



Lightweight Hebel blocks which can be hand cut and shaped with woodworking tools, being used in construction of a small factory.

sense; it is not appropriate to our era. The techniques will therefore *have* to be ultra-modern so that speed, technique, type, material all come from our unique time. But what is *done* with these materials, if they are capable of making parts that are beautifully fitted to the whole, will be unlike the insensitive and

mechanical repetition we mainly knew during the 20th century. In the near future it may include use of concrete, glass, steel, aluminum, plastics, fibers, fiber cements, mud, sand, and polymers. Whatever it is and in whichever era it may come, it should be truly something of the 21st or of the 24th century.



9 / SMOOTH UNFOLDING OF CONSTRUCTION

I should like to add to the purely technical inventions embodied in many of the foregoing pages by drawing attention to a feature many of these techniques have, and indeed *must* have, if they are to be useful in an adaptive process.

In present-day building techniques, the process of construction is not smooth. One works with a drawing of the building, a drawing which shows how each part fits together, and this shows where each component, and each contractor, are supposed to fit in.

One of the reasons for the complex drawings of our time is that these different techniques and subcontracts need to be coordinated. It is vital to coordinate them accurately. If the drawings do not show where each part goes, it cannot be done.

But *unfolding* — the unfolding of a living process — is not like that at all. If one makes a traditional mud hut in the Cameroon, the sticks are placed in the ground in a circle; then they are bent towards the center and tied. Then wattle is woven to make a basket for



Interior of the Etna Street cottage, Berkeley, 1973. Left: Burlap impregnated with fiberglass resin forming a translucent roof. Right: Alcove under the stair, made with a lightweight concrete vault.

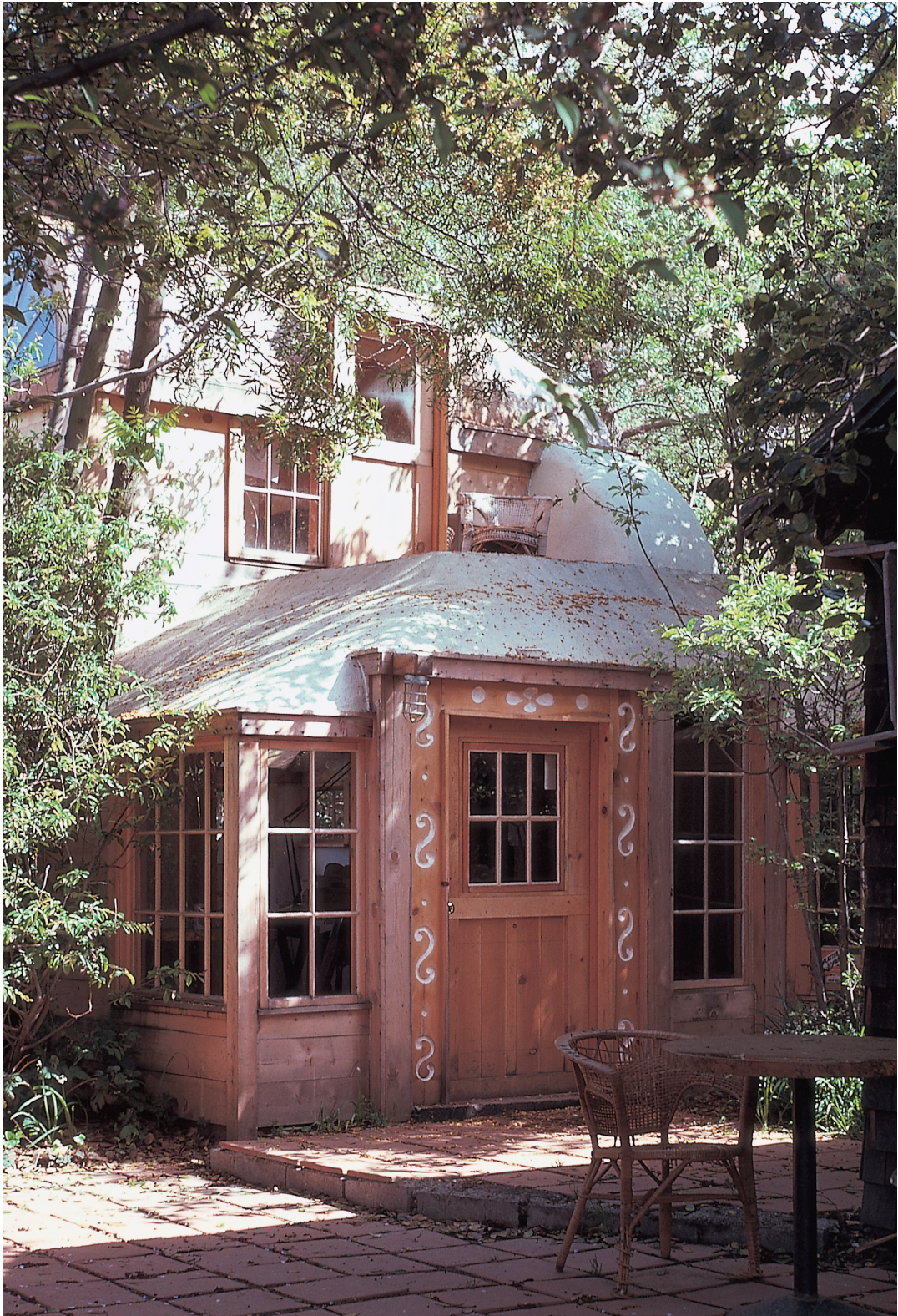


Groin vaults intersection in the lath, burlap, plaster technique of making vaults. Mexicali, 1977.

the house as a whole. Then mud is plastered onto the wattle. The process goes from one step to the next, and the final result is determined by the *process*, not by a drawing. This is what allows the smoothness of the adaptation, the

excellence of the unfolding, and the beauty of form.

In the photographs on this page and on the next, we see a small building that was built by an unfolding process based on hollow



The Etna Street Cottage, a structure of an ultra-lightweight concrete vault, built over a hollow wooden structure filled with lightweight concrete. 400 square feet, built for \$3,000.