Jan Wampler

CARETAKERS OF THE PHYSICAL WORLD: BUILDING THE ORDINARY AND THE EXTRAORDINARY

Architecture is the only profession that can look after the built world. Certainly there are other professions actively looking after the problems of the natural world and the effects of development, but architects are the professionals best situated to care for the built world in a direct way.

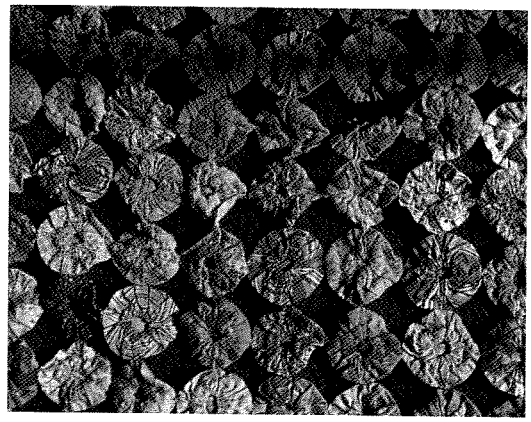
Unfortunately, much that has been built in recent years is neither a contribution to the physical world nor even concerned with it. In fact, many architects have contributed to the problem by designing buildings that do not fit with the culture or landscape and do not make places. We must take a stronger role in shaping the physical world, particularly by developing a body of knowledge to help us understand what we build and its effect. This concern should include issues of sustainable development at all levels of building — from resources, materials and land to the most important level of all, patterns of culture.

The expectation that the population of the developing world will double during the next fifty years suggests that there will be great strains on the world's resources. It also suggests the scale of damage that could be done to the natural world.

In many parts of the world, the land available for development has already been used, leaving little room to build. Moreover, the development has had little regard for its neighbors; the space between built objects has been overlooked. This has produced a blight that affects not only the landscape but also the culture of places.

What is the process for changing the course of architecture?

Perhaps the best metaphor for this new way of designing is to build in the way that American quilts were made. Ordinary people working with simple, direct rules and using local resources produced perhaps the first American architecture. The results were thousands of designs, each different but each following simple, sustainable patterns. Some of the quilts were ordinary and some extraordinary; all were in harmony with the forces around them.



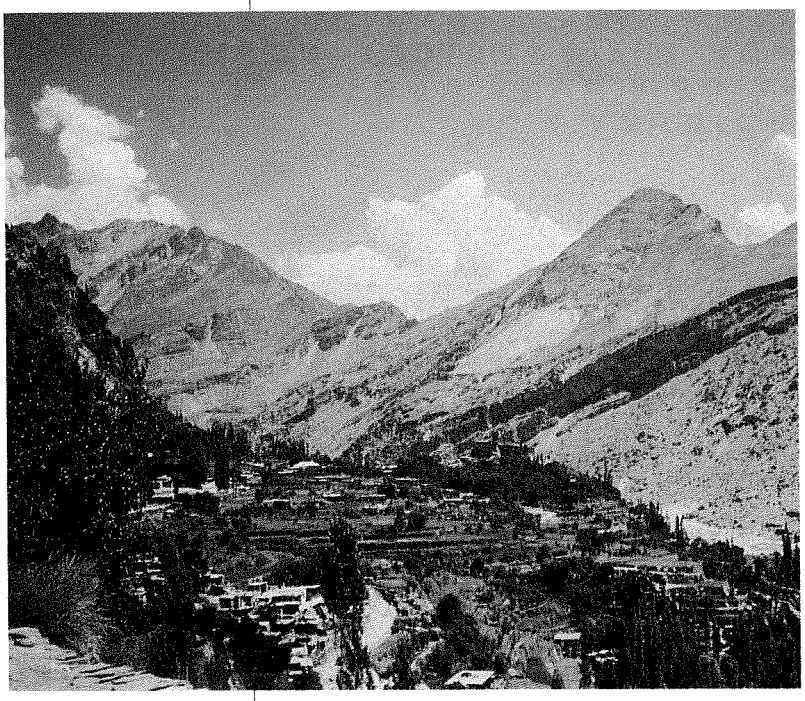
An American quilt, an example of the ordinary and extraordinary
Photo: Jan Wampler

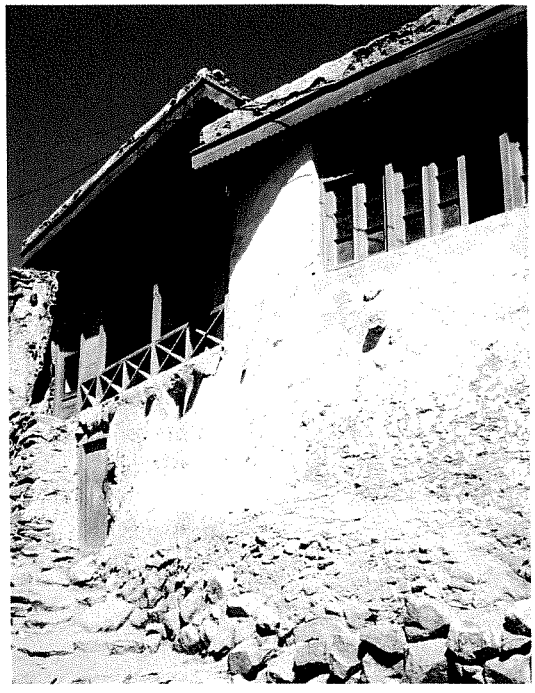
This analogy can be applied to architecture today. There are two basic kinds of architecture to consider, the ordinary and the extraordinary.

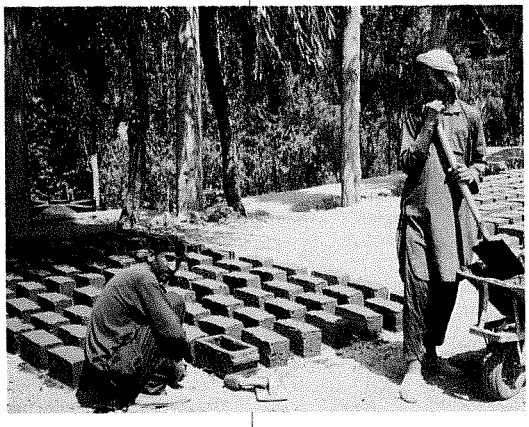
Ordinary buildings make up the texture of the world. They learn from the land, local construction practices, local resources, the thoughts of people using them and the care of space between the neighbors. Generally, ordinary architecture has carefully observed the patterns of the place in which it is built. It learns from the past and at the same time improves past work. It is a constant changingly process, but is always concerned about the place in which it is built — the resources, materials, land and culture.

Extraordinary buildings are special and teach the community new ideas about architecture. Special buildings can incorporate the same concerns as ordinary buildings, but they become extraordinary in the concepts they embody and the information they impart. These buildings can make special places for the culture and, therefore, be used by all people. They can provide new information and teach new ideas while relating to the traditions of the place and its culture; they are in harmony while improving the quality of life.

In designing a new architecture, the knowledge of the place must always be in the back of the architect's mind. Without these references the architecture will







Top left: **Hunza Valley, Pakistan. Terraced land below glacier and mountains**

Top right: **Hunza Valley, Pakistan. Ordinary housing made from local resources.**

Above left: **Hunza Valley, Pakistan. Local materials and methods of construction.**

Above right: **Tsinghua University, Beijing, China. A dance pavilion in a park, an example of placemaking using both ordinary and extraordinary architecture.**

Photos: **Jan Wampler**

be out of place. Following are some thoughts about a process of building both ordinary and extraordinary architecture. They serve as the beginning of the architect's acting as caretaker of the physical world by offering a process for our profession. They will be the beginning of building a new texture of joyful, livable places in harmony with the forces of the times.

1. The process starts with earth texture. "Earth texture" means everything that relates to the earth: land, sun, rain, wind, trees, rocks and buildings. They are the beginning of the design process. There must be a respect for all of these; there has been in any culture, in any time, that we admire.

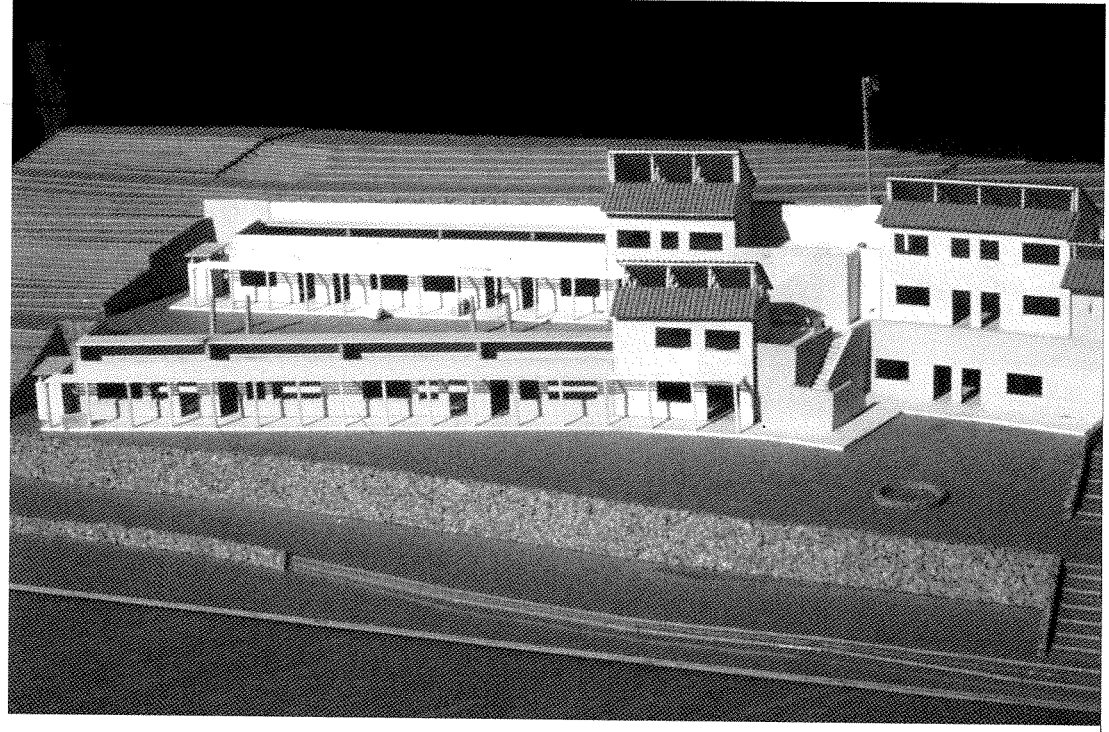
2. We can not imitate the forms of the past. Imitation neither respects the past nor helps the future. Instead, we must understand the principles of the past and translate them for the present.

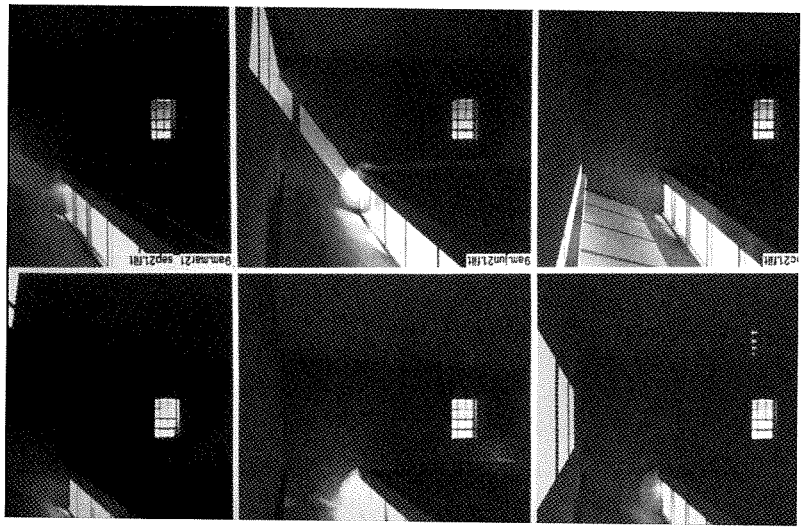
3. New technology and materials, if they are local or useful, should always be considered. If the new way works, use it; if not, disregard it.

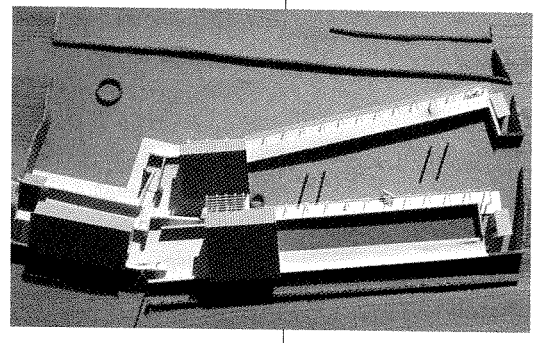
4. We must understand the space between buildings, not just the buildings. We no longer have the luxury of building without considering our neighbors. The collective act must always be respected.

5. Remember that all architecture is a life form. It grows and changes over time. We can not freeze it; instead, we plant the seeds for growth. People will modify it according to their needs, and with great energy. Always respect people's talent and build with them, not for them.

6. Finally, and most importantly, we have two responsibilities, first to the collective society and second to ourselves as makers. Do not fear making creative statements, but make them







Left, below right: **Model of new school. The new community place is in the center. The building is built into the terraces and faces south.** Photo: MIT **Pakistan Workshop**

Below left: **Computer image of sun control.** Photos: MIT **Pakistan Workshop**

within the limitations that you find. This is truly creation.

Two projects illustrate these points and try to follow their spirit. The first is in Pakistan and speaks to the extraordinary building, the second is in India and speaks to the ordinary. Both speak about making joyful, livable places.

Hyderabad, Pakistan: Building the Extraordinary

Public spaces and schools are essential elements of a community for the communication of thoughts and ideas. This project, done 1995-96 with the cooperation of the local community of Haiderabad, Hunza Valley, Pakistan, and the Aga Khan program, offers both an educational program and gathering place for the community. The design was done with the people of the culture, both reinforcing the sense of community and providing a new place for interaction.

The site for the Dawn Public School is in the northern mountains of Pakistan. The land is terraced and south-facing, just below a road looking over the valley.

The design of the school was influenced by the landscape, which is naturally terraced for growing food and is irrigated from mountain glaciers. Channels cut into the stone of the mountains direct the melting ice into the fields below. By designing the school to be built on successive levels and connected to the back terraced walls, the building fits with the land. Water moves through the terraces and into the main place of meeting.

The result is a building that has a relationship with its surroundings: the landscape helps and protects the school, and the school helps to define and give life to the landscape.

Thermally, placing the buildings against the back faces of the terraces and giving them thick earthen roofs

helps with heat retention and protects them from exposure to cold northerly winds from the mountains. The only exposed facades look south to the sun's warmth and provide light, which is needed badly in a place where winters are cold and resources for heat are limited. (Schools are closed in the two cold months since they can not be heated.) In the summer, these facades can be shaded from direct sun with trellises, and the openings offer light and ventilation.

The existing angles of these terraces also provide rich opportunities for the architecture. A slight shift in the angle of the building hints at a focal point with zones branching out from it. This focal point, which is also the only area with sloped roofs and a multistory structure, serves as the main entrance, the place where the building melds with the village. There is vertical interaction at this point as the entrance connects with the different levels of the building and terraces of the landscape. And as a celebration of the cascading landscape, water collects in pools at the various levels. When school is not in session, this space is used as a central place for villagers to attend classes and meet about community matters.

In the horizontal wings of the school the classrooms are located on two levels. Each has its own south-facing terrace, bringing as much light and sun as possible to the classrooms through skylights and openings.

Below: **Aegiali, Amorgos, Greece. An example of ordinary architecture, built on the traditions and cultures of the place; buildings that learn.** Photo: **Jan Wampler**

The building, designed from ordinary ideas in accordance with the land and culture, is also teaching new ideas of architecture and community. New materials are used to provide better insulation from the cold. Openings are designed to take full advantage of the sun and light. Thus, the building becomes extraordinary by teaching new ideas about community, place and architecture.

Referring back to the American quilt, perhaps this method can produce a rich texture of architecture and places. Like the quilt, the rules are simple and made from local resources. A wide variety of designs can then be made. And from this approach a new architecture, both ordinary and extraordinary, can truly become an architecture of all.

Gujarat, India: Building the Ordinary

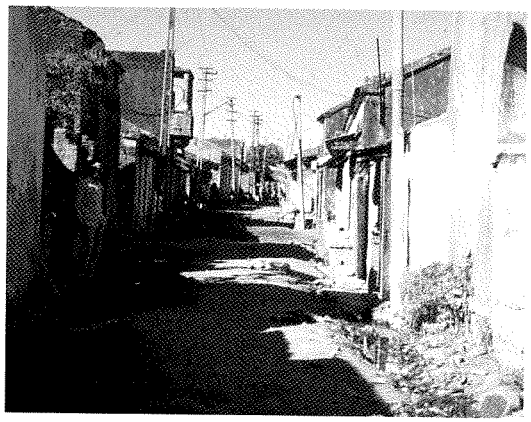
Since 1996, a joint Massachusetts Institute of Technology and Aga Khan Housing Board of India team has been working in seven villages in Gujarat, India. The overriding objective was to improve the quality of life in the rural villages of Gujarat through interventions and enhancements to both existing and new housing environments.

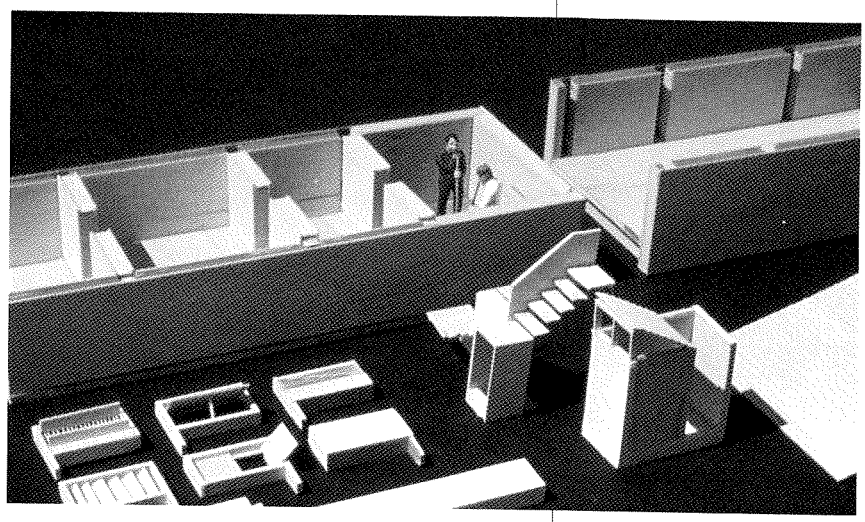
The following criteria were established to accomplish this goal:

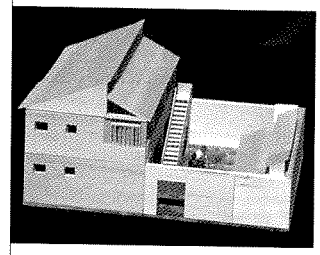
1. Provide housing of equal or higher quality than now built, for equal or less economic investment.
2. Improve existing or new housing by designing a new architectural vernacular of components, what we called a "Kit of Necessities."
3. Increase the amount of housing without using more agricultural land.
4. Include the villagers in the planning, design and construction in a participatory way.

In order to improve the general built environment, three other elements were singled out for attention:

1. Improve the use and quality of public spaces as generators of community.
2. Establish principles for the design of public build-







ings in villages, focusing first on health centers and later on schools and other building types.

3. Establish programs of education at all levels, starting with day-care centers, to educate people to the issues of housing and community.

The first part of the work was a presentation of village and house plans, consultation on technologies for materials, light and ventilation, and discussions about health issues. The second involved a workshop, which produced proposals for generic design solutions (the Kit of Necessities) for houses and public space.

The kit consisted of ways of arranging space efficiently and economically using local materials and technologies for building elements, such as stairs or openings for light and ventilation. It included various designs for windows that could be inserted in walls; latrines that could be placed in different locations; additional floors that could be added, with stairs of three different designs; and roofs modified to include a clerestory window. Special attention was paid to designs for kitchen areas and toilets.

Models illustrated how houses could be modified to provide better light, ventilation, sanitation facilities and increased space by adding an additional floor. The models were designed so that non-architects could assemble them, enabling residents to design their own homes. Villagers indicated their preferences for window type, location of windows in different rooms, kitchen location, and orientation of the clerestory relative to the front of the house.

We selected fourteen clients and analyzed their needs. We then developed prototypes for them to improve their existing homes by modifying and expanding the plans and by selectively applying the Kit of Necessities.

Design solutions were presented in plans, sections and selected house models. These models are similar to the original Kit of Necessities models, although they were designed to be changed quickly to give the residents an understanding of the designs. Similar to American quilts, many different patterns could be designed.

In the Gujarat example, the ordinary was built, continuing the traditions, resources, culture of the past and using the technologies of the present where they apply. In this way the culture of place will continue.

Project Credits

Pakistan Workshop
Faculty: Jan Wampler with Les Norford and Hasan-Uddin Khan. Students: A. Cabré, B. Brady, M. Christodoulides, S. Ventura

India Workshop
Faculty: Jan Wampler with Les Norford and Hasan-Uddin Khan. Students: D. Ali, Z. Ansari, A. Cabre, R. Chaudhry, R. Clocker, P. Dutta, S. Farrell, W. Lackey, M. Mani, E. McHugh, D. Miovic, M. Palasthira, J. Turkel, I. Vassilev, S. Ventura, R. Ziesmann

Upper left: **Gujarat, India. A typical village, where ordinary architecture informs solutions for improved and new housing.** Photo: **Jan Wampler**

Lower left: **Meetings held with residents of the villages to test the "Kit of Necessities."** Photo: **Aga Khan Housing Board of India**

Upper right: **The "Kit of Necessities," basic design elements for making improvements to existing and new housing**
Photo: **MIT India Workshop**

Lower right: **Finished house design.** Photo: **MIT India Workshop**