

Drawing Things Together

Authors: A. Telier

“Now, here is the challenge. In its long history, design practices has done a marvelous job at inventing the practical skills to draw objects, whether in architectural drawing, mechanic blueprints, scale models, or prototyping. But what has always been missing from those marvelous drawings (designs in the literal sense) are the controversies and the many contradicting stakeholders that they bear with them. In other words, you in design as well as we in science and technology studies may insist that objects are always assemblies, ‘gatherings’ in Heidegger’s meaning of the word, or things and Dinge, and yet, 400 years after the invention of perspective drawing, 300 years after projective geometry, 50 years after the development of CAD computer screens, we are still utterly unable to draw together, to simulate, to materialize, to approximate, to scale model, what is a thing” [1].

This design challenge to *draw things together* was put forward by prominent social scientist and philosopher Bruno Latour at the Design History Society gathering in Cornwall, U.K., in 2008.

There are three related words in the challenge: *drawing*, *things*, and *together*. *Drawing* concerns the designerly skills required, *things* involve what is being opened up or created, and *together* denotes who is participating and how they are included.

We find this challenge utterly relevant to contemporary design practice and design thinking, and have collectively (as A. Telier) for a decade reflected upon how to respond to such a challenge. First as participants in Atelier, a European research project focusing on designing and understanding digital tools and mixed-media support for collaborative design environments [2], then as the collective writers of a book, *Design Things*. In short, this is the response we gave in that book [3].

Things? Socio-material things and objects of concern

Let’s start with the thing.

The etymology of the English word *thing* reveals a journey from meaning an *assembly*, which was decided on beforehand to take place at a certain time and at a certain place to deal with certain matters of concern to the community, to meaning an *object*, an entity of matter. So, the term *thing* goes back originally to the governing assemblies in ancient Nordic and Germanic societies. These pre-Christian things were assemblies, rituals, and places where disputes were solved and political decisions made. It is a prerequisite for understanding this journey that if we live in total agreement, we do not need to gather to solve disputes, since there are none. Instead, the need for a common place, where conflicts can be negotiated, is motivated by a diversity of perspectives, concerns, and interests.

This shift in meaning of the word *thing* is also of interest when reflecting on the practice of design. We suggest that we revisit and partly reverse the etymological

history of things. A major challenge for design today has to do with what is being designed – not just a thing (an object, an entity of matter) but also a thing (a socio-material assembly that deals with matters of concern). How can we as professional designers work, live, and act in a public that permits a heterogeneity of perspectives and actors to engage in alignments of their conflicting objects of design? How can we gather and collaborate around *design things*?



Figure. Design Ph.D. students exploring design things by drawing things together at a summer school in 2010.

So what we argue for is a deconstruction of the object of design. This deconstruction begins, following Heidegger, with the things themselves, or more specifically, in our case, with socio-material design things. Such things, or rather events of “thinging,” gather human beings; they are events in the life of a community and play a central role in community members’ common experience. In this spirit, Bruno Latour has called for “thing philosophy” and “object-oriented politics” [4], and by doing so has also challenged designers to make public the object of design. Things are not carved out of human relations, but rather out of socio-material “collectives of humans and nonhumans,” through which the objects of concern are handled. At the same time, a designed artifact is potentially a thing made public, since once it is delivered to its users, it becomes matters of concern to them with its new possibilities of interaction.

We propose a view of design as accessing, aligning, and navigating among the constituents of the object of design. People interact with the object of design through

its constituents, be those constituents things, artifacts, or representations. In experiencing things, objects, and devices, people are primarily involved not with different types of materials, but in different kinds of interaction.

Drawing: Designerly practices

Now to design practice and designerly drawing skills.

Our approach to understanding design is guided by an interest in design as involvement in practical action in the world, in design practice (in contrast to, e.g., cognition).

Donald Schön, through his books on the “reflective practitioner” [5,6], has probably offered the most influential account of design practice. His perspective on design as a designerly drawing practice is heavily influenced by the pragmatist philosophy of John Dewey, a general epistemology of creative and investigative processes, where “experience,” seen as growing out of encounters with real-life situations, is taken to be fundamental to understanding [7,8].

This perspective on design as a designerly drawing practice is heavily influenced by the pragmatist philosophy of John Dewey, a general epistemology of creative and investigative processes, where ‘experience’, seen as growing out of encounters with real-life situations, is taken to be fundamental to understanding (Dewey 1938, Dewey 1934). According to Dewey, all creative activities (not least designerly drawing skills) show a pattern of controlled inquiry: framing situations, searching, experimenting, and experiencing, where both the development of hypothesis and the judgment of experienced aesthetic qualities are important aspects within this process.

This framing of design competence, observations of design practices, experiments in the *Atelier* project and a literature review led us to think of designerly drawing skills as:

- systematically cultivating the “art of seeing”: working with metaphors, analogies, and themes that help express, contrast, and intensify the design concept to create a common understanding, evoke imaginations rather than prescribe, invite others into a dialogue, and the like;
- engaging with a plethora of materials—inspirational resources as well as material conceptualizations of the design concept (text, diagrams, comics, video, sketches, rough sketch models, virtual 3-D models, CAD drawings) with the diversity of design artifacts increasing the designer’s possibilities of evaluating the design, as each representation helps make particular aspects of a design visible;
- engaging in a movement of closing and opening, in a rhythm that is characterized by formulating themes, searching for facts, and experimenting with different solutions; and
- being able to work in a meandering way, with “floating concepts,” while maintaining things at different stages of incompleteness.

In the book we especially elaborate upon drawing strategies of *metamorphing*, *place taking*, and *performing*.

How do designers mobilize, manage, and transform artifacts and their interpretations? Our approach explores how the web of “constituents” is weaved around a drifting object of design as the designer engages in its transformations. Design work is looked on as an act of “metamorphing,” in which design concepts are envisioned and realized through objectifying and manipulating a variety of representations. Design skill, then, is not just a question of applying mechanical force to exterior objects; it also includes care, judgment, and dexterity in a fine-tuning of movements that can reach a rhythmic fluency, which is the trademark of a skilled practitioner.

- We propose particular notions of place and landscape to explain how the design environment is performed in the work of designers and how a situational ground is enacted and transformed as design artifacts emerge. We suggest the concept of an “emerging landscape” as an alternative to Herbert Simon’s famous notion of an abstract design space [9], an experienced landscape in which the designer journeys and dwells.

How do designers express and experience design objects? Our suggestion here is to describe and explain the evolution of the design through the designer’s performance of it. This includes considering narrative temporalities, fictional spaces, and creative constraints as basic features of performing design, and looking at characteristics of staging design events. We suggest an interventionist, participative, and experiential understanding of design as the purposeful staging and accomplishing of events.

Can these designerly skills also be set in motion to draw things together, not just to draw pretty things?

Together: Participatory drawing

The Atelier project inspired us to look for ways to combine design as designerly drawing practices with a participative approach to design, reaching out to and engaging stakeholders, eliciting their cooperation and creative contribution. Since design ends with the delivery of one of the constituents of its object, its embodiment, then it is this: the very thing of design itself. The relationship between designers and stakeholders becomes crucial when this design thing takes form.

The *project* is the kind of socio-material design thing that is the common form for aligning resources (people and technology) in all larger design endeavors. Projects are things that have objectives, timelines, and deliverables. In practice, resources to align in a design project may, for example, include: a project brief, prototypes, sketches, ethnographies and other field material, buildings, devices, project reports, users, engineers, architects, designers, researchers, other stakeholders, etc. Rather than thinking of a project as a design thing in terms of phases of analysis, design, construction, and implementation, a participatory approach to this collective of humans and non-humans might rather look for the performative staging of it. Inspired

by Pedersen [10], we could then ask: How do we *construct* the initial object of design for the project? That is, how do we align the participants around a shared, though problematic, object of concern? As work proceeds, how can the involved practices be made *reportable* (fieldwork, ethnographies, direct participation, etc.)? How can the object of design be made *manipulatable*? That is, how are “constituents” of this object enrolled in forms that can be experienced (sketches, models, games, etc.)? How is the object of design made into a *public* thing and open to controversies among participants inside the project, as well as outside (workshops, exhibitions, public debate, etc.)?

Projects are, however, as Klaus Krippendorff [11] has pointed out, only part of, or a specific form of, alignments in the life cycle of a device, and every object of design eventually has to become part of already existing ecologies of devices (in people's already ongoing life worlds), be they digital, like computer applications and databases, or physical, like buildings, furniture, doors, books, tools, and vehicles. Hence, the beginning and end of a designed device are open and hardly ever constrained by the limits of the project. This points at the importance of understanding how design in a project is related to user/stakeholder appreciation and appropriation, be it as adoption or redesign, and how users make it part of their life worlds and evolving ecologies of devices. Design might be thought of as constrained to a specific project with given objects of design, resources, timelines and specified outcomes, but since the final embodiment of the object of design is a thing, this thing opens up for unforeseen appropriation in use in already existing, evolving ecologies of devices.

Hence, strategies and tactics of design *for* use must also be open to appropriation or appreciation *in* use, after a project is finished, and treat this appropriation as a potential, specific kind of design. Krippendorff's notion also implies that in design for use we should focus on the before of the project, the “procurement” process of aligning actants in a design project, and how objects of concern become a specific object of design. This may involve making explicit the often hidden performative “protocols of design,” initially setting the stage for design things and establishing the object of design [10,12].

Controversial Things

In our approach to drawing things together, the philosophical pragmatism of John Dewey and the “thing politics” of Bruno Latour have been cornerstones for reflecting upon design as participation in collectives of humans and non-humans. Dewey's position on controversial things and the public makes the project of drawing things together even more challenging. He argued that in fact the public is characterized by heterogeneity and conflict [13,14]. It may be challenging enough to design for, by, and together with collectives of humans and non-humans in which common social objectives are already established, institutionalized, or at least within reasonable reach—socio-material things supported by relatively stable infrastructures. But the really demanding challenge is to design where no such thing seems to be within immediate reach, where no social community exists—in short, where a political community, a public characterized by heterogeneity and difference with no shared

object of design, is in need of a platform or infrastructure. It's not necessary to solve conflicts, but rather to constructively deal with disagreements—public controversies where heterogeneous design things can unfold and actors engage in alignments of their conflicting objects of design. Participation in the making of such things, and the relation between professional design and design activism, stands out as the ultimate challenge when we gather and collaborate in and around *design things*. This, we believe, is a major challenge to design thinking in general, as well as to more specific participative and user-centered approaches to drawing things together.

References

1. Latour, B. A cautious promethea? A few steps toward a philosophy of design (with special attention to Peter Sloterdijk). Keynote lecture. In *Networks of Design: Proc. of the 2008 Annual International Conference*, F. Hackney and J. Glynne, eds. VIV Minton, 2009.
2. Ehn, P., Agger Eriksen, M., Binder, T., Linde, P., Peterson, B., Niedenthal, S., Jacucci, G., Kuutti, K., De Michelis, G., Rumpfhuber, A., and Wagner, I. Opening the digital box for design work: Supporting performative interactions, using inspirational materials and configuring of place. In *The Disappearing Computer*, N. Streitz, A. Kameas, and I. Mavrommati, eds. Springer Verlag, 2007, 50–76.
3. Telier, A., Binder, T., De Michelis, G., Ehn, P., Linde, P., Jacucci, G., and Wagner, I. *Design Things*. MIT press, Cambridge, MA, 2011.
4. Latour, B., and Weibel, P., eds. *Making Things Public: Atmospheres of Democracy* (Catalog of the Exhibition at ZKM Karlsruhe). MIT Press, Cambridge, MA, 2005.
5. Schön, D.A. *The Reflective Practitioner*. Basic Books, New York, 1983.
6. Schön, D.A. *Educating The Reflective Practitioner*. Jossey-Bass, San Francisco, CA, 1987.
7. Dewey, J. *Logic: The Theory of Inquiry*. Henry Holt, New York, 1969 [1938].
8. Dewey, J. *Art as Experience*. Berkeley publishing Group, New York, 1980 [1934].
9. Simon, H.A. *The Sciences of the Artificial*. MIT Press, Cambridge, MA, 1976.
10. Pedersen, J. *Protocols of research and design*. Ph.D. thesis. Copenhagen: IT University, 2007.
11. Krippendorff, K. *The Semantic Turn: A New Foundation for Design*. Taylor & Francis Group, Boca Raton, FL, 2006.
12. Clark, B. *Design as Sociopolitical Navigation*. Ph.D. thesis. Odense: University of Southern Denmark, 2007.

13. Dewey, J. *The Public and Its Problems*. Henry Holt, New York, 1927.

14. Marres, N. Issues spark a public into being. In *Making Things Public: Atmospheres of Democracy* (Catalog of the Exhibition at ZKM—Center for Art and Media—Karlsruhe, Mar. 20-Oct. 30, 2005), B. Latour and P. Weibel, eds. MIT Press, Cambridge, MA, 2005, 208–217.

Author

While A. Telier has been doing intensive research on interaction design and related areas for 20 years, the name is not known in the research community. Probably from a strong case of shyness, or some other form of psychological fragility, A. Telier has hidden behind a variety of pseudonyms. We know he has widely published and has frequently appeared in Aarhus and Malmö as Pelle Ehn; in Copenhagen he has also gone by the name of Thomas Binder. In Italy he is well known as Giorgio De Michelis, while in Wien he has adopted a feminine pseudonym: Ina Wagner. Moreover, in recent years he has augmented the confusion by creating new, younger aliases: In Sweden he has appeared as Per Linde, while between Finland and Italy he goes by Giulio Jacucci. This list is not complete, but it illustrates a behavior whose deep reasons merit attention. It seems A. Telier needs a multiplicity of personalities to deal with a complex subject like design by investigating and practicing it, as well as proposing different viewpoints on it, without being able to take a consistently uniform point of view.