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2

When objects fail

Unconcealing things in design writing
and criticism

Peter Hall

Introduction

While most of us understand what is meant by an object—a teaspoon, hammer, cup, chair, or lamp—no one is quite sure what is meant by a thing. The word holds within it an "audacious ambiguity" (Brown 2001: 4), referring to not just a loss of words (Q: "where did you put the thing? A: "It's behind the thing in the thing"), but all the things (ideas, interests, materials, decisions) that come together to form the object—including the ones about which we do not know. Despite a longstanding philosophical discussion on the discrepancy between the object and the thing,¹ popular design discourse—in magazines, books, and exhibitions—is still in a state of denial. The currency of design discourse remains, for the most part, the photograph of the object frozen in time or exhibited in a gallery in eye-popping color on a white pedestal against a white background. Drawing terms from Brown and the philosophers Bruno Latour, Michel Serres, and Martin Heidegger, this essay argues that one way to put thing theory to use in design criticism is by analyzing objects that have failed. Whereas we tend to look *through* objects, a thing that has clearly failed us "can hardly function as a window" (Brown 2001: 4). Instead of starting the critical journey with pictures of successful objects on pedestals, why not begin with recognized failures, or look for the failures that the object supposedly fixes? When something fails, we want to know why, a question that immediately moves design criticism past its obsession with style, form, movements and biographies and into a mode of explication—literally unfolding or "unpleating" as Michel Serres has pointed out (Serres and Latour 1995: 65).

Since my own background is as a trade journalist and design magazine editor whose job was to perpetuate the idea that the latest designed object was interesting *because* it was new, my perspective for this essay comes from a back catalog of journalistic reporting. As every design writer secretly knows, as soon as an object ceases to be new, it resumes its dance with

the spectre of failure. But while noble efforts have been made by design writers and editors to follow up on a story and investigate what happened to the “next big thing” one year later, this is not common practice in popular design journalism. The mechanisms of design news making today are, in fact, little different from those of the mid-twentieth century when consumerism was still untainted by a guilty conscience about environmental impact. The backstories of objects—how they came to be in their translation from idea to form—are commonly boiled down to a success narrative (for example, a designer’s genius idea, a client’s foresight in picking that designer, or the value of design to society in general). The new forms are photographed, and publicists are hired to dispatch photographs and press releases to time-pressed magazine editors and bloggers; writers attach texts to the images based on the press releases or interviews with the designers and their clients (who both inevitably recapitulate the standard success narratives); the story is published and the search resumes for new, fresh images. In the parade of objects and fanfare that stands in for design discourse, the thing is all but forgotten.

Explicating the image of the object

Explicating things first requires a little unpacking of the way we see objects. Seeing, as John Berger has argued repeatedly, is a culturally constructed activity, itself a product of distinctive lineages (Berger 1972). In that eye-popping photograph of a decontextualized designed object (or faux-contextualized amid spotless architecture and lithe, disinterested-looking models) is a hybrid of three big ideas: the Classical notion of the ideal form, the Cartesian subject separated from the object, and the adulation of the present.

The first idea, the Classical notion of the ideal form, lurks behind the entire representational apparatus of contemporary design. To expose the Classical underpinnings of the mode of representing designed objects we need look no further than the pivotal industrial design exhibition *Machine Art*, curated by Philip Johnson at the Museum of Modern Art in 1934, in collaboration with the museum’s director Alfred H. Barr. In an audacious stroke, Johnson and Barr brought into the white-walled galleries of the young museum a collection of industrial parts, household and office equipment, furnishings, kitchenware, scientific instruments and laboratory glass, and porcelain wares. These were extracted from their indigenous habitats within manufacturing facilities, laboratories, machines, homes, retail outlets, and workplaces, and exhibited on shelves and pedestals, carefully juxtaposed to elicit their formal correspondences and contrasts. Johnson and Barr then framed the collection with a heavy dose of Platonic metaphysics. “The beauty of machine art is in part the abstract beauty of ‘straight lines and circles’ made into actual tangible ‘surfaces and solids’ by means of tools, ‘lathes and rulers and squares,’” Barr wrote in the foreword to the *Machine Art* catalog, citing Plato’s *Philebus* (Marshall 2012). The implication was clear: industrially made objects could be raised to the level of art objects, paving the way for design as an important new field of study in the arts. By recruiting Plato to the Modernist cause, Johnson established that the discourse of design would be primarily formal, the pursuit of “perfection of shape and rhythm, beauty of surface,” and one premised on a firm distinction between objects and subjects. What Johnson perhaps did not anticipate was the extent to which his bold elevation of machine-made objects would provide the de facto visual mode for both exhibiting design—and selling it. One could thank *Machine Art*’s formal framing of design as the central method for almost every contemporary design show since: including the survey shows at the Cooper-Hewitt National Museum of Design, the

Red Dot Museum in Germany, and the London Design Museum; not to mention those more openly provocative shows like the *Art of the Motorcycle* exhibition at the Guggenheim Museum in New York. MoMA’s own efforts to further the discussion around design by exploring new materials, methods of manufacture and modes of design exploration might all be viewed in terms of the shadow cast by *Machine Art*’s celebratory Machine Age zeal.

The second big idea, the Cartesian subject, the “I” that, in thinking supposedly proves its own existence (*cogito ergo sum*), remains stubbornly behind the scenes of the photograph of the designed object and its exhibition, separating the object from its viewer and its creator and allowing us to construct a discourse of desire: we desire the thing that is not us and we admire the creator of that thing. Against this position is the relational one of Latour and others, which can be summarized as “the view that a thing is defined solely by its effects and alliances rather than by a lonely inner kernel of essence” (Harman 2009: 75). This view does not privilege a human subject who relates and assembles the external world: all things, or “actors” have the power to relate and assemble. Against the Cartesian dualism implicit in the photographed artifact, then, is the realism of things that are made up of human and non-human assemblages: the hard metal elevator door that closes before you can dash inside, the tax forms that force one’s previous year of existence into categories and boxes, the mobile phone that won’t stop interrupting you. Latour’s relational position is shared by many contemporary thinkers seeking to dissolve the subject-object divide: psychologists and philosophers seeking to establish



FIGURE 2.1 Installation view of the exhibition “Good Design.” November 27, 1951–January 27, 1952, MoMA, New York. Photographic Archive. Photographer: George Barrows.

situated and embodied accounts of cognition,² Byzantine art historians struggling to make sense of a pre-modern world view of objects that refused to separate subject from object,³ and hopeful design writers seeking to implicate us in our inventions and the effects of our inventions upon us.

The third big idea, the adulation of the present, lurks behind the implication that the objects photographed on pedestals are worthy of attention *because* they are the latest, the newest. This assumption drives the entire project of Modernity, with its notions of a rational break with the past and progress through science and technology. Serres aligns this tempocentrism with ancient diagrams that put Earth at the center of everything.

Just as in space we situate ourselves at the center, or at the navel of the things in the universe, so for time, through progress, we never cease to be at the summit, on the cutting edge, at the state-of-the-art of development. (Serres and Latour 1995: 45)

The view that the latest is the greatest is the invisible guiding hand that puts objects on pedestals in museum galleries in an almost identical setting to that of the museum stores. Philip Johnson's counterpart at MoMA, Edgar Kaufmann, heir to the Kaufmann department store empire, had no qualms about moving Johnson's approach to objects into a commercial setting. For Kaufmann's *Good Design* shows, introduced to MoMA and the Merchandise Mart of Chicago in 1950, Plato was jettisoned in favor of "eye appeal" to guide in the jurors' selection of objects. This established, as Terence Riley and Edward Eigen put it in an essay about the program, "an equivalence between the good and the new" (Riley and Eigen 1994: 160). It provided evidence of Heidegger's argument (1977: 130) that *the world has become a picture* in the modern age. It cemented the importance of the image as the means by which product design is judged, prefacing Guy Debord's sardonic prophesy, "that which appears is good, that which is good appears" (Debord 1967: 3).

The legacy of modernity

How then, might we move design discourse beyond the slavish reification of the new, the fresh, and the present? How might we re-establish the relational nature of objects to their thingness? The reason that we need to do this should be perhaps first spelled out by taking a position drawn from Latour's arguments in *We Have Never Been Modern* (1993). Modernity, and our predominant way of thinking about the world for the last few hundred years (at least in the West since the Enlightenment), has done a great job of separating the human sphere from the non-human sphere. The soft sciences took care of the human sphere while the hard sciences got on with the serious business of explaining how the physical world works. But as Latour and others in the study of science and technology have shown, hard matters of fact are assembled, not discovered, and achieve their objectivity through the process of assembling alliances of human and non-human actors and translating their interests to strengthen the alliance. Latour's extensive work in this area follows the development of "black boxes," or "matters of fact" in science and industry, such as vaccines, the diesel engine, and DNA. The DNA example (detailed in Latour's book *Science in Action*) provides a useful example of how the early hypotheses of two researchers, James Watson and Francis Crick, in 1951 gained traction by bringing elements and evidence into alliance, from laws to metal pieces to rival theories, until their guesses became

less contentious hypotheses and finally matters of fact. At this point the human role was purged or "purified" from the science: In Latour's terms *translation* was accompanied by *purification*: the general consensus moving from "Crick and Watson claim that DNA is a double helix" to "DNA is a double helix" (Latour 1987: 14).

This process seems commonsensical until we consider the consequences of the purification. Black boxes, from scientific truths to technological truths like automobiles, once purified of their human content, become uncontested and astonishingly powerful. This, in essence, is the ontological power of design—its ability to shape behavior and thought, and, as Tony Fry (2008: 26) argues, "obscure those agendas that, beyond the most immediate concerns, would make designers fully accountable for what design brings into being." A simple example is the automobile:

One does not have to exercise too much brain power to decide how many of the creators of motor cars remotely considered its impact upon the world's climate, trauma medicine, wildlife, house design, urban form, cultural values, road construction, waste generation and so on. (Fry 1999: 90)

By purging the human sphere from the non-human sphere, we have ended up in a situation where we can somehow separate human behavior from the behavior of the world, and of things. This project has been underway at least since John Locke invoked the idea of nature as an infinite storehouse awaiting human exploitation (Markley 2012: 55). To illustrate the fallacy of this bifurcation, Latour adopts Serres's term "quasi-objects" to draw out the social nature of the (technological) object. A quasi-object, Serres explains, "traces or makes visible the relations that constitute the group through which it passes, like a token in a children's game" (Serres and Latour 1995: 161).

Serres's potent example of a quasi-object is the space shuttle Challenger, the explosion of which, in 1986, killed all seven crew members, and which he controversially aligns with the sacrifices of children to Baal in Carthage. Although we prefer to think of Challenger as an object of the world (a product of pure science and technology), it is simultaneously an object of society—one which transforms our rapport with things and our relations among ourselves. In ancient Carthage, children were reportedly lifted onto the arms of a giant statue of Baal, where they were roasted to death. The Challenger, argues Serres, allowed us to "assuage our unslakeable thirst for human sacrifice to the gods, whom we think we have forgotten" (Serres and Latour 1995: 160).

Whether we like it or not, Serres's argument provokes us to rethink the supposedly objective, scientific agenda of the space shuttle project, which even betrays its social objectives in its name, Challenger. His point is not to critique science but to draw comparisons in history through anachronistic leaps that reveal the cultural nature of science. He asks Latour:

Don't you think that the Western nations explore space in order to demonstrate their power to the rest of the world, rather than for any useful reason? (Serres and Latour 1995: 140)

To put Serres's quasi-object to work at making relations visible, we must turn to Latour's discussion of another space shuttle disaster, the Columbia, which exploded on re-entry in February 2003 due to damage incurred during the launch, again killing all of its crew members. Latour focuses on a particular image of the debris after the explosion, laid out on a grid on the floor of a hangar at Kennedy Space Center, where NASA crash investigators tried to learn

what caused the shuttle to break up. In this “exploded view” argues Latour, is the image of the thing, or in German, *Ding*, which originally designated a certain type of archaic assembly (Latour 2005: 22). Heidegger’s translation of *Ding* as “gathering” is appropriated by Latour and company in the *Making Things Public* project to refer to technological objects when revealed in all their thingness (Latour 2005: 24).

In Heideggerian terms, the thingness of the object is brought to our attention when it breaks: the broken hammer brings our labor to a halt and makes us see it as a hammer for the first time (Harman 2005). It took the catastrophic failure of the shuttle, then, to remind us that a shiny object, or black box like the Columbia pictured on its launch pad, is a “lie” in its concealment of all the actors or interests that gathered together to form the space shuttle. The crash investigation drew the hundreds of “hitherto unknown” actors into the discussion, and as Latour argues in *Making Things Public*, revealed how the shuttle’s complex technology “should have been drawn with the NASA bureaucracy inside of it” (Latour 2005: 24). The information design guru Edward Tufte has argued that Microsoft presentation software was in part to blame for the accident (Tufte 2006: 157–85). PowerPoint’s “hyper-rational” hierarchy, according to Tufte, abbreviated and then de-prioritized or deleted important data that would have indicated to NASA that Boeing’s test data was not optimistic, as NASA management officials assumed from the slides. Because of this PowerPoint-assisted misinterpretation of evidence, no action was taken and damage caused by the foam debris caused the shuttle to burn up on re-entry. Both the 2003 Columbia Accident Investigation Board report and the Final Report of the Return to Flight Task Group (2005) concurred that the endemic use of PowerPoint briefing slides instead of technical papers highlighted a problem with technical communication methods at NASA (Tufte 2006: 166). PowerPoint did not single-handedly cause the accident, but was one of many hundreds of actors gathered together in the quasi-object. As we trace the path back through the exploded parts, visible and invisible (e.g., NASA’s organizational culture), light is shed on the agendas, alliances, and translations that took place in the making of the thing.

Method

How then, might we introduce the concept of the quasi-object into conventional design discourse? Latour’s rules of method in the appendix of his 1987 book *Science in Action* provide some guidance. “We study science *in action* and not ready made science or technology ... we either arrive before the facts and machines are blackboxed or we follow the controversies that reopen them” (Latour 1987: 258).

Latour provides an intriguing model of such a reopening with his analysis of Aramis, the “personal rapid transit system” developed and prototyped in France between 1964 and 1987, when it was scrapped. Its failure is an essential part of its appeal; the case is not closed. It is less an object than an event, a “quasi-object”—neither social relation or thing (Latour 1993: 372). Pictured in a Parisian workshop the year of its demise, Aramis bears Latour’s caption of the light rail car as “suspended between heaven and earth” (Latour 1996: Fig. 16). Aramis cannot be narrativized as a black box because it was a known failure. It thus points toward the stories of its development.

The Aramis system aimed to blend the benefits of mass transit with those of point-to-point private car transportation. The point of the Aramis investigation is not to blame a single

individual or even to identify a single reason why the project failed; and less still to come up with a grand narrative (e.g., the postmodern condition) to explain things away. Instead, the study is a close analysis of how the precarious network of alliances between actors—the engineers, the politicians, the coupling system, and the pilot vehicle—fell apart. Latour’s fifth and seventh rules of method warn against prioritizing particular actors or human interests to settle a controversy; the third and fourth rules of method similarly warn against explaining the settling of a controversy in terms of society or nature. In other words, neither technical hitches, the French government, cultural expectations, nor political power mongering can be singled out to explain the failure of the project.

Patching up Concorde

To test Latour’s relational method on typical design magazine fare, we can now turn to material unearthed for two journalistic articles written for *Metropolis* magazine. The first is my article on the Concorde supersonic airliner, which, in 2001, shortly before its retirement, was given a rather lavish \$24 million makeover by British Airways, involving the design consultancies Factory and Conran & Partners. While the “hook” of my article was ostensibly the news of the redesign and relaunch, the controversy was Concorde’s air-worthiness, its hitherto impeccable safety record now scarred by the crash six months earlier of Air France’s Concorde flight AF4590, which led to the deaths of all 109 passengers and crew on board.

Post-crash, Concorde’s quasi-object status was suddenly visible for the world to see: no longer a black box or shining image of mid-century super-modernity, Concorde was grounded pending safety checks. An old question resurfaced: was cutting transatlantic flight time by three hours for 100 wealthy passengers worth the environmental impact? Concorde’s utopian image of postwar, pan-European collaboration and technological prowess (to rival that of the USA) had been punctured, just as the fuel tanks under its wings had been punctured by a blown-out tire that caused the catastrophic implosion during takeoff. Engineers patched up Concorde’s fuel tanks with a Kevlar lining, adding unwanted weight to the delta-shaped wings, and British Airways’ designers and PR people tried to patch up the image. But Concorde’s semiotics could never be detached from its materiality. It emerged from a Modernist faith in the inexorable march of technological progress, progress that would allow us to conquer time and distance. But when it finally rolled into service in 1976 Concorde had cost \$4 billion—four times more than promised—and attracted howls of protest about its noise and environmental impact. The 2001 patch up job was explained by BA and its designers in simultaneously material and semiotic terms, as an attempt to “bring the outside in”—recreate the iconic modernity of Concorde’s shape on the inside. The entire renovation was couched in terms of illusion: giving the cramped 1960s interior the illusion of space, building a lightweight, carbon-fiber bucket seat that compensated passengers’ claustrophobia with references to Formula One racing cars, and signifying the airline’s achievement of Mach 1 with a lighting trick: a stream of blue light would wash down the cabin interior. But less than two years later, the patched up plane was retired for good, with BA citing rising maintenance costs, the crash, and low passenger numbers following the terrorist attacks of 2001. The thing never quite regained its object status.

A shiny chair in the ruins

To suggest that the object becomes a thing when it has failed is the main purpose of this article. But this does not quite equip us with the tools with which to critique the new (aka that-which-has-yet-to-fail), the stuff of popular design discourse. The second of my journalistic articles discussed here arguably illustrates how Latour's rule of method, to "arrive before the facts and machines are blackboxed or ... follow the controversies that reopen them" can lead us beyond the object in question to the systemic failures that caused an organization to decide that a new object was needed in the first place. Published in *Metropolis* magazine, the article's "hook" was a new chair designed by IDEO for school classrooms (Hall 2010: 98–123). Launched by the furniture manufacturer Steelcase in 2010, the swiveling chair was designed to replace the aged "one-armed bandit" seen in lecture theaters around the world since the 1950s—a four-legged seat with an articulating writing surface that pivots up and across the student's lap. The new chair, named Node, was designed for a student in an *active* rather *passive* learning situation, and in which any number of activities could be happening: the student might be watching a teacher at the front of the room click through a series of slides, then turn to a neighboring student and discuss the question, then stand up and present the outcome of the discussion to



FIGURE 2.2 Node Chair. Image used with permission of Steelcase.

the class, then join a break-out group of ten students in the corner of the room. This series of activities is facilitated by Node in its design: the chair swivels, it has a double hinge mechanism that allows the work surface to pivot separately from the seat, allowing for easier egress. The student's movement around the room is made easier by the chairs being on wheels and the fact that the large backpacks that students typically bring to class can be tucked away on a large shelf underneath the chair. Other design characteristics speak to the hard knocks anticipated in the life of classroom furniture, and twenty-first-century body types: a flexible nylon seat accommodates a variety of sitting positions (always preferable to ergonomists and back specialists than a fixed position) and eliminates upholstery (expensive). The chair is also large, to accommodate the physiologies of the fast food generations. Node is, in fact, tested to support 2,500 pounds of static load, the equivalent of a 300-pound student flopping into the seat.

Rather than simply reinforce the manufacturer's sales pitch, however, Latour's rule of method invites us to follow the controversies. Outside of the constraints of a trade magazine beholden to advertiser budgets, we might consider the fate of the modern university in a market economy, and call to the witness stand Bill Readings to explain why the university is "in ruins" (Readings 1996). Broadly speaking, the education controversy surrounds Latour's process of purification. In place of a cross-disciplinary pursuit of understanding has come the blinkered pursuit of disciplinary expertise through purifying science and technology of their social content.

Node has taken on the Herculean task of promoting active, cross-disciplinary learning amid the "stack 'em deep and teach 'em cheap" trends in higher education. In its swiveling maneuverability, Node adapts the argument that students of the twenty-first century learn not by sitting and absorbing information but by finding things out for themselves, by *constructing* knowledge in social contexts. In its embrace of collaboration in the classroom, Node perhaps acknowledges that problems of the twenty-first century are inherently interdisciplinary. Climate change, population growth, globalization, and unequal distribution of resources are not problems that can be solved in the engineering school or the statistics department alone. But a chair alone cannot change the economics and culture of education in the university's ruins. Passive learning is cost-effective, and regardless of a teacher's intentions, we have a well-established "fill me with knowledge" consumerist-education culture, reinforced by the spaces themselves.

By prompting us to follow the controversy around the thing rather than remaining fixated on the shiny object, Latour's method leads us from the object to a failure that the object seeks to address. After following the "university-in-ruins" controversy, we might follow the tangled nest of short-term and long-term ethics around environmental impact, again a framework of great importance among the actors of the contract furniture industry. When, for example, is no chair better than manufacturing thousands of new "green" chairs?

Conclusion

I have argued here that the predominant tools of design criticism are too reductive and fixated on the present. In essence, this essay has sought to explicate Brown's observation that, "We begin to confront the thingness of objects when they stop working for us: when the drill breaks, when the car stalls, when the windows get filthy, when their flow within the circuits of production and distribution, consumption and exhibition, has been arrested, however momentarily" (Brown 2001: 4). When things stop working or before they start working,

intentions, motives, and negotiations reveal themselves barefaced behind the objects and facts.

Elsewhere, I have made a case for replacing the usual fare of design museums with an exhibition of design failures (Hall 2011). This could be a crowd pleaser in the nostalgic sense, lining up the failures of the past (Sony's Betamax, Ford's Edsel, Microsoft's Bing?), and paving the way for positivist accounts of how failure analysis leads to greater understanding in the spirit of Henry Petroski. But at the heart of this argument is a more fundamental project to recognize the end of Modernity, and with it the end of the idea that social matters and science and technology matters are separate. The argument seeks to expose and undermine the conceit that the present manifestation of any object or technology is the best one.

Notes

- 1 For example, see G. Harman (2005).
- 2 See, for example, T. Ingold's account of wayfinding (2000), or A. Nöe's account of cognition (2012).
- 3 For example, see G. Peers (2013).

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