

Drawing Boundaries: Vernacular Architecture and Maps

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The analytic potential of maps has never been fully explored in the discourse on vernacular architecture. This disregard for cartographic representations is unfortunate, as maps may provide researchers with valuable insights and open up new directions for inquiry and understanding. Using several examples, this paper aims to show how maps may be of particular value in charting the ways in which architectural boundaries sever or coincide with national, cultural or ethnic boundaries, and in identifying new areas for research and recording that go beyond a narrow focus on culture areas.

In March 2001 the Taliban government of Afghanistan, using tanks, rocket launchers, and explosives, demolished two 1,700-year-old statues of Buddha in the Bamiyan Valley, evoking widespread condemnation from an international community that did not seem able to do more than remain a passive spectator. Some twelve months later, backed by the United Nations and Afghanistan's new interim government, plans to rebuild the monuments were put forward by the Afghanistan Museum in Bubendorf, Switzerland. Referring to the cultural significance of the statues and the economic need to restore the area, the latest computer technology was brought in to try and recapture some of the meaning and beauty of the statues.¹ Although the plans are welcomed by most Bamiyan residents, they have raised questions as to whether the resources needed to carry them out could not perhaps be put to a different, more urgent use, such as the provision of food and housing to the millions of homeless Afghans. The focus of international attention on the unique cultural significance of these monuments also threatens once again to obscure more modest components of Afghanistan's cultural heritage, including its vernacular building traditions. Surely, a redevelopment of Afghanistan's nonmonumental built environment is equally, if not more needed to provide economic stability and peace in the region.

Such a redevelopment of Afghan vernacular building traditions was a driving force behind the publication in 1991 of *Afghanistan: An Atlas of Indigenous Domestic architecture* by Albert Szabo and Thomas Barfield.² Published two years after the Soviet withdrawal, the

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atlas was aimed to serve not just as a document of the variety and richness of Afghan vernacular architecture, but as “a guide for aiding the reconstruction of Afghanistan in the years ahead.”³ By the late 1980s, twelve years of war had caused the obliteration of countless numbers of buildings, adding to a destruction of vernacular building traditions that had been instigated by modernist government policies in the 1960s and 1970s, particularly in urban areas. By documenting vernacular resources, designs and techniques, Szabo and Barfield aimed to raise the awareness and understanding among both international aid organizations and Afghan architects of the significance of the country’s vernacular traditions. As an essential part of the Afghan cultural heritage, they argued, vernacular building skills and knowledge could enable the development of culturally and environmentally appropriate housing, making use of local natural and human resources and providing much-needed continuity in a country traumatized by years of war. The humanitarian and economic problems faced by consecutive Afghan governments to this very day only validate the necessity and value of Szabo and Barfield’s effort.

The core of the atlas is formed by architectural drawings. These drawings, including elevations, plans, and “cutaway” perspectives, are accompanied by short descriptive texts and, occasionally, black-and-white photographs. A great variety of nomadic, transhumant and settled building types is included in the atlas, ranging from tents and huts, to caves and fortified farms. In this way, the atlas illustrates the diversity in building forms and materials in various parts of the country. Twenty-nine black and white maps, each taking up one page, serve to indicate the geographic distribution of the various building types (FIG. 1). The design of the maps is standardized; each



FIGURE 1. “Distribution of domical Yurts (Turkmen, Uzbek, Central Asian Arab, Kirghiz).” Source: A. Szabo and T. J. Barfield, *Afghanistan: An Atlas of Indigenous Domestic Architecture* (Austin: University of Texas Press, 1991). Reprinted by permission.

map shows major roads, rivers and towns by means of lines and symbols, with gray tones highlighting the location of the types concerned. And in addition to these maps that indicate the distribution of particular building types, twelve general reference maps are included, explaining such characteristics of the country as climate, topography, and ethnic dispersal. Although fairly plain in execution, the maps communicate geographic information in a clear and straightforward manner. In combination with the drawings, text and photographs, they provide a comprehensive document of the state of Afghan architecture before the wars, adding a geographic dimension that is lacking in other works on the subject.⁴

Although a great many thematic atlases have been published through the years, including one or two that deal with architecture, Szabo and Barfield’s atlas of Afghan building types is the only one to date to deal with vernacular architecture as such.⁵ This exceptional status not only reflects the marginal position of studies of vernacular traditions in general, but also a remarkable disregard for the use of maps among the growing number of scholars in the field. Indeed, with a few notable exceptions, maps have never been fully part of the methodological toolkit of those working in the field of vernacular architecture. Even in the works of some cultural geographers, the only maps featuring are general reference maps that serve no other purpose than to indicate the location of the countries or cultures that are dealt with. In fact, in the strict sense of the word, Szabo and Barfield’s work, although making use of maps, does not even qualify as an atlas (i.e., a bounded collection of maps), since its emphasis is on drawings rather than maps.

This disregard for the value of maps is unfortunate. As I will attempt to show in this article, maps, apart from being a preeminent tool to represent and interpret geographic information, have the potential to help those who use them to gain new insights, raise new questions and hypotheses, and open up new directions of inquiry and understanding. In particular, maps may help chart the ways that architectural boundaries sever or coincide with national, cultural or ethnic boundaries, as well as help identify new areas for research and recording that go beyond a narrow focus on culture areas.

DISTRIBUTION AND DIFFUSION

The techniques of recording and analysis that are employed by scholars working in the field of vernacular architecture have mainly been restricted to descriptions, architectural drawings and photographs. Although maps have long been an important tool in other disciplines with a serious interest in vernacular traditions — for example, archaeology and geography — they have not been able to secure an equally prominent position in the field of vernacular architecture. Whether a study appears in the form of a book or a journal article, whether it deals with particular cultures or regions, or focuses on specific building types, techniques or materials, maps are only rarely

included to communicate information or to illustrate hypotheses or arguments. Plans of buildings or settlements in relation to their natural and built surroundings may be regularly made, but the focus of these is often on individual buildings or settlements. Maps showing the distribution of particular resources and materials, building types, or technologies in an individual country, on a continent, or across the world are relatively rare. Strikingly, the increased importance of graphic imagery, including maps, caused by the rapid development and increased availability of new means of visual communication has not yet altered this neglected status of maps.⁶ Despite the accessibility of relatively cheap desktop mapping programs and more sophisticated Geographical Information Systems (GIS), maps of vernacular architecture are still hard to come by.

This is not to say that maps have not been used at all and that Szabo and Barfield's atlas of vernacular Afghan architecture is truly unique. Various studies have been published in which maps have been used to support an argument put forward in the text — for example, by showing the distribution or geographic movement in time of certain building elements, or the diversity in location and density of particular building types. And these instances only further point to the utility of mapping as a research tool. Such studies have generally been carried out by geographers concerned with the identification, classification and distribution of particular types or features in specific regions and periods, or by scholars interested in geographical diffusion and the question of how and why particular buildings undergo changes during processes of migration. Ronald Brunskill, for example, used distribution maps to show the variations in location and density of timber roof constructions in Britain — as well as a map intended to indicate general regional variations in “traditional” British buildings through the identification of eighteen vernacular regions.⁷ Likewise, Allen Noble used quantitative-distribution maps to chart the distribution and diffusion of various types of barns in the American Midwest, while Philip Drew used several maps to illustrate the distribution of various tent types in North America, the Middle East, and East and Central Asia.⁸

A particularly well-known study in which maps were used to support hypotheses about housing regions and the geographical and temporal diffusion of buildings was Fred Kniffen's article “Folk housing: Key to diffusion” (FIG. 2).⁹ Based on almost thirty years of field research into American vernacular traditions, particularly those of European origin, Kniffen distinguished three “source areas” or “cultural hearth zones” along the East Coast of the United States — New England, Middle Atlantic, and Lower Chesapeake. Applying the concepts of “initial occupance” and “dominance of contemporary fashion,” he then attempted to trace how, during the eighteenth and nineteenth centuries, house types were diffused westward from these source areas through the migrations of European settlers, drawing his hypothetical “hearths” and routes of diffusion on a map. By comparing this (by his own admittance) very generalized map with distribution maps of American “community

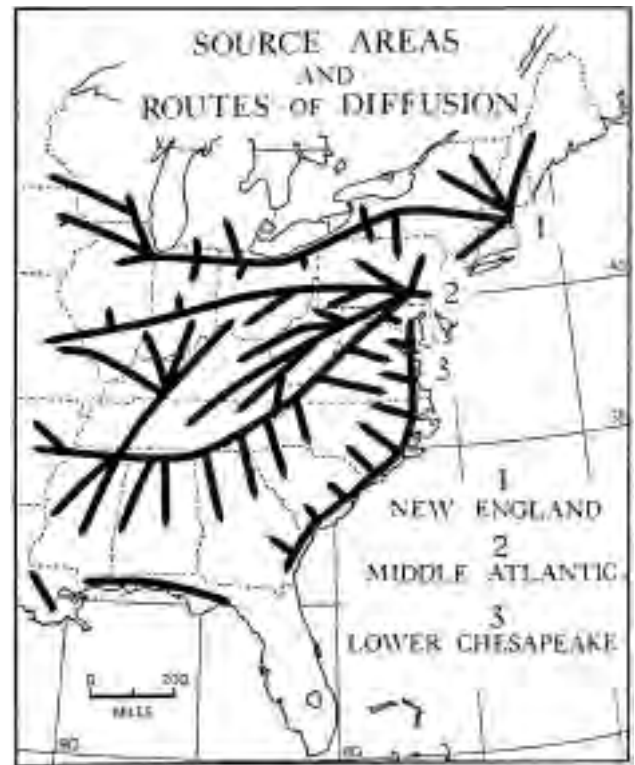


FIGURE 2. “Source areas and routes of diffusion.” Source: Fred B. Kniffen, “Folk Housing: Key to Diffusion,” in D. Upton and J. M. Vlach, eds., *Common Places: Readings in American Vernacular Architecture* (Athens and London, University of Georgia Press, 1986). Reprinted by permission.

areas” and dialects, he then tried to validate the hypothetical source areas and routes. Although diffusionist studies like that of Kniffen are relatively rare in the field of vernacular architecture, similar types of maps that chart, for example, the spread of flat-roofed adobe houses from Mexico to the southwestern United States or the diffusion of wood construction in the eastern United States have been published.¹⁰

Most of the maps referred to above are small and rather crude in design, sometimes resembling sketches rather than finished products, and many of them do not portray any data other than the distribution or diffusion of the building types or features concerned. They mainly serve to illustrate classifications or explain arguments made in the texts that they accompany. Thus, even though the maps may have been essential in the research process and the development of hypotheses, as in the case of Kniffen, they have not been selected as the prime medium to communicate the results. In most instances, texts, photographs and drawings are still dominant. Maps that are intended to “speak for themselves,” with little or no commentary do exist, as in the case of John Prizeman's map of regional variation in stone construction in relation to ethnic divisions and rainfall in Great Britain, or Christopher Tunnard and Henry Hope Reed's map of the predominance of three-decker

dwelling in New England (FIG. 3).¹¹ Interestingly, however, those maps are often found in books or atlases that focus on the cultures of particular countries, regions or ethnic groups, rather than works dealing with vernacular architecture as such. In such publications, a map of “shelter” or “rural house types” may sometimes be included alongside similar maps on settlement patterns, clothing or languages in an attempt to offer a comprehensive survey of the cultural geography of the peoples concerned.¹²

MAPS AND BOUNDARIES

The usefulness of maps to show the diffusion, distribution or numerical variation of building types, resources or technologies should be obvious. As symbolic representations that facilitate the visual display of spatial data, maps have the capacity to communicate geographic information in a way that is visually direct, clear and effective. In the specific context of architectural boundaries, distribution maps can be

helpful in charting the way in which the boundaries relate to the configuration and negotiation of cultural or ethnic identities. Vernacular architectural boundaries may be of various sorts; for example, they may concern the distribution and use of building materials and resources, technologies or service systems, building forms and types, or decorative motifs and symbolic associations. The geographic positioning of such boundaries and the traditions they define is based on a combination of geological, climatic and cultural factors.

Likewise, the way in which they may sever or coincide with national, cultural or ethnic boundaries is complex and, to some extent, variable. Because of the regional focus of most studies of vernacular architecture and a disregard, hitherto, for boundaries as interesting subjects in their own right, our understanding of the geographic constellation of technological, functional and formal traditions that is the result of this overlapping of boundaries as yet seems small and fragmented. Thematic maps that chart the location of architectural boundaries, both cross-culturally and at the level of individual cultures or countries, can be of great value in raising

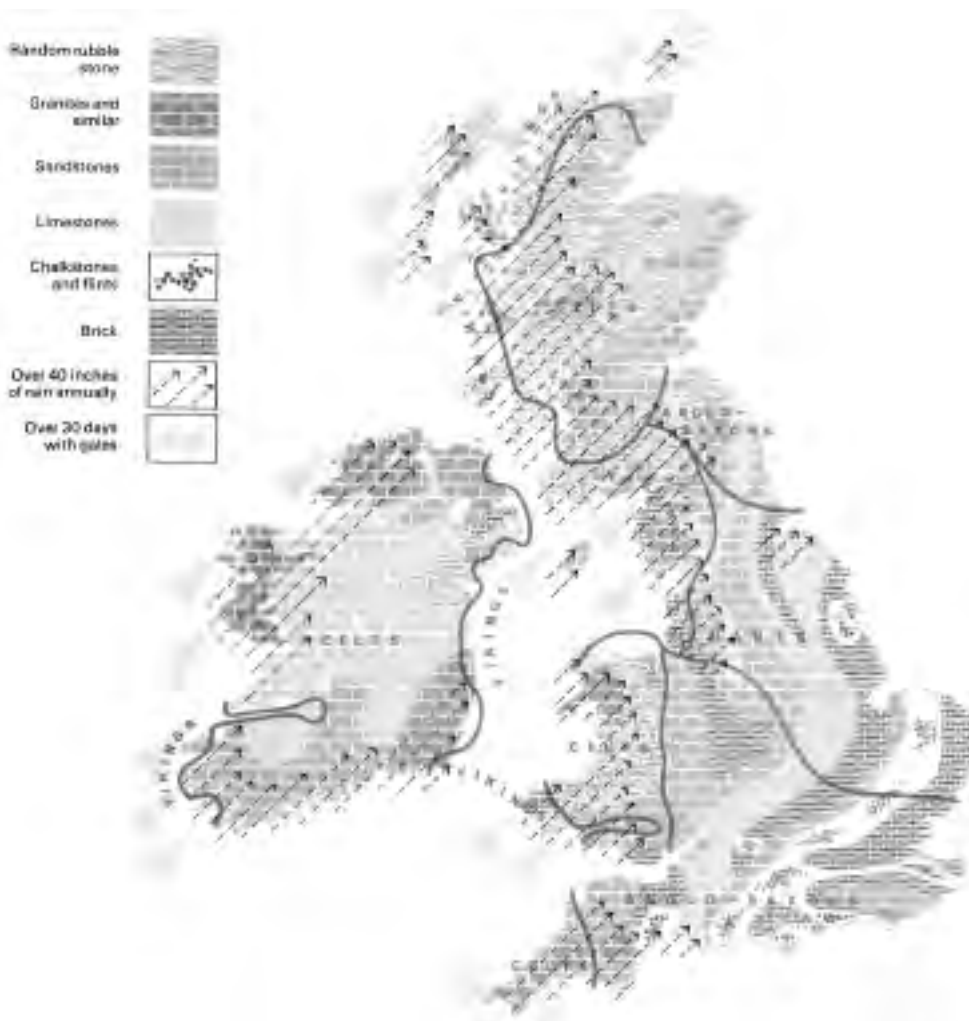


FIGURE 3. “Regional variation in stone construction in relation to ethnic divisions and rainfall in Great Britain.” Source: J. Prizeman, *Your House: The Outside View* (London: Hutchinson, 1975 [new ed., Quiller Press, 2003]). Reprinted by permission.

such an understanding, which is needed if the consequences of current and former processes of cultural interaction, modernization and globalization are to be fully appreciated.

Until now, many published maps dealing with vernacular building traditions have focused on particular countries or cultures. Given the regional focus of most vernacular architecture studies, this should come as no surprise. It would also be quite understandable if the feature to be mapped was indeed only to be found in the country concerned. Quite frequently, however, the traditions that have been mapped are encountered in other places as well, crossing national or cultural borders. For example, the distribution of domical yurts, black tents, or sun-dried brick walls charted by Szabo and Barfield extends well beyond the present-day political borders of Afghanistan. Indeed, their extensive distribution is related to the complex cultural history of the area, Central Asia having acted as a stage for commerce, wars, migrations, and religious dissemination for thousands of years. The result is a cultural matrix in which some traditions are found across several national borders, while others are restricted to particular isolated areas. Clearly an accounting of the overall distribution of yurts, black tents, or sun-dried bricks would tell us more about the history and origins, diffusion and meanings of these traditions than a more limited focus on dispersal of the forms within the current borders of Afghanistan. A similar observation might be made with regard to M.E. Harvey's map of rural house types, including circular huts with thatched conical roofs, in Sierra Leone (FIG. 4).¹³ In both instances, the maps fail to indicate the political boundaries which define them do in fact not necessarily coincide with the cultural and architectural ones represented on them.

A map that is not restricted to a particular culture or country, even though it does focus on one specific geographic region, is Peter Andrew's map of Middle East nomad tent types (FIG. 5).¹⁴ Designed by a cartographer rather than the author himself, this map shows the location and relative density of various tent types, divided into several types of "framed" and "velum" (frameless, membranous) tents, some of which are further distinguished on the basis of the material used as cover (e.g., felt, goat hair, palm matting). The map not only shows general distribution patterns, but indicates where particular types have definitely been found ("observed"); where they may probably be found; and where they have been common in living memory, but are now no longer in use. In addition, arrows are used to indicate the migration routes covered by the nomadic peoples who use the tents — with a distinction being made between routes that are carried out periodically, and those that take place only occasionally. The names of the various groups are included on the map, as are, in certain areas, the locations of tribal boundaries. Further background information is given that helps show how various typological, cultural, geological and national boundaries sever different regions or coincide with them. These include national boundaries, watercourses, differences in altitude, and the locations of towns and cities. Together

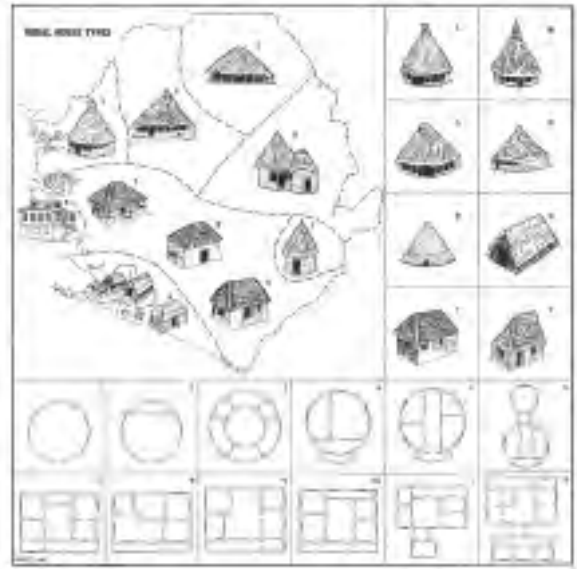
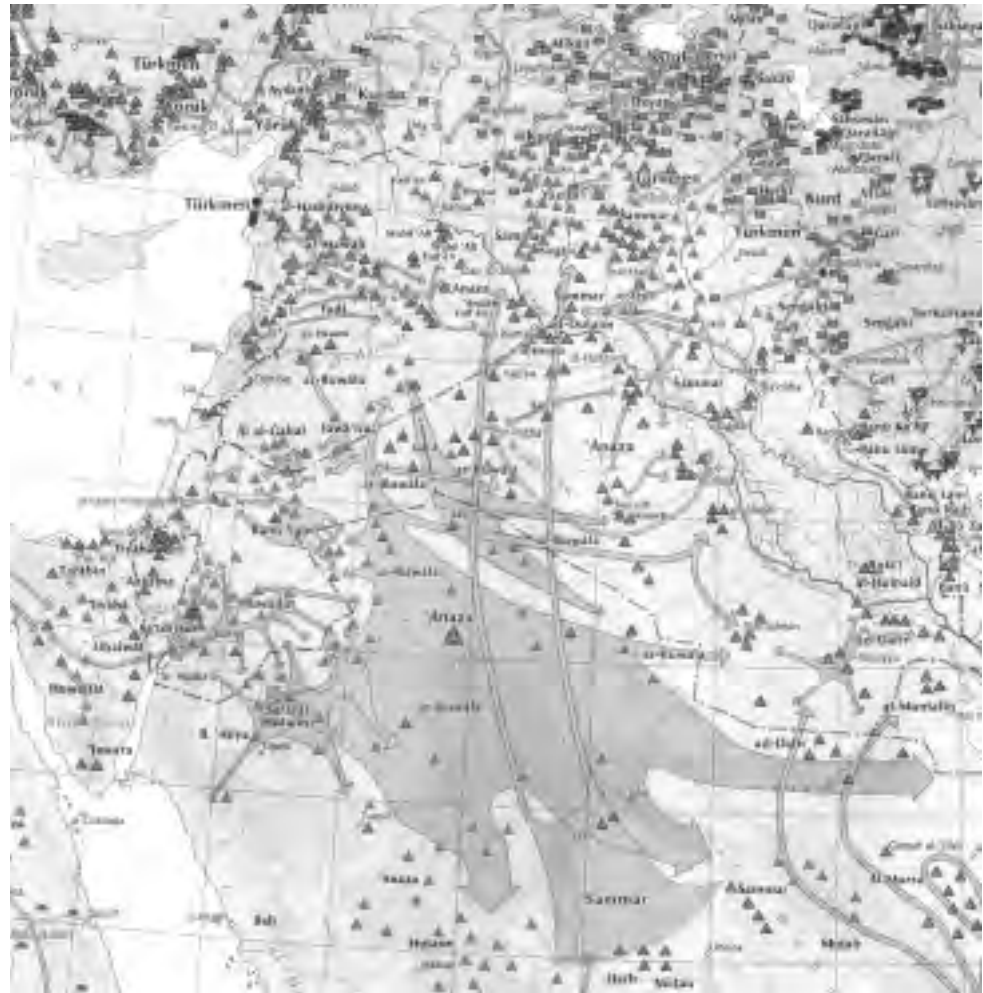


FIGURE 4. "Rural house types." Source: M.E. Harvey, in J.I. Clarke, ed., *Sierra Leone in Maps* (London, University of London Press, 1969). Reprinted by permission.

with Andrews's two-volume *Nomad Tent Types in the Middle East*, the map provides a unique and authoritative documentation of the diversity of tent structures in the region.¹⁵ If the books add to the map by providing detailed descriptions and illustrations of the various types of tents, the map equally contributes to the books by showing complex distribution and movement patterns that would be difficult to communicate in written form.

There are a number of other maps that focus on the distribution of particular building types at a cross-cultural, international level — albeit at a less detailed scale. One example is Harold Driver's maps on the vernacular traditions of Native American groups in North and Central America (FIG. 6).¹⁶ The maps, which are accompanied by illustrations and descriptions, show the distribution of various types of Native American houses and tents before "contact" with European settlers, bridging the borders of Canada, the U.S.A., Mexico and the Central American countries. Another example is provided by Drew's maps of, once more, nomadic tent types.¹⁷ In some cases, such as the map on the geographical distribution of black tents in the Middle East or the geographical distribution of tent types in Northern Eurasia, cultural and national borders are clearly bridged and an overall picture is presented, the geographical limits of which are defined by the typological traditions concerned rather than by a predetermined cultural or national focus. It should be said, though, that not all these maps are completely free of such biases. For example, Drew uses different maps to show the locations of tent-dwelling peoples in northern America and in northern Eurasia, even though similar (conical) tent types can in fact be found in both regions.

FIGURE 5. A section of Peter Andrews's map showing nomad tent types in the Middle East. Source: P. Andrews, *Middle East Nomad Tent Types* (Wiesbaden: Ludwig Reichert Verlag, 1990). Reprinted by permission.



A PROBLEM OF DATA

The exceptional status of Andrews's map as regards its level of detail, cartographic design and, to some extent, scale, underlines the assertion that maps have not been able to secure a firm position in the field of vernacular architecture studies. Although the scarcity of maps and atlases on vernacular traditions is particularly marked, this disregard for maps seems related to a fairly general ignorance among both scholars and the general public of the power of maps, and of the skills and knowledge needed to read or make them. Although architectural drawing is generally part of the curriculum of architects, cartographic education is definitely not, nor has it generally been taught to anthropologists, sociologists or art historians involved in the study of vernacular traditions. In fact, maps and mapping do generally not receive as much attention in education as reading and writing, despite the fact that graphic images, not in the least maps, are playing an ever more influential role in our lives nowadays.¹⁸ Such an awareness of the potential and use of maps would also help reveal the power relations that are involved in cartographic represen-

tation. Often, maps are thought of as objective, ever more accurate representations of reality, a notion that is easily enhanced by their frequent association with up-to-date technology. But, in truth, as recent writings on cartographic representation have made clear, they are as selective and subjective as any other means of communication.¹⁹

In comparison with Andrews's map, most other maps of vernacular architecture referred to so far, both the cross-culturally and nationally focused ones, are very crude, generalized and simplified. The vast majority of them are in black-and-white, using outlines, simple symbols or shading to indicate the locations or diffusion of the architectural features concerned, often on a relatively small scale. To a large extent this generalized quality may be helpful (indeed, even needed in thematic maps), since the inclusion of too much information would make it very difficult to read and interpret them.²⁰ Yet, in the case of some of the maps, the level of simplification is so high that their actual usefulness in raising the reader's understanding of the geography of the traditions concerned is minimal. For an extreme example, Henry Glassie's maps on the distribution of house types in Louisa County in Middle

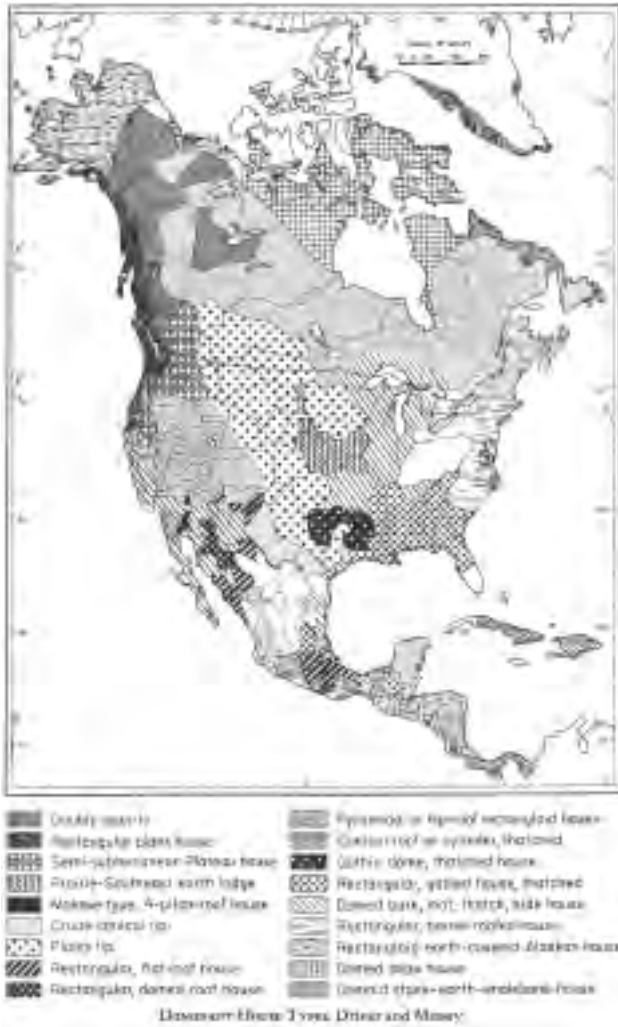


FIGURE 6. “Dominant house types (Native American).” Source: H. E. Driver, *Indians of North America* (Chicago: University of Chicago Press, 1961). Reprinted by permission.

Virginia only consist of a few lines, triangles, squares and circles which, without any added information on the location and names of towns, rivers, roads, and so on do not add much to our knowledge of the building types concerned — except for giving a very general idea about where we might be able to find them (FIG. 7).²¹ A similar remark can be made with regard to, for example, Harvey’s map of rural house types in Sierra Leone, Brunskill’s maps of houses and cottages in Britain (which are really just very rough, and very small sketches), or Torvald Faegre’s maps of the distribution of black tents and yurts.²² In all cases, a very generalized picture of the location of particular traditions is presented, while the actual location of their boundaries remains vague and uncertain.

Although this generalized and crude nature of most maps is no doubt related to the absence of cartographic education noted above, a more fundamental problem is a general

lack of data. Although it will in many instances be possible to show general distribution or diffusion patterns of vernacular building types, services or resources, it is very difficult to get to a level of detail at which regional variations or differences in relative density can be portrayed, simply because the geographic information needed to do so is in most cases not available. In the case of Andrews’s map, the information portrayed has been gathered over a period of some twenty years. Similar databases may perhaps exist on other subjects, but, generally speaking, our knowledge of vernacular building traditions is not as thorough as needed to allow for the compilation of similarly detailed maps. For many parts of the “third” or “developing” world, in particular, our knowledge is very scattered and partial. Since the focus of scholars has been restricted to particular regions, the necessity for documentation and preservation has not always been recognized, or the opportunities to do research have not occurred. Ronald Knapp noted that, beyond Europe and North America, our understanding of the geography of vernacular traditions is generally very limited.²³ But even in parts of Europe and North America, where long-standing and intensive research efforts have led to the availability of more comprehensive sets of data, as in Great Britain, the mapping of traditions in any great detail is still a difficult exercise.

Yet, even though the absence of geographic information severely limits the possibilities for compiling detailed maps, it is possible to approach the difficulties involved from a more constructive point of view. If the making of maps is regarded as an exploratory analytical process, rather than a mere means to communicate data, the maps that are made can be valuable in showing us what we already know about the geographic distribution of particular traditions, and what

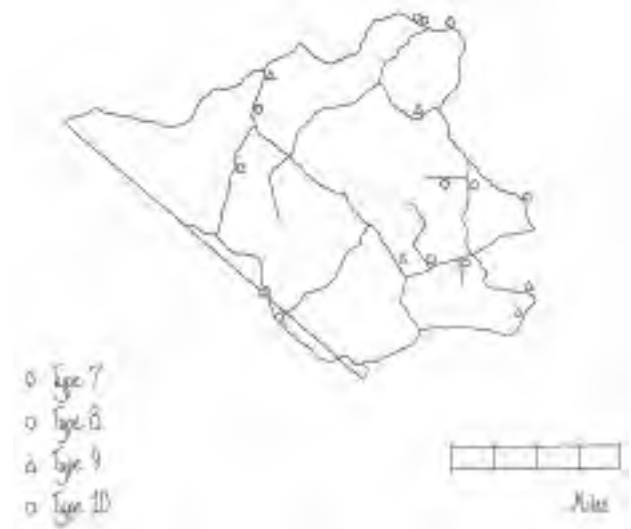


FIGURE 7. “Distribution of types 7, 8, 9, 10.” Source: H. Glassie, *Folk Housing in Middle Virginia: A Structural Analysis of Historic Artifacts* (Knoxville: University of Tennessee Press, 1975). Reprinted by permission.

information is still lacking. In other words, by attempting to chart the availability and use of resources, service systems or building techniques, we may be able to identify the “white spots” on our conceptual map of vernacular building traditions, the lacunae in our knowledge and understanding of the traditions concerned. In so doing, we may use the maps to indicate new areas for recording and research, treating them not just as media for communication, but as tools for visualization — i.e., as valuable means to gain insights in spatial patterns, relationships and contexts that are otherwise not known or not immediately obvious.²⁴ With regard to architectural boundaries, maps can furthermore be used to indicate the locations of particular technological, formal or functional borders in various parts of the world, as far as these are known. And in combination with cultural maps, they may reveal or help to clarify the complex interrelation of such boundaries with cultural and ethnic constellations.

AN EXAMPLE: MAPPING BAMBOO

The capacity of maps to visualize patterns and relationships has become increasingly clear in recent years, and the use of maps as tools for visualization has expanded enormously thanks to the possibilities offered by Geographical Information Systems and technologies such as terrain modeling and dynamic mapping.²⁵ Although such sophisticated software is not of immediate use to scholars working in the field of vernacular architecture because of the general lack of huge, comprehensive databases, the principle of the concept of visualization can still apply, even if the sets of information and the maps that are created are more modest and general-

ized. For example, on the basis of their maps, Szabo and Barfield noted that the geographic distribution of huts of sedentary villagers in northern and central Afghanistan closely coincides with that of the yurts of nomadic groups, an overlap that raises questions and hypotheses about long-standing relationships between both groups.²⁶ Another example is provided by a map of the worldwide availability and use of bamboo as a vernacular building resource (FIG. 8). The compilation of this map reveals the difficulties with regard to information faced when making maps of vernacular architecture, while, at the same time, its contents demonstrate the capacity of maps to reveal both lacunae in our knowledge and particular trends and patterns that were perhaps not so patently obvious before a map was made.

Bamboo is a plant species that offers a lot of possibilities to the people that have access to it. Because it grows very fast, reaching maturity in three or four years, is easily harvested and worked, hard, and possesses a great tensile strength, bamboo has been used to make a broad range of objects by many peoples and cultures, at least since the beginning of the Christian era. In his *The Book of Bamboo: A Comprehensive Guide to This Remarkable Plant, Its Uses, and Its History*, David Farrelly noted more than a thousand of such objects, ranging from fences to ornaments, from boats to napkin rings, and from lamps to umbrellas.²⁷ Because of its widespread availability, its advantageous features, and the fact that it can easily be worked with rudimentary tools, bamboo is widely favored as a vernacular building resource. As such, it has been used to make walls, floors, posts and beams, roofs, suspension bridges, and scaffolding across three different continents. When used for structural purposes, the canes can be applied without working. For use as walls, doors or floors, the bam-

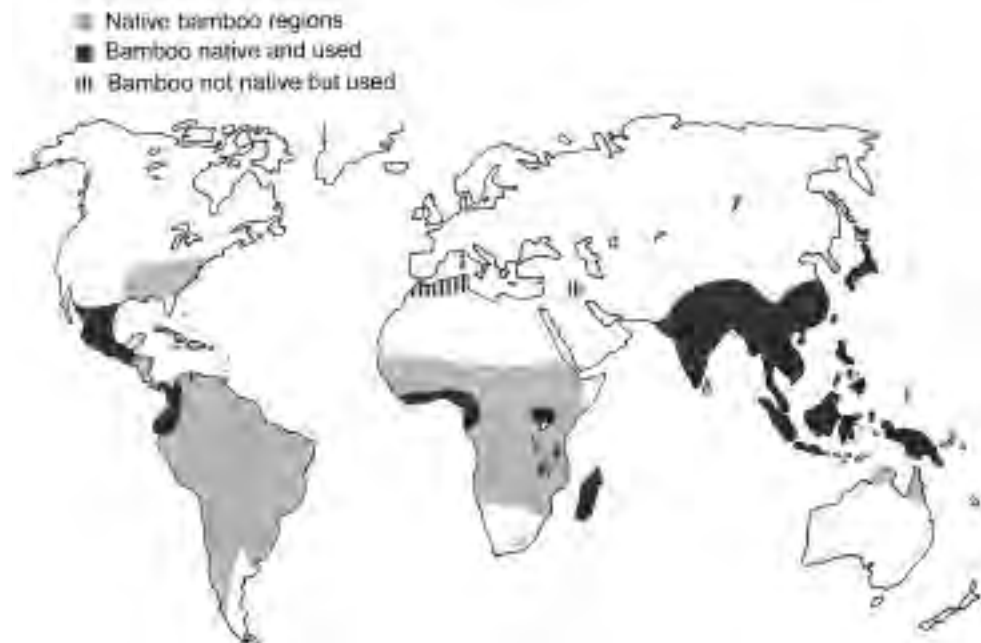


FIGURE 8. “Availability and use of bamboo as a vernacular building resource.” Courtesy of World Atlas of Vernacular Architecture project, Oxford Brookes University.

boo canes can easily be split and flattened in order to nail them; alternatively, they may be split, flattened and woven into mats. Since the 1950s the potential of bamboo as a building resource has been stressed in various publications, and several experiments to use it in modern construction practices (e.g., as reinforcement for concrete) have been carried out — albeit with a varying level of success.²⁸

The widespread popularity of bamboo as a building material is well known among most scholars working in the field of vernacular architecture. Yet even a simple attempt to map it reveals how our knowledge of its availability and use is partial, scattered and restricted to particular parts of the world. For example, the widespread use of bamboo in India, South China, Southeast Asia, and Melanesia is pretty well documented — even though a publication that pays special attention to it does not seem to exist, and most information has to be gathered from more general sources. However, as regards Africa, our knowledge of the use of bamboo is far more limited. The onion-shaped houses of the Sidamo in Ethiopia or the wall and roof frameworks of the dwellings of the Bafut and Bamilike in Cameroon are well documented. But to what extent and for what purposes bamboo is used in other parts of Africa where it grows naturally is not really known. The literature on African vernacular architecture is rather vague on the subject and restricted to references such as “[houses built of bamboo can be found] from southern Cameroon through Zaire and Angola and across to the lake regions of East Africa.”²⁹ Such references may indicate that bamboo is indeed widely used, but they are too general to be of any real use. Finally, in the case of South America, the use of bamboo is well documented with regard to the “bamboo culture regions” in the Colombian highlands and coastal Ecuador. But again little is actually known about other parts of the region where bamboo grows in abundance, such as Amazonia or Central America.³⁰

Our knowledge of the use of bamboo thus proves to be limited to particular regions, and clearly contains many gaps, not just geographically, but also thematically. Although, given the lack of reliable data, conclusions regarding the availability and use of bamboo need to be drawn with caution, the accompanying map suggests that, despite its advantageous characteristics, bamboo is not necessarily used in all regions where it is found. In large parts of Africa and South America bamboo will be available, but other resources such as palms, earth or timbers have proved to be more popular building materials. On the other hand, in countries like Iraq and Iran bamboo is sometimes used in the construction of roofs and wind towers, even though Mesopotamia is not a native growth area. The presence of bamboo in this region thus points to the existence of a bamboo trade, possibly with Africa or India, but the particulars of such a trade are not well known. Nor, in fact, do we have much understanding of why bamboo is extensively used in some parts of Latin America and Africa, such as Colombia or Cameroon, and hardly at all in others; why, as the map reveals, there are differences in the use of bamboo

between, but also within, regions and cultures (FIG. 9); or why bamboo matting is a widely used technique in southwest India, south China, Southeast Asia and Melanesia, but not at all in Africa or Latin America. Such differences are undoubtedly the result of a complex interplay between climatic, cultural and geographic factors. They may also have to do with the particular species of bamboo available in different regions. But the actual details are not known, mainly because most research on the architectural use of bamboo has focused on the technicalities of bamboo construction. Thus, besides showing where bamboo is used as a building material, a map such as that shown here serves to identify an interesting and largely uncharted field of research, as well as a need for further documentation.

A WORLD ATLAS OF VERNACULAR ARCHITECTURE

The distribution map of bamboo as a vernacular building resource has been made as part of a *World Atlas of Vernacular Architecture* that is currently being compiled at the Centre for Vernacular Architecture Studies at Oxford Brookes University.³¹ The aim of the atlas is to enhance knowledge and understanding of the vernacular traditions of the world by mapping, on a cross-cultural basis, the distribution of building types and forms; the provision of services; the availability, use and possible depletion of resources; the distribution of rule systems and ritual practices; and the vulnerability of traditional buildings to natural hazards. The mapping of these and other aspects will contribute to our understanding of the world’s vernacular traditions from a thematic rather than a culturally specific point of view, and will provide a geographic documentation that has so far been lacking in the field of ver-



FIGURE 9. “Differentiation in the use of bamboo in South and Southeast Asia.” Courtesy of World Atlas of Vernacular Architecture project, Oxford Brookes University.

vacular architecture studies. Alongside their documentary value, it is hoped that the maps can be of analytical use, as in the case of the map of bamboo, by visualizing specific trends, relationships or anomalies that were not known or obvious before. In so doing they may help identify gaps in our knowledge and understanding of particular traditions and regions. By providing a cartographic documentation of vernacular traditions and by pointing out new directions for recording and research, the atlas may prove of importance to the responsible use of resources, the efficient and successful response to natural or manmade calamities, and the development of culturally appropriate housing during the twenty-first century.

Of course, the mapping of vernacular traditions is not without its problems. Apart from the lack of data referred to above, the nature of architectural and cultural boundaries and the way in which they can be cartographically represented raises particular concerns. Much like the distinctions between different historical periods, cultural boundaries are porous and not always as easy to define or allocate as their political counterparts. Quite frequently, moreover, their nature and location is contested by different ethnic groups or classes, and subject to movements in time. On the whole, this porous, dynamic and contested character of boundaries is difficult to portray on a map. Lines can be drawn, either interrupted or not, symbols and signs may be located, and tones or colors can be added to indicate the distribution of traditions and their boundaries, but by doing so a fixed, static picture is presented that leaves little room for nuances or deviations. More than written texts, in which convenient terms like “often,” “perhaps” or “mainly” can be used to indicate degree, variation or anomalies, maps do not really allow for nuances, and as such they are very susceptible to generalizations and polarization. The classification and selection of information is very important in this respect, as the decision of what to show on a map and what to leave out (a decision that will also be related to the scale of the map) clearly influences the message that the map conveys.

Another important point regards the methodological status of maps. Obviously, not all aspects of vernacular traditions can easily be mapped, even if the geographic information that would be needed is available. In general, the “mappability” of material features like building materials or techniques will be higher than that of social or symbolic ones. It is not easy, for instance, to map the symbolic meaning that may be attributed to particular dwellings or building elements, or to map the preferences and attitudes of peoples and cultures with regard to the choice of resources or building forms. It is, of course, possible to map the distribution and diffusion of particular motifs or decorative forms — as, for example, Andreas Lommel has done for the spiral, but such information does in itself not necessarily tell us much about the meanings that may be associated with them in particular cultures or regions.³² In order not to fall into the rather con-

finer practice of “vernacular housespotting” (i.e., the gathering of data on locations and distribution patterns for the sake of recording only), any map of vernacular architecture would therefore profit from being accompanied by other means of representation (e.g., written texts) that are better suited to communicate information on meanings, attitudes or preferences.³³ In the case of the atlas, the *Encyclopedia of Vernacular Architecture of the World*, which the former is intended to supplement, will provide such complementary information.³⁴ All maps will be cross-referenced to entries in the encyclopedia where related and relevant background information can be found. As noted before, the mapping of vernacular traditions, like other means of recording, should be regarded as a tool rather than as an end in itself. For, in the words of Paul Oliver, to do the latter would “offer information but no hypothesis: data but no meaningful conclusions.”³⁵

Because of the problems involved in the mapping of vernacular traditions, the atlas and its constituent maps are bound to be contentious. The generalized and fixed nature of the maps will probably raise more questions about objectivity, correctness and completeness than the majority of texts, photographs or architectural drawings shall ever do — even though, as we all know, no means of representation is without its biases and limitations. Yet, perhaps by being questionable and contentious, the maps in the Atlas are more likely to bring about serious efforts to correct, supplement or refine them. Such revisions and additions are in fact desirable and to be encouraged, as they will have to be accompanied and preceded by new research projects that will uncover traditions that were hitherto not documented or known. If special attention is paid to the geographic distribution and contiguity of particular traditions, such projects will enable us to learn more about the location and nature of architectural boundaries in various parts of the world and may give us more insights into the way in which these relate to the constitution of national, cultural and ethnic identities — insights that can help us understand former processes of cultural interaction and hybridization, and which are needed before any serious discussion of the scope, impact and manifestations of current globalization processes can be engaged upon.

Clearly, a lot of documentation will need to be carried out before the large number of white spaces on the conceptual map of vernacular architecture have all been colored in and our knowledge of technological, formal and functional boundaries is anywhere near comprehensive. Even more research will have to be carried out before such knowledge will lead to a better insight into the dynamic and variable nature of such boundaries and its relationship to cultural identities. As I have hoped to show, despite the problems involved in cartographic representation, the potential role of maps in this extensive undertaking is one that is definitely worth exploring.

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