



**Figure 3.9** Source of light. The building as a set of screens, **a** mitigating the experience, **b** of a flickering interior (candle) light. (Victor Gane, Alejandro Zulas and Goncalo Soares')

the building itself with its inner court which is naturally yet mysteriously lit. Thus the new object pointed up the power of the building itself to express the same set of ideas (Figure 3.9).

## What Propels Discourse with Objects?

The evident enthusiasm of the students in building these various objects masks a more important phenomenon: their increased security of understanding of the very things that these objects are intended to elucidate. I venture to say that their new understanding stands the test of their own subjective evaluation, as well as evaluation by others.

There is likely to be a high degree of integration of the object's anticipated perception and use with the experiential repertory of the designer who made it. Such objects can be closer to the designer's own experience, more directly subject to his or her own direct action and reaction, more a function of his or her own skills and predilections than buildings or other objects whose production depends on means outside the direct control of the designer. And these objects are made in an effort to understand, to bring one's own experience into relation with what is seen. At the same time, there is a strong impulse toward communication. This process of articulating the making sense of things (and the making of things that make sense) that can be scrutinized and read by others is not only to validate one's provisional understanding, but, as Reddy (1985) might argue, to create part of the network of shared ideas that constitute the fabric of society.

The set of things built during the processes of designing (or of reading objects already in the world) can be seen as components of a language by

means of which those objects can be talked about. Following from Wittgenstein (1965, 77 ff.), language and behaviour are built in this way, generally in our culture and specifically within a work of art. Most artists are aware of the constructive engagement called for on the part of the viewer. I believe that the potential for the constructive engagement of the viewer with the ultimate object may be increased if the designer has gone through an eloquent history of its making. The investment in the making of things along the way of design can be great and varied. Emotionally, intellectually, bodily, aesthetically, each person comes not only to know but also to build the durable means of knowing, means that are inextricably associated with the objects that he or she has made. And because these means are contingent on location in particular places and on available materials and technologies, it is not only the subjective and inter-subjective power of this language of design that results, but also the cultural specificity as well. The designing of a work of art as contrasted with functioning in everyday life relates to the development of a language and the cultivation of behaviours that are specific to the work and that afford experience beyond the ordinary. This is a matter of degree, not difference.

Finally, what is the relation between designers' objects and design representation? These objects reach far beyond representation in the narrow sense of resemblance or specification. They can represent the qualities of the intended design or even the mood it is supposed to evoke. Designers' objects can reflect an investigation into the properties and behaviours of certain materials that represent a craft attitude in general or a way of working with particular kinds of materials that will be present in the ultimate design. They can aid in defining context, exploring alternative surroundings for a building or alternative materials of which it might be constructed, raising questions to be answered later in the design quest. They can be seen as integral to the process of learning that occurs during the design process, in which they surface ideas, elements, properties, and relationships that can become appreciated and later appropriated into the designer's stream of thought. Together these modes of representation create a setting within which the designer can achieve expressive intent. Designers' objects represent aspects of designers' worlds.

## Notes

1. Introduction to Design Inquiry in the autumn of 2002 included the following students: John Alex, Johanne Blain, Sylianos Dritsas, Janet Fan, Keru Feng, Hans Michael Foeldeak, Victor Gane, Sameer Kashyap, Rita Saad, Jennifer C.K. Seely, Maria Alexandra Sinisterra, Goncalo D. Soares, James Tichenor, Konstantinos Tsakonas, Alejandro Zulas. Guests in the seminar included George Stiny, Terry Knight, William Mitchell, and Takehiko Nagakura, faculty; and visiting faculty Edith Ackermann and John Gero in the Department of Architecture. Eleanor Fawcett was the Teaching Assistant; and Paul Keel, Yanni Loukissas, Ben Loomis, Axel Kilian, and Janet Fan, advanced students in the program, were consultants. Figures and captions are used with the permission of the students.

## References

- Ackermann, E 1996. Perspective-taking and object construction: Two keys to learning. In *Constructionism in practice: Designing, thinking and learning in a digital world*, edited by Y Kafai and M. Resnick. Mahwah, NJ: Lawrence Erlbaum Associates, p 25–35.