

# Politics of Designing Visions of the Future

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## Abstract

*Scenarios for policy and the public are increasingly given form by designers. For design, this means ideas about the future – futurity – is at stake, particularly in genres of ‘concept’, ‘critical’ and ‘persuasive’ design. While critical approaches are present in futures studies and political philosophy, design assumptions and preferences are typically not explicit, including gender norms, socio-ecological practices and power structures. Calling for further studies of the politics of design visions, I outline possible approaches and elaborate through the example ‘Switch! Energy Futures’. I reflect upon how competing visions and politics of sustainability become explicit through our process, aesthetics and stakeholders.*

**Keywords:** Futures Studies, Design, Design Theory, Visualization, Scenarios, Political Philosophy.

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## Introduction

The future – indeed, temporality – has only entered substantially into design discourse relatively recently. Design and other disciplines such as architecture, geography and geology have long been preoccupied with space rather than with time (Grosz, 1999; Mazé, 2007). Today, however, ideas about the future – or, in philosopher Elizabeth Grosz’ terms, *futurity* – is stake in many design arguments and practices. Assumptions about time, progress and futurity underlie popular rhetoric concerning ‘change’, ‘progress’, ‘transformation’ and ‘transition’, and design, along with many disciplines, is affected by the increasing hegemony of values framed as ‘newness’ and ‘innovation’ (e.g. Wakeford, 2014). Beyond mere rhetoric, design research and practice must further develop its approaches to futurity.

Indeed, the future is itself might be conceived as a design problem (Reeves, Goulden, & Dingwall, 2016). Some classic conceptions of design are premised upon the future – for example in the formulation by Herbert Simon: “Everyone designs who devises courses of action aimed at changing existing situations into preferred ones” (1996, p. 130) thereby “addressing differences between the desired and the present” (1996, p. 141). Particular ideas or ideals of the future are mobilized by socially- and politically-engaged designers (e.g. Ericson & Mazé, 2011), by ‘redirective’ designers addressing “defuturing” phenomena such as climate change (Fry, 2010), and by ‘transition’ designers (Irwin, 2015; Mazé, Gregory, & Redström, 2011). As evident in this journal issue, genres of ‘design futures’ are amassing an increasing number of examples, theoretical depth and public

exposure. Possible, probable and preferred futures are explicitly addressed in ‘concept’, ‘critical’ and ‘persuasive’ design practices that produce powerful visions of the future.

Design relations to futurity are expanding, and so are alliances with the field of futures studies. In Europe, futures studies has grown with a public awareness of issues such as climate change (for example, energy featured strongly in the development of the field in Sweden, see Höjer, 2010) and public demand for understanding and participating in long-term national policies (Vergragt, 2012). With the rise of public communication and deliberation of policy as well as more participatory forms of governance and planning, design has become a powerful discipline charged with visualizing such futures in accessible, popular and persuasive forms (e.g. Ilstedt & Wangel, 2013; Pipkin, 2016; Vergragt, 2010). Design visioning and prototyping of futures has been crucial for rendering previously textual analyses (such as policy scenarios) and abstract concepts (such as “sustainability”) in forms available for empirical (i.e. bodily) experience and public deliberation (cf. Candy, 2014; Mazé & Önal, 2010).

Such designed visions of the future, along with their preferences, norms and ideals, shape policy planning, market economies and cultural imaginaries. This entails that there is much at stake in the expanding intersection between the disciplines of design and futures studies.

An enduring example of the power of design envisioning ideas of time, memory and the future is *acceptera*, the first manifesto of Swedish Modern design (Åhrén et al., [1931] 2008). *Acceptera* evoked, in text, image and proposed designs, a modern, or future, ‘A-Europe’, “The society we are building for”, versus ‘B-Europe’, or ‘Sweden-then’, fragmented spatially, temporally and socially. A-Europe is premised on a standardized society, allowing for industrialization at all levels, from that of large-scale communications networks to the micro and minor practices of local farming, leisure activities and domestic work. Other values, customs, peoples and cultures were portrayed as regressive and stuck across past centuries. *Acceptera* is a manifesto for development in a predetermined direction, created on the basis of a modernist understanding of time, progress and linear causality, a specific arrow of time premised on industrial technologies and industrial design, leading to a particular, and singular, societal future.

The politics of the future envisioned in *acceptera* were explicit – it was distributed by the publishing branch of Sweden’s Social Democratic political party, and it has had profound and lasting effects on the ideological and socio-material construction of the Swedish welfare state (Mattsson & Wallenstein, 2010).

However, the politics of many designed visions of the future are not explicit. While rhetoric of ‘the new’ and preferred futures pervade design, other temporal phenomena such as ‘chance’, ‘indeterminacy’ and the ‘untimely’ seem less welcome (Grosz, 1999). This implies certain selections – and political dimensions – within design concern for futurity. The ‘arrow of time’ in *acceptera* was directed not to any possible future but to a specific and preferred future reality with political intent. Whether it is made explicit or not within design, identifying and making a difference between what is real, now, and what is, or is not, negotiable or preferable in the future is a political act (Mazé, 2016). In this article, I call for developing approaches to query and make explicit the assumptions and preferences underlying designed visions of the future, including design roles in (re)producing or countering social norms, practices and structures. This is particularly urgent given the expansion of such visions into policy and the public sphere.

## Political Dimensions of Futurity

There are many possible political dimensions of futurity in design and futures studies. By ‘political’ here, I refer here to philosophical and analytical uses of the term rather than the macro-politics of state sovereignty or organized party politics. In a philosophical sense, political dimensions of futurity can include how reality and futurity are conceived, how present and future

phenomena can be known, and what difference our conceptions, knowledges and choices make.

In terms of how reality and futurity are conceived, for example, we can query an ontology of time structured in the three categories of past, present and future. Indeed, this tripartite ontology can itself be queried as a historically- and culturally-specific assumption (Adam & Groves, 2007). Concepts of ‘the future’ scarcely exist in some cultures, as argued by futures researcher Sohail Inayatullah (1990). Other philosophies of time instead explore notions of emergence, becoming and virtuality (e.g. Bergsonian time in Grosz, 1999), and feminist and postcolonial theories counter universalizing narratives of time (e.g. Harding, 2008; Mazé & Wangel, 2017). Within the field of futures studies, such ontological questions underpin genres of ‘critical-postmodern’ futures studies (Gidley, Fien, Smith, Thomsen, & Smith, 2009; Inayatullah, 1990), which may interrogate the nature of time, the hegemonic tripartite structure of time, modern and Western paradigms of clock time, linear progression and positivist predictability (Adam, 2008). A fundamental political dimension in futures studies and design, therefore, is the ontology and conception of time that is assumed and (re)produced.

If we choose to operate within a Western and modern conception of time, including an assumption that ‘the future’ exists, further political dimensions surface. Conceiving of the future as something that exists means that it can be posited as an object of scientific study, as something that can be known. This motivates a basic epistemological dilemma discussed by futures researchers, since knowledge in futures studies lacks the empirical basis of other disciplines (or deals with ontological uncertainties, see Svenfelt, 2010; Wangel, 2012). In design research, as in futures research, we can endlessly debate what can be known, methods of knowledge production, issues of uncertainty and indeterminability, and we can get stuck in the knowledge politics and institutional histories between scientific disciplines (Höjer, 2010).

Facing this dilemma, we can end by (more or less unconsciously) reproducing certain scientific logics that have socio-political ramifications. Indeed, the predominance of technocentric and positivist logics in futures studies is, at least in part, the result of such reproduction (Inayatullah, 1990). Such futures studies have tended to imagine the future as technological and material only, portraying the future as a discrete and definite location which might be arrived at through linear transition pathways along which the development of particular technologies as the privileged baseline for plotting human, cultural and societal ‘progress’ (if social factors are considered at all, e.g. Wangel, 2011). Scenarios and visions of the future premised on such logics continue to permeate futures studies and design. As futures researcher Josefin Wangel argues (referring to Adam, 2008), “this is perpetuated by research paradigms premised on positivist ideas of cause-effect chains and prognoses that advocate ‘evidence-based planning and design’, or future projection based on those things that can be known through measurement and aggregation” (Mazé & Wangel, 2017, p. 276).

Reproducing certain scientific logics, for example by privileging those things that can be known through measurement, excludes some phenomena. Phenomena such as social and cultural practices, psychological and biophysical dynamics, and socio-ecological events are less amenable to measurement and prediction, except within the most experimentally contained and limited contexts. This may partly explain why ‘probable’, ‘possible’ and ‘preferable’ future logics alike are largely devoid of explicit explorations of the social (Wangel, 2011). Indeed, as futures researcher Ulrika Gunnarsson-Östling (2011) has established, futures studies images and activities are largely devoid of women and non-Westerners as well as feminist issues or issues of particular relevance to women. Critical study of even ‘radical’ futures studies, e.g. backcasting studies for sustainable development, reveals that the social side of society is assumed to go on more or less according to ‘business as usual’ (Wangel, 2011). The exclusion of particular phenomena produces a political effect concerning the consideration and, thus, the representation and prioritization of certain genders, peoples and species within futures studies.

While there are efforts to address this dilemma as a question of more and better methods, there is an epistemological limit to what can be known about the future. For futures researcher Jerome Glenn, this dilemma suggests that the core question of futures studies should not be “How well do you know it?” but, rather, “What difference does it make?” (Glenn & Gordon, 2003, p.8). “What difference does it make?” articulates further political dimensions concerning intention and application for particular (political) purposes. As Inayatullah articulates, “every planning effort involves philosophical assumptions as to what is considered immutable and what is negotiable; the significant and the trivial. Thus, every effort to plan the future is submerged in an overarching politics of the real” (Inayatullah, 1990, p. 116). Positing that things can be different opens for political questions concerning what or who can, or should, be present, and how, in the future, as well as what can, or should, change, what difference that makes, and for whom.

These political dimensions outlined in relation to futures studies are increasingly relevant for design. Indeed, it is often through designed scenarios and visions that futures studies take form within policy, planning and the public sphere. Thus, political questions are not only relevant to the content development of scenarios and visions but to the designed forms of rhetoric through which they are represented, materialized, communicated and deliberated. Further, and more fundamentally, positing the future as a design problem, as inherent within design activity, or as an explicit objective of design entails that questions posed within philosophies of time and within futures studies are also relevant to design.

A further potential of design relates to the epistemological dilemma indicated above. Contemporary philosophers concerned with futurity argue that dominant scientific modes or forms of knowing cannot grasp critical aspects of the future. Aligned with discussions about ideas and politics concerning ‘difference’ raised by such futures researchers, Grosz, for example, poses a potential of futurity that is given precisely by the ontological assumption that the future is different. It is, categorically, not the past nor the present. Exploring notions of ‘the possible’ in Henri Bergson’s philosophy, she queries the future as other than a “preformed version of the real” (Grosz, 2001, p. 12). Further, she argues, “if dominant modes of knowledge (causal, statistical) are incapable of envisioning the absolutely new, maybe other modes of knowing, other forms of thinking, need to be proposed” (Grosz, 1999, p. 21). Along with Grosz, historian and philosopher of art and architecture John Rajchman (1999) calls for another “art of seeing and acting” than those preoccupied with future causalities or determinisms, prophesy or prediction. They suggest the arts, including design, as other ways of coming to know, experience and relate to futurity.

## Approaches to Designed Visions of the Future

While political dimensions of futurity in design remain largely inexplicit and unquestioned, there are some relevant concepts and approaches. For example, and relevant to the forms through which policy is communicated, design has been theorized as ‘political rhetoric’. Design theorist Richard Buchanan draws on classical Greek political philosophy to account for design as political rhetoric, arguing that “rhetoric is an art of shaping society, changing the course of individuals and communities, and setting patterns for new actions... designers have directly influenced the actions of individuals and communities, changed attitudes and values, and shaped society in surprisingly fundamental ways” (1989, p. 93). As political rhetoric, this positions design as inherently concerned with shaping society in particular, preferred ways.

Among various types of rhetoric, Buchanan is explicitly concerned with political or deliberative rhetoric, wherein the goal is to induce certain beliefs about the future. As he articulates, “design is an art of thought directed to practical action through the persuasiveness of objects and, therefore, design involves the vivid expression of competing ideas about social life” (Buchanan, R. (1989, p. 94). Since there are rarely singular solutions to human problems (or futures), design activity

involves choices and makes arguments about human relations and societal organization, issues more typically located within the realm of politics proper and to study within the social and political sciences. Design, as Buchanan and others argue (e.g. Winner, 1995; Mazé, 2007; Fry, 2010; Dilnot, 2015), is inevitably ideological, and, in (re)producing particular future forms of social life and society, design activity has inherent political dimensions.

In design practice, rhetoric of futurity is prominent in various genres, even if political dimensions are not made explicit. For example, the future is at stake in ‘concept design’, ‘critical design’ and ‘persuasive design’, as well as in other genres not further elaborated here such as ‘speculative design’, ‘design futures’ and ‘transition design’. As I discuss elsewhere (Mazé, 2007), concept design, critical design and persuasive design are not definitive categories in design discourse, since examples are not easily or exclusively identified and terminologies are highly contingent, and since positions are continually renegotiated and reframed. For explanatory purposes here, these are elaborated in (over-)general terms, as tropes through which to discuss ways in which design may aspire or claim to project, challenge and steer the future, in order to expose some political dimensions.

‘Concept design’ flourishes in trade shows and world expositions, for example in the form of prototypes of the ‘ideal home’, ‘future city’, ‘concept car’ and ‘The World of Tomorrow’ (e.g. Rydell & Schiavo, 2010). In a similar vein, Philips Electronics’ *Vision of the Future* (Baxter, 1996) and other industrial and strategic design programs fuse forecasting, sociology and high-tech research in concept designs. Concept designs have become central to business strategies building shared values and commitments, expanding and marketing the ‘corporate imagination’ within a company, an industrial sector or a target group. Foresight may be essential for industries that depend on a twenty-year lifespan (Gabrielli & Zoels, 2003), however such genres go well beyond technical questions of lifespan. Concept design induces desire and (re)produces cultural imaginaries for particular industrial futures.

Allied with art, ‘critical design’ (as a niche within product and interaction design that can also be more widely and historically positioned, see Mazé, 2007; Mazé & Redström, 2009) produces artifacts that debate futures. Resisting the ‘dreams of industry’, Anthony Dunne and Fiona Raby (2001, cf. Spiller 2006) borrow strategies of defamiliarization and estrangement from modernist aesthetics to provoke debate about current norms, ‘alternative nows’ or ‘speculative futures’. Critical designs are intended as “material theses”, physical rather than written critiques, of established models of production and consumption (Seago & Dunne, 1999). Designs are crafted, placed and photographed carefully, often in exclusive settings such as art museums, coffee table books and lifestyle or culture inserts in the media. While opposing traditional models of design industry, such designs nevertheless seem to assume and prefer a particular socio-economic niche.

‘Persuasive design’ for behavioral change aims to redirect norms. In the area of sustainability, for example, ideals, consequences or futures around electricity and water consumption are monitored and visualized in forms intended to educate, persuade, incentivize or even coerce change in perceptions and ‘good’ behavior (Bohle, 2012; Verbeek & Slob, 2006). Designed to ‘fit’ people’s bodies and sensory capacities, or cognitive and emotional ergonomics, such approaches steer behavioral change in more or less conscious ways. Persuasive designs induce self-discipline, regulating, affirming and ‘governing’ particular behaviors in forms intended to be internalized and reinforced in an ongoing manner in everyday life and social practices (Mazé, 2013b). While perhaps not always aware or reflexive about the ideologies and policies (re)produced, persuasive designs oppose present conditions and propose quite particular alternatives and futures.

Concept, critical and persuasive design are far from neutral. Concept design, for example, identifies and selects particular trends and values to extrapolate and amplify imagined ‘ideal’ futures of the home, car or city. There are endless socio-economic and techno-material possibilities, and choices are made about which may or may not be identified, reproduced or changed (see Wangel,

2012, for a discussion of preferred and normative futures studies). Choices are normative – they are made from and for particular ideological positions, in relation to specific conditions, contexts and worldviews. However, as design scholar Luiza Prado (2014) argues concerning critical design, designers can be blind to the normative positions, ideological biases and political consequences of their work. Elaborating and multiplying possible futures is an exercise of power (Mazé, 2016), even if position or preference is not articulated or neutrality is claimed.

### Accounting for political dimensions of futurity in and through design

These relevant precedents in design theory and practice elucidate futurity as inherent and even intentional within design activity. While temporality and futurity have only entered substantially into design discourses relatively recently, such precedents, along with expanding alliances between design and futures studies, suggest a need to broaden and deepen design theory and practice from early spatial preoccupations to contemporary temporal concerns. Specifically, I argue that ideas about the future, or futurity, entail particular political dimensions to be further interrogated, and there are many possible approaches to better account for, study and do design. One approach along these lines is historical or genealogical, perhaps akin to literary studies like Fredric Jameson's *Archaeologies of the Future* (2005), such as critical design historical studies of 'the future' or critical analysis of futurity in design. Another approach is to articulate and develop common theoretical ground with the social and political sciences, for example as signaled in *Design Anthropological Futures* by Rachel Charlotte Smith et al. (2016 including Mazé, 2016).

A further approach is to articulate relevant knowledge, criticality and political dimensions from within design practice and on the basis of its own modes of operation (Mazé & Redström, 2009). For example, Karin Bradley, Ulrika Gunnarsson-Östling, Meike Schalk and Jenny Andreasson (2017) analyze Stockholm's *Vision 2030* through theories of feminist political ecology, but they also rewrite and redesign an alternative vision. This kind of approach entails criticality not only on the basis of theories from other disciplines but also from within design activity including its methods, materialities and modalities. Such practice-based approaches have a potential to articulate knowledge and politics not only as applied and reproduced in design but also as actively produced through design. From a design perspective, such an approach can thereby contribute to increased political reflexivity that is more profoundly and thoroughly integrated within the discipline. From a more general perspective, a design-based approach, as an "art of seeing and acting", may open for further and arguably important ways of knowing, experiencing and relating to futurity.

The remainder of this article dwells on this last approach, elaborating and reflecting upon a design-based example of which I have personal and in-depth knowledge. As a design researcher and practitioner, my own work over many years has developed in relation to concepts and genres of design outlined above. An example is the practice-based design research program 'Switch!' (Mazé, 2013a; Mazé & Redström, 2008), within which six experimental projects explored and developed approaches to changing perceptions, behaviors – and futures – of electricity consumption. One of these projects, 'Energy Futures', explicitly sought overlaps between futures studies and design methods and modalities, thus providing an opportunity here for me to further reflect on some of the political dimensions. In terms of "ontological politics" (Mol, 1999), for instance, we engaged in (re) producing, choosing between and multiplying different realities and futures of energy consumption. In retrospect, and recalling Inayatullah, I can query how this and other examples of design may "re-inscribe the power politics of the present instead of the openness or alternative possibilities of the future" (Inayatullah, 1990, p. 134). I can question the politics of what, or who, is present in the future, and which, or whose social norms, practices and structures are (re)produced or countered, and I can speculate on "What difference does it make?"

## Example: Switch! Energy Futures

Our objectives in the project ‘Switch! Energy Futures’ included generating scenarios/visions of future energy consumption and developing relevant design methods in relation to those within futures studies. Based on energy forecasts and social trends drawn from futures studies, Energy Futures revisits familiar urban and domestic artifacts in light of potentially emerging behaviors, beliefs and politics. Countering both the incremental reforms of user-centered design and the polarities of utopia/dystopia in critical design and visionary architecture (cf. Spiller, 2006), we set out to investigate the design of transitions between the familiar now and extreme futures. Resulting scenarios/visions from the project take the form of a series of redesigned artifacts that (fore)tell stories of transformed lifestyles and urban life. These were then mobilized in a public setting to host a debate with stakeholders about probable and preferred futures of electricity consumption. The project was developed by Aude Messenger, Thomas Thwaites, Başar Önal and myself, and an extended account is published elsewhere (Mazé, Messenger, Thwaites, & Önal, 2013).

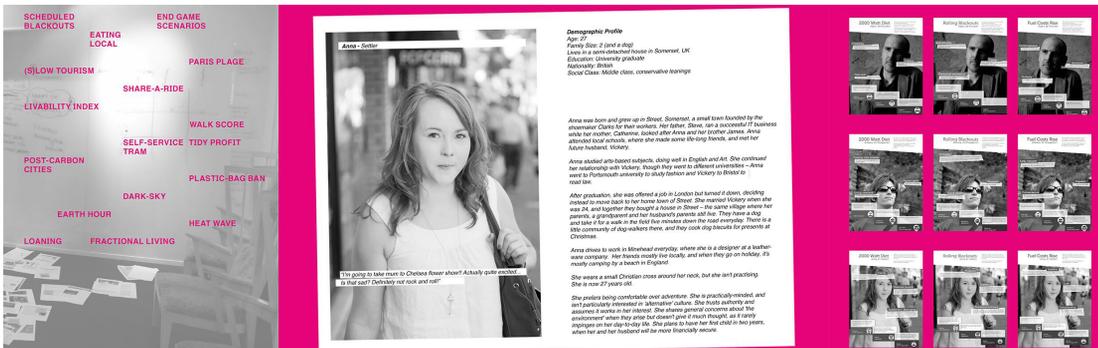


Figure 1. A sampling from Energy Futures methods documentation

We attempted new combinations of futures methods such as environmental scanning, scenario building, role-play, fore- and backcasting with those more familiar in design, such as qualitative interviews, marketing segments and personas, visualization and prototyping, participatory workshops and exhibitions (Figure 1). This methodological mix supported us in moving beyond typical incremental approaches to sustainability, which often privilege the current needs of proximate stakeholders within near-future proposals. Our approach implicated familiar and everyday situations, participating stakeholders and existing contexts, but also explored larger-scale and longer-term dimensions. For example, enacting three different scenarios from the standpoints of the diverse personae (based on qualitative and marketing data), engaged power and (infra)structural dynamics, socio-economic and ideological distances, conflicts as well as similarities.

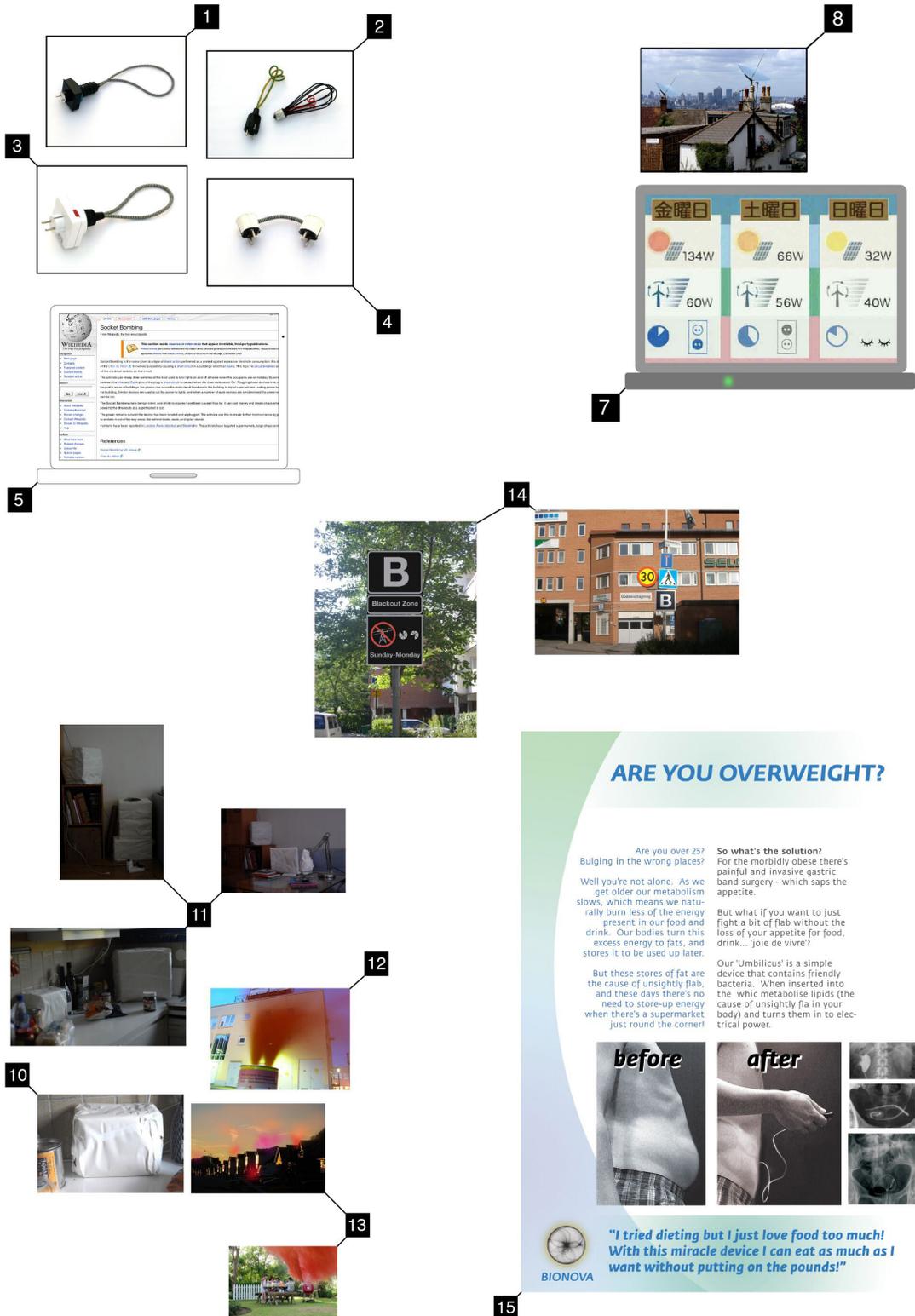


Figure 2. An overview of the artifacts generated within the Energy Futures superfictions

We then generated five ‘(super)fictive realities’ or ‘superfictions’ (Figure 2). These were articulated through collections of highly-considered and -crafted artifacts and media (e.g. “conceptual modelling”, see Seago & Dunne, 1999), including mock-ups and working prototypes, family-snapshot and journalistic photos, Wikipedia and YouTube media. Each superfiction was accompanied by a carefully-crafted narrative written in the first person as if from the future. Rather than one-liners (typical in concept and critical design), these blur between sci-fi and oral history, personal anecdote and reportage, to develop qualities that are nuanced and complex as well as strangely familiar, difficult and socio-psychologically conflicting as well as humorous.



Figure 3. Over the course of the public Energy Futures event, the contents of a closed case take over the space, unpacked, debated and arranged by participants as the superfictive narratives unfold

Energy Futures involved the staging of an exhibition that invited – and required – participation in interpreting and making sense of the strangely familiar and potentially difficult realities. Participants included invited designers, architects, educators, engineers and historians, who were asked to collaborate in unfolding and making sense of artifacts and narratives (Figure 3). Emerging along the way were a variety of intimate stories and personal opinions, as well as political issues and professional points of view. Participants thus articulated, deliberated and examined their individual and shared assumptions, discussed alternatives and declared their own position(s).

### Reflecting on political dimensions through the example

Within Energy Futures, we experimented with and reflected upon our methods, materialities and modes of working. The political resonances of these were not always immediately apparent nor easy to articulate, which is typical of tacit forms of knowledge within practice and of “criticism from within” design (Mazé & Redström, 2009). Through further reflecting on the project in relation to the political dimensions outlined above, I attempt to more explicitly articulate some of my experiences of our work relevant here.

Concerning the ontological politics of time, for example, we did assume a tripartite structure of past, present and future. As starting points within our process, we adopted existing energy scenarios (and assumptions) drawn from futures and economic studies. These appeared to be clearly placed and circumscribed within specific future times, though in more generic and macro-structural terms than typical in design scenarios. Thus, we began to further adapt and specify these with the help design methods to a more micro- and human-scale. In the process of doing this, we found temporal categories and scales to blur and shift. We found it problematic to precisely place scenarios within a timeline tool that we created for tracing a linear temporal trajectory from near- to far-future. In the end, no timescale was appended to the timeline. We made a decision not to order nor sequence the superfictions and, instead, to elaborate each on its own terms and in relation to one another.

Reflecting upon this difficulty, I can understand this in terms of political problematics of futurity. As we attempted to locate particular social phenomena on our timeline, we also recognized a continuum of precedents, reoccurrences and transformations, which somehow resisted placement in a single and definitive place and time. Even if we placed something somewhere specific, we saw how it may be also be placed elsewhere, and this was somehow important for us. By elaborating more specific scenarios in Energy Futures, perhaps because of a partly empirical basis (through personae and role-play), we came to recognize extremes as possible or probable and, even, as already existing in other parts of the world or at other times (cf. “multiple modernities” in Harding, 2008). Luiza Prado and Pedro Olivera (2015) point out that some critical designs may be everyday realities for some people(s), which may explain (though not excuse) why critical design resorts to extreme futures and dystopic stereotypes. We experienced the ambiguity and arbitrariness of dates and of distinctions between past, present and future, as well as the resistance of social phenomena to be pinned down within a timeline that seemed to presume an ability to generalize, sequence and quantify.

We also encountered issues relevant to the epistemological dilemma of knowledge about the future. In mixing methods, our knowledge basis for making decisions felt uneven and even insecure. Indeed, we were drawing from different disciplinary traditions, concepts and methods that are not commensurable in strictly scientific terms. Mixing qualitative, quantitative and practice-based design research as well as analytic, speculative and generative modalities, we were necessarily shifting between and across epistemological standpoints. Just as futures studies must operate on multiple and therefore disputable disciplinary grounds (Glenn & Gordon, 2003), arguably so must we in design. While a response to the dilemma could be to narrow or to improve methods, it would have been impossible for us to bridge all the epistemological gaps, particularly given evasiveness of some relevant phenomena to standard scientific methods. We had to come to terms with the fact that, for our purposes, replicable, robust and commensurable data was not the main point. If it had, we may have leaned toward available data and precedents, thereby potentially reproducing the ‘techno-centric’ paradigm of mainstream futures studies or the ‘technology push’ and ‘market drive’ of concept, critical and persuasive design. Instead, we sought to experiment methodologically and to construct what we felt were more holistic accounts at the scale of human experience, in which many phenomena could be presented in detail and in relation.

Within Energy Futures, our intention was to articulate multiple and competing visions of social life, to making explicit the differences and politics of alternatives. The superfictions evoked contrasts between and consequences of different paradigms in sustainable development discourse (cf. Mazé, 2016). For example, while the ‘Bionova Cord’ (Figure 2, labeled 15) evokes a technological silver bullet and win-win solution, a typically ‘eco-modernist’ trope in sustainability discourse, ‘Socket Bombs’ (Figure 2, 1-5) raise issues of eco-disobedience socio-spatial inequity. ‘Earth Day’ (Figure 2, 10-13) and ‘Power Forecast’ (Fig 2, 7-8) focus on potentially new cultural forms and communal solidarity, while ‘Blackout Zones’ (Figure 2, 14) suggests increased individuation, austerity and separatism. While the content of each superfiction varies, along with implied costs, benefits, exclusions and beneficiaries, each is carefully crafted from a first-person standpoint in order to humanize possible experiences of worldviews and realities that are very different.

One attribute of critical design was particularly important in this respect. Critical design adapts approaches from art, through which to establish some ‘critical distance’ from the market forces industrial status quo that circumscribe mainstream design practice. Learning from artistic methods and contexts of critical design, we departed from typically associated aesthetics, instead referencing pop culture and social media, though not for purposes of selling (as in concept design) nor convincing (as in persuasive design). In Energy Futures, we were interested in opening up, rather than resolving, determining or foreclosing particular futures. Each superfiction was carefully elaborated and self-contained but left a lot to the imagination. The superfictions did not directly

reference one another, yet they were crafted in juxtaposition in order to highlight contrasts and such that the whole might be greater than the sum of the parts. In developing and presenting the superfictions, our judgements were informed by qualities and criteria that are perhaps more artistic and literary than typical in either mainstream design or in science. The careful composition of the individual and the collection of superfictions, the low-brow aesthetics of the artifacts and a gallery context for the public event, cumulatively created a kind of ‘suspension of disbelief’ for more immersive, imaginative and critical engagement than typical for both design and research audiences.

In relation to stakeholders, we further departed from critical design, which can too often end in objects on display. Despite express intentions of “design for debate” (Dunne & Raby, 2009), material artifacts and spatial arrangements are typically more in focus than how these condition subsequent engagement, interaction and behavior (Mazé, 2007; Mazé & Redström, 2008). Exceptions that inspired us include the psychosocial side-effects of the Placebo artifacts by Dunne & Raby (2001) and a call from the US Pentagon to Ben Singleton (2009) and Jon Arden concerning their elitist and rather cynical ARK-INC. For us, Energy Future superfictions were not understood as ends in themselves but, rather, as a means to curate and stimulate reflection within and among stakeholders. Further, the aesthetics, contexts and audiences of critical design can be niche and elite (Prado & Olivera, 2015), potentially at odds with our intention to query normative modern and Western paradigms and to relate to other realities, norms and alternatives. While still a selected group, our invited stakeholders nonetheless engaged knowledges and represented professions outside the artworld and with a stake in alternatives. Thus, we drew on particular attributes and aesthetics of concept, critical and persuasive design, but carefully deployed these as a means to other ends involving stakeholders.

Through Energy Futures, we and stakeholders explored other ways of “seeing and acting” in relation to futurity. Through the process (with mixed methods) and through articulation (in aesthetic and narrative forms), we came to know, communicate, and learn further through the engagement with others concerning the politics of different sustainable development paradigms and the alternative worldviews, realities and choices indicated through the superfictions. In the process, our relation to ‘the future’ changed as we shifted away from treating it as a discrete temporal or as scientific subject to be studied, measured and determined through policy or design. Instead, futurity took on an important role as “an outside” (Mazé, 2016), a rhetorical, artistic or literary device to establish critical distance beyond a “preformed version of the real” (Grosz, 2001). Further, futurity as taking form in our designed superfictions sense took on an agency, a powerful material, narrative and curatorial basis for encountering, experiencing and exploring different realities of and with others, deliberation upon the “overarching politics of the real” (Inayatullah, 1990).

## Conclusion

Design, along with art and architecture, as Rajchman and Grosz argue, can provide essential modes of knowing, other forms of thinking, that are lacking in other disciplines – a perceptive “art of seeing and acting” (Rajchman, 1999) and a powerful “art of rhetoric” (Buchanan, 1989). Nevertheless, visions of the future – including those (re)produced by design – embody ideologies and, along with norms and priorities embodied and expressed, and shape policy planning, market economies and cultural imaginaries. Grosz also articulates this as “the supervalence of the future” (1999, p. 7), or the future as having agency and wielding power over the present. Such political questions are central to the field of futures studies, originally developed in the context of policy planning, which can be understood as engaging the future to inform, understand and/or control the present (Wangel, 2012).

Genres of design discussed here are only a fraction of those in which the future is at stake. While other genres may not relate to futurity as explicitly, designed communications, clothing,

products, environments and systems also shape our future(s). Unlike policy, design is always, literally, touching us. Design shapes our daily lives, beliefs and behaviors, (re)producing spatially- and temporally enduring forms of social life and society. Nevertheless, neither policy nor design will ever entirely determine social life nor colonize the future. These are continually deliberated and adopted or resisted by ordinary people all the time. This does not, however, lessen the urgency of expanding political reflexivity within design, including mainstream design for mass consumption and those genres explored here intended for “mass communication” (Dunne & Raby, 2009). Especially as design takes on roles of mediating deliberation, its political dimensions and determinism must become more explicit. This is crucial for designers, for those increasingly using design in futures studies and policy, and, not least, for stakeholders and publics subject to the powerful and political rhetoric of design.

The work elaborated here may be understood as part of a larger critical turn within, and at the intersection between, the disciplines of futures studies and design. Further possible, and, I argue, necessary approaches are also pointed out, such as historical or genealogical studies, and further overlaps and common ground with the social and political sciences. Design theory, practice-based design research and critical design practices increasingly contribute to critical accounts of design as an instrument of power, discipline and oppression (Mazé, 2007; Ericson & Mazé, 2011). Design can be understood as a profoundly political act, whether we are reflexive or intentional about this or not. We give form to what and how a particular reality (or future) may be confronted with others (Keshavarz & Mazé, 2013). As designers, we may not only put forward shallow claims of ‘solving problems’ or ‘making a difference’, or even important critical reflections on the question of “What difference does it make?”, we may use designed visions of the future to open up for thinking and doing otherwise, including handing over the question to others (as a political act).

It is no surprise that the field of futures studies includes more political reflexivity than design, given the long history of interrelations with policy, planning, participatory governance and deliberative democracy, as well as engagement with philosophical issues as elaborated above. While techno-centric, modern and gender- and Western-biased orientations still dominate futures studies, these are complemented and challenged by ‘prospective-action research’, ‘cultural-interpretive’ and ‘critical-postmodern’ approaches. With the general expansion of rhetoric and visions of the future today, many more could learn and would benefit from the political reflexivity developing within the field of futures studies. Perhaps more of us, as responsible professionals operating in disciplines overlapping with futures studies, should engage more profoundly, including philosophically and ethically.

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