Criticism and Function in Critical Design Practice

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Introduction

This article focuses on critical design as a field of industrial design practice. It considers some barriers and misconceptions to critical design practice being seen as part of a disciplinary project. The first part of the article reviews the criticism of critical design to identify inadequacies in how the criticism is grounded. Analysis of critical design practice often comes from perspectives developed in art and visual culture discourses. However, analyzing the practice from this perspective has limitations; instead, a more design-centric focus is needed.

The second part of the article discusses "function"—a concept often used to ground criticism of critical design practice but, again, one that has limitations. Function offers insufficient grounds for criticism and claims that critical design is *not* a form of product design because the objects do not "function" in a utilitarian sense. I explore the concept of function to show not only that an object's function has the potential to extend beyond utility, efficiency, and optimization, but also that even in the strictest modernist sense, function has always comprised characteristics that move into post-optimal realms—beyond efficient use, utility, and practical specifications.[1] I argue instead for an emphasis on the relational, dynamic characteristics of function, which supports seeing, and discussing, critical design practice in the same manner that other examples of orthodox industrial design are discussed.

Design Art

Criticality, as a concept connected to the operations of design and culture, has deep and debated roots. Such criticism is often steeped in the history of aesthetics, philosophy, and art history. However, criticality in industrial design, filtered through design theory and research, is still in its infancy, even if related discussions, papers, and conferences have seen a clear increase in the past few years. As critical design practice has developed, looking to disciplines outside industrial design for theoretical insights has made sense.

1 For a definition of post-optimal design, see Anthony Dunne and Fiona Raby, *Design Noir* (Basel: Birkhäuser, 2001).

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Where efforts in this direction have been undertaken, they focused in areas such as aesthetics and visual culture. Because of critical design's proximity to conceptual art, an art-based critique of the practice emerged. This connection is evident in how commentators have characterized the practice as a form of "designart," which according to Joe Scalan's definition, "could be defined loosely as any artwork that attempts to play with the place, function and style of art by commingling it with architecture, furniture and graphic design."[2]

In a similar way, Hal Foster argues that, in many examples of contemporary practice, design work is being consumed and traded as art, and so design and art are running together. From this perspective, where design is consumed in the gallery space and critical design objects are available for purchase by price on application, critical design becomes subject to art discourse.

Placing critical design practice within this discourse, Aaron Betsky describes critical design as a hybrid between fine art and design.[3] Remy Ramakers describes critical design in terms that make it sound more like art than design, claiming that it strives "to arrive at new aesthetic and conceptual potentials,"[4] and Jamer Hunt writes that critical designers explore "a messier emotional landscape of fear, pain, erotic attachment and loneliness."[5] Moreover, Hunt suggests that critical design operates outside functionalist frameworks because it develops a thesis that "the inability of design to tap into this reservoir of emotional attachments impoverishes us."[6]

Suggesting a hybrid form of practice, design commentator Rick Poynor writes that critical design blurs the boundary between design and fine art in the field of industrial design.[7] He elaborates on an assertion by critic Alex Coles that when designers reflect on authorship,[8] they invariably claim "some kind of right to their own measure of self expression" and in the manner claimed by artists; he claims that "few have much to say about the role of design in society, or about anything else."[9] Poynor has singled out the work of Dunne and Raby, as well as Hella Jongerius, as examples of designers who "exceed their functional role," claiming that "they challenge expectations of conventional form and the possibilities of product design."[10]

By embracing a concept of function beyond practical functionality, these critical designers strive for an extended role for the designer beyond being an agent of capitalism. In their extended role, designers use their functional capacity as designers, still drawing on their training and practice as designers but re-orienting these skills from a focus on practical ends to a focus on design work that functions symbolically, culturally, existentially, and discursively. Practical and efficient use is not the purposive *function*. Functionality in this context is linked to stimulating debate.

2 Joe Scalan, quoted in Alex Coles, "Art Décor: Art's Romance With Design," *Art Monthly* (February 2002): 253.

3 Aaron Betsky, "The Strangeness of The Familiar in Design," in *Strangely Familiar: Design and Everyday Life,* Andrew Blauvelt, ed. (Minneapolis: Walker Art Center, 2003), 14.

4 Remy Ramakers, *Less + More,* (Rotterdam: 010, 2002), 41.

5 Jamer Hunt, "Just Re-Do It: Tactical Formlessness and Everyday Consumption," in *Strangely Familiar: Design and Everyday Life,* Andrew Blauvelt, ed. (Minneapolis, MN: Walker Art Centre, 2003), 68.

6 Ibid., 67–68.

7 Rick Poynor, "Made in Britain: The Ambiguous Image," in *Lost & Found:Critical Voices in New British Design*, Nick Barley, ed. (The British Council, 1999), 31.

8 In DesignArt (London: Tate Publishing, 2005), Coles initially focuses on design to question what is happening and relate it to his own position and insight as an art critic. He initially views the territory, where design is traded as art and is used to provoke debate, as full of possibility. He revises his position, problematizing this field as a genre of practice in Design and Art (Cambridge: MIT Press, 2007).

9 Rick Poynor, "All That Is Graphic Melts Into Air... Design Art and the Art of Design," in *Proceedings of the Symposium AC|DC Contemporary Art Contempoary Design October 26–27, 2007* (Geneva: Geneva University of Art and Design, 2008), 34–45.

10 Rick Poynor, "Art's Little Brother," *Icon,* May 23, 2005, www.iconeye.com/read-previous-issues/icon-023-%7C-may-2005/arts-little-brother-%7C-icon-023-%7C-may-2005 (accessed July 18, 2013).

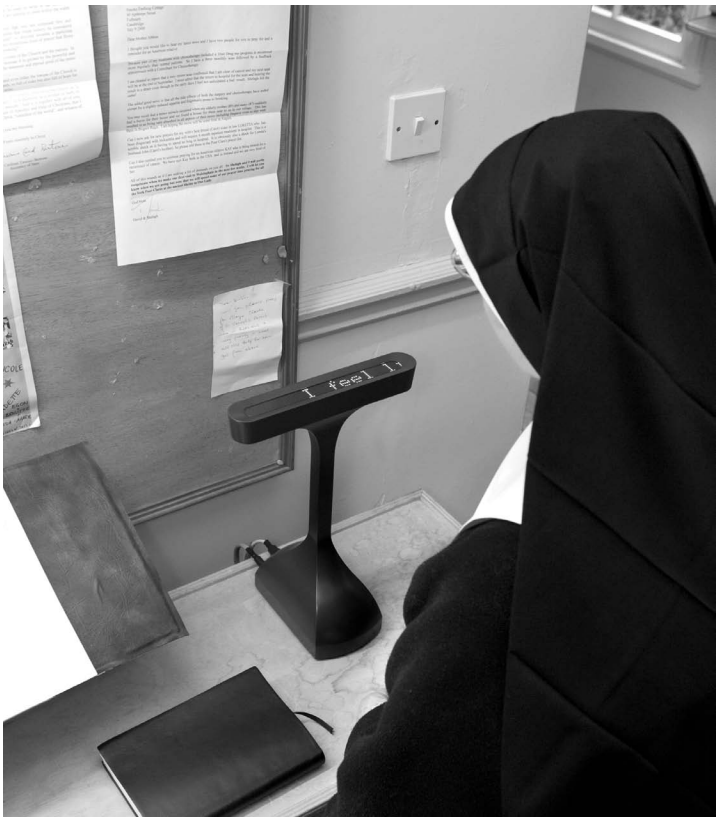

Figure 1
Interaction Design Studio Goldsmiths University London, The prayer companion, 2010. Investigating communication between people and objects Poor Clare nuns at a monastery in York UK are informed of real-time issues that need their prayers. The nuns isolated from outside world can see a scrolling ticker tape of current issues aggregated from news feeds and social networking sites.

Design Art and Society

Critical design practice in many cases examines the social agency of design. Designers do so by looking at objects of design in their social contexts, by observing daily conditions and practices. They look at how design activity might inquire into social and technical concerns, pass comment on them, or bring publics together to address them. In such scenarios, the designers are acutely aware of industrial design's agency in both disciplinary and societal frames. Moreover, the sociological perspectives that increasingly inform so much of the practice are steeped in deep studies that pay enormous attention to the social and relational character of objects.

Given the relational character of industrial design, the relative newness of the turn toward an in-depth focus in these areas is surprising. However, in recent years, an increasingly energetic dialogue has emerged between design, social science, and scientific disciplines. Much of this dialogue has been aimed at enabling mutual understanding, identifying shared intellectual interests, and exploring common frames of reference.[11] Such conversations are nowhere more evident than in the work carried out at the Interaction Design Research Studio at Goldsmiths University (see Figure 1). The studio outwardly embraces the dialog between design and sociology through a number of collaborative critical and speculative design projects.

11 For examples of design practice in this area, see Carl DiSalvo, *Adversarial Design* (Cambridge: MIT Press, 2012).

Figure 2
Environmental Health Clinic New York, The Green Light, 2007. A prescription product developed for the Environmental Health Clinic. The light is prescribed for Impatients interested in changing their relationship to energy systems, improving indoor air-quality, and developing experience with closed and coupled systems design.

The same can be said of the initiatives led by Natalie Jeremijenko in the environmental health clinic at New York University. The clinic is set up much like the kind you would visit for an ear infection or sprained ankle, but its services are not of the medical sort. The project approaches health from an understanding of its dependence on external local environments, rather than on the internal biology and genetic predispositions of an individual. Visitors to the clinic—who Jeremijenko terms "impatients" because they are individuals who do not want to wait for legislative change—must make an appointment to discuss their environmental concerns. At the end of the consultation, they leave with a prescription not for pharmaceuticals, but for design interventions that they can do themselves (see Figure 2). Such interventions might be anything from collecting data on the environmental quality of the local neighborhood to creating a participatory public art project that increases community awareness of a particular concern.

This common area between the social sciences and critical design practice is generating much interest, where critical and speculative design work is being presented in social science forums. For example, the "Speculation, Design, Public and Participatory Technoscience: Possibilities and Critical Perspectives" forum, held at the 2010 conference of the European Association for the Study of Science and Technology, brought together designers and social scientists to discuss technological development and public debate through design.[12] In a similar respect, Anne Galloway is noted for organizing platforms and opportunities to discuss how grounded ethnographic and action research methods can be transformed into fictional and speculative designs, the purpose of which is to give people the kinds of experiences and tools that can lead to direct community action in the development and implementation of new technologies.[13] Moreover, Alison

12 See, "Practicing Science and Technology Performing the Social," European Association for the Study of Science and Technology (EASST) conference (Trento, Italy, September 3, 2010).

13 See, "Ethnographic Fiction and Speculative Design" 5th International Conference on Communities & Technologies – C&T 2011 (Brisbane, Australia, June 29–July 2, 2011).

Figure 3
Dunne and Raby, Energy Future Lunch Box, 2004. Seen as an art object it might not shock or drive an audience to protest and inquisition. Its power comes from the user being expected to use the object. The proposition put forward by Dunne and Raby asks the user to create bio-fuel from human waste.

Clarke's "Design Anthropology" documents a collection of accounts that discuss the effects of critical design practice in sociological terms.[14] In "Design Anthropology," Jamer Hunt reconsiders his earlier thesis by which he aligned critical design with conceptual art; the problem with critical design now, he asserts, is that it remains close to an art practice, especially in its framing in the gallery space. Hunt questions what effect critical design can have on real world design, which persists in operating in the name of opportunism.

Activity in this area undoubtedly illustrates that not all "critical" designers aspire to be artists, and how the design only "works" if it is viewed as industrial design and the objects are seen to operate in a system of use beyond the gallery's white walls. When the designer's intention is that the work be seen as design, critique from the perspective of art can be distracting.

A problem with criticism grounded in art is that it feels like an attempt to fit critical design practice into a discourse in which product design aspires to be art, or at least places design on the same critical footing. Such discourse offers distinct examples of a narrow perception of design. For example, critics Foster and Coles uncritically adopt a theorem formulated by Baudrillard stating that design is limited to a sign exchange value and the symbolic dimension of objects. Furthermore, Poyner and Mermoz confuse the specificities of art and design practices in an unexamined adoption of relational aesthetics.[15] When work such as that carried out by Jeremijenko and the Interaction Design studio is discussed in these terms—when it is limited to sign exchange or described as social art—the danger is that the designer's focus underpinning the design work is overlooked.

For critical design practice to work as commentary or inquiry, its objects need to be viewed as industrial design. Looking at examples of critical design practice as art works provokes a different discussion on and around the object rather than if it is analyzed, criticized, and discussed as product design. The differences are exemplified in Dunne and Raby's "Human Poo Energy Future, Poo Lunch Box" (see Figure 3). The product probes social embargos towards individual energy production by collecting and processing human waste. The project provokes thought because of its proximity to everyday use. This strategy is outlined by Raby:

> While critical design might heavily borrow from [art] methods and approaches, it definitely is not art. We expect art to explore extremes, but critical design needs to be close to the everyday and the ordinary as that is where it derives its power to disturb and question assumptions. […] It is only when read as design that critical designs can suggest that the everyday as we know it could be different – that things could change.[16]

14 Jamer Hunt, "Prototyping the Social: Temporality and Speculative Futures at the Intersection of Design and Culture," in *Design Anthropology: Object Culture in the 21st Century*, Alison J. Clarke, ed., (New York: Springer Wien, 2011), 33–44.

15 Rick Poynor, "arts little brother," *Icon* (May 23, 2005), www.iconeye.com/read-previous-issues/icon-023-%7C-may-2005/arts-little-brother-%7C-icon-023-%7C-may-2005 (accessed July 18, 2013); Gérard Mermoz, "The Designer as Author: Reading the City of Signs – Istanbul," *Design Issues* 22, no. 2 (2006): 77–87.

16 Fiona Raby, "Critical Design," in *Design Dictionary: Prespective on Design Terminology*, Michael Erlhof and Tim Marshall, eds., (Boston: Birkhauser, 2008), 95–95.

That design critics might have difficulties with critical design practice is understandable. A traditional design's success is often measured by how well it has worked within certain constraints, by the qualities of the idea and by how well the idea has been executed, using frameworks in which objects are "fit for purpose" and of "good form"—concepts that ultimately relate to the essentialist view of function and efficient use. Therefore, the challenge is to develop the means, the understanding, and the language to critique critical design. When engaging in discourses that can be considered positioned outside of the product design discipline, as critical design projects often do, design critics need to tread carefully and rigorously. When a discipline shifts into new areas, analyzing and critiquing becomes very difficult. In addition, designers can easily avoid confronting criticism by inferring that critics are misinterpreting a project's aims and purpose.

The danger of not questioning the critical design practice is evident in the contradictions that can be found in the writings and the curation of critical design work. Christina Cogdell describes this contradiction in her review of the exhibition, "Design and the Elastic Mind."[17] In this exhibition, the design writer and curator Palo Antonelli uncritically positioned the adoption of living products as a sustainable organic design solution that would prevent the slaughter of cattle for leather and therefore would reduce the environmentally damaging cattle industry. Antonelli's account is one example of an idealized, uncritical, and somewhat optimistic appropriation of critical design practice.

The difficulty in critiquing and discussing critical design practice comes about because, unlike traditional designers, critical designers primarily focus on the communication of an idea, rather than the development of a product or service. Ambiguity and relationality are important for the design to work because the burden of interpretation is on the user. Criticizing something that, like some art, defines its purpose as raising debate and communicating ideas is difficult. In effect, any criticism of the work can be perceived as debate and therefore can be seen as confirming its success. However, for critical design practice to work and contribute to a disciplinary foundation of product design, it must never be beyond criticism itself.

Function in Critical Design Practice

Moline and Mazé argue that an overly reflexive practice, discussed in the same way that art practice is discussed, is counterproductive in developing a critical design practice that contributes to and expands the purview of industrial design as a discipline.[18] Moline calls for a more design-centric analysis of critical design practice.

17 See Christina Cogdell, "Design and the Elastic Mind Museum of Modern Art (Spring 2008)," *Design Issues* 25, no. 3 (Summer 2009): 92–101.

18 Ramia Mazé, *Occupying Time: Design, Technology, and the Form of Interaction* (Stockholm: Axl Books, 2007); Katherine Moline, "Authorship, Entrepreneurialism and Experimental Design," *Visual:Design: Scholarship: Research Journal of the Australian Graphic Design Association* 2, no. 2 (2006): 57–66.

She argues that certain perspectives—for example, relational aesthetics—polarize the designer because the designer as author is antithetical to the designer as service provider.

Similarly, Pullin suggests that "…there are other design approaches between these two extremes" and that "a richer shared vocabulary of the different roles of design in this area would be valuable."[19] This position is shared by Moline, who questions the givens of functionalist debates in design and argues for an extended vocabulary for critical, conceptual, and experimental practice:

> Despite the growing research in design history and contemporary practice, design criticism lacks density. Much design criticism is generally limited to reductive pragmatic and simplistic understandings of functionalism that emphasise market popularity and technical innovation to the neglect of the wider ramifications of design decisions.[20]

Moline's argument has two important implications. First, she issues a call for designers, commentators, design critics, and theorists to develop the vocabulary they use to discuss critical design practice, in terms not solely dependent on arguments and knowledge from other fields of expertise. Second, Moline identifies how the criticism of critical design practice from the arts and visual culture often is grounded in a somewhat narrow conception of function. This narrow conception, limited to practical functionality based on optimization and efficiency, is arguably the most prominent barrier to seeing critical design practice as industrial design. Therefore, to develop critical design practice as part of a disciplinary project, an understanding of function limited to practicality, optimization, and efficiency needs to be readdressed.

Because of historic connotations, function associated with practicality in use appears to be an easy concept to use to dismiss the critical design practice as something other than product design. However, function is far from being a clearly defined term. It is widely discussed in literature on design.[21] The popular understanding comes from Louis Sullivan's observation in 1896 that "form ever follows function," which was subsequently popularized in the modernist dictum, "form follows function."

In common understanding, function relates to optimization and efficient performance. Lemoine describes design as being grounded in modernity,[22] which is why from its beginnings the design of things and their function have been geared toward the principle of optimisation (i.e., the idea of a positivistic interpreted controllability of the world). This interpretation of function commonly designates the object's practicality in use. This perspective

19 Graham Pullin, "Social Mobiles and Speaking Chairs," *Conference Proceedings EAD 07 Dancing with Disorder: Design Discourse Disaster*, (2007): 726–31.

20 Katherine Moline, "Counter-Forces in Experimental Design: H Edge and the Technological Dreams Series #1 (Robots)," *Studies in Material Thinking* 1, no. 2 (2008); www.materialthinking.org/volume-1-issue2.php (accessed July 18, 2013).

21 See e.g., Baudrillard, *The System of Objects* (London: Verso, 1996); Greenhalgh, *Modernism in Design* (London: Reaktion Books, 1990); Kroes, "Theories of Technical Functions: Function Ascriptions vs. Function Assignments, Part 2," *Design Issues* 24, no. 4 (Autumn 2010): 85–93: Krippendorff and Butter, "Where Meanings Escape Functions," *Design Management Institute Journal* 4, no. 2 (1993): 30–37; Papanek, *Design For The Real World: Human Ecology and Social Change* (London: Thames and Hudson, 1984); Michael Schiffer, *Technological Perspectives on Behavioural Change* (Tuscan, AZ: University of Arizona Press, 1992); Ligo, *The Concept of Function in Twentieth-Century Architectural Criticism,"* (Ann Arbor, MI: UMI Research Press, 1984).

22 Philippe Lemoine, "The Demise of Classic Rationality," in *Design After Modernism,* John Thackara, ed., (London: Thames and Hudson, 1988),187–96.

is exemplified in user-centered design, which employs some measure of user participation to optimize design with regard to practical and efficient use. Historically this focus for designers and the strong faith in modernist ideology has provoked criticism. For example, Thackara writes:

> This particular debate, in which modernism and functionalism are conflated, has tended to divert attention from the aesthetic to the tactical; there is nothing inherently "modern" about "function"—design has always had a functional element.[23]

Dormer also questions the optimization of products with regard to their function:

> This is what differentiates the 1980s from 1890, 1909, and even 1949—the ability of industrial design and manufacturers to deliver goods that cannot be bettered, however much money you possess.... Beyond a certain, relatively low price, the rich cannot buy a better camera, home computer, tea kettle, television, or video recorder than you and I.[24]

Criticism of modernist functionalism can be traced back to an overemphasis on the physical and essentialist characteristics. However, what function is and considers, even in the modernist sense of the term, is questionable.

Ligo challenges the foundations of modernist functionalism in an analysis of how function was discussed by modernist architectural critics.[25] He shows that function is not limited to practicality in use and classifies five very different types of function:

- Structural articulation, which refers to the object's material structure;
- Physical function, which refers to the utilitarian task of the object;
- Psychological function, which pertains to the user's emotional response to the object;
- Social function, which refers to the nature of the activity that the object provides with regard to the social dimension; and
- Cultural-existential function, which has more profound cultural and symbolic characteristics that include the existential being of the individual using the object.

In similar terms, archaeologist Michael Schiffer writes that an object can have three different sorts of function. The most commonly understood is "techno-function," which is where the object is up to the job at hand.[26] This understanding is similar to Ligo's structural articulation and physical function. Less frequently,

23 Ibid., 23.

24 Peter Dormer, *The Meanings of Modern Design* (London: Thames & Hudson, 1990), 124.

25 Larry Ligo, *The Concept of Function in Twentieth-Century Architectural Criticism* (Ann Arbor, MI: UMI Research Press, 1984).

26 Michael B. Schiffer, *Technological Perspectives on Behavioural Change* (Tuscan, AZ: University of Arizona Press, 1992).

ideo-functions draw from sets of abstract ideas that we share. This perspective is similar to Ligo's psychological and cultural-existential function. Schiffer's socio-function, similar to Ligo's social function, signals to others the sort of attitude that we hold. In addition, Schiffer notes that, just as often, the function depends on where the object is, on who is using it and when; thus, function comes about because of the system in which an object exists, where the object's function is defined by the context of use. Schiffer calls this the system function. By definition, system functions cannot be designed into objects. The system function comes about only in the process of users' interaction with the object as they create the systems in which the object functions.[27]

Much work has been done in this area in material culture studies. For example, Daniel Miller argues that function is a dynamic concept and open to interpretation in different social contexts; he writes that "even the physicality of a material object in one social context might be read differently in anther social context and the systems of use that pertain."[28] Miller extends his argument to suggest how the labeling and classification of an object are used to indicate both its function and the relationship between the object and how it is used. He also describes how objects often function beyond these prescriptions, however, in different systems of use:

> In no domain is it as difficult as it is in the matter of function and utility to distinguish the actual place of artefacts in human practices. In many societies the classification and labeling of objects appear to indicate a close relationship between artefact and particular function. What is problematic about this is the common assumption that is caused by and in turn indicates some relationship of efficiency between the object and its use.[29]

In keeping with this convention, Kristina Niedderer, in her thesis introducing the category of performative object, is critical of reading function from an object's form. She writes:

> Although the material form is one mode through which function becomes apparent, function is not equal to the form nor is it fully visible in the form. An object's function becomes fully visible in its second mode, in use, which is pinpointed in the definition of function as "the special kind of activity proper to anything" (OED 2009). The definition emphasizes function as an immaterial quality that is bound to the dynamic use of the object.[30]

Describing how functions emerge in use, Kroes argues that technical functions are related to physical features, but just as often, they are subject to human intentions.[31] This thinking is expressed in

27 Tom Fisher and Janet Shipton, *Designing for Re-use* (London: Earthscan, 2010).

28 Daniel Miller, *Material Culture and Mass Consumption* (New York: Blackwell, 1987), 109.

29 Ibid., 116.

30 Kristina Niedderer, *Designing the Performative Object: A Study in Designing Mindful Interaction through Artifacts* (PhD diss Falmouth: Faculty of Culture & Media Falmouth College of Arts, 2004), 64.

31 Peter Kroes, "Theories of Technical Functions: Function Ascriptions vs. Function Assignments, Part 2," *Design Issues* 24, no. 4 (Autumn 2010): 85–93.

practice-oriented design, which assumes the relationality of meaning and states that values and meaning emerge in practice and in relations between objects, skills, and temporalities that in turn define an object's use:

> When technologies appear stable, when their design is fixed, their social significance and their relational role in practice [are] always on the move (Boiler, 1992). This suggests that moments of socio-technical closure [are] illusionary in that objects continue to evolve as they are integrated into always fluid environments of consumption, practice, and meaning.[32]

In such conceptions, function is relative and situational; it is a dynamic property—a matter of concern, rather than something factual and fixed. Bruno Latour illustrates how an object might function in this way:

> It was as if there were really two very different ways of grasping an object: one through its intrinsic materiality, the other through its more aesthetic or "symbolic" aspects. The functionalist technical perspective sees the objects as a matter of fact; an alternative is to see the object as a thing, a matter of concern that is encompassing of object and system.[33]

These arguments suggest that an object's function cannot simply be read from its form, from the way that it is labeled or classified, or even from its physical properties. Function is a dynamic, immaterial, and social property. An object's function depends on the practices that situate it in a system of use. Function is subject to the designer's intention; however, it is also always open to interpretation by the user.

The argument that function can be interpreted has important implications for criticism of critical design practice based on function. Function might be understood as the plan of action that the object represents, where designer and user share their understanding about the intended purpose of the object. The function of an object can therefore be as a symbolic communicating concept and a matter of understanding between the designer and user. Function might be understood as the perception of use, which emphasizes the appropriation of the object through the user according to their particular needs, involving what Mazé describes as "…processes of interpretation, incorporation, and appropriation into the user's lifeworld."[34] Therefore, like Schiffer and Niedderer, Mazé indicates that function has its counterpart in use, which means that although function and use are normally assumed to converge in the contextual understanding of efficient functionality,

32 Elizabeth Shove, Matthew Watson, and Jack Ingram, *The Design Of Everyday Life: Cultures Of Consumption* (London: Berg, 2007), 8.

33 Bruno Latour, "A Cautious Prometheus? A Few Steps Towards A Philosophy Of Design (With Special Attention To Peter Sloterdijk)," J. Glynne, F. Hackney, and V. Minton, eds., in *Networks of Design: Proceedings of the 2008 Annual Conference of the Design History Society (UK)* , (Online: Universal Publishers, 2009), 2–10 (Accessed July 18, 2013).

34 Ramia Mazé, *Occupying Time: Design, Technology, and The Form of Interaction,* (Stockholm: Axl Books, 2007), 2.

they do not have to do so. Function itself is open to willful appropriation within use and subject to the intentions of the user. Thus, an object's function is physically constructed but at the same time is a social construction, so that objects of use have a dual ontological nature, as Kroes makes clear:

> An essential aspect of any technical object is its function; take away from a technical object its function and what is left is just some kind of physical object. It is by virtue of its practical function that an object is a technical object. The function of technical objects, however, cannot be isolated from the context of intentional action (use). The function of an object, in the sense of being a means to an end, is grounded within that context. When we associate intentional action with the social world (in opposition to causal action with the physical world), the function can be said to be a social construction. So a technical artifact is at the same time a physical construction as well as a social construction: It has a dual ontological nature.[35]

In critical design practice, function moves beyond physical and technical function, optimization, efficiency, and utility to operate in social, psychological, and cultural-existential ways. This function is advocated in Redström and Hällnas's "meaningful presence"; in Dunne's "aesthetics of use," "para-functionality" and "post-optimal design"; and in Ball and Naylor's "correspondences and context."[36]

Objects that are conceived through these constructs might not serve a practical function, or the object's form might not illustrate its function, but it has a function through the assertion of the designer, through the contexts engendered in the work, and more importantly, through the user's willingness to read the object as product design. Through these factors, the context of use in which a critical design object functions is established.

In the most abstract examples of critical design practice, the intentions of the designer and the object's use are contextualized by writing, photography, or film. These mechanisms are used to establish scenarios of use and the competencies required to understand the work as design. The design works through a form of rhetorical function and use. Such a proposition is not so far removed from some canonical perspectives. For example, Richard Buchanan compares design to rhetoric, suggesting that:

> The designer, instead of simply making an object or a thing, is actually creating a persuasive argument that comes to life whenever a user considers or uses a product as a means to some end.[37]

35 Peter Kroes, "Theories of Technical Functions: Function Ascriptions vs. Function Assignments Part 2," *Design Issues* 24, no. 4 (Autumn 2010): 85–93.

36 Lars Hällnas and Johan Redström, (2002a), "*From Use to Presence: On Expressions and Aesthetics of Everyday Computational Things," ACM Transactions on Computational Things* 9, no. 2: 106-24; Anthony Dunne, *Hertzian Tales: Electronic Products, Aesthetic Experience and Critical Design* (London: RCA Computer Related Design Research Publications, 1998); Ralph Ball and Maxine Naylor, *Form Follows Idea: An Introduction to Design Poetics* (London: Black Dog Publishing, 2006).

37 Richard Buchanan, "Declaration by Design: Rhetoric, Argument and Demonstration in Design Practice," in *Design Discourse,* Victor Margolin, ed., (Chicago, IL: University of Chicago Press, 1989), 91–109.

Rhetorical use is a type of imagined and fictional use. If function is considered as a socially constructed concept, or as a matter of concern rather than fact, then rhetorical use and para-functionality are as legitimate as practical function and actual efficient use. Through rhetorical use, critical design practice leverages practical functionality to achieve the primary goal of delivering a deliberate message that is potent enough to spark contemplation, discussion, and debate by allowing users to imagine using the object in their everyday life.

In this context, Vilém Flusser notes that objects are not objective but are inter-subjective, rife with the values and intentions of the person who designed them. In using objects, we interact with things projected by other people. Such a proposition does not just reside in the philosophical perspectives of Flusser. Writing from a more technical perspective, van de Poel and Kroes share this understanding:

> Those who argue in favor of some kind of moral agency consider technical artefacts to be inherently normative: Technological artifacts are not taken to be simply inert, passive means to be used for realizing practical ends. In other words, technological artefacts are considered to be somehow "value-laden" (or "norm-laden"). These moral values and norms may be explicitly designed into these artefacts, or they may be acquired in (social) user practices.[38]

Objects of use are therefore mediations between one person and another and are not just objects. Flusser asks whether designing objects can be formulated in this way:

> Can I give form to my projected designs in such a way that the communicative, the inter-subjective, the dialogic are more strongly emphasised than the objective, the substantial, and the problematic?[39]

Essentially, critical designers answer affirmatively and proceed accordingly. Through rhetoric and the acknowledgement of the dual ontological character of objects, through the social construction of function and use, systems of use are established. Within this system of use, where the user is willing to see objects of critical design practice as product design, critical design practice *is* product design. However, here the "critical" designer faces the full challenge: affording rhetorical and imagined use and establishing the competencies required so that the user understands the work as design.

In today's culture, a barrier is built on the doctrine of technical function grounded in efficiency and optimization. The challenge for the critical designer is to overcome these barriers;

38 Ian Van dePoel and Peter Kroes, editorial introduction "Technology and Normativity" in *TechneÂL: Journal of the Society for Philosophy and Technology* 10, no. 1.2 (2006).

39 Vilem Flusser, "About the Word Design," in *The Shape of Things: A Philosophy of Design* (London: Reaktion Books, 1999), 59.

meanwhile, the challenges for the theorist and critic are to acknowledge a broader concept of function and to see and discuss critical design in a more design-centric discourse.

Conclusion

Although research into critical design practice is increasing, analysis of critical design historically has come from art and been grounded in theory more familiar to art and visual culture. This article has illustrated how analysis from the perspectives of art and visual culture is generally based on a somewhat limited concept of function. Such a perspective omits experimental, explorative, and discursive forms of design practice.

Challenging both the analysis and categorization of critical design as a form of art and a "utilitarian" concept of function, we have discussed the relational and dynamic characteristics of function as the means to ground key concepts in critical design practice. This discussion illustrates that even the most rigorously designed practical functions are interpreted. Function is a dynamic quality and open to willful appropriation. Therefore, if both the designer and user are willing to see examples of critical design practice as design, then the work produced is design.

The discussion has outlined the need for a more design-centric focus on critical design. For critical design to work, the work needs to be seen as design. As it stands, the majority of theoretical engagement is grounded in art discourse. Discussing the objects of critical design practice as objects of design provokes a different discussion on and around the object than if it were discussed as art.

The article also has outlined the need to engage a broader community in the discourse on critical design practice. Success in doing so might prevent the practices becoming overly self-reflective, subsumed as symbolism, and restricted to a cultural context. The discussions on the characteristics of function equips observers of critical design practice to overcome the barrier to seeing critical design practice as product design based on "practical functionality" but rather to discuss the practice in design terms. For example, such discussion moves the discourse beyond aesthetic questions that might echo in the art gallery to questions about an object's use, the practices that situate it, behaviors that might emerge from the object's use, and the publics that form around the work. Thus, the article supports the work of scholars who argue for a richer vocabulary in critical design, one that moves beyond the critical/affirmative dichotomy, and for an analysis of the field that does not rely on other disciplines.