

Between Wit and Reason: Defining Associative, Speculative, and Critical Design in Practice

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ABSTRACT A growing number of designers employ design as a form of critique and speculation within disciplinary, scientific and societal frames. They share a critical perspective on the role of product design in society, recognizing the ability to construct publics on and around objects to mobilize debate. In doing this, critical designers challenge established discourse, institution, episteme, and present alternative roles for product design to those driven by technological and fiscal concerns. This interpretation of design counters hegemonic, optimistic notions of the field, aiming instead to legitimize and

problematize alternate forms of design work. The article addresses design's critical practices with the aim of developing theoretical apparatus with which to further engage the design studies community in the discourse.

The article draws on a set of in-depth conversational interviews with expert critical designers. Each has played a part in the development and theorization of the practice. The interviews were analyzed to identify salience in the participants' perspectives on critical design. From this analysis, *satire*, *rationality*, and *narrative* are identified as salient concepts in the operation of critical practices in design. They engage user audiences and establish the critical move through design. They also help differentiate between three types of critical practice. These types are defined in the article as *associative*, *speculative*, and *critical design*. They are structured into a taxonomic space by attending to the satiric devices used in each. This taxonomy provides theoretical apparatus to analyze and discuss critical practices in design.

KEYWORDS: critical practice, associative design, speculative design, critical design, satire, taxonomy

Why Study Critical Practice?

The design profession needs to mature and find ways of operating outside the tight constraints of servicing industry. At its worst product design simply reinforces global capitalist values. Design needs to see this for what it is, just one possibility, and to develop alternative roles for itself. It needs to establish an intellectual stance of its own, or the design profession is destined to lose all intellectual credibility and viewed simply as an agent of capitalism. (Dunne and Raby 2001: 59)

Although Anthony Dunne and Fiona Raby's prescription for design was written more than ten years ago, it continues to have resonance. Indeed, with the aid of hindsight, it can be argued that now, more than ever, critical practices in design need to establish an intellectual stance of their own or else they are destined to lose their intellectual credibility. More and more, the danger is that critical practice becomes overly self-reflexive and introverted, sustained, practiced, and exchanged in a closed community. By operating in this way, its usefulness as part of a larger disciplinary project is undermined. There are already utterances of critical practice being little more than

“design for design’s sake,” “design for designers,” or perhaps more appropriately, “design for critical designers.”¹

This article contributes to the field of inquiry into design and its critical practices. In design research, where ideological bases rule and theoretical grounding is essential as a reference point, critical practice has not been viewed as a serious form of design. It is sustained in a somewhat closed discourse limited to design magazines, niche publications and gallery showcases. Its theorization and documentation is left to design journalists, bloggers, and curators whose primary agenda is arguably to sell magazines, accumulate hits, or to get the viewing public through gallery doors. Thus, there is a need for the constructive input of a broader community to legitimize the practice as the vital form of product design that it is, in disciplinary and professional contexts. Increasingly, this legitimization must come about through critique and problematization of the practice itself. At the time of writing, the design studies focus on critical practice is limited compared to that which focuses on other fields of ideation and making. This is evident in the lack of exogenous research that specifically addresses critical practice, notable especially when compared to the amount of scholarly writing that focuses on other marginalized practices.

Moreover, fields such as participatory design, socially responsive design, and codesign have emerged in parallel to critical practice. These modes reflect upon the relationship between design and the communities that are being designed for, and, or with. They operate beyond conditions set by fiscal gain or technological development. They are established as intellectual and politically motivated practices, informing policy and used to address complex societal concerns. In their deviation from focusing on the production of objects, they reflect instead a move towards the designer acting as facilitator of large groups of people; they imply a critique of mainstream design, or at least challenge common perceptions of the designers’ role. However, unlike critical practice today, they are assumed to be progressive within disciplinary discourse. They have been absorbed into the disciplinary orthodoxy through the shared efforts of theorists, commentators and practitioners.²

The problem with analysis of critical design is the tendency to limit and oversimplify the movement. This oversimplification is a symptom of dissemination in gallery and magazine contexts where work is presented with short, digestible captions and in some cases misrepresented and lacking scrutiny.³ A lack of in-depth analysis might cause it to disappear, particularly in light of the growing prominence and interest in other design practices that strive to extend the social agency and affect change through product design approaches in response to complex social problems. Thus, the research presented here strives to call on a design studies community to engage with critical practice in the same way that these once marginalized practices have been. It does this by providing contextual tools and theoretical

apparatus that acts as a point of access into the discussion of critical practice and its reflection in a variety of design projects.

In proving its continuing importance, it is essential to examine and understand critical practice not in terms of the arts, but rather in relation to traditional ideas of satire, narrative, and rationality. This conceptualization challenges the idea that one form of critical practice in design – that is the critique commonly associated with the work of Dunne and Raby at the Royal College of Art in London – is completely representative of contemporary conditions in the entire field. Instead, understanding how critical practice operates changes how we perceive and evaluate the field. If this discussion focuses on the form and operation of critical practice, it provides a framework by which to analyze, differentiate, organize, and discuss the characteristics of work beyond the colloquial understanding of the field. Above all, it allows us to study the field's nuances and work toward a taxonomy of critical practice in design.

Toward a Taxonomy of Critical Practice in Design

I am never sure whether to use the term critical design to define my own work these days. The term is so associated with the Design Interactions course at the RCA, and its subversive, often dystopian, visions of technological futures. I see as many parallels with the work of Bill Gaver's Interaction Research Studio at Goldsmiths – another group whose work is associated with critical design by observers, but not thought of as such by its practitioners. We haven't managed to come up with as compelling an alternative definition yet though. (Pullin 2010: 324)

Critical design is often understood in relation to the practice of Dunne and Raby and activity carried out within the Design Interactions department at the Royal College of Art in London.⁴ However, as Graham Pullin explains, this common association is problematic. Moreover, designers who practice in similar ways challenge its narrow definition. This investigation aims to explore important nuances in the field, noting differences between forms of critical practice while also problematizing the colloquial understanding of “critical design.” A survey of the field and interviews with practitioners provides evidence for three distinct types of critical practice today. All may be fitted under the overarching rubric “critical practice” of design, but these may further be differentiated and presented as *associative design*, *speculative design*, and *critical design* (Malpass 2012b).

The first, associative design, emerged from designer-maker traditions and draws on mechanisms of subversion and experimentation in conceptual art. Such practice has been discussed at length by Mazé and Redström (2007), Robach (2005), and Rossi (2013). Alternately, speculative design specifically focuses on science

and technology, establishing and projecting scenarios of use; it makes visible what is emerging, reflecting the social anthropologist Paul Rabinow's terms by both slowing down the present and speeding us up to that present's future (Hunt 2011: 44). It has a relationship to science and technology studies (STS) discourses (Kerridge 2009; Michael 2012; Ward and Wilkie 2009; Wilkie 2010). Critical design, however, emerged from developments in the field of human–computer interaction and later interaction design. In that context, it challenged conventional approaches in designing human–object interaction (Agre 1997; Gaver and Dunne 1997; Seago and Dunne 1999; Crampton Smith 1994; Redström 2008; Hällnas and Redström 2002). Each of these practices challenges the essentialist view that product design needs to be grounded in need, efficient use and technical function.

Associative Design

Primarily focusing on disciplinary content, associative design subverts expectations of the ordinary and the everyday. With an embedded narrative, objects of associative design act as a critical medium, playfully reflecting on cultural meaning while visualizing issues pertinent to design practice today. It is a laconic form of design practice, leaning toward artistic speculation rather than design for production. The aim of this approach presents means for both designers and users to rethink dominant traditions and values in designed objects and their environment.

Associative design is based on conventional understandings of objects; these rely on a user's familiarity with form, typology, and design language. It works through the subversion of objects or their context and conventions of use. Martino Gamper's associative design, for example, is characterized by spontaneity and the collapse of the processes of design and making. In *100 Chairs in 100 Days*, Gamper uses burlesque afforded through methods of “cut-up,”



Figure 1

Associative design. Martino Gamper, *100 Chairs in 100 Days*, 2007.

“hybridity,” and “bricolage” to recombine elements of existing chairs into a series of unique seats. Through the appropriation of found objects, the project can be read as a critique on obsolescence and the role that the design profession plays in driving this culture. In associative design, a critical move is established and the user is prompted to question the object because of these subversions. It challenges embedded assumptions of products, making use of conventional disciplinary frames to assert and subvert norms.

Associative design works through what Gaver, Beaver, and Benford (2003) outline as ambiguity of context or what Ball and Naylor describe as “correspondence and context”:

Paradoxically, paradox and ambiguity used in the right context can work to reveal and illuminate, and to reconcile opposites in a holistic way. They give shape to overlapping and contradictory issues which pragmatic and pedestrian delivery often fails to achieve. For an idea to really speak as an object, that is, a thing in three dimensions, it must have more than one dimension. (2006: 56)

The critical narrative is embedded into the object form – typically conveyed through familiar archetypes. Like Gamper’s work, the practice is dominated by furniture design. The chairs, tables, and lighting that characterize associative design make its objects “more rational” than those in speculative and critical design. In associative design, designers employ a straightforward attitude to materials, an inventive approach to fabrication processes and methods, and typically a resistance to product styling. Methods of cut-up, context transfer and hybridity (Scholz in Brandes, Stich, and Wender 2009: 41) are used to intervene in concepts and behaviors engaged in use. These selective contradictions add rich conceptual meaning to the objects. Latent humor and dry wit characterize the objects.

Speculative Design

Situated between emerging scientific discourse and material culture, speculative design operates in an ambivalent space; it typically focuses on the domestication of up-and-coming ideas in the sciences and applied technology. It is concerned with the projection of socio-technical trends, developing scenarios of product roles in new use contexts. It is linked to futures, scenario building and technoscientific research. It is characterized by its inquiry into advancing science and technology. It aims to broaden the contexts and applications of work carried out in laboratories and show them in everyday contexts.

Speculative design often takes what Feenberg (1999) describes as a substantive view of technology. It therefore questions the role and potential of new science and technology, often with a dystopic subtext. The designs pose challenging statements that attempt to explore ethical and societal implications of applied science. It

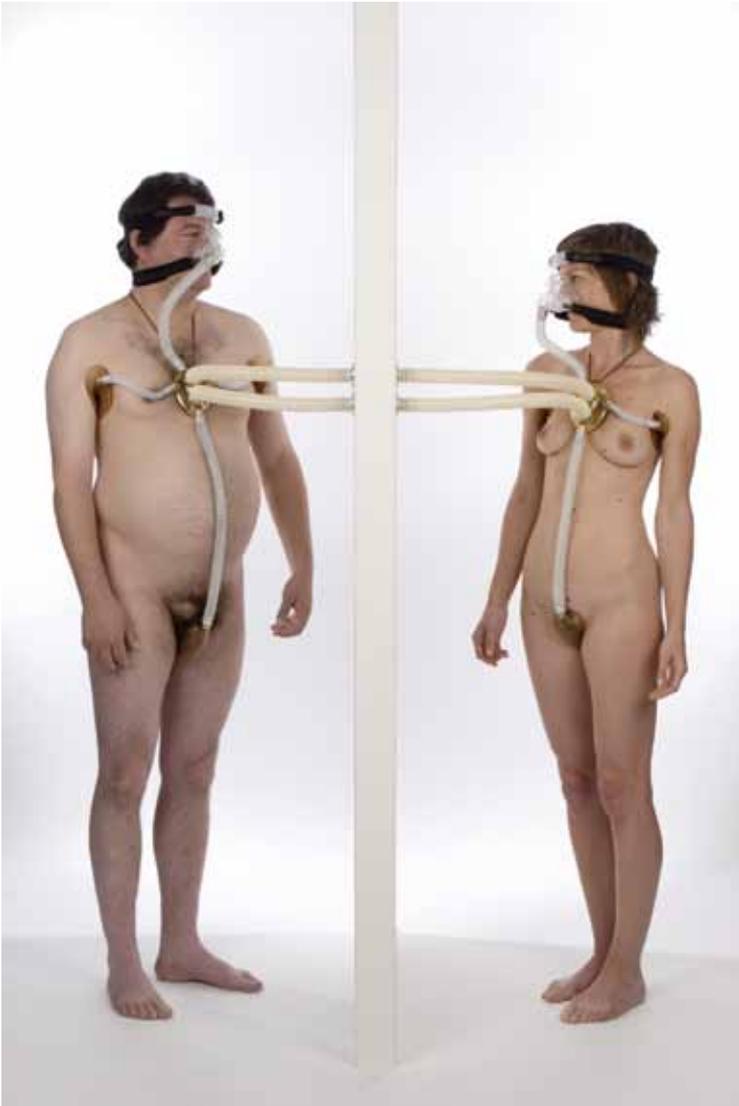


Figure 2

Speculative design. James Auger, *Smell +: Dating and Genetic Compatibility*
Smell Blind Date, 2009. Design probes for Philips.

considers biotechnology, nanotechnology, synthetic biology, and robotics as falling within product design's remit. Typically, the designers work with scientific practices, materials, concepts, and scientists themselves. Scientific instruments or materials like the petri dish, tissue cultures, MRIs and thermal imaging become part of the work. The results generated in scientific practice are taken up in the design work, and in some examples, the process of doing science itself figures as the design process.

The aim is to make scientific theories and the cultural implications of science perceptible in different ways. James Auger's *Smell +: Dating and Genetic Compatibility Smell Blind Date* (2009), for instance, explores the human experiential potential of the sense of smell, applying contemporary scientific research in a range of domestic and social contexts. Auger speculates with objects and probes used diagnostic tools to measure potential partners' genetic compatibility. The project challenges sociocultural embargoes that exist and inhibit the realization of this technology in a "real world" context. Examples of this include Revital Cohen's *Life Support: Dialysis Sheep*, in which she proposes the use of genetically engineered sheep to act as living dialysis machines. James King's *Dressing the Meat of Tomorrow* explores the design of synthetically grown meat and the form that this petri-dish-cultured meat might take and our willingness to consume this type of food, and Tobie Kerridge and Nikki Scott's *Bio Jewelry* looks at the potential aesthetic and ornamental applications of using bone cell cultures to grow and shape jewelry produced from living bone tissue taken from a lover. In each case the designers question the application of the science in new contexts. The discourse built on and around these designs brings into the light the barriers that might exist to the application of these scientific methods and techniques; is it necessary or ethical to culture bone tissue for aesthetic purposes? How does our relationship to life support technology change when the technology is living? Are we comfortable with synthetically engineered meat? These propositions require us to question our values and how our values might need to change in order for the science and technology to be realized in such a way.

The practice of Auger and others questions scientific and social theories by reflecting on the implications of design decisions made today and how they may proceed into the future. Speculative design encourages the user to reconsider how the present is "futuring" and how we might have the chance to reconfigure the future. It advocates a democratic and open discussion into how science and technology is developed and directed. It serves as an alternative to existing strategies by channeling research findings through material objects. As a result, speculative designs express knowledge through form and interaction with the work. Rather than being represented as situated consumer products intended for mass production, these forms live in exhibition and public engagement contexts.

Speculative design works through what Gaver, Beaver, and Benford (2003) describe as ambiguity of information. Because it is concerned with new theoretical and applied technologies, its propositions are often unfamiliar. Work produced as speculative design is dependent on the construction of an external narrative and scenarios depicting the design's use. This is typified through methods of technocratic visualization and counterfactual histories (Auger 2013) where the objects and science that they address are often depicted through film, image and other documentary material;

they contextualize emerging technology by imagining it adopted into everyday use. Objects are typically positioned in quotidian domestic contexts that exaggerate the impact of applied science and encourage reflection on the information inherent in the work. Objects therefore function as a gesture or prop but themselves are often subsumed within larger narratives or contexts, constituting but one part of a larger design device.⁵

Critical Design

If speculative design focuses on science and the potential future applications of applied technology, then critical design focuses on present social, cultural, and ethical implications of design objects and practice. It is grounded in critical social theory. Its designers scan the cultural horizon today, offering a critique of what already exists. At its core are para-functionality and the aesthetics of use (Dunne 1998; Hällnas and Redström 2002). Through mechanisms of defamiliarization and estrangement, designers such as Dunne and Raby extend the critical distance between the object and the user; in so doing, they make striking comment on current socio-technical, economic, political, cultural, and psychological concerns. Their 2004 work *Is This Your Future?*, for example, is a critical design experiment commissioned by the Science Museum, London. Dunne and Raby present a collection of hypothetical products to explore the ethical, cultural and social impact of different energy futures. Photographic scenarios were used to communicate a set of values driven by social as well as technological changes. The scenarios included biofuel created from human waste. The critical approach is characterized by the articulation of the designer's viewpoint – in this case the implication that human beings can or might be transformed from fuel consumers to energy providers. Like much critical design, the project is more diverse and often much more polemic in its tone than speculative and associative design. In projects such as *Is This Your Future?*, critical design shares traits with design activism and culture jamming.

In critical design, it is vital for the user to experience a dilemma and to carry something of a burden of interpretation. The intention is to engage audiences' imagination and intellect in order for the designer to convey the message. Like *Is This Your Future?*, examples of critical design often depict fictive scenarios. Objects are proposed, even if they cannot exist in normal models of consumption because of social or cultural embargoes. This Dunne and Raby piece, for instance, works through understatement and obscurity as it suggests using child labor to produce energy. Although they often employ familiar shapes, colors, and forms, such designs suspend the user uncomfortably between reality and fiction. They seem real but there is something not quite right; barriers are introduced or exaggerated in a way that is defamiliarizing. These mechanisms prompt the question of what we would need to change in our reality



Figure 3
Critical design. Dunne and Raby, *Is This Your Future?*, 2004. Energy Gallery, Science Museum, London, 2004. Photographer: Jason Evans.

to enable these products to exist in a normal model of consumption. At what point might our insatiable need for biofuel cause us to collect the bodily waste of children for energy? It is in this tension between reality and what is prohibited that debate is encouraged. The aim is to expose assumptions, provoking action and stirring debate.

Critical design works through what Gaver, Beaver, and Benford (2003) outline as relational ambiguity. The critical move is developed through a synthesis of object and media that record it and provide a sequence of events that prod us to interpret its significance. As with

speculative design, objects must be situated in a context; moreover, such contextualization is established through media that can convey a narrative, namely photography and film and pseudo-documentary.⁶

Design Practice as Satire

Satire has long been used as a device to offer critique, but it also provides a provocative lens by which to examine design's forms of critical practice. Literary satire, with its established theoretical foundation, diminishes a subject by making it ridiculous and evoking attitudes of amusement, contempt, scorn, or indignation towards it. In design's various critical practices, satire functions as constructive social criticism. In achieving this, the designers use wit as an instrument to afford critical reflection and engage a user audience through humor. In associative design, the focus of critique typically relates to disciplinary concerns. Speculative design looks beyond the field, exploring the domestication and appropriation of emerging science and technology in quotidian contexts. Critical design is concerned with reassessing the profession's role in society. In this way, critical design highlights the vices, abuses and shortcomings found in orthodox product design, while challenging "concerning" sociocultural conditions. At its most strident, this is done with the intent of shaming individuals, the discipline, or even society itself.

Horatian and Juvenalian Satire

In classical terms, two major forms of satire are employed in critical design practice: *Juvenalian* and *Horatian*. Juvenalian satire characterized by the work of the Roman satirist Juvenal is often political, savage and pointed; it works through narrative techniques of antithesis, obscenity and violence.⁷ Horatian satire characterized by the work of the Roman satirist Horace is less savage as it identifies folly and works through paradoxical techniques of burlesque, colloquialism, exaggeration and anticlimax.⁸

Associative design works through Horatian satire. In the Horatian approach, the designer takes either an existing work that was created with a serious purpose, or an object with reputable characteristics, and then makes the work look ridiculous by infusing it with incongruous ideas. This is achieved by presenting it in inappropriate forms, remaking it by using inappropriate materials, or by subverting the context in which it might be used. The work parodies design to construct criticism. Parody is a composition that imitates the serious manner and characteristic features of a particular work, or the distinctive style of its maker. It then applies the imitation to a lowly or comically inappropriate subject. It is a variety of burlesque, a form of satire characterized by ridiculous exaggeration. A serious subject may be treated frivolously or a frivolous subject seriously. Ralph Ball and Maxine Naylor's *24-Star Generic Office Chair* (2003) satirizes the common desk chair. Although ubiquitous today, similar chair designs were initially criticized for only having three legs on their base. Shortly



Figure 4
Ralph Ball and Maxine Naylor,
24-Star Generic Office Chair, 2003.

after its production, the design was modified to make it more stable. Later secretarial chairs were required to have five legs on their base. This in turn made many office chairs with a three- and four-star base obsolete. Ball and Naylor preserve these criticisms in a chair form, adding four five-legged bases to the original four. Thus in the design they articulate the chairs' history while making criticism of a culture of obsolescence by literally elevating the status of the obsolete office chairs. This is an extreme example of form following function. In the Horatian approach, they employ mechanisms of *reductio ad absurdum*. The essential quality of burlesque is the discrepancy between subject matter and style. That is, a style ordinarily dignified may be used for nonsensical matter, or a style very nonsensical may be used to ridicule a weighty subject.

Speculative and Critical Design Work through Juvenalian Satire

By working through narrative forms of allegory, exaggeration, antithesis, obscenity, and violence, Juvenalian satire is “darker” than Horatian satire. In this respect, the Juvenalian designer approaches his or her work by attacking perceived errors in logic or thinking; such satire tries to evoke contempt, shock, and righteous indignation in the mind of the user.

Accordingly, speculative design works through mechanisms of exaggeration, distortion, and allegory. In this use of satire, however, recognition must precede correction. Recognition on the users' part is afforded through the designer's understanding of allegory; the latter constructs narratives of use around technological products and the application of new science. This satire is achieved by changing

the perspective on a condition or situation. By separating something from its ordinary context, speculative design emphasizes some aspects of the problem and plays down others through methods of exaggeration or understatement. Dunne and Raby's 2010 work, *Between Reality and the Impossible: Foragers*, works through techniques of distortion. By taking scientific activity out of the lab and into the fields, it anticipates a world dominated by overpopulation. Their allegorical account states that according to the United Nations, we need to produce 70 percent more food in the next forty years. However, we continue to overpopulate the planet, using up resources and ignoring warning signs. Proposing a solution, they look at evolutionary processes and molecular technologies, imagining how we can take control of this situation. The proposition and humble practices associated with foraging offer an understated solution to the problem and an exaggerated application of current scientific developments. Combining the ideas taking place in genetics and synthetic biology with bottom-up guerrilla tactics, they suggest genetically engineering digestive tracts and other devices



Figure 5

Dunne and Raby, designs for an overpopulated planet. *Between Reality and the Impossible: Foragers*, 2010. Commissioned by Constance Rubini for the 2010 St Etienne Design Biennale, *Between Reality and the Impossible*. Photographer: Jason Evans.

that might allow humans to find nutrition from sources previously deemed inedible. Humans might even develop eating devices that copy the digestion of other mammals, birds, fish, and insects. As in other forms of speculative design, the satiric message is more likely to be remembered in the allegoric narrative because the vehicle of the story makes use of physical realities in quotidian systems of use.

Finally, critical design works in a somewhat different manner, relying on antithesis, counter-proposition and allegory. The narratives developed here depict scenarios as a means to visualizing alternatives. Critical designers evoke dark humor, while using polemic narratives employing forms of obscenity and violence. These narratives establish a counterfactual position on the status quo. They are used to present alternatives in such a way that that alternative positions or view of the world can be articulated and understood in material terms, for example challenging dominant technological ideologies as Dunne does in *Hertzian Tales* (1998), or projecting an alternative economic reality as in Jon Arden and Benedict Singleton's *ARK-INC* (2009). In this way, Adam Thorpe and Joe Hunter, of the fashion design partnership Vexed Generation, commented on a culture of surveillance through design practice. Thorpe and Hunter conceived the Vexed parka to meet both the practical needs and political concerns of the urban generation in 1990s London. Introduced in 1995, the designers considered personal safety and addressed civil liberties, street protest, and CCTV surveillance through the design.



Figure 6

Adam Thorpe and Joe Hunter, Vexed Generation.
Vexed parka, 1995.

Violence and understatement are used in their satiric response in the form of a parka that obscures identity and protects vulnerable parts of the body against heavy-handed police strategies to detain protesters. The design is informed by a detailed study of these strategies and responsive to them in the features designed into the garment.

The Uses of Narrative

In satiric critical practice, a quality of narrative is always essential: fundamentally, it describes the use of storytelling techniques to pass comment or inquire through the actions of designing. Narratives of use situate the product in a use context that allows the user to understand and engage with the design and further its satiric forms.



Figure 7
 Embedded narrative. Martí Guixé, Lima Skip Furniture, 2004, Milan.
 Photographer: Imagekontainer/Knölke.

Relying on a subtle form of satire, associative design uses a form of embedded narrative. The object offers a laconic criticism. In this context, objects stand alone and are rarely contextualized by an external medium, such as writing, supporting images, and film. The commentary is embedded in the object, through the materials used and the form the object takes. An embedded narrative is possible because of the subversion of familiar typology and collective understanding.

Because of their provisional and unfamiliar characteristics, many objects of speculative design require a detailed supporting narrative to establish their use. This is established through scenario building, where objects and technologies are situated in contexts of use, and through technocratic visualization, for example Dunne and Raby's *Foragers* project (Figure 5), where narrative meanings are constructed through specially made devices. But the unfamiliar can also shape narrative by assigning unusual objects with descriptive names, for example Flypaper Robotic Clock (Figure 8). Sometimes, too, the use of film, photography, and performance, all external media, supplement and contextualize these objects. In this respect, the critique is established through a synthesis of objects and contextualizing material.

Critical design operates in a similar way, by also making use of film, photography, and narrative naming, thus establishing an extrinsic narrative to establish contexts of use. Here, however, a topic is criticized because it falls short of some standard that the designer desires that it should reach. This is expressed through



Figure 8
Narrative ways of naming. Auger-Loizeau, Flypaper Robotic Clock: carnivorous domestic entertainment robots, 2009.



Figure 9

Narrative ways of naming. Björn Franke, *Traces of an Imaginary Affair*, 2006.

a critical narrative that ridicules or otherwise attacks conditions needing reformation. In 2006 Björn Franke presented *Traces of an Imaginary Affair*, a device that could imitate scratch marks made on the back by an invented lover. Such an object might allow the user to self-harm in order to feel self-worth. The design relies on the understanding that self-harm is wrong. But it also challenges such assumptions through juxtaposition, tension, and contradiction, imagining how harming might actually instill value and worth. It is in the difference between the proposed scenario and societal convention that critique is established and debate provoked.

Horatian satire – and therefore associative design – primarily operates through narratives constructed through parody: familiar forms are parodied and subverted. The critique can be embedded in the objects because of the user's familiarity with the objects. Juvenalian satire – and therefore speculative and critical design – works through narratives constructed through allegory. The proposed objects are unfamiliar and require contextualizing with supporting information. The ease with which an object can be understood without the use of external material that makes sense of its use context is described as object rationality.

Rationality and Ambiguity

Objects of associative design are rational; they are familiar and understandable in their own right. But subverting familiar typologies and making these objects strange creates an ambiguity of context. Martino Gamper, for example, remakes seats using parts of accessible chairs. He constructs series of unique seats, but they also remain functional. This form of critique is useful in spurring people to approach a particular design with an open mind, and more generally, to get them to question the assumptions they may hold about the chair or other objects.

Speculative design is concerned with developing technology or science and simply project possibilities. Often these innovations are yet to be appropriated into everyday life. Because of this, its objects are non-rational – they are not immediately understandable or assimilated into the collective imaginary; the object and its use are dependent on the fabrication of an external narrative to contextualize it and make sense of the object and its context of use. While the aim of constructed narratives is to make sense of the object, some level of ambiguity is still necessary in order to provoke debate. So the focus in speculative design is on creating uncertainties about the information delivered through the design and its supporting narrative, while at the same time positioning it as an object of product design. The purpose of this may be merely to make the design work seem mysterious or impressionistic, but more importantly it can also compel people to join in the work of making sense of the design. Auger's *Smell +: Dating and Genetic Compatibility Smell Blind Date*, for example, reminds us of current research on the role and potential uses that might capitalize on recent discoveries of pheromones and other chemical scents.

Critical design objects are also non-rational. Here the object is placed in context through mechanisms of narrative storytelling and allegory. Relational ambiguity is used, leading the user to consider new beliefs and values, and ultimately question his or her own attitudes. The relational aspects of the design create conditions for a personal projection of imagination and values onto a design. This allows objects to become psychological mirrors for people, pushing them to question their values and activities. Dunne and Raby's *Is This Your Future?* forces us to imagine tapping into the technical possibilities of using human waste to power domestic consumer products. But we must also pass such imagining through our own belief systems.

Toward a Taxonomy of Critical Practices in Design

Rationality, narrative, and satire interlink. These conditions afford the capacity to fit associative, speculative, and critical design into a taxonomic space. The more rational an object is, the more laconic the critique: the critical move is established through Horatian satire. The less rational an object is, the more there is a need for an extrinsic

allegoric narrative: the critical move is established through Juvenalian forms of satire. The relationships between the types of critical design practice may be plotted; the design methods used in critical design practice and the methods of classification are summarized in Table 1. These are structured into a taxonomic space illustrated in Figure 10. The final element of the taxonomy outlined here is the operating context, i.e., where projects are carried out. Four salient operating contexts were identified from analysis and described as: self-initiated studio projects – designer-initiated or commissioned

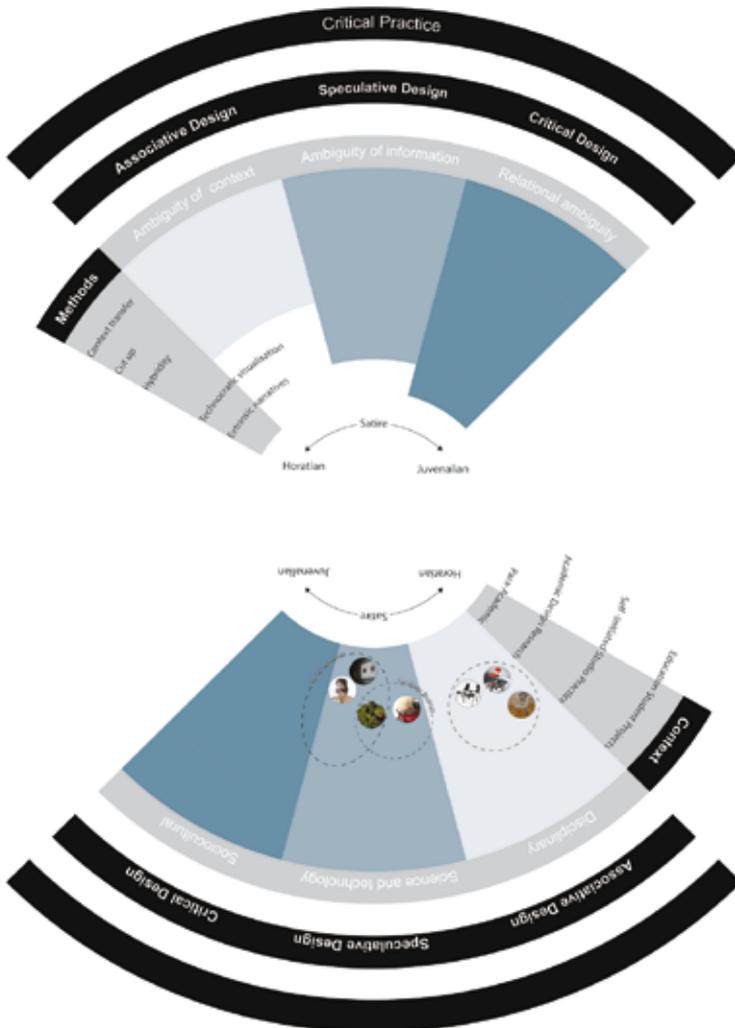


Figure 10

Matt Malpass, 2012a. Taxonomy of critical practice; associative, speculative and critical design structured into a taxonomic space using concepts of satire, ambiguity, and object rationality.

Table 1 Taxonomic matrix for critical design practice.

<i>Practice</i>	<i>Method: definition</i>	<i>Type of satire: satiric mechanism</i>	<i>Type of ambiguity</i>	<i>Object rationality</i>
Associative design	<p>Cut-up: When one or more objects are cut up or reassembled to exaggerate their properties and give new meaning</p> <p>Context transfer: When one object is taken out of context and placed into another</p>	<p>Horatian: Parody Burlesque <i>Reductio ad absurdum</i></p>	Ambiguity of context	Rational Familiar archetype
Speculative design	<p>Hybridity: One archetype integrated with another archetype. This might take the form of two objects but also practices. For example, technology that exists in a laboratory context is placed in a quotidian setting.</p> <p>Technocratic visualization: Technocracy is a wide-ranging visual system that is legitimized by specific reference to scientific expertise. The science rationalizes the proposition.</p>	<p>Horatian into Juvenalian: Narrative Distortion Exaggeration Allegory Anticlimax</p>	Ambiguity of information	
Critical design	<p>Extrinsic narrative: A narrative is established to situate the object. Questions are raised in the difference between “reality” and the materiality proposed through the object and its narrative of use.</p>	<p>Juvenalian: Allegory Violence Obscenity Antithesis Prolepsis</p>	Relational ambiguity	Nonrational Unfamiliar archetype

Note: For definitions and discussions on the type of satire, see Simpson (2003) and Connery and Combe (1996).

work; educational student projects – carried out in the pursuit of a qualification; academic design research – work carried out in an institutional context framed as research; para-academic – work carried out in an institutional context, commissioned and funded by industrial partners. By considering whether a design project can be categorized as associative, speculative or critical design, and in identifying the context in which it was carried out, this model can be used in a number of ways to map critical practices, allowing us to view relationships between examples of practice and chart their trajectories. The taxonomy therefore presents theoretical apparatus to engage with the field of critical practice.

Between Wit and Reason

This article has defined three specific types of critical design practice. This is grounded by an extensive contextual review of projects and literature focusing on critical practices in design, and an analysis of interviews with expert designers. The article has outlined methods by which these practices operate. Common to the field is the use of satire, rationality, and narrative to engage and offer critique. The purpose of critical design concurrent with the function of satire is constructive criticism, using wit as an instrument to affect critical reflection. There is no satire without critique, and humor is a powerful tool of engagement. But this critique is contingent on reading the objects of critical practice as objects of design. These are, therefore, always contextualized and rationalized with a narrative of use. The critical move is established in the uncanny marriage of wit and reason that resonates with the user, causing a dilemma of interpretation and questions to be asked of the design and the contexts addressed in the work.

Critical practices in design today are in flux. Moreover, if design, as Dunne and Raby claim, “must establish an intellectual stance of its own,” we must explore its critical turn more fully; above all, we must perceive how design responds to disciplinary, scientific, or social concerns. This article has examined how satire in design can relate to the type of ambiguity used in each of the three types of critical practice. By extension, it also helps us understand how rational an object is, and how it contains a narrative. If design’s critical practices are to remain between wit and reason, and not be “destined to lose all intellectual credibility,” we must understand its language better. By considering whether a project can be categorized as associative, speculative or critical, we can, and must, move beyond accusations of “design for design’s sake.”

Notes

1. These comments were specifically made in the thread Design Practice 1 at the Design and Complexity Design Research Society Conference held at the University of Montreal in 2010.
2. Examples of such theoretical focus are illustrated by the *CoDesign* journal, disseminating and problematizing participatory and cocreation in design, and DESIS, an international project focusing on activity carried out in the field of design-led social innovation. Arguably, such dictated theoretical platforms focusing on critical design are yet to emerge.
3. This was exemplified in Paulo Antonelli’s account of Catts and Zurr’s work during the exhibition *Design and the Elastic Mind*, which was astutely challenged by Cogdell (2009) in her *Design Issues* review of the exhibition.
4. Dunne and Raby are London-based designers widely credited for popularizing critical design through their design practice, research and teaching activity at the Royal College of Art.

5. The design device constitutes objects, contextualizing material, but it closely considers the relational aspects of design. The effects of the design, the discourse that emerges around the design, the relationships the user has with the design, the publics that are constructed – all compose the device. It is this network of relations between objects, contextualizing material and users that form the design that in its “totality” should be seen as the object.
6. For a discussion on the use of the pseudo-documentary, see Gaver and Dunne (1997). In this paper they outline the challenge in designing ambiguous objects that might initiate debate; if an object is too strange, an audience might not see it as design or be able to imagine it in a use context.
7. Examples of literary satire illustrate this: Alexander Pope’s *The Rape of the Lock* is often cited to illustrate the function of Horatian satire, delicately chiding society in a sly but polished voice by holding up a mirror to the follies and vanities of the upper class. Pope’s focus is the British bourgeoisie. Pope does not actively attack the self-important pomp of the British aristocracy, but rather presents it in such a way that it gives the reader a new perspective from which to easily view the actions in the story as foolish and ridiculous. Pope nonetheless is able to effectively illuminate the moral degradation of society to the public through parody. For further discussion on satire and satiric techniques, see Simpson (2003) and Connery and Combe (1996).
8. An example often cited to illustrate the operation of Juvenelian satire is Jonathan Swift’s fable *A Modest Proposal*. Swift presents a solution to overpopulation and food shortage in eighteenth-century Ireland. His proposal to solve both these problems is that society should eat children. The story draws attention to the issues at play through a logical solution infused with tones of obscenity and violence. The scandalous solution evokes outrage in the reader. Analogies can be drawn between the violence in this proposition and Dunne and Raby’s invasive reengineering of human physiology and the ethical considerations that this proposition evokes. For further discussion, see Simpson (2003) and Connery and Combe (1996).

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