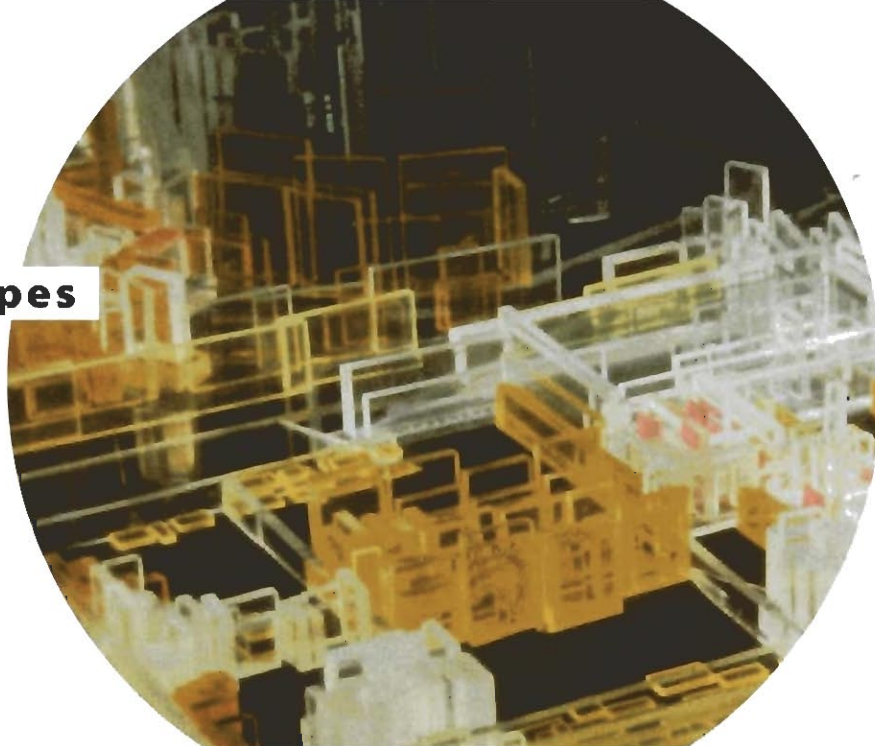


Exploring Prototypes

Jan Wampler



With students from the Massachusetts Institute of Technology, I have been exploring how designers might become as sensitive to space as they are to objects. Through a number of projects, we have explored new ways of representing and understanding space, and we have examined how the architectural planning process can include more extensive and formalized approaches to space between issues. In effect, we have reversed the design process, considering space first and objects second. None of this is to imply that objects are not important, only that space should be considered equally.

Our study started by redefining paths and places in terms of their spatial relationships. Initially, we looked at places and paths separately. Places came to be understood as confined areas. Within a place, there might be several separate configurations of space differing in size and in the experiences people have in them. Paths were considered to be linear elements, which link together places large and small.

The first place we observed was Louisburg Square in Boston's Beacon Hill. It seemed to be the most contained of places in Boston. There were two parts to the observation. The first was to photograph the square in such a way as to represent the place, not the objects. Students used wide-angle lens-

es and multiple overlapping images to capture not only the total place but also the details of materials of the place. It was important to convey the total impression of the place.

Next, students built models of both the square and the public parts of the houses that surround it. These "frozen-space" models used plastic pieces to represent space: the size and shape of the pieces indicated the perceived size and shape of the spaces. Also, transitions from the most public spaces to the most private spaces were evaluated carefully; different colors indicated different types of space.

Students then chose other areas to observe and analyze further. The areas they selected varied in scale and intensity: The places ranged from Harvard Square to small parks, and the paths included everything from a busy street to a small pedestrian way. Streets were selected for different scales and intensity of the forms of buildings along the street. Again, students used photographs, drawings and plastic "frozen-space" models to observe and understand the paths and places.

Next, students were asked to redesign the paths and places they were studying, using space as the design medium. They built new, larger-scale "frozen-space" models that had more detail. Students did not consider paths

and places to be merely two-dimensional elements. Ground, middle and sky zones were regarded as having specific qualities. And they studied not only paths and places but also the transitions from space to space. Thus, relationships between public, semi-public, semi-private and private spaces were defined, modeled, and examined.

A Design Tool

Another studio used the same method of observing and understanding spaces to explore new designs for a co-housing project. The program called for fifteen housing units, community space and small commercial space to be built around a courtyard on a small site on the south side of Boston's Charlestown neighborhood.

In this studio, space was designed as a beginning to the process of designing objects. Students were asked first to make a frozen space model of their design and then interpret it into an architectural model.

This process involved several steps. First, we asked students to imagine the courtyard space that the buildings would enclose. Then they built a plastic "frozen space" model that represented the size and quality of the courtyard space and demonstrated the relationship between it and the sur-

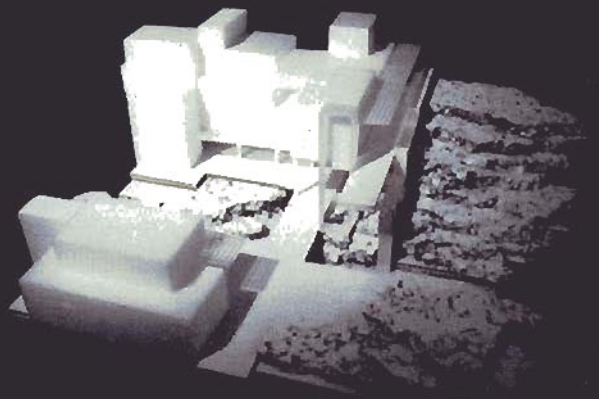
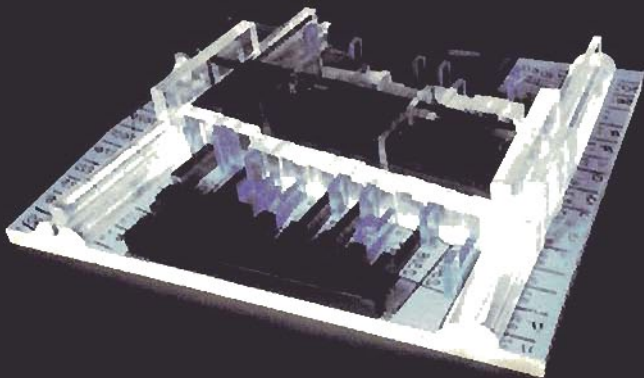
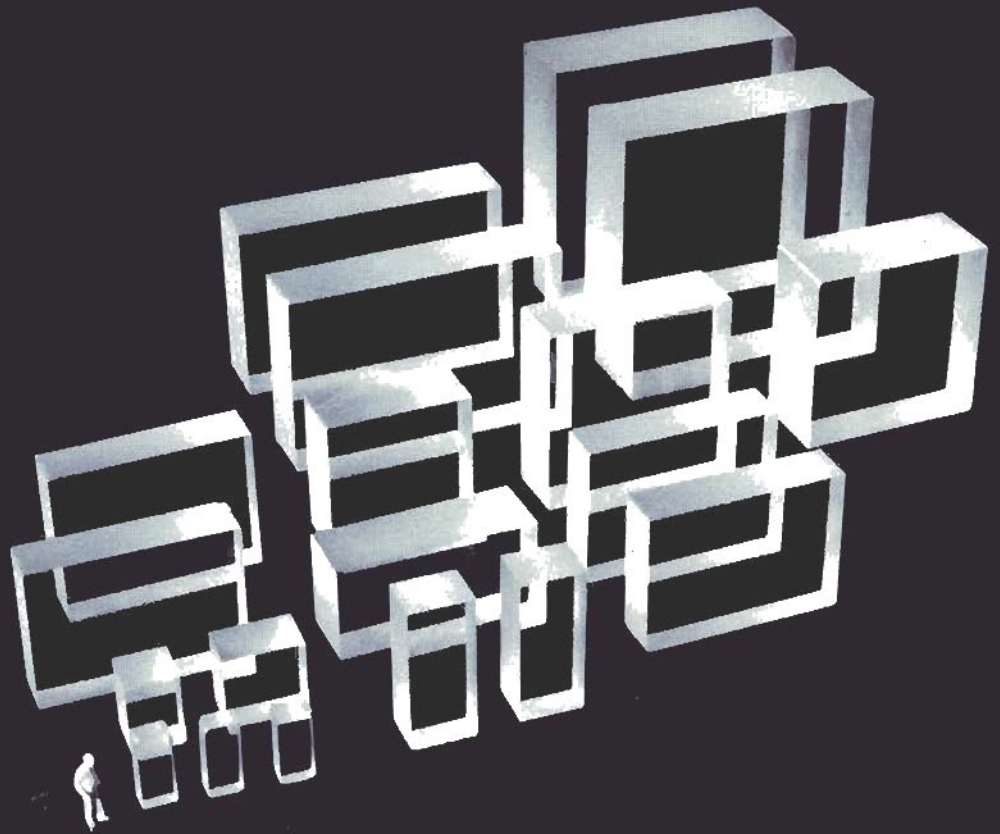
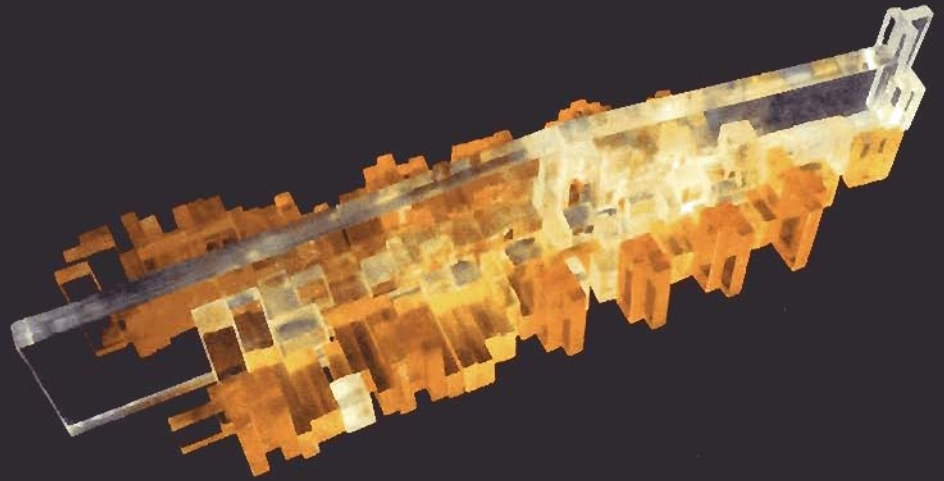
Opposite page: Frozen space model of a proposed community, designed by The Space Between Workshop. Photo by Sylvia Richards.

Top: Frozen space model of Back Bay alley. Model and photo by Angela Barreda.

Center: The space between kit of forms, designed by Jan Wampler. Photo by Anne Beamish.

Bottom left: Frozen space model of Louisburg Square. Model and photo by Angela Barreda.

Bottom right: Architectural model of proposed place. Model by Lillian Sung, photo by Angela Barreda.



rounding buildings. Next, the students made an object model by creating a negative of the frozen space model. In a conventional sense this was a massing model, but in this case the massing was informed by the space.

We wanted the students, as they refined their designs, to devote particular attention to the zones between public spaces, private spaces, and buildings. The intention was to mix the qualities of the buildings and the space in order that a range of architectural conditions would be designed. At this stage students prepared another, more detailed, massing model to articulate the architectural qualities of the buildings. They also created montages that combined photographs and drawings to suggest the quality and details of both the space and the objects.

Finally, the students prepared a finished, detailed architectural model that was much like a conventional model but contained information not only about the building but also about the space. As a result, the building elevations demonstrated much more interchange between the building and

courtyard space than might have been expected otherwise.

As students observed and analyzed existing spaces and designed new spaces, they noted that certain sizes of spaces appeared again and again. These recurring sizes emerged during discussions of the ways students represented space and the dimensions they thought were important. These sizes, although based on the human body, also related to basic dimensions of windows, doors, buildings and streets.

From these dimensions a kit of "frozen space" forms was developed. These three-dimensional forms allowed designs to be made quickly without having to cut and make every form individually, as was necessary in previous exercises. They allowed proposals for the form of space like the courtyard to be explored more quickly. Although the forms comprise a kit of basic spaces, additional forms can be added to reflect a particular idea.

This kit of spaces is similar to the kits of building blocks with which children play and that architects use when making basic massing studies for build-

ings. These blocks of space can serve as valuable tools, forcing designers to think in ways opposite to those in which we have been accustomed.

This is a new way of working. Much must be explored to make it useful. It does however reverse the process of design that we know too well, of designing objects first and spaces as leftover or negative space. Perhaps it will lead to a better understanding of what makes cities livable.

Members of the Frozen Space/Space Between workshops included Angela Barreda, Marnie Boomer, Cathy Chang, Miguel Del Rio, Susan Hollister, Helen Jeffery, Annie Kerr, Julie Kim, Leah McGovern, L. Cindy Lee, Carla Morelli, Sylvia Richards, and Angela Wong. The work of Lillian Sung is also included among the illustrations. Editing by Nancy Jones and Trudy Kontoff.



Frozen space model for proposed community for Santurce, Puerto Rico, designed by The Space Between Workshop. Photo by Angela Barreda.