

The Myth of the Ecological Vernacular

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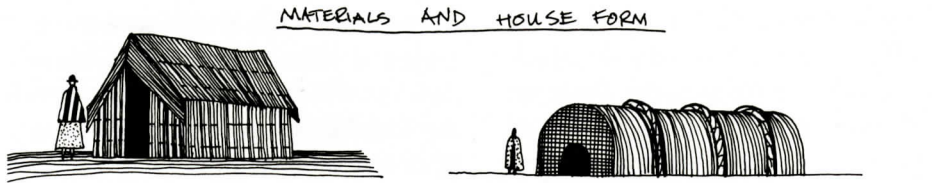
I saw many huts that the natives made. They were all alike, and they all worked. There were no architects there.

Louis Kahn, 1961

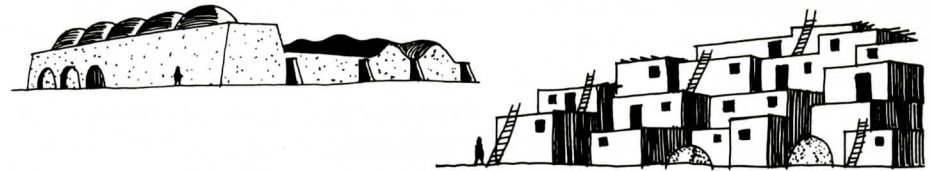
This is a story of mythopoeisis, the creation of a myth, for architects. It is a story of disjuncture between the intent of the individual author and the effects of the collective literature, between the stated text and the subtext of image and graphic design. At issue is not whether this myth is true or false, but rather how it has been invented and shaped through a selection of books published between 1963 and 1972.

In the last decade of the 20th century, designers share a myth that vernacular design is a source of truth for the greening of architecture. This myth, not false in itself, was given form by publications that have maintained their power and influence over 20 years later. Collectively, the literature creates an ethical stance, an iconic set of images, and a series of how-to manuals that tie vernacular design with an ecological awareness and responsibility. In *House Form and Culture* (1969), Rapoport details the attributes of the vernacular with which the myth is constructed: vernacular design has a lack of theoretical or aesthetic pretensions, the designs work with the site and microclimate rather than against, and the architecture displays a respect for people and hence for the total environment.

The second of Rapoport's vernacular attributes is taken up by a number of books that concentrate on design strategies and details. Fry and Drew's *Tropical Architecture* (1964) states that "we should learn to draw sensible inferences from the past habits and styles of building...that will help us to solve our current problems." This attitude grew naturally from the work of Fry and Drew in Africa and India, but also echoes Brodrick's article from a decade ear-



Dwellings made of one material (reeds). Left: Uru dwelling, Lake Titicaca, Peru. Right: Marsh Arab dwelling, Iraq-Iran border.



Dwellings made of one material (mud). Left: Iran. Right: Pueblos, southwestern United States.



Portable tents of sticks and felt. Left: Arab tent. Right: Mongol Yurt.



Two examples from the great range of house forms using thatch and wood as materials. Left: Masai dwelling (Africa). Right: Yagua dwelling (Amazon).

Drawings of vernacular dwellings from various cultures. (From *House Form and Culture*.)

lier, "Grass Roots: Huts, Igloos, Wigwams and Other Sources of the Functional Tradition" (*Architectural Review*, February 1954). Along with Olgyay's *Design With Climate* (1963) and Fitch's *American Building 2: The Environmental Forces That Shape It* (1972), this volume turns to vernacular, or "primitive," buildings and settlements to learn climate responsive design strategies, or how to "collaborate" with nature in providing shelter. Their interest in the vernacular is narrowly

bounded—a desire for technical information that has been lost or confused in the industrialized world and with the technological advances of post-war construction.

Fitch's book is a new edition of the second half of his 1948 single volume titled *American Building: The Forces That Shape It*. In the rewrite for the 1972 edition, Fitch incorporated much of the information from "Primitive Architecture" (*Scientific American*, December 1960) co-authored by Daniel Branch. Detailed

examples of “primitive” architecture were woven into an argument which originally contained no references to the vernacular at all. In the 1972 edition, Fitch is primarily concerned with the experience of the interior environment (aural, visual, odiferous, and so on), and concentrates heavily on the possibilities of new technologies and research. The “primitive” designs are included to teach basic principles, but instead become objects of fascination themselves. Performance information about igloos and pueblos is compelling enough to overwhelm the caveats in the text about what we are to learn from them. To learn that the temperature inside an igloo approaches freezing and to imagine being comfortable at that temperature virtually unclothed remains in our memories long after the “regular” building science advice has disappeared.

In *Design With Climate*, Olgyay is more methodical and less provocative than

Fitch in his categorization. Selective examples of vernacular design provide evidence that shelter adapts to climate and that each climate develops a regional character in architectural form. Vernacular architecture is shown to operate as a springboard, similar to animal responses to climate. This format follows that used earlier in Jeffrey Aronin’s *Climate and Architecture* (1953) and Olgyay and Olgyay’s *Solar Control and Shading Devices* (1957). The vernacular references are, however, a preliminary discussion included to ground the proposed theory and methodology. Olgyay’s real work does not concern an advocacy of the vernacular, but rather the scientific methods which will enable new designs to achieve the same success.

Fry and Drew in *Tropical Architecture* are less interested in developing a theory than a handbook of techniques, something that can sit on the drawing board and an-

swer the question of how to detail a roof for a tropical climate. Vernacular architecture makes a cameo appearance in this book as images at the beginning of each chapter. The text is a straightforward handbook, and illustrations of the technical points are made with contemporary architecture of the 1950s and 1960s and technical diagrams. Vernacular design is at most referenced in passing. For example, “Old Cairo, old Kano city were beautiful because they had come to terms with their circumstances and achieved harmony. Beautiful but unsanitary. The new part of Kano is sanitary, but it is formless and ugly. It has not come to any solution.”

Rapoport’s *House Form and Culture* (1969) and Goldfinger’s *Villages in the Sun* (1969) also pursue the question of how to make meaningful form, although these books are not as technological in content and are less didactic in form. As an anthropologist, Rapoport examines the role of cultural, social, religious, and physical factors that influence the form of housing. He takes issue with noncultural interpretations of form, complaining that “in architecture the climatic determinist view, still rather commonly held, states that primitive man is concerned primarily with shelter, and consequently the imperative of climate determines form.” This volley may well be aimed at Fitch, Olgyay, and Fry and Drew, who spend little time developing a balanced view of how to learn from the vernacular. Ironically, Rapoport’s discussion of climate as one source of architectural form is so clearly written and illustrated that it has become a standard source for such information, denying in use the theoretical position of the work as a whole.

Goldfinger is not specifically interested in climate, but rather in community design. While the bulk of *Villages in the Sun* seduces us with full-page photographs of Mediterranean villages, the introductory text tries to define the design lessons which can be learned from the same. The most interesting aspect of the lesson is told across the top of the text pages—53 small illustrations are run sequentially, generally pairing a vernacular image with a contemporary



Adobe guardians, Acoma pueblo; New Mexico. (From *Design With Nature*.)

design that has learned something from the vernacular example. Goldfinger sets forth neither a theoretical position nor a design manual, but rather a session in “design by vernacular example.”

In contrast to these “manuals,” contemporary publications took the ecological issues head on and searched for an ethical design behavior, for a means to live in harmony with nature through design. Whereas Rapoport identifies “harmony with nature” as a characteristic of vernacular design, in these volumes it is the dominant force. Perhaps because *Architecture Without Architects* (1964) was an exhibition catalogue, Rudofsky chose to structure his polemic almost entirely through black-and-white photographs. Much like Goldfinger, he relies on a pithy introduction to set the tone: “Vernacular architecture does not go through fashion cycles. It is nearly immutable, indeed unimprovable, since it serves its purpose to perfection.” These images are not as beautifully reproduced as Goldfinger’s (they were culled from so many obscure sources), but they are filled with details and visual patterns that appeal to designers.

McHarg’s *Design With Nature* (1969) may be the most influential as well as the most intriguing of these books. It is the only one of these publications that confronts the ecological issue directly and attempts to develop an agenda for the coming decades. MCHarg, not coincidentally a landscape architect, is also the only author who posits that the work of designers is about values, not about style, function, or pragmatism. A collection of detailed environmental studies is woven with chapters of mythical ecological narrative to produce a work both dense and disarming. MCHarg is direct about his purpose: “This book is a personal testament to the power and importance of sun, moon and stars, the changing seasons, seedtime and harvest, clouds, rain, and rivers, the oceans and the forests, the creatures and the herbs. Man... must become the steward of the biosphere. To do this he must design with nature.” Interspersed among the studies are cultural comments on the value of the pantheism of

aboriginal societies such as Native Americans: “Generally the members of these aboriginal societies could promise their children the inheritance of a physical environment at least as good as had been inherited—a claim few of us could make today. Life and knowledge have become more complicated in the intervening centuries, but, whatever excuses we offer, it is clear that we cannot equal this claim.” Yet in this, the most explicitly ecological of books, the connections to vernacular design are made only through inference. MCHarg has followed the Fry and Drew strategy of bestowing value on the vernacular through full-page photographs at the beginning of many chapters without discussing the image in the text. The pueblo has become an icon and stands without explanation.

The books discussed above have become classics in their own right. The two theoretical propositions, *Design With Climate* and *Design With Nature*, have developed strong reputations and arguably have had the greatest impact in the design professions. None of the publications makes explicit the myth of an ecological vernacular, although we tend to imagine that they do. Each, in their own way, contributes to the mosaic of ideas and images which has become the myth. This relationship between vernacular design and ecological responsibility has been created in the realm of the inferential and the collective, through the power of images and a chemistry between the individual texts. While Olgyay and Fitch present vernacular images as straightforward textual illustrations, Rudofsky and Goldfinger present the image as text. They have invited their visually oriented audience into a world of beauty and ethical behavior difficult to achieve in contemporary design practice. In the extreme, MCHarg and Fry and Drew reference the romance and the power of vernacular design through images only and make them “sacred” in their use as frontispieces. The pueblos and the woven thatch huts are presented as the implicit answer, both technically and spiritually, to the difficulties and challenges posed in the text. If

the values inferred by the images are not enough, Rapoport and MCHarg both detail the spirituality and the “harmony with nature” that have been found by the societies who created these works.

This use of repeating images collects the works into a family. As the images such as that of the pueblo begin to operate as icons, the myth becomes a collective belief. The resulting relationship of each of these books to the total myth tends to be *metonymic*, wherein an associated detail or notion invokes the sense of the whole. Calculating sun angles for a design allows one to feel a bit righteous, since it seems to contribute to the health of the planet and simultaneously connects us to the values of the culture that invented the tipi. Despite the variety of intentions of its sources, the myth of an ecological vernacular has powerful implications for the world of design, for it tells us that architecture can be as exciting as dancing with wolves, and certainly as politically correct.

HOUSE FORM AND CULTURE, Amos Rapoport, Prentice Hall, 1969.

TROPICAL ARCHITECTURE IN THE DRY AND HUMID ZONES, Maxwell Fry and Jane Drew, Reinhold Publishing Corp., 1964.

DESIGN WITH CLIMATE: BIOCLIMATIC APPROACH TO ARCHITECTURAL REGIONALISM, Victor Olgyay, Princeton University Press, 1963.

AMERICAN BUILDING 2: THE ENVIRONMENTAL FORCES THAT SHAPE IT, James Marston Fitch, Houghton Mifflin, 1972.

AMERICAN BUILDING: THE FORCES THAT SHAPE IT, James Marston Fitch, Houghton Mifflin, 1948.

CLIMATE AND ARCHITECTURE, Jeffrey Ellis Aronin, Reinhold Publishing Corp., 1953.

SOLAR CONTROL AND SHADING DEVICES, Aladar Olgyay and Victor Olgyay, Princeton University Press, 1957.

VILLAGES IN THE SUN: MEDITERRANEAN COMMUNITY ARCHITECTURE, Myron Goldfinger, Praeger, 1969.

ARCHITECTURE WITHOUT ARCHITECTS: AN INTRODUCTION TO NON-PEDIGREED ARCHITECTURE, Bernard Rudofsky, Museum of Modern Art (distributed by Doubleday), 1964.

DESIGN WITH NATURE, Ian MCHarg, Natural History Press for the American Museum of Natural History, 1969.