

On making things

As Goodman (1978) explains, people are “world-makers.” They spend a great deal of their time carving out the niches, symbolic or real, in which they move about, so that they fit their aspirations and enhance their possibilities. They build cities and houses, but also musical compositions, poems and paintings. Young and old, people give form or expression to their ideas. They project their feelings outwards on to things, which in turn enables them to start a dialogue of greater intimacy and deeper understanding.

People are also “world-readers.” They engage designed artefacts by actively reconstructing them through the lenses of their interests and experience. Bordwell (1985, p. 32), in discussing film audiences, argues that “The artwork sets limits on what the spectator does” but within these limits, the viewer literally recasts the play. What is true for a film audience is even more true for active explorers of interactive media, including games, learning environments, and good buildings.

People do not project on to neutral material. The world outside has something to say about how it can be constructed or how it can be read. Objects “afford” certain uses, practical or poetic, implying a nature that cannot be denied, regardless of how different the experiences of the user may be. And a fully developed design or work of art commands a certain interpretation, while still leaving open much for individual differences. The architectural artefact is possible to enjoy even by those who do not share and who cannot re-create the exact same experience.

Nor is the activity of projection itself devoid of its defining characteristics. Independent of the materials of the world, there are possibilities and limits to both perception and cognition that shape how we see and how we imagine. There are limits to the amount and complexity of material to which we can attend at any moment; our perception generalizes, groups, and performs other involuntary functions. Closer to our everyday world, there are limits to the number and types of things we can recognize, a limited number of metaphors that help us to organize and structure our experience, and, within our general propensity to group and see similarities, a heightened awareness of regularities and violations thereof.

Finally, there is a fundamental drive towards communication that influences most of us to seek those ways of seeing and imagining that others also may be able to see and imagine. Geometric ordering of a painting can be extremely subtle to the point of invisibility, although it may be rigorous and clever. But the paintings that communicate powerfully, through colour, shape, texture and the variety of means proper to the medium, both appeal to our sense of ordering and trigger our responses through cues that are specifically intended for that purpose.

These five kinds of actions – making, reading, engaging materials, projecting, and communicating – are as true of people in everyday life as of designers designing. Understanding them and appreciating their role in the design process can only help the designer to become more sensitive and insightful as both designer and researcher and more confident that he or she can reach a wider public.

Kinds of objects

Without creating a series of objects, the activity of design would be badly hampered. Such a series is particularly true of architecture and other design disciplines where the artefact to be designed is radically larger in size and employs materials and methods of construction different from those that can be used during the design process. In these design disciplines, therefore, the objects are not likely to resemble the ultimate object in all of its characteristics. Resemblance and representation in these objects are more distant from one another than an early sketch from an ultimate engraving.

Designers' objects can take a variety of forms. They can be text as well as drawn; they can be three-dimensional objects; or they can be narratives, taking the form of stories in graphic or written form, or in human performance. They can be blandly descriptive or richly evocative. They are in some sense like any other utterance or communicative product, but it is their content and purpose that distinguish them, not the medium of their expression nor even the particular form into which the medium is shaped. For example, a model of an existing building does not represent a design, but a similar model of a yet-to-be-constructed building does. One is intermediate in a process of design, the other is not. The interaction with the model in each case is different, as are the settings in which it is used, the people who will use it, and the purposes of its use.

Designers' Sense-Making

For the last few years I have given a course entitled Introduction to Design Enquiry for graduate students who already have, as a rule, their first professional degree in architecture. Typically, they are aspiring toward more specialized roles in practice, in teaching, and in research. It is the first course in a graduate programme that has been entitled Design Technology and concerns itself with such issues as the theory and practice of design, the building of tools to assist designers, the changing nature of the architectural artefact in society, and, of course, how we see, learn, behave, and design. Through this course I have both learned about and made use of the idea of designers' objects. I owe a large debt of gratitude to Dr Edith Ackermann who has developed and taught this course with me. She has brought an understanding of behaviour and development, as well as extensive experience in researching how children learn (see, for example, Ackermann 1996). We have become increasingly convinced that design can usefully be thought of as a way of looking at and acting on the everyday world, as well as a specialized activity associated with artefacts of various kinds and proper only to the design professions. Thus, instead of utilizing activities that are specifically associated with what designers are thought to do, I have taught it in part through activities that are part of everyday life and functioning. I have found that design informs the ways in which we ordinarily perceive and act. It does this by highlighting plausibility, cause, origins, histories, and associations. Design invokes personal experience and skills, and is driven by such things as curiosity, irritation, and a wish to complete.

The distance and the connections between perceiving and conjecture create a territory in which can be built the structures of communication between