from the future',<sup>609</sup> so regardless of the sophistication of the system, the 'predictions' of the market can be no more than a snapshot of present expectations of its participants.<sup>610</sup> (Sometimes there may be actual knowledge involved, for instance, if Aileen knows that Candidate X has a dirty secret which will soon be made public and is likely to undermine their campaign; but of course this is not true 'prediction', either.)

There is also potentially valuable insight to be gained, as this tool becomes increasingly common, from considering the wobbliness of markets, the ups and downs on contracts dealing with different future domains (e.g., how do the properties of federal election contracts compare with those for, say, endangered species, or the incidence of terrorist attacks, or breakthroughs in the space industry), and the shape of the curve as it converges on a final determination

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<sup>606</sup> Graefe, Luckner and Weinhardt 2010, 398-399 (note examples cited in section 3.3. 'Business applications of prediction markets').

<sup>607</sup> See for example the Iowa Electronic Health Markets website.

<sup>608</sup> Surowiecki 2004.

<sup>609</sup> Recall the observation of philosopher Robert Brumbaugh (cited above, footnote 529) that 'there are no future facts'. (Brumbaugh 1966, 649.)

<sup>610</sup> In some ways prediction markets seem to be a sort of next-generation, more sophisticated and broad-based counterpart to the informational mechanism tapped by the longstanding 'Delphi' forecasting method, iterative expert surveys. The two methods have been compared in Green, Armstrong and Graefe 2007. The authors conclude that Delphi remains superior for certain purposes (which they describe) and that it should be used much more widely than it is.

(e.g., when the election ends and Candidate Y wins).<sup>611</sup> The relative levels of (un)predictability in different domains may thus become better understood as more data comes in, it seems to me. But the main point here is that, as a real-time index of uncertainty, prediction markets represent an emerging, if very limited, prototype of ‘networked’ ambient foresight; an ever-changing ‘best guess’ of the probable future for a specific situation or metric.<sup>612</sup>

Our second example of an ambient foresight network, also recently on the rise having been only technologically enabled in the past decade or so, is driven more by an ethos of community-building and participation than by the competitive and mechanical synthesis characterising prediction markets. The emerging genre of the Alternate Reality Game (ARG), a form of interactive storytelling, often makes use of hypothetical future settings and invites players to ‘inhabit’ a certain scenario. This may be undertaken for entertainment and promotional purposes, as in the case of *The Beast*, a game launched in 2001 but set in 2142, as part of the promotional effort for with Steven Spielberg’s sci-fi film *A.I.: Artificial Intelligence*,<sup>613</sup> or *Year Zero*, a game associated with a 2007 concept album of the same name by the band Nine Inch Nails, and set in 2022.<sup>614</sup> Or, it may be done in an attempt to assist the gameplaying public’s ability to imagine and engage with scenarios addressing particular themes, such as energy crisis

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<sup>611</sup> The kind of analysis I am alluding to here offers a potential for a more elaborate, data-rich account of the ‘shearing layers’ of time proposed by Stewart Brand of The Long Now Foundation. The layers are, in descending order of speed: Fashion, Commerce, Infrastructure, Governance, Culture, Nature. ‘The fast layers innovate; the slow layers stabilize.’ (Brand 2000, 37: figure 7.1.) A small version of the diagram can be found at The Long Now Foundation website.

<sup>612</sup> The *probable* future as a category has been much less important in this dissertation than *preferable* or *possible* (recall this conceptual trio introduced in Chapter 1). However, estimates of the probable are essential to decision-making. Indeed, one could characterise a key overall purpose of futures studies as being to merge the probable and the preferable, that is, using the preferable as normative guide and the probable as indicator for whether events are on track. Also note a recent article examines potential applications of prediction markets for the futures/foresight field, and suggests four: ‘continuous forecasting and environmental scanning, combination with deliberative approaches, continuous idea generation, and expert identification’. (Graefe, Luckner and Weinhardt 2010, 403.)

<sup>613</sup> ‘The Beast’ Alternate Reality Game, Wikipedia entry.

<sup>614</sup> ‘Year Zero’ Alternate Reality Game, Wikipedia entry.

(*World Without Oil*),<sup>615</sup> humanitarian conflict (*Traces of Hope*),<sup>616</sup> and care for the disabled (*Ruby's Bequest*).<sup>617</sup>

We'll consider one such instance more closely. The design of Institute for the Future's 2008 'massively multiplayer forecasting game', called *Superstruct*, was overseen by prominent ARG designer Jane McGonigal, with futurist Jamais Cascio as the scenario director.<sup>618</sup> *Superstruct* was based on a scenario set in 2019, in which an extraordinarily sophisticated computer simulation called GEAS (the Global Extinction Awareness System) had determined that a combination of five existential 'superthreats' was on a catastrophic course to end the human race by 2042, then just 23 years away. The game was open to anyone, and invited players in 2008 to imagine their lives a decade forward, sharing stories set in that particular future, discussing their concerns and insights, and above all, proposing 'superstructures' -- new organisations and initiatives that could be developed to ward off the superthreats and extend humanity's collective life expectancy. I was involved as a Game Master, responsible for overseeing and curating players' responses within theme of food supply (the 'Ravenous' superthreat). The effort attracted some 7000 participants, who contributed over 1000 stories about their lives in 2019, took part in over 500 discussions, and invented more than 500 superstructures focused on the future of energy, food, health, security, and society, during a gameplay period of six weeks.<sup>619</sup> It won an award from the Association of Professional Futurists for the most important futures work of 2008.<sup>620</sup>

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<sup>615</sup> World Without Oil website; 'World Without Oil' Alternate Reality Game, Wikipedia entry.

<sup>616</sup> Traces of Hope website.

<sup>617</sup> Ruby's Bequest website.

<sup>618</sup> Superstruct website.

<sup>619</sup> McGonigal 2009.

<sup>620</sup> Disclosure: I'm an APF member, but I didn't take part in the vote.

*Superstruct* represents an early foray into a form of collaborative foresight, the contours of which are only just becoming visible. At the level of process, it demonstrated that an appropriately designed platform could enable a semi self-organising process by which the efforts of many people could draw on the insights and creativity of the group, resulting in a sort of mosaic storytelling within a given scenario. Earlier ARGs had already established the possibilities of both real-world, electronically mediated group problem-solving, and role play-style participation within future scenarios; *Superstruct* -- some of the outputs of which were incorporated into the Institute for the Future's Ten-Year Forecast -- was distinctive for having its players tackle such an array of long term challenges.

We see from the above that, in addition to the urgent future-shock therapy mode of drawing explicit attention to various sceneric possibilities, including many of the experiential scenarios described throughout this dissertation, there are also signs of its opposite number, ambient foresight. In this approach, understated cues are offered through *nodes*, sites where foresight-relevant information is made available, enabling context-determined nudges towards more future-aware behaviour. And, in an ambient foresight *network*, insights of players or participants are extracted to provide a crowdsourced estimate of the probable future (prediction markets), or to enable collective storytelling and problem-solving (alternate reality games). All these could be said to exemplify an embryonic ambient foresight, perhaps feeding into an eventual social foresight scenario.

All this has interesting implications for futures practice. At least two years before *Superstruct*, Jamais Cascio linked the development of artifacts from the future and experiential futures approaches to the rise of a 'democratisation of futures', which he saw as gradually supplanting the model of 'genius forecasting'.<sup>621</sup> Indeed, his website *Open the Future* has long carried the tagline 'With enough

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<sup>621</sup> Candy 2006a.

minds, all tomorrows are visible',<sup>622</sup> which conveys the idea that the plurality of futures is best accounted for by a multiplicity of perspectives. It's an acknowledgement of the need for collaborative, grassroots futures work, as opposed to the more predictive guru model, the long history of which clearly overshadows participatory, exploratory approaches to the future in the public mind. The line is also a riff on an older idea from Open Source software evangelist Eric Raymond: 'with enough eyeballs, all bugs are shallow', a tribute to the problem-solving power of a group of motivated programmers.<sup>623</sup>

This is not to claim that the traditional forms of futures work will disappear anytime soon -- Amara's longstanding 'possible, probable, preferable' framework for three different focus areas (Chapter 1) remains a useful typology for the field -- but a shift in emphasis does seem to be in progress. It is enabled especially by new forms of communication and 'recently easy' means of research, collaboration, and expression.<sup>624</sup> The 'broadcast' style of futures work is diminishing in favour of a mode more dominated by facilitation, gathering and synthesis of participants' contributions. The need for 'democratisation' and 'experientialisation' of futures is rising alongside the means for meeting it: they have the same root cause, the increasing speed and reach of technosocial communications and changes. The form of knowledge also corresponds to the communicative modality in question. The broadcast-model (I speak, you listen) is bound up with media apparatus wherein the power to communicate rests in the hands of a small elite. A more participatory, dialogue-model (we talk to each other) is bound up with emerging ways of bringing people together, especially in virtual fora.

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<sup>622</sup> Open the Future blog.

<sup>623</sup> Raymond calls this Linus's Law, for Linus Torvalds, initiator of the open source operating system Linux. (Raymond 2001, 30.)

<sup>624</sup> I am grateful to design strategist Russell Davies for the useful distinction between 'recently possible' and 'recently easy', which hints at a more subtle way to map the ever-changing topography of possibility space than the clunky binary categories of 'possible, probable, preferable'. (Personal communication with Russell Davies, 16 March 2010.)



## 5. The limits of ambience?

There remain questions concerning the extent to which awareness of alternative futures can ever become reflexive, invisible, or truly 'ambient'. Is a fully built-in social capacity for foresight possible? How conscious and deliberate does our attention to the futurescape need to be?

To have invoked an 'open source' structure may be mistaken for a claim that we are witnessing the beginnings of some sort of soupy, hive-minded, networked forethought process. But for now, prediction markets and alternate reality games notwithstanding, it would be more prudent to assume that 'future soup' is not on the menu. It is certainly possible immediately to make *certain processes* sustainable in an automatic fashion, more and more easily, as Hawken suggests. You would not need to devote thought to whether a particular foodstuff you are considering buying was produced in a carbon-neutral fashion or not, because unsustainable options would have ceased to be options. Similarly, we can easily imagine certain kinds of value for decision-making becoming more seamless, in examples described a few pages back. In the next few years, it seems likely that decision processes based on binary or readily quantifiable propositions -- to buy or not to buy -- can and will become increasingly 'ambient', and built-in to our semiotic datastream.

However, the actual process of qualitatively engaging longer-term futures is in principle, it seems to me, *not* subject to automation. It is not subject to being made 'as easy as falling off a log', it requires time to either produce or absorb narrative logics, a deeply creative process. Technology entrepreneur Jaron Lanier rails against the vogue for collective 'Web 2.0'-based production as a substitute for individual creativity and output:

There are some cases where a group of people can do a better job of solving certain kinds of problems than individuals. One example is setting a price in a marketplace. Another example is an election process to choose a politician. All such examples involve what can be called optimization, where the concerns of many individuals are reconciled. There are other cases that involve creativity and imagination. A crowd process generally fails in these cases. ... Creativity requires periodic, temporary 'encapsulation' as opposed to the kind of constant global openness suggested by the slogan 'information wants to be free.' Biological cells have walls, academics employ temporary secrecy before they publish, and real authors with real voices might want to polish a text before releasing it. In all these cases, encapsulation is what allows for the possibility of testing and feedback that enables a quest for excellence. To be constantly diffused in a global mush is to embrace mundanity.<sup>625</sup>

Making and remaking the future is not something that can -- or even if it could, should -- necessarily be outsourced to a 'smart' system, or built into reflex. We must draw a sharp distinction between the bare minimum of 'sustainability' (which, after all, is simply non-self-destruction), and the elaboration of alternative futures within the set of sustainable possibilities. Indeed, the essence of the 'political' dimension of futures, as we have seen, is to challenge frequently hidden hegemonic ideas and agendas, to multiply options, and to open for explicit scrutiny previously unseen assumptions about the future. So my answer is that our attention to the longer-term futurescape -- barring some sudden evolutionary or technological leap, which it would be foolish to count on -- does need to be quite conscious and deliberate.<sup>626</sup>

The sort of foresight which can be made 'ambient' actually deals with something other than the qualitative elaboration of alternative future worlds. To have more people, more of the time, thinking about and discussing alternative scenarios is surely both possible and desirable; 'shock' and 'guerrilla' tactics are simply an

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<sup>625</sup> Jaron Lanier 2010. This quote summarises the argument of Lanier's book as described by him during an interview. (Lanier n.d.).

<sup>626</sup> Undoubtedly certain of these (nearer-term) futures-orientation functions may, like 'sustainability', be migrated into policy and governance, whether at the level of governments as we know them today, or in other forms, such as the procurement practices of retailers, or the production practices of farmers, for instance. But the features of a futures-oriented political system or system of governance are a subject for another occasion.

attempt to jump-start that process where it is most needed. It is certain that visions and storytelling can to some extent be crowdsourced, but in principle, it cannot be 'ambient'; ambience has its limits.

Having said that, a general tendency, towards circumstances in which futures are both created and manifested regularly and collaboratively, and alongside that, experientially, is by now well underway.<sup>627</sup>

### **A futures-oriented social ecology**

To bring our discussion full circle, it seems to me in light of these developments that the initial understanding, which launched me on the line of inquiry for this dissertation, may now be reframed. At first I saw the challenge for 'Hawaii 2050', and for the field as a whole, as being *communicative*. How could we convey our ideas about the future most compellingly? However, in light of this broadened perspective on experiential futures and other currents in play, my view has shifted somewhat. It's not that I think this initial diagnosis was flat out wrong: futures does indeed have a public relations problem (although the reasons are complicated, and as the Futurist's Catch-22 suggests, the part of the field that is susceptible to being misperceived is so precisely because of those very common habits of thought -- monofuturism, etc -- that it is specifically dedicated to ameliorating). And I do certainly still think that continuing to develop communicative diversity and creativity is an important part of reforming the field. The communication of scenarios (a specific formulation), or the communication of foresight or futures (a more general one) are surely areas in which the ideas described in these pages, experiential scenarios and experiential futures

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<sup>627</sup> The (at the time of writing) unpublished research of MIT PhD student Noah Raford offers another intriguing and highly promising avenue that would also contribute to this broader trend. (Raford 2010.) Interestingly, his research interest in online, participatory approaches to scenario work was in large part inspired by the game *Superstruct*. (Personal communication with Noah Raford, 22 April 2010.)

respectively, may be useful instruments. But, I have come to see this conception of the matter as incomplete.

The challenge for Hawaii 2050, as for futures studies generally, was not best thought of as being one of conveying pre-conceived futures from party A to party B; getting scenarios from one set of heads (ours), into those of others. The broader challenge, rather, was and is to facilitate the development in society of a richer mental ecology (to use a Batesonian phrase) of futures-oriented thought and action. Rather than simply producing concepts about what the future could or should be, and broadcasting these to people (although, we should acknowledge, some of the best-known futurists do still seem to regard their role as being precisely that) the key, emerging role for the twenty-first century futurist is to serve as a *catalyst for a more foresightful society*. This entails a far-reaching, multifarious, ongoing process which includes generating, sharing and exploring images and narratives of various futures, whereby the collective understandings and values, hopes and fears, expectations and assumptions, of a group and its individuals may be drawn out and held up for scrutiny, debate, refinement, and further inspiration. Such a mission will at times involve signalling specified content, but this is not the end of the story.

This adjustment in what futures studies sees itself as doing runs parallel to the shift described in our conception of politics, from the politics of the obvious to the politics of aesthetics elaborated from Chapter 3 on. What it means more specifically is that the futures experiences described here (and others) can be seen as providing scaffolding for new thoughts and discussions. They provide *things to think with*,<sup>628</sup> as well as shared reference points, a common vocabulary of lived experience (however brief) for those exposed to it -- real memories of virtual events, which can be used for increased understanding, more detailed exploration, and richer discussion.

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<sup>628</sup> Elsewhere I have called this 'object-oriented futuring'. (Candy 2008i.)

On the road to social foresight, it is not yet clear how we might get from level four, with futures 'embodied in a variety of applications', to level five, futures 'is implemented just about everywhere',<sup>629</sup> we need not, and frankly cannot, know every step of the path before walking it. As Mike Roselle, the founder of environmental activist group Earth First!, has said of our the unfolding ecological crisis which we have been so slow to face, 'We don't need to know True North, we just need to move in a northerly direction.'<sup>630</sup> Experiential futures practice as set out in these pages may not be the True North of social foresight, but it is surely movement in a northerly direction.

## **Conclusion**

We remain a long way from exhausting the imaginative exploration of social foresight, and crucial questions remain about its viability and exact contours. However, as we have already noted (Chapter 2), the unthinkable and unimaginable are problems at a collective scale; addressing them is no one's solitary enterprise. Thus, much of what remains to be done must, if it is to be approached effectively, be taken on by others. I acknowledge as a central irony of my dissertation project that this call for a more distributed, experiential mode of exploration of possibility space comes in a conventional, textual form, written by one person. But I ask you to look at the moon, not at the finger pointing at it; it is my hope that the descriptions and rationales of projects provided here comprise sufficient reason for others take similarly-intentioned research further on the basis outlined here.

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<sup>629</sup> Slaughter 1996a, 753: Table 1

<sup>630</sup> Candy 2008b.

The 'futures of everyday life', as we have seen, is a practice concerned with the interior, mundane qualities and textures of the lives we could lead (Chapter 2) -- a true art, in Brian Eno's formula, 'the rehearsal of empathy'.<sup>631</sup> But there is also the futures of everyday life in the sense of being available and exercised every day, as a matter of course; this is the vision of social foresight. The connection between those two senses of 'everyday' futures, the ways in which the former opens on to the latter, we have just begun to sketch here.

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<sup>631</sup> Kelly 1995.

## CONCLUSION

### HOW WE MIGHT FEEL TOMORROW

History is the virtual made actual, one hack after another.

~ McKenzie Wark<sup>632</sup>

Two paradoxes lie at the heart of the project of developing experiential futures.

The first paradox is embedded in the problematic which motivates us. One of humanity's most distinctive and remarkable traits -- our extraordinary ability to conceive of things other than as they are, hence to mentally time travel -- appears to have landed us in quite an existential predicament. Our collective capacities for invention and foresight seem, at the time of writing, to be incommensurate with the intricacies of the context in which we are exercising them. We find we are visionary enough to have created challenges for ourselves that are truly mind-boggling, but we fall short in our collective capacity to envision, let alone implement, remedies. The complexity of the systems in which we are embedded is coming home to roost, with the revenge of unforeseen and unintended consequences propagating through those systems with the karmic inexorability of a mythic third act. If proverbial wisdom says that a little knowledge is a dangerous thing, perhaps it is as simple (or as complicated) as this: that the same is true of foresight. *Less* engagement with the future holds no promise; more may be the only way forward.

In response to this paradox, the idea of 'experiential futures' invokes another, for its potential to help save us from the first. Here we summon and exploit a contradiction between *experience*, with its implication of solidity, presence and reality, on the one hand, and *futures*, with its entailments of ephemerality,

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<sup>632</sup> Wark 2004, para. 9.

absence and virtuality on the other. This tension offers potential for a rich form of exploration, the mediation of possibility space, whereby the impossible seems to happen: hitherto absent futures, invisible potentials are 'presented' for the senses, made more real, and various of the numerous alternative paths that history could take are vividly superimposed on an extended now.

As I have argued throughout this document, the design and staging of experiential scenarios is a political, practical and perceptual-level intervention. It is praxis oriented and more than a little messy; a tactical attempt to manipulate the quirks of the human information processing system, especially our evolved preference for the immediate and tangible over the remote and abstract, to give those quirks a better chance of operating in our collective long-term interest, rather than against it. In that respect, ours must be a highly pragmatic, heuristic, 'hacker' activity, not a neatly enfolded, modular, and academically respectable program ready to be implemented in the schools and colleges of the world. Scholars in academic futures studies have been busily working on that front for over 40 years; this dissertation has been about the complementary but different approach of bringing futures into everyday life, and everyday life into futures. Both sides of the most lively current debate in academic futures -- between 'integral futures' and 'causal layered analysis'<sup>633</sup> -- miss the element of engagement of a wider public in the futures conversation. We would do well to be systematic about making the ingredients of a foresight ecology more widely available, finding more and better ways to share the excellent tools that the decades of conversation have already yielded.

As we bring this investigation to a close, let us revisit the arc of the argument and the story told here.

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<sup>633</sup> See the recent special edition of the journal *Futures* on 'Epistemological pluralism in futures studies' (vol. 42, issue 2, March 2010, edited by Sohail Inayatullah); which was a response to the edition on 'Integral futures' (vol. 40, issue 2, edited by Richard Slaughter, Peter Hayward and Joseph Voros).



First we pluralised 'future', mapping hyperdimensional possibility space in a notional cone containing countless dots, each one of which, on a close zoom, turned out to be another future world, corresponding to the innumerable and ever-shifting 'images of the future' that we all carry in our minds. We saw, however, that this reflected a far more complex conception of the future than a linear or binary one, and required some new tools to manage it. The four generic futures approach was described, both as a means of classifying an array of existing futures images, and, more importantly, as a generative technique to arrive at specific, divergent scenarios encompassing widest conceivable swaths of possibility space in the fewest strokes. Thus did we move the breadth of futures beyond the double bind of unimaginable utopia and unthinkable dystopia.

In the second chapter we introduced 'the experiential gulf', the gap between imagined, represented future and lived reality. Neuroscience and psychology pointed us to the promising, so far little explored country of 'experiential scenarios' which include the register of experience (affect, emotion, intuition) alongside analysis (logic, reason, judgment) in the human processing system. The example of 'Hawaii 2050' suggested that as the experiential gulf becomes narrower, futures conversation can become more vibrant, by providing a shared vocabulary and reference point in memory for those involved.

In 'The Politics of Futures and Design', we saw how a distributed conception of 'the politics of aesthetics' operating at the level of perception is directly addressed by both futures studies and design. Futures plural was revealed as fundamentally 'critical' as well as 'decolonising' of dominant social narratives, yet also going beyond bare critique and decolonisation by continually affirming the viability of specific, alternative paths forward. Design was shown to be a profoundly political domain, both in the enactment of power relations that we can 'read' in existing material arrangements, and in the intentional remaking of these.

This gave us a theoretical basis for the idea that futures and design together could comprise a politically potent hybrid practice around 'redistributing the sensible' to make futures narratives vividly available.

In Chapter 4, we turned to consider the similar structures, and emerging hybrid forms, of the practices of futures and design. As members on both sides have been realising, the two domains have much to offer each other. To design, futures brings a holistic and systematic view of the range of longer-term impacts of today's decisions; and design brings a concrete, communicatively potent form of exploration and an ethos of pragmatic efficacy to futures.

'Guerrillas in the wild' considered the intentionally 'political' deployment of futures thinking, via experience design, in unexpected contexts. We saw here how guerrilla futures goes beyond some related activist practices, and how it offers.

Chapter 6 looked at the range of discursive technologies for manifesting future possibilities and located these on an 'ontological spectrum' from *what if*, to *as if*, to *is*. As the experiential gulf narrows, we noted, the impacts become stronger, but so too do the ethical risks. We must be prepared to reckon with the complexities and hazards attending the development of this practice.

The final chapter sketched a scenario for 'social foresight', a distributed capacity for looking ahead which would resolve the problems with which we began.

Now, as signalled in the Introduction, my vision of what a futurist can and should be does not primarily entail telling people what the future can or should be, but consists in encouraging and enabling as many as possible to make such discoveries for themselves. We bootstrap our way from moment to moment, year to year, decade to decade, equipped with a more or less rich set of ideas about the future as our guide; so the field's great challenge is one catalysing a

transformation in society's mental ecology as a whole. I have made no secret of the fact that there are futures I would like to see come to pass more or less than others, but the rationale for making my own agenda in this work concern the *development and spread of futures tools* rather than the *outcomes of their application*, is, I now realise, because it's a more more potent systemic leverage point.<sup>634</sup> It is, indeed, the most potent political tool, to enable people to systematically redistribute the sensible at will and on their own behalf.

Consequently, some of the issues characterised here as being a problem for the field, are not really a 'problem for the field'.

*They are a problem for everyone.*

Whether or not futures studies flourishes as a discipline is, in the grand scheme of things, not the issue; the real 'work' to which it is dedicated, as we noted earlier, lies beneath. Its lack of broader recognition is, however, one index of a large scale failure-in-progress that belongs to everyone, and that we can ill afford to continue.

The conundrum of the Unthinkable and the Unimaginable is everyone's issue -- certainly not just 'futurists', nor designers, nor those who happen to have dedicated themselves to political theory or activism; nor just the displaced former residents of New Orleans, nor yet the casualties of Detroit's seemingly inexorable decline. It is everyone's problem. Futures studies is a community of thinkers that has defined and directly addressed it as such. But the Great Conversation needs to belong to us all, as do all the discursive technologies, principles of experiential futures design, and other paraphernalia of wiser, ongoing conversation and political self-reinvention.

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<sup>634</sup> Some years ago the late ecological systems expert Dana Meadows wrote a brilliant article counting down the 'places to intervene in a system'. Number two was 'The goals of the system', but number one was 'The mindset out of which the system arises'. (Meadows 1997.)

The general purpose of futures studies could be regarded as the provision of tools for the invention and pursuit of preferred futures; that is, the reconciliation of hopes and expectations. But it begins and ends, finally, with what any individual does in relation to those things.

And so, to the two paradoxes noted already we must add a third. The challenges that motivate the futures work undertaken here may be framed as far-reaching, even species-wide concern, but this is also, finally, a personal project. For all the arguments mounted made here about the political potential and value of experiential futures practice as a whole, the ones I can stand by without question are the effects on my own political subjectivity, my own willingness to question, test, and act in support of my convictions. At the end of his study 'From Individual to Social Foresight', the Australian futurist Peter Hayward notes, 'At its essence, the development of foresight is an individual journey. Processes and structures can support but not instigate the journey. The stepping off point is to move from certainty towards doubt; to move from comfort to discomfort.'<sup>635</sup>

Early on in *The Image of the Future*, Polak proposed a pair of concepts which provide further bearings here. He suggested that, in mapping the nature of our future orientation, we can differentiate between *essence* and *influence*, that is, between the future we think we're actually going to get (essence), as opposed to the extent to which we think we can affect it (influence). It is possible to be either 'optimistic' or 'pessimistic' on either front.<sup>636</sup>

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<sup>635</sup> Hayward 2005, 292.

<sup>636</sup> Polak, vol. 1, 46-48. There is a futures workshop exercise called the 'Polak Game' wherein participants are asked to locate themselves physically on 2x2 matrix derived from these dimensions, as shown below. I am grateful to Peter Hayward of the strategic foresight program at Swinburne University of Technology for sharing the Polak Game at the Honolulu Futures Salon in April 2006. I have since run a version of this workshop exercise with various student cohorts in Hawaii, Vietnam, Connecticut and Michigan, and find that the differences within the groups provides an excellent basis for a lesson on the variations and significance of personal as well as cultural attitudes towards the future.

Personally I find the term 'essence' troubling, because to me all our evaluations are situational and bounded, not permanent or essential, in character.<sup>637</sup> But let's allow for quirks of usage and translation, and interpret 'essence' here simply to mean one's judgment of expectations of the future for the time being, which allows room for evolution in a way that essence does not. Are you optimistic or pessimistic about the future that you currently expect -- on whatever timeline you may care to name -- for the future of the world, your continent, your neighbourhood?

The more quality time we spend considering 'the future' with the perspectives and tools offered here (as well as many other approaches and methods beyond the scope of this dissertation), it opens up for us as a domain of potential and of action, rather than remaining a flatland on which our own mainly positive or negative predispositions, whichever the case may be, are projected. *Becoming with futures* is a process of nudging ourselves, and each other, towards an ever greater, and yet more grounded, 'influence optimism', to use Polak's term. We, ourselves, one by one, finally engage, or not, the self-fulfilling prophecy of the preferred future. I think that this may be the ultimate 'political' moment in 'doing futures': one's self-reconstruction as a person with imagination, with options, with agency.

Being involved with the future as a domain, really *getting to know it*, must entail moving perceptions beyond expectation's naive initial optimism and pessimism -- and at the same time, beyond their ostensibly 'exterior' counterparts, utopia and

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<sup>637</sup> 'A Chinese story, kind of a Taoistic story about a farmer. One day, his horse ran away, and all the neighbors gathered in the evening and said 'that's too bad.' He said 'maybe.' Next day, the horse came back and brought with it seven wild horses. 'Wow!' they said, 'Aren't you lucky!' He said 'maybe.' He next day, his son grappled with one of these wild horses and tried to break it in, and he got thrown and broke his leg. And all the neighbors said 'oh, that's too bad that your son broke his leg.' He said, 'maybe.' The next day, the conscription officers came around, gathering young men for the army, and they rejected his son because he had a broken leg. And the visitors all came around and said 'Isn't that great! Your son got out.' He said, 'maybe.' You see, you never really know in which direction progress lies.' (Watts 1960.)

dystopia (Chapter 1) -- toward a deeper and multidimensional temporal awareness, in which we own our individual part of a collective situation, focusing unduly on neither attitude. But don't take my word for it, ask these other futurists! Jim Dator: 'Should I be optimistic or pessimistic about the future? I believe the answer is: neither. I should be aware and active.'<sup>638</sup> Bruce Sterling: 'The best attitude for a serious futurist is not pessimism or optimism, but a deep sense of engagement.'<sup>639</sup>

Exactly how we might feel tomorrow, no one can say. What we can do is accept the opportunity to *feel tomorrow* with all the tools at hand. And, one way or another, this is what I think we will do. It is virtually inconceivable to me, considering humanity's history and demonstrated proclivities, that we could have at our disposal a toolbox amounting to virtual time travel, and not use it every chance we get. The purpose of this dissertation is not so much to push a rock downhill, it's already rolling. I'm just clearing some debris out of the way.

'Everyone is racing to close a gap: the space between what can be imagined and what can be done. As that margin narrows, when thought and action come close enough to brush against one another, you get a static charge.'<sup>640</sup> This observation was made in relation to the annual Burning Man festival in Nevada, but it is also true, I think, of our wider culture -- allowing for a longer, albeit ever-diminishing, time lag. And there is every reason to expect this momentum to hold as far as we can possibly sustain it. The question is really whether we'll learn the knack for visualising this gap, this experiential gulf, on the longer timescales before the near-instantaneity of our habitual short-term loops spins us off into a corner of possibility space from which there's no coming back.

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<sup>638</sup> Dator 1999, 368.

<sup>639</sup> Sterling 2003.

<sup>640</sup> Bruder 2007, 99

The psychedelic philosopher Terence McKenna wrote in 1991, 'Perhaps a human language is possible in which the intent of meaning is actually beheld in three-dimensional space.'<sup>641</sup> Given the fast-emerging ingredients of ubiquitous and instantaneous information access, 'lifelogging', natural language recognition, automated search, and gestural interfaces, we can begin dimly to make out the possibility of future conversations in which we routinely *show*, rather than *tell* each other, what we mean. And with this comes the prospect of a hybrid 'political' world-making practice, already here in embryo, whereby we show, rather than merely tell, each other about our visions, hopes, and fears, our -- thankfully, still plural -- possible futures.

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<sup>641</sup> McKenna 1991, 39.

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### Notes:

(1) The designation *et al.* is used if more than three authors are listed.

(2) All website links are current at 1 May 2010. Where noted, the Internet Archive's Wayback Machine has been used to recover material from dead links: <http://www.archive.org>

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