

may be to study the building to see how it is made, to detect or infer certain kinds of assemblies or structural strategies. It may be to clarify semantic relationships to things and ideas that lie outside architecture, meanings that have accumulated from the past or formal similarities that give rise to unexpected associations. And it may be to address typological and conventional issues that are thought of as lying within the proper domain of architecture itself – for example, the degree to which a design tends to resemble specific building types – or to challenge conventional architectural understandings.

Designers employ objects to communicate ideas and information about a building in ways that a building itself cannot or may be less effective in doing. Sketches made after a building is built to convey its underlying concepts illustrate this idea. (For an example of this sort of sketch see Goldschmidt and Klevitsky, Figure 2.7.) The objects made after the fact of the design are different from the objects made along the way of design in that their reference is to something already made. In relationship to an intended or a finished design, the purpose of making objects can be to resemble and anticipate, to make more vivid certain kinds of experiences, to explore aspects in great detail, or to make evident specific ideas for the purposes of communication. But while their relationships to a design are of primary importance, their power rests in part on the strength of the design of the object itself, in its economy of means, in its elegance of line, in the degree to which it expresses and exploits the materials out of which it is made.

These attributes may, of course, be attributes desired of the final artefact, but achieving them in the object does not necessarily make that object resemble the final artefact, either in its form or its materials. Indeed, because these attributes depend on solving the design problem of the specific object, they will necessarily take a different form than if the same attributes were achieved in the final artefact.

The expressive power of the object depends on the excellence of its craft and design. As a result, it will be different from the ultimate design, if only because of differences of materials, methods of making, and scale. If well done, the object can exhibit intended qualities (of a high level of craftsmanship, handling of materials in ways that are appropriate to those materials, sensitivity to how the viewer will perceive the object given its size, level of detail etc.). Thus while a designer's object may fall short of exhibiting formal or spatial attributes of the ultimate object, it can, nevertheless, convey important ideas about that object.

It is in this sense that the final artefact is only another designer's object, subject to the same requirements of communicative power and the same discipline of conception, formation and execution of a particular set of materials. Of course, the final artefact can be a very expensive object, one that cannot easily be made out of its materials and at its scale many times over in order to improve it. If it were no more expensive than the objects made along the way of design, then the point about its being merely another object would simply be more obvious. Because it is so different in scale, in materials and in labour, the ultimate object must, therefore, be anticipated in ways that are different from how eventually it will be. And these differences obscure the essential similarities among the entire family of design objects associated with a particular design project, of which the ultimate object is a member.

Objects along the way of seeing

Designers may make objects for the purpose of understanding other objects. Travel sketches are an obvious example. Louis Kahn, Le Corbusier, and many other great architects have sketched and written in an effort to understand. In the balance between representation and exploration, the scales are sometimes tilted toward exploration. Examples are the columns at Karnak by Louis Kahn or the indigenous pottery from the Balkans by Le Corbusier, shown in Figure 3.1.

These sketches reflect a way of thinking about and experiencing works; or, put somewhat differently, they reflect the repertoire of experience, thought and memory of the author in how those works are reconstructed in the form of the new object. They are what the authors make of the world, yet they are at the same time what the world makes of the authors – to anthropomorphize for a moment. The columns at Karnak *are* enormous and very closely spaced; the light and shadow fragment the columnar forms. And the pottery in its fascinating clutter of shapes and scales does, through “the magic of geometry [create] an astounding union of fundamental instincts and of those susceptible to more abstract speculation” (Le Corbusier 1989, p. 16).

It is different, to be sure, to sketch from an existing object rather than from an imagined one and, even more different, to sketch from a preliminary idea leading towards an idea not yet formed. Yet these activities have much in common: they are all efforts to get at some aspects of the idea in question, whether it is the profile, the quality of light, a way of utilizing materials, or an aspect of feeling. They all employ the same skills of the individual and they draw on the same repertoire of experience, images, and emotions, the same powers of observation, the same capacities to remember, the same pendants for (or against) abstraction.

For John Dewey “creative seeing is always a reconstructive act . . . For to perceive, a beholder must create his own experience – comparable to what the original producer underwent . . . without an act of recreation the object is not perceived as a work of art” (Dewey 1934, p. 54). Thus creative seeing and creative design are intimately linked.

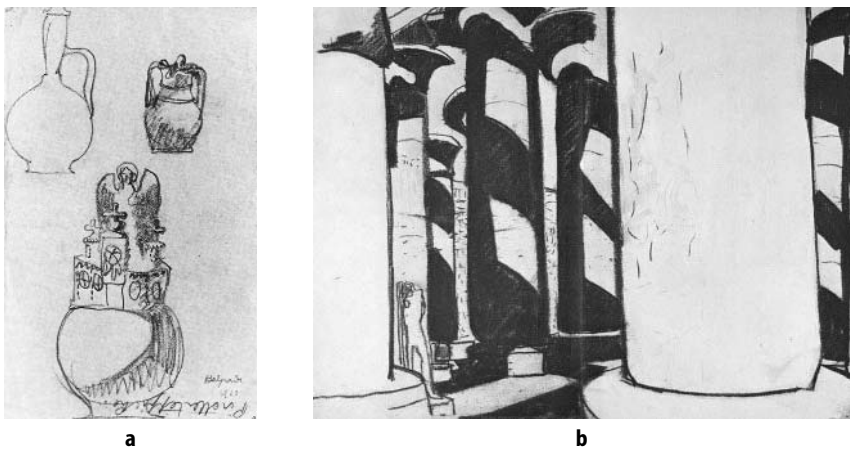


Figure 3.1 Travel sketches that creatively reconstruct. **a** Indigenous Pottery from the Balkans (from Le Corbusier 1989, p. 17, © 2003 Artists Rights Society (ARS), New York/ADAAGP, Paris/FLC). **b** Columns at Karnak (from Kahn 1962, Plate 10. Reproduced with the permission of R. Wurman).