

DESIGN IN THE EXPANDED FIELD: RETHINKING CONTEMPORARY DESIGN

BY MALENE LEERBERG
KOLDING SCHOOL OF DESIGN
KOLDING, DENMARK
TEL: +45 2484 9025
ml@dskd.dk

The paper explores the contemporary condition of design, proposing a parallel reading between a diagnosis of modernist sculpture of the 1960s by art historian Rosalind Krauss and the state of present-day design. Two competing notions of design will be presented and discussed; a broad notion represented by Herbert Simon and the expanded notion of design, and a guarded notion represented by Bruce Archer. Using a structuralist mapping of the field of design, the objective is to rethink contemporary design and dislocate our attention from what design is to how design works.¹

INTRODUCTION

A frequently asked question in design research is: what is design? The question is almost habitually posed in introductory paragraphs or chapters to research papers, dissertations and books. A question of “what” begs a definitive answer – “design is...” or “design is not...” – yet a consensus on a common and useful definition is missing.

The purpose of this research paper is not to refine or redefine existing answers; rather it is to challenge the utility and applicability of the question. Alternatively, I propose to dislocate the question, changing the “what” to a “how”, asking: how does design work?

Design objects and practices are in an ongoing transition. As contemporary design increasingly transcends the idea of merely tangible, material objects to include more elusive creations such as interactions, strategies and systems, we might also note that contemporary designers are no longer the sole contributors to the creative process of designing; often designers participate in interdisciplinary communities of practice. As the field of design seems to cover more and more ground, trying to answer the question of what design is, makes less and less sense.

In English, the term design serves a noun as well as verb. As a noun design refers to a product, be it an object, a scheme, a sketch, pattern or composition, the design is the output of a process. As a verb design is a process, which most commonly refers to design as an activity, the act of conceiving, creating or constructing a product. However, we should keep in mind that to design is to communicate, thus the verb design does not necessarily end with the noun design, products as well can be seen as design activity in devising behavior, actions and interactions. Asking how design works puts emphasis on design as an activity – as a verb.

To dislocate the focus from “what” to “how”, I present a tentative mapping of contemporary design, using a structuralist diagram based on a binary logic as an analytical device. The intention is not to create a model for understanding contemporary design. Instead, I propose the structuralist mapping is valuable as a vehicle to demonstrate that asking how design works can produce different kinds of answers, less definitive, more useful and applicable, because such answers imply reflection on context, temporality and performance.

A BROAD NOTION OF DESIGN

Herbert Simon famously wrote in his *The Science of the Artificial* (1969): “Everyone designs who devises courses of action aimed at changing existing situations into preferred ones” (Simon, 1996, p. 11). He thus initiated a long-standing tradition within design research to have a broad notion of design. In principle, everything, which is not nature, is design, and everyone, human that is, is potentially a designer. Thus, the subject of design research is theoretically all things man made. Yet, we distinguish design from art, from engineering, music and literature – all things, which are man made. I will suggest that these distinctions were even more evident to Simon and his contemporaries, than they are at the present.

As the above noted problem of definition indicates, the field of design is not a homogenous entity; rather it encompasses a heterogeneous variety of domains and sub-domains ranging from the smallest everyday items to the largest environmental structures – from fashion and graphic design to system design and architecture. The influential design theorist and editor of the journal *Design Issues*, Richard Buchanan writes: “The scope of design appears to be so great and the range of styles and qualities of individual products within even one category, so diverse, that the prospects for identifying a common discipline seem dim” (Buchanan, 1995, p. 23). If there is a commonality among these domains and sub-domains, Buchanan argues, it is the indeterminate nature of design. This indeterminacy relates to changeability in products as well as in practice. As he notes: “In general, design is continually evolving, and the range of products or areas where design thinking may be applied continues to *expand*” (Buchanan, p. 25; my emphasis).

The adjective “expanded” came to the forefront of the design discussions in Denmark from the late

1990s. A move, which can be seen as a response to changes in technology, products and working practices, as well as a shift in focus from the design object to the design process – or from design as a noun to design as a verb. Furthermore, the emergence of the so-called expanded notion of design became an important, yet debated idiom in the academization of design education and development design research. A series of short interview based articles entitled “Stafetten” (The Relay) and published 2007-2008 in the online newsletter *Mind Design* from the Danish Center for Design Research² illustrate the different and at times polarized views on the expanded notion of design among Danish designers, design researcher, educators and managers.

Ida Engholm views the expanded notion of design in an international perspective. Together with Anders Michelsen, she made a case for looking beyond form, color and materials, and recognize design as much more complex and contextual, in their 1999 *Designmaskinen* (The Design Machine), which soon became a reoccurring element of the curriculum in Danish design education. Engholm cites Richard Buchanan along with fellow design theorist Victor Margolin, architect Buckminster Fuller and Tomás Maldonado of the Ulm School of Design as protagonists in the formation of an expanded notion of design (Stafetten #4, 2007). In contrast, Thomas Schødt Rasmussen, at the time of the interview head of research at the Danish Design School, calls the expanded notion of design a local (Danish) phenomenon with little, if any international bearing (Stafetten #3, 2007).

Like Schødt Rasmussen, most of the participants in “the relay” question the expanded notion of design, its novelty (Stafetten #8, 2008), its definition (Stafetten #2, 2007) as well as its use for designers (Stafetten #6, 2008); at worst it makes no sense (Stafetten #6; Stafetten #7, 2008, Stafetten #8, 2008), at best it articulates the interdisciplinary quality of design practice (Stafetten #2; Stafetten #10, 2008). To Merete Ahnfeldt-Møllerup, the potential of the expanded notion of design lies in its ability to contextualize and communicate that design is more than just appealing objects (Stafetten #7). However, as an educator she is less convinced of its usefulness. The idiom, she argues creates ambiguity and blurs the focus of design education as well as research, and she calls for a re-focus on design as giving form. Like Ahnfeldt-Møllerup, other “relay runners” express concern that the expanded notion may dilute the notion of design as well as the practice.

To Ken Friedman, who in 2003 took on a professorship at the Danish Design School, the understanding of design as form giving is very Danish or indeed Scandinavian,³ and at odds with the expanded notion of design. To him the idiom “form giving” emphasizes the material, tactile and visual aspect of design or design as a noun, hence neglecting the immaterial and processual aspects of design (Friedman, 2005).

Friedman draws a direct lineage between Simon and the expanded notion of design, arguing that the idiom unifies a multitude of fields and practices around Simon’s fundamental idea of design as devising *courses of action aimed at changing existing situations into preferred ones* (Friedman, p. 7). He echoes Buchanan’s influential 1992 essay *Wicked Problems in Design Thinking*, which traces the emergence of design thinking in the 20th century and similarly evokes Simon to say: “The subject matter of design is potentially *universal* in scope, because design thinking may be applied in any area of human experience” (Buchanan, 2000, p. 15).

The expanded notion of design conveys a wide and inclusive perspective on design with a strong focus on design as an activity, a process and a way of thinking, thus reflecting a shift in terminological usage from a noun to a verb. If the idiom seems in particular to reverberate in a Danish context, it can be seen as reaction to the overwhelming attention to the design object embedded in Danish Modernist design tradition. However, several of the “relay runners” were hesitant about the expanded notion of design. Though they recognize the changes in design practices and products, they express concern for the subject matter of design, noting that design as well as designers, may be spread too thin. Mikkel B. Rasmussen, founding partner of the consultancy Red Associates, maintains the need for focus. “Design“, he asserts, “cannot be *everything*. I must be *something*” (Stafetten #6; my translation). The apparent question is, if a broad and even expanded notion of design may be stretching the concept of design too far?

A GUARDED NOTION OF DESIGN

In design theory exists as well a more guarded notion of design, which in counterpart is preoccupied with how and why design differs from other disciplines such as art or science. The journal *Design Studies* could at its

launch in 1979 be seen as an advocate for this point of view, as is declared in an editorial statement in the very first issue: “One of the principal assumptions behind the launching of this new journal is that design can be identified as a subject in its own right, independent of the various areas in which it is applied to practical effect” (*Design Studies*, vol. 1, no. 1, 1979, p. 17). A specific focus for the journal is design as an activity; what happens in design practice, what characterizes its processes and methods? In this first issue of *Design Studies*, Bruce Archer, a pioneer in establishing design as an academic discipline, contributes with two short, but notable essays: “Whatever became of Design Methodology” and “The Three Rs”. Together these two essays develop an argument for the underlying thesis of *Design Studies*, namely, that “... there exists a *designerly way of thinking and communicating* that is both different from scientific and scholarly ways of thinking and communicating, and as powerful as scientific and scholarly methods of enquiry, when applied to its own kinds of problems” (Archer, 1979a p. 17; my emphasis).

What thinking and communicating in a designerly way may encompass has been explored in empirical studies for more than three decades (Eastman, 2000). Aided by the emergence of cognitive psychology in the 1960s, inquiries into creative processes and specifically the design process motivated and promoted the idea, that design represents a certain kind of thinking. In the early 1980s, Nigel Cross (editor-in-chief of *Design Studies*) spoke of “designerly ways of knowing” – he published a book of the same title 2006. When Peter G. Rowe in 1987 dedicated an entire book to *Design Thinking*, he paid little attention to its wider implications and influence on other fields and practices, declaring: “My subject is more narrowly defined. I am concerned with the interior situational logic and the decision-making processes of designers in action, as well as with theoretical dimensions that both account for and inform this kind of undertaking” (Rowe, 1987, p. 2). Similar to Archer, both Cross and Rowe assert that design represents an aspect of human knowledge and ability that differs from other human abilities and forms of knowledge. Archer distinguishes between three forms of knowledge: “Where science is the collected body of theoretical knowledge based upon observation, measurement, hypothesis and test, and the humanities is the collected body of interpretive knowledge based upon contemplation, criticism, evaluation and discourse, the third area is the collected body of practical

knowledge based upon sensibility, invention, validation and implementation” (Archer, 1979b, p. 20). Whereas the approach in science is theoretical and in humanities is interpretive, the approach in design is practical, or as Archers puts it, design is about “doing and making” (Archer, 1979b, p. 19). Archer views design as a collected body of knowledge in its own right; however, it is connected to the other bodies of knowledge – science and humanities:

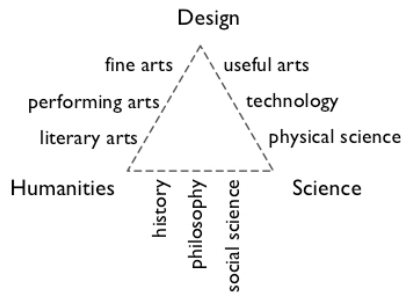


Fig. 1: Three bodies of knowledge. After Bruce Archer (modified).

We should pay attention to the context of Archer’s writing and in particularly note the critique, he exercises in “The Three Rs”, towards the English educational system, and its predominant focus on literacy and numeracy. The doing and making aspect is, as Archer proposes, a third area of human activity, which neither humanities, nor science covers – but design can. The marginal role of the doing and making aspect may be especially pertinent to an English context in 1979. However, Archer’s three bodies of knowledge are rooted in Aristotelian philosophy and should be examined in relation to Aristotle’s classification of three types of activity:

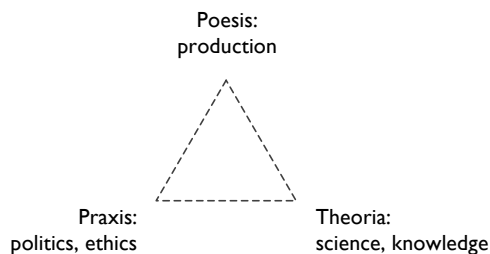


Fig. 2: Aristotle’s three types of activity. After Martina Keitsch (modified).

For Aristotle, “theoria” belongs to the realm of nature and the universe. It is a contemplative, observing activity and signifies the study of truth. The realm of “praxis” is human society, signifying the acting or

actions of a person in relation to rationality, moral values and good citizenship. Finally, the realm of “poesis” is artifacts, and poesis signifies the production of artifacts to satisfy human needs (cf. Keitsch, 2006, p. 44-45). We can connect Aristotle’s three types of activity to Archer’s bodies of knowledge, thus science refers to theoria, humanities to praxis and design to poesis. Furthermore, we might note that, whereas Archer’s diagram critiques of the dominance of humanities and science in education, in Aristotelian philosophy theoria, praxis are poesis not considered to be equal activities. Philosopher Martina Keitsch observes: “While the occupation with theoria and praxis are highly valued activities in Aristotle’s philosophy, poesis has no importance besides its role for material comfort” (Keitsch, p. 56).

THE CONTEMPORARY CONDITION OF DESIGN: A DIAGNOSIS

There is, however, a problem. With the expanded notion of design, the distinctions in Archer’s model become blurred. As an activity, design has become more elastic, and contemporary design has transformed into an interdisciplinary practice, crossing boundaries to science and humanities – the knowledge spheres of theory and interpretation. Thus, the doing and making have become less tangible, and in turn design has become a notion more or less without limits. Perhaps we perceive contemporary design to have entered a condition, where the notion is stretched too far, to an extent where it could finally burst and entirely loose elasticity?

This is a scenario reminiscent of the condition of modernist sculpture as described by the American art historian Rosalind Krauss in her seminal 1979 essay “Sculpture in the Expanded Field”. Tracing the development of modern sculpture from the figurative sculpture of August Rodin in the late 19th century, over Constantin Brancusi’s abstract forms of the early 20th century to the spatial installations of Robert Morris and Carl André and environmental works of Mary Miss and Robert Smithson in the second half of the 20th century, Krauss detects an erosion of the logic of sculpture as a monument. Whereas sculpture in Western art conventionally functioned as a marker of a place and a representation of a specific meaning or event, which was materialized in figurative and predominantly vertical shapes on a pedestal, Modernist sculpture becomes nomadic, non-representational and even non-material.

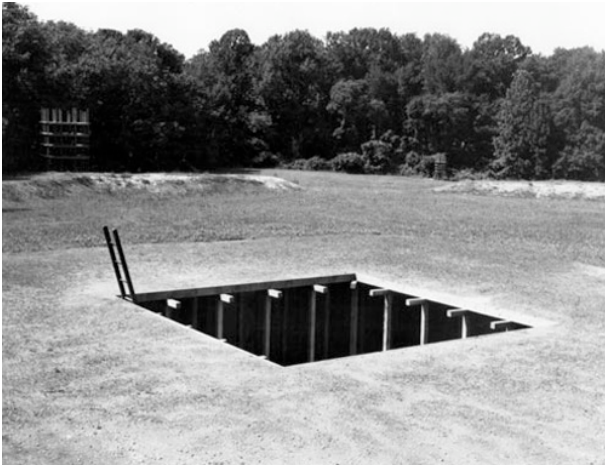


Fig. 3: Mary Miss *Perimeters/Pavillions/Decoys*, installation at the Nassau County Museum of Fine Arts, New York (1978).

Gradually, Modernist sculpture absorbed the pedestal into its own structure, thus eliminating the mediating element between the actual site and the representational sign (Krauss, 1993, pp. 279-80). Sculpture entered the negative condition of the monument. It used to be that sculpture, as Krauss notes: "... was what was on or in front of a building that *was not the building*, or what was in a landscape that *was not the landscape*" (Krauss, p. 282; my emphasis). Not anymore. Accordingly, it became increasingly difficult to distinguish traditionally separated categories.

Even though we all may know what sculpture is, Krauss argues that by the 1960s, it had as a category been pushed to, if not over, its limits. Alluding to American artist Mary Miss' *Perimeters/Pavillions/Decoys* (1978), a scaffold-like installation build into a hole in the ground to be entered via a ladder, Krauss writes that sculpture as a category had been: "... forced to cover such a heterogeneity that it is, itself, in danger of collapsing. And so we stare at the pit in the earth and think we both do and don't know what sculpture is" (Krauss, p. 279). In consequence, it had become impossible to refer to sculpture in other terms than negations – as not-landscape, not-architecture:

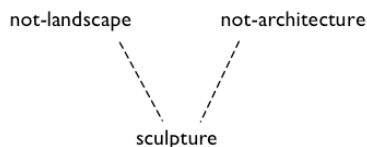


Fig. 4: Sculpture as neither landscape, nor architecture. After Rosalind Krauss.

This binary opposition articulates a distinction between the built and the not-built, or the more well-known distinction between culture and nature, which according to Krauss defined the territory, Modernist sculpture had been exploring.

In Krauss' analysis, becoming everything meant sculpture ended up being nothing. The same risk, I will argue, is at stake for contemporary design. It could be, that design researchers' communal need to constantly define and redefine design is a symptom of a similar condition, that in fact we are as well staring at a metaphorical pit in the earth, both knowing and not knowing what design is.

Obviously, sculpture is not design, however, there are apparent similarities between the development in Modernist sculpture as described by Krauss, and the transformation of design in the 20th century, in particular as it drew near to the 21st. First of all, in the logic of the monument, sculpture was identifiable as an object, a tangible and permanent form. Via the explorations of Modernist artists, sculpture became more and more a process, intangible and even temporary. Much like in design, sculpture as an activity came into focus. Secondly, we notice a transition in sculpture from materiality to immateriality, from solid matter such as bronze and stone to landscape markings, hollows, and choreographed spaces, which is similar to contemporary design's embrace of services, strategies and even organizations (cf. Buchanan, 2008). And third, whereas the field of design is almost heterogeneous by virtue, it may like Modernist sculpture have been pushed to a degree of heterogeneity, where its internal logic becomes endangered.

RETHINKING MODERNIST SCULPTURE: A STRUCTURALIST MAPPING

In terms of Modernist sculpture, Krauss speaks of a historical rupture in the internal logic. No longer a monument, sculpture had entered an ontological no-man's-land of pure negation, being defined by exclusions (Krauss, p. 283). To conceptualize a new Postmodern logic, Krauss calls for a rethinking of sculpture as a dynamic field; elastic, yet finite, it should be viewed as an expanded set of related positions to spatially occupy and explore:

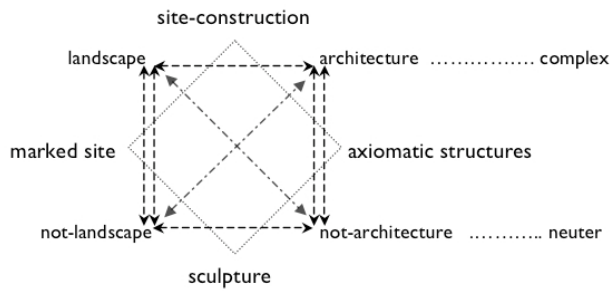


Fig. 5: Sculpture in the expanded field. After Rosalind Krauss.

The expanded field unfolds a topological mapping. Whereas modernist sculpture in figure 4 was situated at the center of a simple opposition of negations, it occupies in figure 5 the periphery of a more complex and dynamic structure, which allows for other forms or configurations that cannot be recognized as sculpture.

For the mapping Krauss employs a so-called Klein-group diagram, a structuralist mapping, to transform a set of logical binary opposites, where not-architecture is an expression of landscape and not-landscape an expression of architecture, into a quaternary field, which both mirrors the initial opposition and expands it. In the diagram, this relationship of logical implication is represented by diagonal arrows, called *deixis* (Krauss, p. 283).

The two horizontal arrows express relationships of pure contradiction called *axes*. Not-landscape and not-architecture signifies the *neuter axis* or neutral relation of the diagram, which follows the scheme of figure 4, and mark out *sculpture*. Opposite this relation, landscape and architecture form the *complex axis*, which integrates the hitherto incompatible categories into something that is both landscape and architecture, by Krauss referred to as *site-constructions* that share the phenomenological quality of labyrinths or Japanese gardens (Krauss, p. 284). This relation began to be explored in the late 1960s, as did the relation of landscape and not-landscape.

The vertical double arrows designates a relationships of contradiction articulated as involution, which are called *schemas*. Thus, not-landscape represents an inversion of landscape – and vice versa. This relation presents a physical manipulation of a site, an intervention, marking a site in the landscape. These *marked sites* are not necessarily permanent, and may even exist only in photography (Krauss, p. 287). Finally, architecture and not-architecture is explored in interventions into a real architectural space. Such

axiomatic structures functions as mappings or augmentation of spatial experience.

Sculpture then occupies one among four related positions within a spatial field of landscape, architecture, not-landscape and not-architecture, and is no longer a privileged category. Within the expanded field, the question of “what sculpture is” becomes less relevant, rather the question is dislocated as we more are inclined to ask, how does sculpture work – in comparison to the other positions in the field.

RETHINKING CONTEMPORARY DESIGN: DESIGN IN THE EXPANDED FIELD

Archer describes design as one of three bodies of knowledge, the others being science and humanities, and presents an understanding of connectivity and logic reasoning similar to Krauss. There is a conspicuous visual similarity between Archer’s diagram of knowledge (fig. 1) and Krauss’ initial diagram of negations (fig. 4), which is the starting point of her reasoning with the expanded field. Thus, I propose, that Archer’s diagram could be interpreted in terms of negations – design as not-humanities, not-architecture – and be modified following the logic of Krauss:

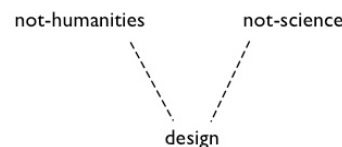


Fig. 6: Design as neither humanities, nor science.

The premise of opposing humanities and science may be considered to be problematic. Some may find it random; why not oppose art and technology or art and architecture? Others may find it nonsensical to speak of humanities and science in terms of negations and dismiss it out-of-date and out-of-touch. However, we should recall the English context of Archer’s text. The Germanic notion of “Wissenschaft”,⁴ for instance, does not distinguish between humanities and science; rather it signifies methodological knowledge creation in terms of interpretation as well as theory (cf. *OWID*). In English, such an overarching notion does not exist. If we accept the premise of Archer’s reasoning, that there are three distinguishable bodies of knowledge or according to Aristotelian philosophy, three types of activity, which have their own rationale and purpose, we

may also find it useful to apply Archers concepts to the logic of Krauss structural mapping to rethink contemporary design

As we have seen, Krauss' unfolding of the expanded field created a shift from a question of "what" to a question of "how". While addressing the specific qualities and potentials of design, such dislocation would allow for a new dynamic notion of design; still expanded, yet finite. Thus, I propose expanding the modified diagram of Archer into a Klein-group diagram will be productive in rethinking contemporary design:

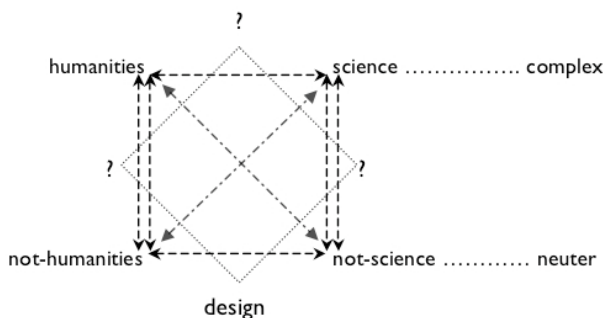


Fig. 7: Preliminary mapping of design in the expanded field.

Others have suggested a connection between the condition of contemporary design and Krauss' analysis of the condition of Modernist sculpture. In an interview with Mathias Augustyniak and Michael Amzalag of the graphic design studio M/M (Paris), curator Lionel Bovier writes in the preface: "Today design, in its broadest sense, is not only the site of important economic and cultural praxis, but equally an interface for questions of identity, politics of representation, and redefinition of social models. It is this "expanded" conception, as observed in cinema and sculpture of the sixties, which should lead us to reassess the frontiers and models structuring the field of 'graphic design'..." (Bovier, 1998, no pagina). In the first issue of *The Journal of Cloth & Culture*, Pennina Barnett's editorial is even more explicit: "For as with sculpture, the category 'textile' has, as Krauss put it, been 'kneaded' and stretched and twisted in an extraordinary demonstration of elasticity, a display of the way in which a cultural term can be extended to include just about anything" (Barnett, 2003, p. 1-2).

While it is thought provoking that the idea of design in the expanded field evokes resonance in two quite different domains within design such as graphic design and textile design, we must note that neither Bovier, nor Barnett examine an applications of the structuralist mapping to either domain or indeed to the

entire field of design. To examine design in the expanded field, we must identify the positions within that field, which cannot be recognized as design, or to be more specific, which are problematic not to distinguish from design. These are positions closely related to design, and can be argued even to employ designerly ways of thinking and communicating.

With design positioned in relation to the *neuter axis*, I propose the *complex axis*, which signifies the relation that is both humanities (interpretation) and science (theory), comprises a position identified as *concept*. Concept and design are often used as interchangeable notions. Using the term concept may signal novelty and innovation, and refer to prototypes and products as well as to ideas or even design methods. Terminologically, a concept can be defined first of all as something conceived within the mind, and secondly as "an abstract or generic idea generalized from particular instances" (*Merriam-Webster OnLine*). Thus, a concept is not a product, nor a method; rather, a concept represents the idea of a design, which can relate functional aspects as well as aesthetic aspect, production, user etc., or an approach to design methods.

The *schema*, which signifies the involution between humanities and not-humanities, I suggest, could cover the notion of *brand* – both decoding and coding meaning. Design, material as well as immaterial, can be so powerful or iconic that it is identified as or even becomes a brand. Thus, design is an important ingredient in branding strategies. According to the dictionary, brand as a notion can be seen both a mark and the promotion of a product or service (*Merriam-Webster OnLine*). It is not design in and of itself. The second *schema* inverts science and not-science and could designate the notion of *technology*. The word technology derives from the word *téchné* (art, skill), which for Aristotle was the virtue of poesis (Keitsch, p. 45). Hence, the close and complex relationship between design and technology is not new and etymologically, technology (*téchné*+*o*+*logia*) means systematic the treatment of an art (*Merriam-Webster OnLine*). Whereas design and technology often go hand in hand, and it can be difficult to distinguish the two, technical applications are not design, they can, however, respond to design needs, or they can call for and inspire novel design solutions.

Identifying the notions of concept, brand and technology as positions related to, yet distinguishable from design concludes the mapping of design in expanded field:

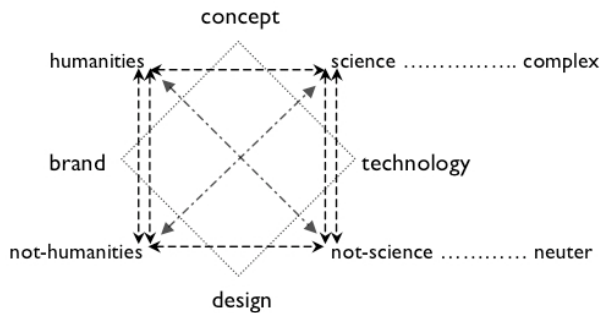


Fig. 8: Design in the expanded field.

CONTEXT, TEMPORALITY AND PERFORMANCE OR HOW DESIGN WORKS

In her concluding remarks to “Sculpture in the Expanded Field”, Krauss writes: “I have been insisting that the expanded field of postmodernism occurs at a specific moment in the recent history of art. It is a historical event with a determinant structure. It seems to me extremely important to map that structure...” (Krauss, p. 290). As I have been trying to make a parallel case for design, it is reasonable to inquire into premise of my case. Recognizing the difference between Modernist sculpture and contemporary design, we found nonetheless similar patterns of change in both sculpture and design; a move from object to process, from materiality to immateriality, and an increasing degree of heterogeneity within both fields, which seems to disrupt their internal logics. The question is, whether design has reached that moment in time, when it is appropriate to introduce the expanded field?

A recent essay by Maggie Breslin and Richard Buchanan describes the development of design practice as an evolution in orders of design:⁵

	Symbols	Things	Actions	Thoughts
Symbols	Graphic design			
Things		Industrial design		
Actions			Interaction design	
Thoughts				Environmental design

Fig. 9: The four orders of design. After Maggie Breslin & Richard Buchanan.

Whereas design in the first and second orders focus on communication and the construction of artifacts, third and fourth order design expands the designer’s perspective to include actions and thoughts (Breslin & Buchanan, 2008, pp. 39-40). Arguably, the third and in particular the fourth order relates to the expanded notion of design. The diagram illustrates both a historical development and the transition in design practice, which I have argued for, thus, indicating, it is appropriate to introduce the expanded field for mapping of contemporary design.

As we noticed, the expanded notion of design created problems for the logic of Archer’s diagram of design, humanities and science as three bodies of knowledge. Furthermore, we questioned, whether the expanded notion had stretched the category of design too far? The expanded field allows for a rethinking of contemporary design, which, I propose, makes it possible to take into account a broad notion as well as a guarded notion of design like Archer’s – as the field is elastic, yet finite. With the expanded field it is then possible to consider the first and the second as well as the third and fourth order of design. In addition, the expanded field allows for a dislocation from the dominant question of what design is to a question of how design works, which frees design of stiffening definitions, and opens for a dynamic approach to the notion of design.

Asking how design works emphasizes design as an activity – as a verb, rather than a noun – and contemplates the ongoing transition in design products as well as design practices. The mapping of the expanded field provides an opportunity to explore how design works in comparison to the other positions in the field; that is concept, brand and technology. This approach implies awareness of and sensibility towards context, temporality and performance. Each position in the field works within a certain context, which keep a certain kind of temporality and generate a certain kind of performance. I will argue, that an important aspect to the context, temporality and performance of design, which differs from concept, brand and technology, is the aspect of form and form giving. Friedman would contend that the Scandinavian notion of form giving is too narrow and focused on materiality, tactility and visuality to include Breslin and Buchanan’s fourth order of design. I will maintain, that to give form is integral to a designerly way of thinking and communicating and furthermore, that the notion of form giving transcends the design object and applies as well to strategies, services and systems.

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NOTES

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² The Danish Centre for Design Research is an umbrella organization under the Danish Ministry of Culture for the design research that takes place at the Aarhus School of Architecture, The Danish Design School, Kolding School of Design, and the Royal Danish Academy of Fine Arts, School of Architecture.

³ The term “formgivning” (form giving) exists as well as in Norwegian and Swedish.

⁴ “Wissenschaft” translates into the Scandinavian languages as well; to “videnskab” in Danish, “vetenskap” in Swedish and “vitenskap” in Norwegian.

⁵ This account builds on previous work by Buchanan (e.g. Buchanan 1995 and 2000).