



TRADITIONAL BUILDINGS

A Global Survey of Structural
Forms and Cultural Functions

Allen G. Noble

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Cultural Functions

ALLEN G. NOBLE

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Preface

To discuss the traditional dwellings of the entire world is a daunting task. Examining in detail buildings at a local, country, or even macro-regional scale, would produce a work of encyclopedic scope. Time also presents a problem. Many traditional buildings are occupied today, providing accommodations to millions of individuals. Some of these structures follow original modes of construction, or at least those processes and guideposts that have persevered for centuries, and certainly deserve attention. Even more, inhabited structures, which may still be called traditional, possess modifications that have altered their original form.

Another group of traditional buildings has only recently – during the past century or so – been abandoned and may still be seen in the landscape by the dedicated observer. But some traditional structures are so old that they have been unoccupied for hundreds or even thousands of years. They still fall clearly within the scope of traditional dwellings. Only with the guidance of the archeologist can we understand and appreciate these structures, which may possess valuable clues to features of more recent buildings.

I have been most fortunate during my careers as a US Foreign Service officer and as a university professor to have lived and traveled in many parts of the world. This has enabled me to examine traditional buildings at close range and to make comparisons over a wide spectrum of examples. I have entered loess cave homes in central China, stilt houses in the shore waters of Dahomey, wattle-and-daub huts in lowland Ecuador, Tanzania and Sri Lanka, housebarns in Europe and North America, mud and stone circular-plan houses in highland Ethiopia, and many other buildings that stand out in my memory. Additionally, visits to fine open-air or Skansen museums throughout Europe, North America, and at least two in Africa, offered me the opportunity to study structures otherwise no longer in existence. The steady disappearance of traditional buildings across the entire world makes the expansion of these museums, and the establishment of new ones in other parts of the world, a critical necessity for governments and NGOs. By so doing, a heritage as well as cultural links can be preserved for future generations.

In order to present a study of maximum utility, rather than a mere catalog, however useful the latter might be, a few organizing concepts must be employed in a project of such diverse scope. First of all, the

reader must realize that the work offers no new ideologies or theories. That is not to say that existing theories are not accepted or rejected herein. I hope I have been clear when I differ with earlier authors. To focus the discussion, I have arranged the text material around certain themes, concepts or characteristics. Most chapters of this volume examine two closely related general items or topics, or they explore a single topic in somewhat greater depth. Using such an approach enables the reader to understand various processes, developments, and the rationale for traditional building. Examples are drawn from widely separated geographical locations and often from entirely unrelated peoples. In some instances, the examples are complementary, demonstrating the universal application of a principle. Alternatively, they may suggest the presence of axioms at variance with one another.

No reader should consider this volume as definitive. It explores what I think are interesting aspects and points the way to fuller treatments of certain features. I have tried to retain much of the original wording from the sources that I cite and use. In this way the approach of original researchers should be clear even though my own interpretation may differ. The text is supplemented with photos, maps, sketches, and diagrams to help clarify and expand materials. The study of traditional buildings is always greatly assisted by having illustrations to confirm, or make clear in another fashion, the written word.

One of the most serious problems facing the student of traditional buildings is that source materials are scattered over thousands of books and journals. Indices for these, by and large, do not exist and most bibliographies are narrow, fragmentary, or highly specific as to topic. I hope the current volume will bring some of the vast material on traditional buildings together in a useful and coherent fashion. To this end I have included references to a very large number of sources. I hope readers will consult these resources, which usually go into much more detail than is possible here. Citations in the text allow the reader, with a little effort, to consult the sources of my research and to determine whether or not I have accurately interpreted the material, and also to understand for themselves the argument of the original writer. The list of these references cited is an integral part of the present work and increases enormously whatever value it may have. I have also included a large number of illustrations, some original but many taken from cited works. I wish I could have doubled, or even tripled, the number of illustrations, but such action might be burdensome to the reader and would certainly be cost prohibitive. When you wish a more elaborate explanation than I have given, or you feel additional illustration would make the discussion clearer, please refer to

the references cited, which will often contain other illustrations and usually a fuller discussion.

I hope this volume provides information, answers unasked questions and stimulates the reader to pursue further the fascinating topic of traditional building.

Allen G. Noble

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Introduction: Terminology and Disciplines

Considerable confusion exists in the discussion of *traditional buildings* and it seems wise at the outset to establish the limits of terms and definitions in order to avoid further confusion. The word *traditional* refers both to procedures and material objects that have become accepted as a norm in a society, and whose elements are passed on from generation to generation, usually orally, or more rarely by documents that have codified orally transmitted knowledge, instructions, and procedures. This is not to imply that traditional processes and objects do not change over time (Figure 1-1). They often do, but usually slowly enough that their provenance is clearly seen or easily established. Though change is a constant in any society, it is the rate at which a society is forced to absorb the new that determines whether it can retain its integrity (Carver 1981, 27).

In traditional societies,

people have to make do with whatever is at hand. The form and arrangement of dwellings, for example, are constrained by the availability of local materials, the nature of the local climate and the socioeconomic facts of life. To a modern observer, the material world thus created can have enormous appeal because everything in it has a purpose, and because its aesthetic qualities emerge unobtrusively out of the serious business of living. (Tuan 1989, 28).

The concept of “traditional dwelling,” normally employed to describe a simple structure, often can be quite a complex conception. In warm environments where so much of daily life is lived in the open, the concept of a house as a structure is not as important as that of the entire compound, “the idea of a bit of land which is screened for privacy and which contains some enclosed internal space, and some outside space. This whole thing taken together is thought of as the home environment. Each part within is used as seems most appropriate in the



1-1. The low, black tent favored by nomadic peoples in central Turkey is traditional, but evidences of modern influences are abundant. For example, just over the roof of this tent and adjacent to another tent is an automobile used to get food and supplies from nearby towns and to market handicrafts, weaving, and sheep products. The propane tank and the sheets of plastic hanging over the tent ropes are other indications of modernity (photo by the author, 1999).

1-2. The interior of the tent shown in Figure 1-1. Except for a bit of ceiling plastic, the furnishings are entirely traditional (photo by the author, 1999).



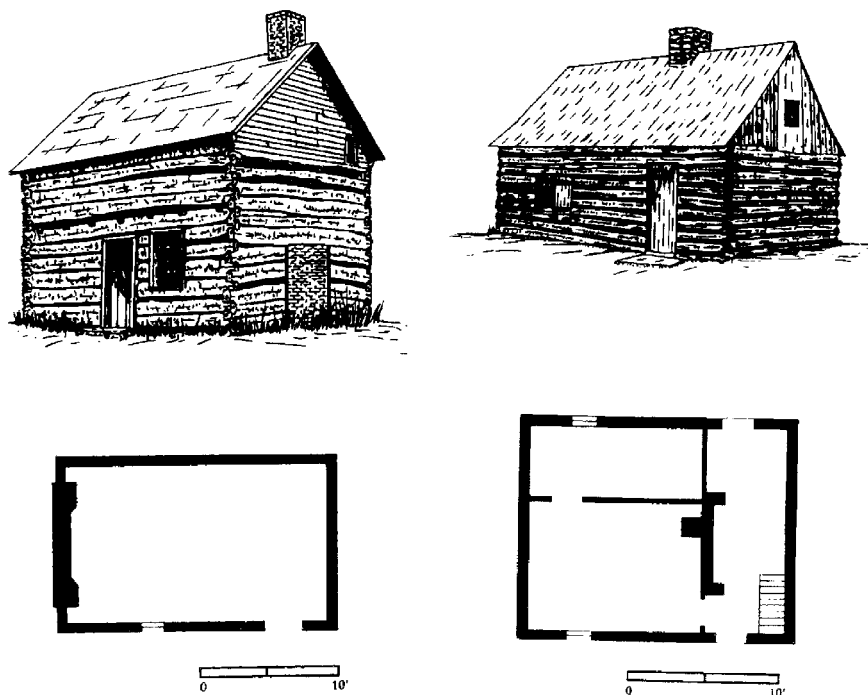
circumstances" (Rodger 1974, 105). Such a view is common throughout many traditional societies in areas of warmer temperature, and is especially strong where individuals live in extended family groups, or even clans (Thompson 1983, 204). The concept is further clarified by Alison Shaw's (1988, 54) observation that "in Pakistan ownership of land is more important than ownership of a house."

The cooler climate equivalent of this extended concept of the dwelling is the notion of the farmstead, with all its buildings and facilities, as the unit of residence, rather than the emphasis being placed on just the dwelling. These expanded concepts of the traditional dwelling will reappear throughout subsequent chapters.

"Tangible evidence of the past found in extant architecture enhances the present by providing a time perspective and by creating through contrast and harmony a feeling of location or situation. Furthermore, a sense of continuity and permanence conveyed by surviving material culture provides psychological security" (Robinson 1981, xviii). Also, some secondary elements may change, but at the same time others do not, thus verifying the traditional nature of the object or procedure (Figure 1-2). "By its relative immutability the dwelling offers a sustaining sense of security against the uncertainties of a milieu in which change is inevitable, but directions are imperfectly perceived and mechanisms are poorly understood" (Steward 1965, 28).

One of many such examples that could be cited is what happened with the log cabins built early on by the Scots-Irish in eastern North America (Evans 1965, 34). In Ireland, the Scots-Irish had built partly excavated sod huts, or much less often, stone huts, but in North America they rapidly shifted to the widespread construction of log houses. However, in the process they retained the floor-plan dimensions of the old-country huts (Figure 1-3), which made it easier and more acceptable culturally for them to use the new material (Noble 1984, 1:44). Certainly, other factors also played their part: the abundance of timber, the easier construction with logs versus stone, and the successful example of the neighboring Germans, Finns, and Swedes, who came to North America with long traditions of log building.

Fred Kniffen (1960, 22) reported a similar traditional tenacity from Louisiana, asserting "that the form of a structure persists even when the materials change." The hand of tradition is a strong one. Still another aspect of cultural tenacity has been reported by Ake Campbell (1935, 68), who noted the continuing custom in Ireland of "having farm-animals housed under the family-roof." He further observed, "this custom cannot be ascribed to poverty as it is still commonly met with among people who, if they so desired, could easily afford



1-3. The log pen house of the Scots-Irish in America had a floor-plan ratio of about 1:2. The hearth and chimney were at one gable. The interior was sometimes divided into two rooms of unequal size. The German log house's plan ratio was approximately 2:3, the hearth and chimney were interior, and the plan consisted of three rectangular rooms of unequal size and dimensions (drawings by M. Margaret Geib).

separate accommodation for the domestic animals. They prefer, however, to cling tenaciously to the old custom."

One term that, thankfully, is less and less often encountered is *primitive architecture* or *primitive building*. These words are frequently used in a way that implies negatively the "intention or mental equipment of the builder." Properly, the term describes only the cultural and technical development of a society (Brodrick 1954, 100). Even when used correctly, the terms are vague (Raglan 1964, 3-4), and reflect negatively upon structures, that are often precisely designed, symbolically executed, and more carefully fitted to the local environment than so-called "professionally" planned structures. "Too often we view the products of a past pioneer technology as primitive and crude when they are in fact quite complex and exacting" (Welsch 1967, 335). Too often "the notion of the 'primitive hut' is commonly introduced

as a hazy stereotype in many standard works of architectural history, as the supposed link with 'the cave' in the lineal ascent towards today's cityscape" (Duly 1979, 5).

In discussing traditional buildings one encounters other terms that appear from a hasty glance to have a somewhat similar meaning. *Folk building* or *folk architecture* is usually employed to describe practices or structures which are the products of persons not professionally trained in building arts, but who produce structures or follow techniques which basically have been accepted by a society as the correct or "best" way.

Speaking of the folk builder, Alan Gowans (1966, 10) says that he

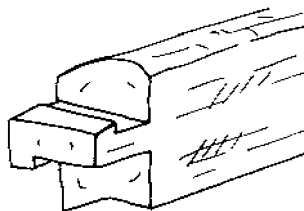
builds not so much functionally as adaptably – that is, not so much consciously thinking out solutions to particular problems of light, air or circulation (like a modern architect), as embodying in his work inherited generations of experience and with adjustments to local climate, materials, and social customs. . . . If the folk builder expresses his building materials frankly, it is not from any conscious convictions about architectural honesty or the virtues of handicraft (he will not hesitate for example, to cover stone walls with plaster or whitewash if that will protect them from frost).

One author, perhaps with unconsciously clever wit, has characterized folk architecture as "the architecture of habit" (Gamble 1990, 23). Even an outsider, after limited exposure, can recognize some buildings as belonging to a particular ethnic group. Just how strong this connection is, and how significant is folk architecture, has been emphasized by Peter Just (1984, 30), who – speaking of Indonesia – noted that "traditionally, each of the scores of Indonesian ethnic groups had a distinctive architectural standard for every house built by a member of the group, which constituted an active expression of that group's ethnic identity. The design of a house often had deep symbolic resonance for its inhabitants." Speaking of a different people in a different place, geographer Peirce Lewis (1975, 2) labels "common houses as cultural spoor," thereby emphasizing the house to be a cultural identifier.

Although folk houses are rarely identical to one another, they follow conventions accepted by their society and passed down orally. An unconscious recognition of this fact has been recorded by Sylvia Grider (1975, 51), who quoted a shotgun house carpenter as saying that such houses, for which no blueprints or drawings were ever used, "were always built by ear." Individualized expression is of limited value in folk building, but the overall similarity is symbolic of identification with the group that resides within them (Oliver 1977, 12).

Again, the example of the Scots-Irish in North America differentiates them from both the Germans and the Finns. The Scots-Irish log house is immediately identifiable as different from that of the Germans or the Finns or any other ethnic group (Noble 1984, 1:41–5, 121–2). The Scots-Irish utilized a rectangular, one- or two-room plan, typically with one door and one window, gable hearth and chimney, and horizontal logs or boards above the plate-log level in the gable. The Germans employed a three-room, less rectangular floor plan, a massive, centered, interior-positioned hearth and chimney, and vertical boards enclosing the gable (Brumbaugh 1933; Bucher 1962) (Figure 1-3). The Finns built log houses with extremely tightly fitted logs, which to a large extent eliminated the need for the considerable chinking required by the other groups. Corner notching used by the Finns also was usually more complex (Figure 1-4).

1-4. Sketch of a tooth notch. This and other complex notches are found throughout the Baltic Sea basin. In North America, they are most often seen in Fenno-Scandinavian areas (drawing by M. Margaret Geib).



Among the earliest scholars to recognize the cultural significance of traditional buildings, as expressed in folk architecture, are those folklorists who were exponents of the *folk-life* approach. Together with cultural anthropologists, they studied, in the words of Gwyn Meirion-Jones (1982, 3) referring to British folklore scholars, “not only the fabric of the building, its materials, construction and plan, as well as the archaeological and architectural evidence of change, but also the folkways of those who inhabited it, their customs, superstitions, habits of work and play, their music, literature and oral traditions.”

Vernacular architecture is a term widely used in the United Kingdom, and less so in North America (Ennals and Holdsworth 1998, 241f). Paul Oliver (1969, 10–11) reminds us that the term was employed as long ago as 1858. The expression was widely used and popularized by archeologists “to describe buildings that are built according to local custom to meet the personal requirements of the individuals for whom they are intended” (Carson 1974, 185). Its differentiation from the designation “*formal architecture*” is emphasized by Michael Karni and Robert Levin (1972, 92): “the study of vernacular architecture is not the study of intellectualized styles and modes as they are manifested in grand buildings. Rather, it is the study of how skilled

craftsmen have met the building needs of their group by using the materials available to them."

In a more expanded discussion, the eminent Irish cultural geographer F.H.A. Aalen (1973, 27) expands the definition and its application by noting,

Within regions there is marked and voluntary adherence by the majority of society to a single model or ideal pattern of house form. Even though professional builders may be operating, the basic model is not seriously questioned by builder or peasant. The model has no designer but is part of the anonymous folk tradition and tends to be persistent in time. Conformity, anonymity, and continuity may be seen as the hallmarks of regional vernacular architecture, reflecting the cultural coherence, simplicity, and conservatism of present communities and the deep rooted traditions within the building craft.

Geographer Martha Henderson (1992, 15) offers the observation that "vernacular architecture is an historical and geographical record of a culture group's relationship to physical and social environment." Gwyn Meirion-Jones (1982, 166) further suggests that vernacular architecture is an outgrowth and refinement of very early building, which is labeled "primitive." The author further wrote, "there can be no clear divide between the 'primitive' and the 'vernacular' in architecture. The one merges into the other as skill improves and the tradesman, be he carpenter or mason, is increasingly brought into the construction process."

In its most precise usage the term refers to types of structures that occur in a limited area. The usage was borrowed from linguists who used the term "vernacular" to refer to language limited to a particular region (Haase 1992, 11). Thus, words, phrases or grammatical constructions in English found only in Cornwall, for example, comprise the Cornwall vernacular language (i.e. its version of the more widely spoken standard English language).

When it is said that someone is speaking their "vernacular tongue," it is widely understood that the person is speaking a language indigenous to his or her area of upbringing. It is not normally a term which many people might associate with a style of architecture. At the same time, however, a vernacular building and a vernacular language share many characteristics. Both belong to a recognizable tradition that has evolved over many generations and both have features that are particular to the locality in which they are found. (Dublin Heritage Group 1993, 4)

Building skills also "resemble language to the extent that they are taught by demonstration and learned by imitation so that the idiosyncrasies of teachers are passed on to pupils, thereby consolidated in a

generation or two and perpetuated in the long term" (Mason 1973, 15). Jay Edwards (1993, 18) has observed,

traditions of American vernacular architecture, and low-level polite traditions which function like them, are formulated principally from the perspective of shared geometric regularities rather than that of stylistic attributes. Such traditions are implicitly recognized and understood by their designers, and are identified by their users primarily in terms of consistent geometric forms and spaces and the conventional relationships which obtain between them. Other aspects of a vernacular tradition remain variable and even expendable.

One of the distinctive characteristics of vernacular architecture study is its interdisciplinary or multidisciplinary focus. "Vernacular architecture has been examined from the perspectives of art and architectural history, social history, folklore, anthropology, historical and cultural geography, archaeology, architectural theory, and sociology to name only those disciplines that come immediately to mind" (Upton 1983, 263).

The initial scholarly studies of American vernacular architecture appeared in the 1890s, following the approach that has come to be recognized as object-oriented research. Such a method continues to be important "for there is much data to be gathered, much remaining to be understood about the physical history of buildings. This understanding forms the basis of all other vernacular architecture research" (Upton 1983, 277), although socially, culturally, and symbolically oriented studies are steadily gaining the attention of students of vernacular architecture.

In Great Britain, architectural historian Anthony Quiney (1990, 6–7) draws a line between folk building, which he disparages as "mere building," and vernacular architecture, which he assigns to structures created by the formally untrained, but skilled, craftsmen/builders. At the same time, he recognizes that "the line which separates mere building from architecture [is] impossibly vague." In North America the term vernacular architecture is usually applied more loosely to mean "of the people" – hence folk architecture, although Kingston Heath (1988) objects. Often the exact differentiation between vernacular architecture and folk building is not at all clear, although some researchers have attempted to label folk building as the product of persons who reside in the structure themselves, and vernacular architecture as the term to be used to describe buildings that are built according to local custom by local builders (Weeks 1996, 16). Obviously the terms overlap and often refer to the same process. Paul Oliver (1987, 68) has summarized nicely the process that applies to both:

Tradition establishes a broad matrix, the individual builder designs and constructs to suit his requirements within it. Such dwellings are neither slavish copies of their predecessors, nor willful deviants from them. Construction is not a matter of intuition as if the builders were like birds making their nests, but the result of deliberate decisions related to perceived needs.

Speaking of research methodologies employed in North America for studying traditional buildings, James Shortridge (1980) identified two dominant ones: "the wide-ranging, informal survey designed to get a feel for variation over a large area; and the meticulous measured drawing system often used by students of historical preservation." An intermediate-level approach has been largely lacking. One suspects that the reason for this has much to do with the enormous size of the North American study area.

The term vernacular architecture (in its regional sense) works well in England and some other countries where settlement has been more or less homogeneous with only wide regional differences. "Although there is evidence of widespread overall contact between craftsmen and an obvious exchange of ideas, there was also a good deal of regional insularity [up to the 19th century] leading to pronounced localized mannerisms" (Mason 1973, 15). Particular combinations of elements were "likely to recur throughout a district, thus producing a regional style of building, while the apprenticeship system of training craftsmen and the conservative tastes of most middle-and-lower-class country dwellers ensured that a style . . . tended to be repeated for many years with only minor variations. Regional building styles can, therefore, be identified" (Sheppard 1966, 33).

However, in North America concentrated settlements derived originally from numerous immigrant peoples are decidedly more limited geographically and are scattered across the landscape in a checker-board fashion. Each group introduced structures which were uniquely or primarily its own. Thus in Wisconsin, for example, there is no regional or vernacular architecture (in the British sense), but a series of ethnically related structures. In the outstanding open-air museum of Old World Wisconsin, where structures of early ethnic groups in Wisconsin are displayed, one experiences the distinctly different structures of the Finns, Norwegians, Germans, and Danes, because each is in its own cluster or setting and physically apart or shielded by vegetation from the others, although located closely enough for comparison. *Ethnic architecture* is a term that works well here, as well as for many studies elsewhere, where strong ethnic characteristics apply. It is especially useful in those places where more than one early ethnic group settled.

Cultural anthropologists have contributed some of the most useful studies of ethnic architecture because of the intimate connection between group culture and buildings. Schooled to investigate all aspects of culture, they recognize its influence on building. Selection of site, orientation of structure, choice of building materials, methods of construction, use of decorative elements, and many other characteristics are all intimately related to culture and vary from group to group within the same area.

The use of a seemingly straightforward term, such as *building*, also may engender some confusion. Scholars who study traditional buildings tend to view them, as Henry Glassie (1972, 31) has suggested, as “internally usable space rather than externally viewed art.” Usage of the term *architecture* in phrases such as folk architecture and vernacular architecture is looked on askance by some scholars, especially architects. A quotation from John Harvey (1975, 2) illustrates the point quite well:

two separate words do exist side by side: *architect* and *builder*, and their products architecture and building. This is fitting, since Architecture is acknowledged as the Mistress Art. Building, with all its component skills such as masonry, carpentry, glazing, is a collective technique taught by the members of one generation to those of the next. It may be greatly modified in course of time by the discovery of new materials or the invention of improved methods, but these changes come from outside. Architecture, however, is not simply the control and supervision of buildings; its primary function is the creation of solutions to fresh problems posed by patrons who wish to have not standardized but specially designed works put up in answer to their requirements.

Architecture is thus viewed as an art form, while building is not. Such an obviously class-derived differentiation is especially attractive to professional architects in the UK and elsewhere, who usually make little effort to discuss traditional buildings, or, when they do, often fail to understand or appreciate them. I must quickly, and in the interest of fairness, add that not all architects evidence such a narrow view.

Pamela Simpson (1990, 78), an art historian, speaking of the difficulties that she and a co-author had, says the following:

Standard American architectural books proved of little value. Although the seventeenth century was treated in these books in its vernacular manifestations (when nothing else existed to treat), once the high-style bandwagon got underway in the eighteenth century, vernacular forms were ignored. To study vernacular forms, we found it necessary to turn

to non-art historical fields – to anthropology, folklore, and cultural geography.

Perhaps it is because traditional buildings were not designed by professional architects that they seem to be neglected by many of them. Of course, as noted above, exceptions to this narrow perspective exist. Susan Denyer (1978, 4) comments, "Today more and more architects are turning to vernacular architecture for inspiration . . . because it is recognized that these structures obviously satisfied their communities' psychological needs far better than most modern suburban settlements do." Others have noticed the same awakening of interest among some architects, but as architectural scholar Ronald Haase (1992, 10) observes, "in a rush to add depth and meaning to a new post-modern architecture, much that is inappropriate and ineffectual is being borrowed from history and applied without concern for context," demonstrating a lack of appreciation of the vernacular.

An example from Sudan of such misapplication is provided by Allan Cain et al. (1975, 208–9), which they term "formalistic mimicry" or "pseudo vernacular." They recount the construction of low-cost housing in the time-honored circular plan with adobe-like walls. However, the huts are arranged in a formalistic and absolutely straight line with walled backyards rather than in the traditional open cluster arrangement. Additionally, the conical roof is of reinforced concrete rather than thatch. The new roof conducts heat while the old one did not. Finally, the new roof has no overhanging eave to shade much of the wall, so that now the entire wall is exposed to the heat of the sun. The walling material looks like adobe but is of cement, which more readily conducts heat to the interior.

Structural engineers also often find it difficult to appreciate the process of traditional building, which they label *low technology*. R.J.S. Spence and D.J. Cook (1983) accurately point out the differences of the low technology approach, but unfortunately they use as their example the manufacture of fire brick, not a very useful illustration because such brick is far less used in traditional building than other materials.

Architectural historians also seem largely to have neglected traditional building (Roberts 1972, 282). "What was legitimate in architectural history fell within the architect's realm; what was not encompassed by professional architecture was illegitimate" (Upton 1991, 195). Over 30 years ago John Maas (1969, 4) noted "architectural historians do not yet pay attention to the anonymous architecture of early and rural societies." In the years since, a painfully slow movement of architectural historians toward recognition of traditional building is evident, but the tilt towards the formal still persists.

Most histories of architecture have ignored the traditional common house; yet it is among man's most complex and ubiquitous creations – a product of physical and emotional relationship with human existence that has been constant, intimate and profound.

As shelter, folkhouses were essential to survival by moderating the extremes of climate, by keeping the terrors of the outside world at bay, and by providing the spaces that made life and work possible in an uncertain world. (Carver 1984, 7)

As it was almost 40 years ago (Maas 1969, 7), architectural history today remains a branch of art history. The problem of the basic orientation of many architects and architectural historians has been incisively identified by Gowans (1966, xvii):

Too often writers on architecture begin by paying lip service to the principle that architecture is the most social of all the arts, that unlike painting or sculpture it cannot be the expression of purely private taste or personal ideas, but must by its nature grow out of and uniquely witness to the common life and thought of its period, etc., etc. – then, having said this, they proceed to choose and write about precisely those works that were not typical of their periods, but that were great and original, and led on to the future.

The problem for architectural historians and architects in investigating vernacular architecture (Upton 1979, 173–5) may be that the widely held “elitist idea that architectural styles gradually filter down to the folk, who employ them as an imitation of high style, is erroneous” (Bronner and Poyser 1979, 118). Thus, these structures do not fit conveniently into architectural style classification systems.

One of the enduring strengths of traditional structures is their intimate relationship with their environment. As James Ayres (1981, 17) notes, “Before houses were ‘designed’ they evolved, with a sensitivity towards their environment that may be seen as truly organic. It is such values that we have lost today and thus it is, that we so cherish them.” Barry Dawson and John Gillow (1994, 19) make the influence of the environment even more critical by stating that “traditional architecture is a product of its environment; each regional variant develops in response to the conditions and materials determined by the local climate and vegetation.”

Anthropologists, folklorists and other similarly oriented scholars, however, hold out for culture-determined building strategies. The true relationship probably lies somewhere among these viewpoints. Ronald Knapp (1986, 1) offers a context that provides a solid rationale for the examination of traditional buildings. He says the following in reference to Chinese structures: “Rising out of frugality rather than

riches, vernacular forms, despite their nondescript appearance, nonetheless document a tradition in which experience and practical wisdom predominate."

Cultural and social historians seem to be much more sensitive to traditional structures and their significance to historical development. Carl Lounsbury (1983, 186) has identified the difference that exists between traditional building and formal architecture, as in the way research materials must be approached:

The study of vernacular architecture must proceed with a systematic and careful investigation of a large sample of buildings in a given area in order to distinguish common house types, materials, and structural systems. Unlike the study of academic architecture where emphasis is placed on the analysis of individual buildings of exceptional character, the study of vernacular forms depends on the recognition of the repetitive and commonplace. Too few buildings in a survey may distort the overall picture.

Architectural historian Dell Upton (1991, 197) carries this idea even further observing "each of the senses may perceive a different landscape in which the individual building is irrelevant." Therefore, the architectural historian needs to accept as the "unit of analysis the entire *cultural landscape*." Thus, he comes quite close to the approach followed by cultural geographers, as noted below.

Amos Rapoport (1980, 283–4) earlier carried the argument for extensive surveys even further. "Generalizations based upon limited samples are suspect. The broader our sample in space and time, the more likely we are to see regularities in apparent chaos and to understand better those differences which are really significant." He further emphasized that high style architectural elements "can be fully and properly understood only in the context of the vernacular matrix which surrounds them, and to which they were related, at the time they were created."

Both "architecture" and "building" operate in a broad area, which is often termed *material culture*. Several definitions of this term have been offered, but the simplest and, at the same time, most comprehensive and widely applicable, is that put forward by James Deetz (1977, 10). He simply defines it as "that segment of man's physical environment which is purposely shaped by him according to culturally dictated plans."

Although the term material culture is coming to be widely accepted in North America, other terms with somewhat different meanings also may be found. As Henry Glassie (1968–69, 39), a non-geographer, recognizes, "the establishment of cultural regions provides one of the major reasons for studying material folk culture." Consequently,

cultural geographers sometimes use the expression *settlement landscape* instead of material culture because their orientation is frequently toward analyses of the component parts that make up the cultural landscape. Geographers, to the distress of other scholars, often neglect the details of a building and its particular human connection in their quest for the keys to the cultural landscape (Attebery 1998, 5).

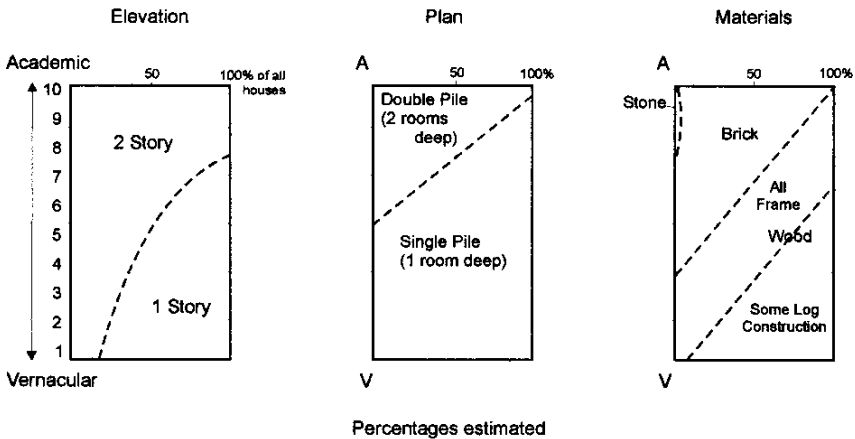
Geographer Daniel Arreola (1988, 299) has proposed the interesting term "*housescape*" to include a house and its immediate landscape. The placing of the building in its surrounding context has strong appeal for geographers. They frequently are more interested in how the structure reflects regional patterns of culture, economy, and environment (Buchanan 1963) than they are in the human dimensions and history of the building. This also creates unease among anthropologists, folklorists, and historians.

Another expression sometimes encountered is *built environment*. It serves to identify that part of material culture which treats entire buildings and their man-made context, as differentiated from the natural environment. The term, although apparently coined originally by sociologists, is favored by planners, engineers, and some landscape architects.

Finally, notice should be taken of the continuum that exists in the phrase *architecture/building*. Traditional building is the product of talented but largely untrained individuals, who build as they do because such knowledge has been more or less informally passed on from generation to generation. The society enforces rules, often unwritten, by group acceptance. Even so, some individuals do not conform, but their structures never characterize the ethnic group's most definitive buildings.

At the opposite pole stands the trained architect who follows stylistic rules, or in rare cases breaks new ground to expand the rules or make new ones. If the society accepts the creations a new style is born or an older one modified. When a particularly responsive chord is struck, the style persists and may come to dominate. Gothic Revival, Classic Revival, Italianate and Second Empire are all examples of long-lived styles recognized in the US. The attitude of society is important only after the structure is completed, and not before, as in the case of folk architecture. In a real sense, the architect is building for the approval of clients and other architects. Structures built by architects are often referred to as *academic* or *formal* architecture.

Folklorist Howard Marshall (1981, 25) helps us to understand the different perspectives by noting that "folk things tend to vary little over time but much over space – and the opposite is true for fashion-



1-5. The relationship between characteristics of vernacular and academic or formal architecture, emphasizing form and materials (based upon Trimble 1988, 100).

able things and academic architecture.” Writing with regard to middle Tennessee – where both vernacular and academic architecture buildings exist – Stanley Trimble (1988, 98–100), in a valuable idiosyncratic analysis, contrasted academic and vernacular characteristics relating to elevation, plan, materials, and other aspects (Figure 1-5).

Between the poles of folk and academic architecture lies a vast area into which most buildings fall in any classification scheme. Designated as *popular* or *eclectic* architecture, these structures combine components of various architectural styles, sometimes together with elements from traditional building. John Warren and Ihsan Fethi (1982, 21) have summed up this relationship quite nicely:

There is an indefinite threshold between vernacular building and conscious architecture. The vernacular is the work of the people, the users, without the aid of designers. Conscious architecture is the work of those who design as a deliberate art, often for their livings and usually for others: and between the two lies the work of local builders guided by experience and tradition and working directly to the wishes of their clients. At its one extreme this work rises into the realms of conscious architecture and at the other it reflects the untutored eye of the common man often with the most engaging and practical of results.

While architects may have been remiss in ignoring traditional building, or, when what little attention has been paid, in patronizing (Mason 1973, 12), a wide variety of other scholars have examined these structures. Such investigators include cultural geographers,

cultural historians, anthropologists, archeologists, sociologists, historic preservationists, folklorists, and landscape architects. Fortunately, such diverse backgrounds and training permit traditional building to be approached from several perspectives, offering a variety of insights.

With the shift of world population to cities, the emphasis on traditional building began to decline (Aalen 1973, 48). However, the overwhelming number of scholarly studies of such structures treat those of the countryside or in small villages. As geographer Ronald Knapp (1986, 2) puts it, "rural houses by and large have been *built* rather than designed, with tradition acting as the regulator. Experience, practicality, and economy have guided housing form just as local conditions have governed building materials." In these areas patterns usually can be seen more clearly than in the often confusing and mixed urban context. Also, the hold of tradition is strongest in the rural areas, where change and innovation generally occur most slowly. This is not to say that traditional buildings cannot be found in urban areas, but most scholarly attention has been focused elsewhere. Nevertheless, historic preservationists and historic preservation planners have been in the forefront of those working with traditional structures in urban areas.

Above all, it must be remembered that traditional buildings rarely exist in isolation. They make up an *ensemble* of structures as part of a farmstead, a compound, a hamlet, or a small village, and they need to be considered in their context whenever possible. A fundamental error, which many local historical preservation entities make, is to preserve a single building, often moved and reassembled on a new site. Of course, many factors operate against extensive preservation, such as lack of funding, lack of adequate space, radically changed land use, and lack of community interest. Granted, single structure preservation is better than none at all, but how much more useful would be preservation which included context.

The need for archeologists to investigate and understand context has been explained by Robert Barakat (1972, 6). His comments apply equally to scholars of all other disciplines. He says, "The task of the historical archaeologist is to reconstruct the whole life of a town, village, farm or house, and not just selected parts, a goal that is indeed awesome in scope but not so impossible. If his work is to mean anything at all to the world at large, it must accomplish this; he cannot escape his responsibilities to the scientific pursuit of knowledge and to himself."

Over 20 years ago, I ended a two-volume study of the North American settlement landscape (Noble 1984) with a plea for the

development of a common research *terminology*. I was certainly not alone in recognizing the problem, which had been identified by frustrated researchers at earlier times (Richardson 1973, 77; Walker 1977, 5–7, for example). It was probably naive of me to expect that such commonality could be achieved in a short space of time. With so many scholars from such widely disparate disciplines and perspectives, a converging research approach remains unlikely, but the need continues. Even the preparation of an extensive and comprehensive multilanguage glossary would be beneficial in enhancing knowledge and research.

Interest, and even awareness, of vernacular architecture is growing, both among professionally trained investigators and among those others who simply have a curiosity about such structures. Not until about the 1960s was such interest sufficient to support much ongoing activity to learn about and then to preserve traditional buildings. Prior to that, efforts were generally oriented toward structures that had an intimate connection with an historical event, or more likely a locally prominent person. The buildings of the folk were largely ignored as unimportant.

The reader will note a heavy emphasis in this volume on earlier studies and the extensive employment of examples to illustrate concepts, processes, and phenomena. These demonstrate the worldwide scope of traditional building practices and the often surprisingly similar approaches in widely separated parts of the world, as well as the informing contrasts. Thus, these examples are so numerous and integral as to form a critical component of this volume. I have included references to these earlier works to enable interested readers to locate them easily and to evaluate the source materials for themselves.

Admittedly it is difficult to attempt to find universal commonalities in traditional building across the entire world. They exist only up to a point, but at the same time their identification may be illuminating, so that a framework is created for investigations of problems of much more local and restricted scope. It is with this hope that the following chapters are presented.

~ 2 ~

Function and Form

Concepts of function and form are central to the study of traditional buildings. The widely repeated dictum that “form follows function” has fine alliteration and a kernel of truth, but on close examination the idea falls short with reference to traditional building. Recognizing this, French scholars of architecture at the Museum of Folk Arts and Traditions in Paris coined the term *functional décalage* to identify the many discrepancies between form and function (Rivière 1954, 9). Furthermore, John Lloyd (1969, 34) notes that in medieval Norway “buildings were differentiated by function rather than by form.” Each farmstead consisted of multiple, identically standardized units, each unit being differentiated only by its function. In contrast, Ronald Lewcock and Gerard Brans (1977, 107–16) and others have demonstrated convincingly that house form derived from other sources can persist and be easily adapted to function if the form is sufficiently strong within the cultural background of the society.

Even though *function* remains inflexible, the form is quite variable. Houses may be excavated or erected, or partly both. They may rise to a single story or several. Their floor plans are square, rectangular, round, oval, or combinations of such figures. Roof forms are equally diverse and depend more upon climate and available local materials than on function (Figure 2-1). Wall treatments show almost infinite variations. As an illustration of the significant effect of climate, consider Labelle Prussin’s (1974, 185–6) observation that in West Africa there is little temperature change between day and night, or even between wet and dry seasons. This calls for a shelter with a raised floor, open-weave bamboo screen walls, and a floor plan providing for cross-ventilation. In contrast, the interior savannah climate has both rainy and dry seasons, with daily temperature changes in the latter as large as 30 to 35° Fahrenheit. Here, “the earthen roundhouse with its insulating walls can accumulate and store the heat of the day for evening comfort.”

One must not, therefore, rely on form and function too single-mindedly. “All houses are dwellings; but all dwellings are not houses” (Oliver 1987, 7). The case of Dutch windmills offers an apt illustration.



2-1. *The arched roof traditional dwelling of the Toda people in the Nilgiri Hills, India. The small size of the door is a security feature carried over from earlier, more precarious times (photo by the author, 1976).*

The function of a windmill is to provide a reliable source of power. At the same time, many of the older windmills provided living space for the miller's family on the lower levels of the structure. The mills, designed in the 15th century, were of the hollow-post type, and had two entrance doors. Two are "required in order to provide free access and exit with any position of the plane in which the sails are turning. The door past which the sails sweep is then firmly shut, for it would be highly dangerous if someone were to pass through inadvertently" (Stokhuyzen 1963, 30).

Because these early mills were small, the single living/kitchen/sleeping room was very cramped. "A small cottage, the summer house, is often found close to the mill. It is there that the miller and his family live more comfortably in summer. The summer house is low, so as not to interfere with the catching of the wind" (Stokhuyzen 1963, 33). Later on, the mills became considerably larger and two floors could be devoted to living quarters, but space was always at a premium. Even later, larger drainage mills provided more suitable, expanded living accommodation, with the living room/kitchen on the ground floor and bedrooms on the next level. Smoke found its way out of the mill through small apertures high up in the thatched wall/roof.