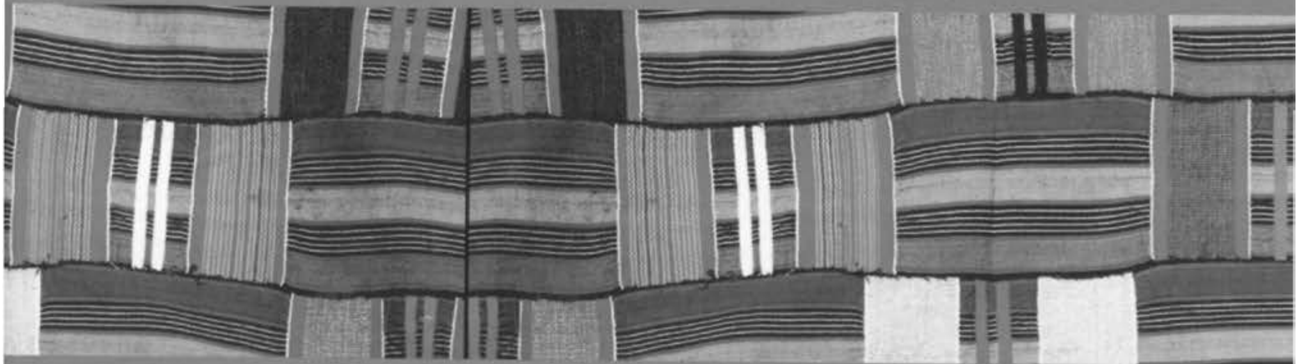
Handbook of

Material Culture



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VERNACULAR ARCHITECTURE

Suzanne Preston Blier

DEFINING THE VERNACULAR

The term 'vernacular architecture' over the last half-century has come to represent a farrago of building traditions that lie outside canonical largely Western building exemplars created generally by formally trained architects. From the Latin *vernaculus*, meaning native, indigenous, domestic, or subaltern (*verna* referencing local slaves), vernacular connotes popular as opposed to elite idioms. In contexts of language, vernacular evokes not only spoken language and dialect in contradistinction to literary form, but also everyday language instead of scientific nomenclature. In architecture specifically, the term 'vernacular' embraces an array of traditions around the world – everyday domiciles, work structures, non-elite places of worship, and cultural sites (battlegrounds and tourist centers, for example) as well as both colonial/settler and settlements. The term also embraces a range of other architectural forms outside the West (elite and otherwise) that long have been overlooked in Western scholarly study. Thus in addition to comprising a large number of structures which generally have been excluded from the study of canonical Western architectural forms, the term 'vernacular architecture' also has provided a salient alternative for the larger grouping of buildings once called 'primitive' – a both pejorative and notably arbitrary classification which set apart the larger grouping of non-Western architecture from Western and Asian exemplars (see also Myers in Chapter 17). Forms of vernacular architecture in this way comprise a vast majority of the world's architecture, works remarkable at once for their geographical breadth, historical depth, and socio-cultural diversity. Vernacular forms include small-scale structures of hunter-gatherers as well as global exemplars of empire (see Buchli in Chapter 16), structures which have endured through millennia and those whose ephemeral features last for only a few weeks or months.

The study of vernacular architecture historically has been of broad cross-disciplinary interest. Related scholars and practitioners comprise not only anthropologists, archaeologists, architectural historians, and architects, but also historians with a range of interests, folklorists, geographers, engineers, museum curators, and community activists – some focusing on issues of materials and construction methods, others on socio-cultural concerns, still others on the history of form and the needs and practicalities of preservation. Vernacular architecture scholars have addressed questions of spatial use and planning, regional variations in form, race and/or ethnic variables in building typology, landscaping and land use (see Bender in Chapter 19), agricultural idioms, suburb enclaves, squatters' communities, and global urban settings. Increasingly energy sustainability and issues of climate also have become a significant feature of vernacular architecture discussion. Related analyses also have broached standard architectural questions with respect to structure, sources, symbolism, patronage, and the unique input of the designer, as well as larger issues of building use. (See also Myers in Chapter 17.)

Despite the importance of vernacular architecture within the larger discussion of built environment, the use of the term vernacular architecture has strong detractors, with

Norberg-Schulz (1971) and Bonta (1977) among others arguing that singling out 'vernacular' structures from other architectural exemplars represents a form of fallacious thinking. As Güvenç points out (1990: 285) 'By dictionary definition and popular use, "vernacular" and "architectural" suggest a semantic differential that may imply some kind of logical contradiction'. Architecture is architecture, they maintain, regardless of when, where, by whom, or for whom it is created. Güvenç adds (1990: 286):

> Before the so-called modernization of the architectural profession, a good portion of the built environment in the world was what today we would call 'vernacular.' It is fundamentally a human activity (although there are interesting comparable forms in nature), and as such addresses vital considerations at both the individual level and society as both narrowly and broadly concerned.

The complaints are valid. Indeed, vernacular, like other building taxonomies, reveals as much about modern (largely Western) classification values as about the salient issues addressed by the structures themselves. Among other things, the prominence of binary oppositions posited *vis-à-vis* 'vernacular' versus 'polite' architecture (Brunskill 1970), or what was once called 'primitive' (pre-literate, pre-industrial) buildings versus industrial, urban, and elite forms (Fitch 1990: 266) reveals the enduring nature of Western dualistic thinking. Similarly, tripartite classification schemes such as those which distinguish vernacular, folk, and modern traditions (Edwards 1979), and quadripartite taxonomies which differentiate so-called primitive (pre-literate), vernacular (pre-industrial and other), popular, and high style buildings (Rapoport 1969) all reflect prominent Western typological and classificatory considerations between self and 'other' framed to a large degree on social evolutionary grounds. Studies such as these have tended to see the largely non-Western, rural or ancient architectural expressions as framed by considerations of physical need (security, shelter) and environment (materials, climate), rather than technological know-how, innovation, and concerns with social and creative expression. If there is one thing that the case studies of global architecture have made clear, it is that buildings, even those of a seemingly rudimentary nature, are shaped fundamentally by decisions of individuals as well as communities and convey notable differences between them.

Vitruvius' *De Architectura* (*The Ten Books of Architecture*), written in the first century BCE – the earliest surviving text on the subject – sets out a trilogy of core architectural values, these comprising *utilitas* (suitability), *firmitas* (structure), and *venustas* (aesthetic consideration). Similar factors of function, technology, and visual primacy can be said to be at play in architectural traditions around the world – both vernacular and elite. Moreover, the imperative of building forms with respect to these elements features prominently in related scholarship. As Vitruvius noted: 'Architecture is a science, arising out of many sciences and adorned with much and varied learning ...' Extending in part from the above, Vitruvius maintains that the creators of these works should be acquainted with diverse fields of knowledge, among them astronomy, philosophy, and music. Those who study these architectural exemplars, it follows, similarly must seek to understand an array of factors – local theories concerning the natural world, taxonomies of thought, ancillary arts and ritual – among other factors.

EARLY AND INFLUENTIAL SCHOLARSHIP

From the earliest days of anthropology, forms that today have come under the broader rubric of vernacular architecture have figured prominently. Among the notable early anthropological texts which signaled this interest were studies of Native American architecture, most notably those of L.H. Morgan (1881), V. Mindeleff (1886–87), and Franz Boas (1888). In scholarly writings in other fields, too, the importance of building forms were being addressed, as for example E.S. Morse's (1886) exploration of Japanese homes and their surroundings. Through the eyes of these writers, architecture and other elements of the built environment were central to understanding society more generally.

Interest in vernacular form continued through the twentieth century, culminating in the establishment of the Vernacular Architecture Group in 1952 to promote the study of traditional buildings in varied world contexts. The Vernacular Architecture Forum was founded in 1980 (accessible now through the Web) pressing for documentation and preservation of local and regional building traditions. An extensive global and cross-disciplinary bibliography on related scholarship (*The Vernacular Architecture Newsletter Bibliography*) accessible also on the Web builds on the scholarly database first compiled by folklore scholar and vernacular proponent Dell Upton in 1979. Many vernacular architecture

advocacy groups at both the local and regional level similarly have been established throughout the world and are also accessible through Web sites and publications. The study of vernacular architecture also now has its own journal, *Perspectives in Vernacular Architecture*, these volumes to date focusing largely on American vernacular traditions.

Peter Nabokov (1990) provides an overview of the diverse building traditions. Carol Herselle Krinsky's 1997 study of contemporary Native American architectural traditions looks at questions of cultural regeneration and creativity. Her volume looks at a broad sweep of building types, houses, religious and community structures, clinics, schools, office buildings, museums, and casinos. Among other issues she raises are the various strategies involved in defining an array of contemporary and historical cultural values. Other sources include Jett and Spencer's (1981) study of Navajo architecture with respect to form, history, and distribution as well as Patricia L. Crown's (1985) overview of morphology and function in Hohokam structures. (See also Lekson (1986) and Morgan (1994)). Pre-Columbian vernacular architecture has also seen both broad overview studies and local monographs. Among the former is Heyden (1975b) and Kowalski (1999). With regard specifically to Peruvian forms, see Gasparini and Margolies (1980) and Moore (1996) among others. Scholars interested in addressing related considerations in archaeological settings include Chang (1968), Hodder (1982), Hodder and Orton (1976) and Kroll and Price (1991).

There also have been two excellent review essays which address broad vernacular architecture interests, one by Lawrence and Low (1990) which appeared in the *Annual Review of Anthropology*, a second by Parker-Pearson and Richards (1994). An anthology concerned with the anthropology of space and place by Low and Lawrence-Zuniga (1988) also brings together a range of important articles on this subject with contributions by Miles Richards, Nancy Munn, Pierre Bourdieu, Deborah Pellow, James Fernandez, Margaret Rodman, John Gray, Hilda Kuper, Theodore Bestor, Akhil Gupta, Arjun Appadurai, Gary McDonough, Paul Rabinow, and Michael Herzfeld among others. Mari-Jose Amerlinck's 2001 anthology, *Architectural Anthropology*, also makes clear the global primacy of the built environment to the very fabric of society.

The publication of Paul Oliver's three-volume *Encyclopedia of Vernacular Architecture of the World* in 1997, which includes entries by some 750 authors from more than eighty countries, makes clear that vernacular architecture has come into its own as a field of study. The first volume of this comprehensive work focuses largely on theoretical issues and related principles – addressing a broad range of approaches to global building form. Included in this volume as well are explorations into variant thematic concerns, among these the impact of environment (climate and topography), the nature of building (craftsmanship and production), and critical concerns with architectural typologies (structural factors and technique). Among the other issues raised here is the role of color (the primacy of blood color in Swedish barns, for example) and the use of color triads in architectural decoration in many parts of the world. The second and third volumes of this encyclopedia are organized by larger geographic considerations, with associated essays providing a sense of the variety of architectural form, along with socio-political, environmental, historic and other considerations.

Studies of vernacular architecture have followed somewhat different paths across the disciplines. One of the most important anthropological volumes which also impacted the field more generally is Daryll Forde's groundbreaking *Habitat, Economy, and Society* (1934), which offers not only vital data from a range of cultures around the world, but also an interpretative model for the study of building traditions outside the West, addressing among other things the relationship between housing concerns, economic factors, environment, and social organization. Key examples taken up by Forde offer convincing evidence of both the complexity and diversity of building traditions of populations across the globe. The primacy of the socio-political in shaping the built environment is a particularly noteworthy part of Forde's exegesis, a work which countered long-standing views that climatic considerations and issues of shelter were the most salient determinants of building form in these cultures.

Three publications concerned with vernacular architecture were especially important in the fields of design and architectural history. The first is Sibylle Moholy-Nagy's *Native Genius in Anonymous Architecture* (1957), a book widely read by design students of the era which foregrounded the importance of vernacular architecture. A second is Alexander's *Notes on the Synthesis of Form* (1964) which sought to counter the long-standing myth that vernacular architecture constituted essentially unspecialized work and was created without conscious intervention. Vernacular works, Alexander suggests, even if one does not know the name of their designers,

evoke genius and a deep understanding of the power and potential of form. In many respects, the most influential of the mid-century authors is Bernard Rudofsky, whose *Architecture without Architects* of 1964 accompanied a groundbreaking exhibition by the same name at the Museum of Modern Art in New York. This volume with its rich pictorial format promoted the aesthetic power of vernacular structures across the globe. In his discussion, Rudofsky further brought into the realm of elite architectural scrutiny buildings designed and built by ordinary people which had hitherto been ignored or dismissed in academic architectural circles. The title of his work, like that of Moholy-Nagy's above cited book, goes to the heart of the difficulties posed by prior Western classificatory schemas, and the general insistence that to be considered as 'architecture' buildings had to be designed by academically trained architects. By labeling these works as 'native' or 'anonymous', Rudofsky and Moholy-Nagy broadened the canon of what was considered as architecture. Moreover, as Rudofsky would insist in his 1977 study, 'non-pedigreed' building exemplars evidence a 'way of life' which has special aesthetic and moral value because they reflect greater popular input and appeal. Roger Scruton in his 1994 *The Classical Vernacular: Architectural Principles in an Age of Nihilism* goes on to suggest that vernacular exemplars not only are visually among the most powerful but also evince a moral integrity which should serve as a model for elite modern building forms.

Oliver has criticized (1990: 23) one aspect of this vernacular focus, namely its general insistence on anonymous design, suggesting that in global vernacular architecture, as in elite architecture in the West, trained individuals with technical know-how and design skills also are important, these figures serving roles in many ways analogous to architects even if they do not have academic degrees. Among others Oliver cites as providing functions analogous to Western-trained designers are Chinese diviners, Maori building *tujunga,* and Navajo singers involved in the Blessingway. Oliver adds with pointed reference to Rudofsky (1964):

> even in traditional societies 'architecture without architects' appears to be the exception rather than the rule: most durable cultures have developed, in one guise or another, the specialized interpretation of cultural values and norms through built form. The people who exercise this function, and who rarely bear the title *architect*, are often both 'designers' and 'contractors': They are custodians of the rules of both design and construction.

Central to this issue (and to the broader question of what constitutes 'architecture' is the role of a given 'architecture'. The phoneme *archi* refers to chief, deriving from the Greek *archos*, meaning ruler, suggesting perhaps less the underlying hierarchy of forms than the ways in which local individuals recognized for their experience in building (and design) activities play a prominent role in related traditions.

Technical knowledge is important too. Mitcham has noted in this regard (1979: 172) that the term 'architecture' historically has placed a primacy on core aspects of technique (*techne* in Greek). Thus the Greek word *techne* means craft or skill, deriving from the Indo-European *tekhn* (probably related to the Greek word *tekton,* which references woodwork and carpentry. The term also shares compliments with the Sanskrit *taksan* (carpenter, builder), the Hittite *takkss* (to build or join), and the Latin *texere* – to weave, as for example to construct a roof. Drawing on the importance of technique, Heidegger (1977) explores two complementary features of *techne,* in the first case the knowledge and practices of the principal actor (the craftsman or builder), and in the second, the primacy of the creative (the mind) and the aesthetic. Architecture, like other forms of expression in this sense, comprises at once process (acts) and results (products).

HISTORICAL FACTORS OF CHANGE, THE PRIMACY OF TRADITION, AND PRESERVATION

One of the larger issues that has shaped discussions of vernacular architecture over the last half-century is that of change. Related questions are important both to broader historical considerations of society and culture, and to the ways in which visual forms such as buildings evidence factors of both stasis and change which actively impact the societies that create and use them. Some authors have maintained that vernacular building and settlement forms are largely static idioms that cannot be studied historically. Other scholars see built form and settlements as evidencing epiphenomenal evolutionary changes as defined through adaptations to salient factors experienced by the society more generally. A third perspective views vernacular architecture as a dynamic mode of human expression, with related changes largely being 'purposeful'.

The perspective that vernacular architecture is a fundamentally static form shaped much of

the scholarship on vernacular architecture through the 1960s and 1970s. In addition to Rapoport (1969), see also Rudofsky (1964) and Guidoni (1975). Characteristic of the second adaptive perspective of change are Hardie's 1985 analysis of Tswana house forms and settlements in southern Africa as well as Coiffier's 1990 overview of change in Sepik River architectural models. Other studies of this genre, among these Glassie's 1975 examination of Virginia house form over time, point to broader rules that may be reflected in these changes. Lawrence maintains (1990) in turn that vital differences exist between types of societies and how they respond to environment and other factors of change. Lekson (1990) uses a biological evolutionary model to suggest that change largely results from environmental disturbance, and that structures are at once adaptive constant and conservative (see also Lawrence 1990; Smith 1975).

Countering the stasis and adaptation models are a range of largely field-based analyses which suggest that major building changes are purposeful. Broad cross-regional studies of specific types of building forms make clear the complexity of related issues. (See also Roxana Waterson's 1989 analysis of migration and its impact on Indonesian vernacular architecture and Frishman and Khan's (1994) examination of the mosque in its historical and cross-cultural settings.) In Africa, studies of major architectural change, among these differences resulting from the expansion of the Manding (Dyula) across the Western savanna (see among others Prussin 1970 and Lane 1994) evidence how building typologies have altered over time. In some cultures (the Fon of Benin and the Dogon and Bamana of Mali), earlier housing forms sometimes were preserved as temples.

Many of these issues also impact the growing architectural and cultural preservation movement. As noted above, architectural preservation projects have been a particularly lively focus of local vernacular support groups and related journals, among these *Historic Preservation*. There also have been a range of related studies addressing this issue from a global perspective. Charles Anyinam notes (1999) how sacred space, practices of indigenous medicine, and concerns with ecosystem preservation intersect in East Africa. In Thailand, to the contrary, where historical preservation has not had broad acceptance, according to Alexander (1986), this is due largely to Buddhist views of the world, in which buildings, like people, are not meant to survive for ever. Hobsbawm and Ranger's ground-breaking 1983 anthology *The Invention of Tradition* explores the ways in which idioms of 'tradition' are created or given new shape in contexts of historic change. The issues raised in this volume also are important from an architectural preservation perspective. (See also Highlands (1990: 56) on the question of indigenousness.)

THEORECTICAL UNDERPINNINGS OF VERNACULAR ARCHITECTURE STUDY

That different methodologies shape our understanding of vernacular architecture is a given. With respect specifically to the Dogon of Mali, several studies suggest how scholarly perspectives impact related findings in fundamental ways. French anthropologist Marcel Griaule and his colleague Germaine Dieterlen brought Dogon architecture to the attention of the West through their elaboration of its rich cosmological symbolism (1954, 1965). Dutch anthropologist Walter Van Beek suggests (1991, 2001) that earlier ethnography concerning this and other factors of Dogon life is flawed. Unable to replicate Griaule's findings, Van Beek argued that, rather than addressing larger cosmological concerns, Dogon social expression (including architecture) was in key respects framed by questions of need. Adding to the fray have been two ethnoarchaeological analyses of the Dogon, one by Paul Lane (1994) the other by Jean-Christophe Huet (1994). Both studies, which address the temporal dimensions of Dogon architecture and settlements, maintain that the Dogon, rather than being an isolated population living at the very edge of Western Sudanese civilization, instead evidence notable cultural influences and architectural changes over the course of their history, the response in part to religious, political, and commercial shifts affecting this region of Islamic influence and empire expansion more generally. Indeed, rather than constituting an intact ancient civilization removed from the region's ebb and flow as promoted by Griaule and to some degree Van Beek, the Bandiagara escarpment inhabited by the Dogon seems to have been a sociocultural hodgepodge reflecting traditions of variant disenfranchized populations who over the centuries have sought the protective refuge of these mountains.

As Huet explains (1994: 48), the Dogon homeland in the Bandiagara represents not so much a site of 'origin' (as Griaule argues in largely cosmogonic and mythic terms) but rather a place of emergence and renewal. In short, these ethno-archaeological studies have allowed a

more complex reading of this setting, suggesting that mythic idioms of 'origin' elaborated by Griaule with respect to Dogon architecture may have been promoted in part to cover a larger 'lack' within the social fabric. The long history of regional slavery in this area also seems to have impacted Dogon architecture and local perceptions of it, with many Dogon having been enslaved by nearby Islamic states, and these populations, once freed, returning to the Bandiagara cliffs in the late nineteenth and early twentieth centuries, seeking to promote in their built environment – even in their mosque architecture – a sense of homeland and shared ancestry (Blier 2004). Like the nature of society more generally, these studies suggest that vernacular architecture has been shaped by an array of concerns, including the variant perspectives of scholars who study them.

Functionalist approaches to building form, following on the work of British anthropologist E.E. Evans-Pritchard (1940) among others, has tended to highlight a broad range of practical considerations – environment, materials, sociopolitical factors, economy, and security – as determinants of form, siting, and signification. Among the numerous related studies which have addressed architecture are those of Prussin (1969), Rapaport (1969) and Van Beek (1991). While functionalist perspectives have tended to privilege the relationship between buildings and socio-economic practice, one of the problems with this approach is that many building forms are created which in whole or part lie outside broader functional considerations with respect to, among other factors, belief and aesthetics.

Beginning in the 1940s and continuing into the 1960s, French anthropologists drawing on the earlier writings of Emile Durkheim and Marcel Mauss (1967) with respect to the linkage between systems of thought and social practice focused on the symbolic aspects of traditional building form, saw these works as reflecting insights into *mentalités*, as evidenced in part through cosmological beliefs and idioms of the human body (see, among others, Lebeuf 1961 and the above cited works of Griaule). Such studies, however, in their overarching symbolic focus have often left an impression that everyday thought and actions are predominantly symbol-driven and ritualistic.

In the early 1960s, anthropologist Claude Lévi-Strauss began to reconfigure the above largely localized French academic studies of systems of thought into a broad cross-cultural theory of internal dualisms. Lévi-Strauss's influential *Structural Anthropology* (1963) and *Tristes Tropiques* (1974) showed the striking manner in which village plans, axiality, and notions of the body reveal comparables across a range of cultures and contexts. Irish anthropologist Mary Douglas left the largely secular functionalist orientations of her British colleagues, to promote the primacy of rituals of pollution in architectural and other dimensions of human experience central to Catholicism and many other religions in her seminal *Purity and Danger* (1966). Douglas addresses the related symbolic dimensions of domestic space (1972), and her works have provided important structuralist insights into how vernacular (and other architectural models) are shaped in their form, action, and belief through dualistic idioms. Pierre Bourdieu's study of the Berber house (1973), Hugh-Jones's elaboration of village planning and house forms in the Amazon river region (1979), Feely-Harnik's overview of Saklava domestic architecture in Madagascar (1980), and Cunningham's examination of Atoni houses in Indonesian Timor (1973), all are paradigmatic structuralist engagements with vernacular architectural form and signification. The applicability of structuralist theory to Western vernacular forms also has been addressed, as for example in Lawrence's (1987) investigation of the English house in both its secular and its sacred features.

One of the more innovative of these structuralist architectural studies is Fernandez's analysis of Fang architecture and village planning in Gabon (1977), which points to important complementarities between dualistic village planning considerations and the game of *mankala* within this largely acephalous political setting. The game itself, which is widely played both in Africa and the adjacent Islamic world, features a board or ground defined by a series of pockets along each side of a long rectangle, as well as two pockets at each end. In many respects, the Fang community with its two rows of buildings facing each other across a neutral space shows visual parallels with this game board (including the presence of structures at each end), complements which, as Fernandez points out, also find expression in how the village functions as a whole. Fernandez's game board/village parallel is a provocative one, if also calling up an array of questions, among these how the *mankala* game board, an import form in this region, came to assume architectural primacy for the Fang. Beginning in the early 1980s, structural analyses came under scrutiny with respect to their often overly deterministic dualistic and ahistorical tendencies, as well as their emphasis on structure at the expense of process and anomaly.

The languages of architecture also have been an important focus of scholarship with respect to vernacular and other forms of architecture. Some studies such as that of Basso (1996) examine the ways in which specific language use informs notions of place in specific cultural areas. Building terms, as well as the very structure of language (noun classes, for example) also offer insight into architectural meaning (Blier 1987: 226 ff.). Other scholarship informed by questions of language has sought to theorize architectural form in a more global way, particularly with respect to semiotic considerations first espoused by Saussure (1916), Peirce (1931–58) and later Eco (1976, 1980). Scholars addressing larger semiotic concerns have taken up, among other things, the ways primary architectural elements such as center points, symmetry, and means of access, carry, by their very nature, important elements of cross-cultural signification in the same way that certain grammatical considerations have broadly universal validity. Donald Preziosi's 1983 study of early Minoan building forms draws on grammatical elements of the semiotic to explore considerations of design, structure, and meaning. Criticism of semiotic models has been published by Leach (1978) and others. In addition to concerns with respect to the primacy of structure and stasis within many semiotic studies, other issues have been raised about how cogently a universal theory of signification can address complex variables at the local and individual level. In short, if center points, axial symmetry, and access points are universal, what do they really tell us about building and social variation?

The study of vernacular architecture also has been shaped in important ways by concerns with psychology, behavior, and issues of healing. Larger considerations of behavioral psychology and architecture have been published by Broadbent (1973), Heimsath (1977), and Hall (1990) amongst others. Research by these scholars has emphasized both the psycho-sensory characteristics of architectural form and the socio-psychological factors impacting architectural experience. Cooper (1974) takes up specifically Jungian architectural models in examining the house as archetype. The importance of vernacular architecture in contexts of healing is documented by Day (1990) in the examination of the ways in which the very form of architecture and related aspects of environment nourish the soul. See also Tuan et al. (1991) and Tuan and Hoelscher (1997/2001) on the emotional dimensions of space, and the core spiritual needs addressed by architecture. On memory and architecture see Yates's ground-breaking (1966) work on mnemonic factors with examples such as the Globe Theatre. Vital links between architecture and behavior also are explored in a broad-reaching anthology on space and human behavior edited by Grøn et al. (1991). Psychological disorders that find expression in spatial idioms also have been taken up. See among others Simmel's study of urbanism and mental life (1948/1971) and Bartlett's 1994 exploration into how spatial forms figure in psychiatric abnormalcies particularly *vis-à-vis* purification rituals and idioms of order. As a caution, it should be emphasized that while buildings can create conditions in which particular forms of behavior or response find expression (or may be fostered), it is individuals who are the ultimate determinants of how actions and ideas are addressed within any built environment.

The phenomenology of the built environment, or how experiences are shaped by the buildings in which we live, work, and worship also has been the subject of study, with variant authors arguing that the meaning of architecture is rooted fundamentally in our experiences of these structures (Rasmussen 1959). Because vernacular building forms often have been seen to be in some ways more 'honest' in expressing the needs and aspirations of their residents and builders, questions of ontology as evinced through the phenomenology of architecture have been accorded special value with respect to vernacular exemplars. Related scholarship draws in important ways on the writings of Heidegger (1977, 1978), Bachelard (1969), and Norberg-Schulz (1971/1980, 1985) among others, particularly with respect to links between the symbolic and the real. Anthologies rich in vernacular exemplars which have addressed the phenomenological dimensions of the built environment in everyday lived experience include Buttimer and Seamon (1980) and Seamon and Mugerauer (1985). At the same time it is worth noting that questions of architectural phenomenology have meant quite different things to scholars in diverse disciplines. In architectural history a greater emphasis on ontology and the lived experience of architecture broaden the dominant historical model of a field which has long privileged architects and design history over the users (residents) of these forms (Blier 1987). In other disciplines, such as anthropology, phenomenology has brought into play a greater consideration of the multidimentionality of these works and the changing nature of built

form in new sociocultural arenas. See for example Bender's (1998) study of the ways in which Stonehenge has been reinvested with meanings by modern visitors.

Henry Glassie's contributions to vernacular and particularly domestic architecture (1975, 1995, 2000), are reflective of this larger phenomenological interest, as contextualized through the varied details of everyday lived experience. His 1995 study of culture and history in the Ulster community of Ballymenone is a striking exegesis, rich in ethnographic detail and critical insight. His descriptions of life in the Irish kitchen as seen in ceremonies of tea and the positioning of kitchen furniture offer vital insights into the relationship between place, practice, and both individual and social identity (see St. George in Chapter 14). From religion to Gaelic poetry, songs to work, the volume offers an insightful view into how homes define a people. To Glassie, a folklore scholar, vernacular architecture involves an ongoing social engagement with materials, technologies, and cultural knowledge. As he explains, vernacular architecture evidences not only the complexity of cultures but also their changing circumstances. In Glassie's words (1990: 280) 'Vernacular architecture records subtly but insistently the history of a people'. Glassie sees vernacular architecture in this way as providing vital evidence of a range of social and cultural values. He stresses the importance of seeing architecture as an accumulation of 'experiences through participation', with personal investment shaped by cultural need, these structures helping to construct unique visions of the worlds in which people live.

Post-structuralism, and the broad array of theoretical perspectives drawn largely from Frankfurt School critical theory, as framed around issues of resistance, the subaltern, colonial/postcolonial impact, and globalization have helped to define the study of vernacular architecture in important ways. The cojoining of psychology and political dominance as addressed by theorists such as Theodor Adorno has brought to the foreground vital connections between the aesthetic and political realms in architectural perspective; see among other sources *Aesthetics and Politics* and Fredric Jameson's forward to this work (1980) as well as Soja (1989). Neil Leach provides (1997) extracts from theorists who have focused on the built environment from this vantage, including not only Adorno, but also Gaston Bachelard, Georges Bataille, Jean Baudrillard, Jean François Lyotard, and Gilles Deleuze. Michel Foucault (1973: 207) also has examined the oppressiveness of architectures of dominance, calling our attention to how building forms identified with brutal political systems (e.g. prisons, slave markets, and apartheid government complexes) impact the societies in which they were built. Borden (2002) has studied the way in which contested spaces and related social concerns have shaped the urban landscape. Davis (1992) elaborates vital dimensions of urban space conceptualization – the junkyard and fortress idioms – in Los Angeles.

Mark Wigley's *The Architecture of Deconstruction: Derrida's Haunt* 1993 looks at the unique problems posed by buildings within the broader sociopolitical arena. In addition to addressing core architectural dimensions of Derrida's discourse (idioms of place, space, and domestication, among others), he also points out the underlying dialectic between belonging to a home and desiring to break out of this enclosure. Humans do not build homes, he maintains, but act out in their architectonic exemplars deep concerns with invasion and destruction. Homelessness, nomadism, and destruction are among the considerations of desconstructionist scholars addressing vernacular and other architectures. There also have been an array of architectural studies which have focused on questions of poverty. See, among others, Hassam Fathy's 1973 overview of housing endeavors to address contexts of poverty in rural Egypt. See also James Scott (1998) on how certain state schemes to ameliorate the human condition often have failed.

Among the criticisms of post-structuralist and deconstructionist approaches to architecture is the concern that while purporting to privilege the native (local, subaltern) vantage in their focus on the global, these studies often promote the view that little other than resistance (response) is available to such populations at the macro level. Such studies also frequently overlook the ways in which local exigencies serve to fundamentally shape and give meaning to buildings in contemporary global contexts. These works at the same time have tended to emphasize the uniqueness of the postmodern situation, with little consideration of the long-standing importance of core global or resistance considerations in historic situations around the world. For example, Henry David Thoreau (1966) spoke eloquently of the importance of architectures (and lifestyles) of resistance in nineteenth-century America. Other related concerns are addressed below.

PHYSICAL ENVIRONMENT AND THE SHAPING OF ARCHITECTURE

Physical considerations of environment as defined by available materials, technologies, sites, and climatic considerations have been an important focus of scholarly considerations of vernacular architecture from a broad range of theoretical vantages. As noted above, Forde's *Habitat, Economy, and Society* (1934) presented a thoroughgoing challenge to core assumptions of the era that environment (climate) was the principal determinant of vernacular building form. Forde was able to show not only the striking differences between structures created in similar ecological conditions around the globe, the tropics for example, but also how buildings created from similar materials and techniques reference notably variant symbolic and sociocultural forms. Ecological perspectives nonetheless have continued to shape scholarly discussions such as those of Fitch and Branch (1960) and Rapoport (1969).

Typical of many environmental studies is Lee's 1969 geographical overview of house types in the Sudan, suggesting that architectural differences here reflect climatic variations, with round houses being built in the south because of heavy rainfall, and earthen rectilinear structures predominating in the north as a reflection of more arid conditions. As Aloba points out, however (1998: 127), not only are there important areas of overlap in Lee's examples, with circular and rectilinear house types being found together in certain areas, but also other factors are mentioned by Lee as impacting architectonic form, among these prestige, culture, and war history. Aloba's own (1998) study of borderland communities in the Yoruba area of southwestern Nigeria emphasizes the primacy of the age and history of the settlement as well as the owners' occupation, ethnic identity, and status. Archaeological and other evidence in areas of the western Sudan suggest a shift over the course of the last millennium from circular structures to rectilinear forms, suggesting that climate here too is not the most important determinant. Holahan (1978) presses for a more dynamic perspective of environment, behavior, and structure, suggesting that the impact of environment on built form is neither passive, direct, nor broadly predictable.

While it seems to be untenable to seek a purely environmental source for core vernacular architectural decisions and differences, there is little doubt that environment and geographical factors impact architectural form and community planning. Minge's 1991 study of how Acoma buildings relate to the land is an important contribution to this subject. Other scholarship on this issue includes Michael Coe's 1961 analysis of differences at Tikal (Mexico) and Angkor Wat (Cambodia), a comparative analysis which looks at variables in typology in these two tropical forest civilizations.

Questions of water also have received notable scholarly consideration. Wells, canals, drains, irrigation, water management, and the sociocultural significance of boats which serve as houses are among the many subjects raised. Water concerns go back to early settlement history, as explored in, among other works, M. Jansen's 1993 study of wells and drainage systems five millennia ago in Mohenjo Daro. The challenges posed by water also have been a factor of Mexican early settlement scholarship, as discussed by Coe (1964) on the transformation of wetlands in Mexico into gardens and settlements. In other regions, the challenge posed by exceedingly arid climates also has been taken up. In late Andean contexts, local irrigation forms have been addressed in Netherly's (1984) study of land use and settlement. J. Nicolais's (1971) investigation of water as an element in urban Nepal looks at these issues in contemporary design. On the use of canals see Adams (1982) for the Maya and Ortloff (1988) on pre-Inka Peru. Civil engineering and nautics in China are elaborated in J.A. Needham's multivolume introduction *Science and Civilisation in China* 1971. In these various works, the issue of technological skill in addressing variant environmental conditions is emphasized.

There also has been ongoing interest across a range of fields into broader ecological and architectural concerns with respect to larger energy considerations. Vernacular architecture often has been seen to offer an important model for addressing ongoing problems of scarce resources. Solar factors in architecture are taken up in Knowles's study of the Acoma (1974, 1981). Concerns such as passive cooling systems in hot and arid climates are addressed in Bahadori (1978), Shearer and Sultan (1986), and Prakash et al. (1991). The latter study of earthen construction in the north-west Himalayan area is published as part of the Sustainable Development series, an important forum (and consideration) in a number of similar publications. Issues of poverty and the larger problem of housing the world's poor through building models which are at once ecologically viable and cost-efficient have been a focus of a wide array of studies, among these Fathy's overview of housing in Egypt (1973, 1986). These authors

often address not only design considerations but also questions of cost and return. What is important to emphasize with respect to these works is that the authors see environment not as a determinant of architectural form but rather as a given that builders creatively address through their selection of materials and effective design choices, related works sometimes serving as models for contemporary building practice in a range of comparable settings elsewhere.

Tim Ingold's (2000) study of architecture and environment argues that, instead of focusing our attention on the cultural variation of form, we should be looking at variation in skill in addressing the environment as framed by considerations of both biology and culture. Some of the most interesting work being done in this area is that being produced in the field of humanist geography (see among others, Adams et al. 2001). In this volume, the last few decades of geographical study are addressed, specifically with respect to how humans transform the world. Much of this work also reveals the long-standing impact of Yi-fu Tuan (1974, 1977, 1991), and his emphasis on human choice, with a range of insights – materialist, normative, and aesthetic – coming into play.

In the same way that environment can be seen to pose important challenges and potentialities with respect to vernacular architecture, so too nature more generally also has been addressed with respect to models in human building practice. A classic text in the exploration of these issues is C. Alexander's *A Pattern Language* (1977). Bees, hornets, termites, birds, and in some cases lower primates are among the many species who build structures remarkable for their technical expertise and aesthetic interest. Like the use and making of tools, one of the central concerns in these discussions is how to viably differentiate animal and human building imperatives, and the factors dividing the two. Following Marx, Yi-Fu Tuan (1977: 102) singles out awareness (consciousness and intent) as the most salient means of distinguishing human and natural construction. The question of choice (selection) here too is important. As Norberg-Schulz has noted 'what we select from nature to serve our purposes, we also call architecture. ... Our ability to dwell is distinguished from that of a bird living in a nest by our inherent awareness that we are not mere things'. (1971: 37) That said, it is also important to note that forms from nature – spheres, shells, termite mounds, nests, caves – have long provided vital visual and technical models for human building efforts. From this vantage one can also point to the primary place that core mathematical constructs also may play in the conceptualization of form. See, for example, E. Baldwin-Smith's 1978 study of geometric modeling in domes.

HOUSE, HOME, DOMESTICITY, AND MOBILITY

By far the largest corpus of structures examined within the context of vernacular architecture comprises domestic or residential forms. The sociocultural dimensions of design are addressed by Rapoport (1969), Prussin (1969), Bourdier and Minh-ha (1997), Raulin and Ravis-Giordani (1977), and Benjamin and Shea (1995), among others. The inherent connection between social organization and domestic spaces also has been taken up by Ian Hodder in his 1978 anthology (see also his 1990 study of domestic structures and domestication in Europe), and the work of Birdwell-Pheasant and Lawrence-Zuniga (1999). Richards's contribution to Hodder's 1978 work provides a thoughtful overview of related issues, foregrounding the diverse ways that the social world imprints the built environment and the visual clues that connect the two. See also Myers (1986), Wilson (1988), and Duncan's cross-cultural anthology (1981) on housing and identity. Two other notable books on the spatial and socio-iconic primacy of domestic structures include Samson's (1990) volume on the social dimensions of housing in archaeological contexts and Kent's (1990) anthology on domestic architecture cross-culturally. Kent's own contribution to this latter study looks at the relationship between sociopolitical complexity and the built environment; see also her broad reaching 1991/1995a essay on the ethno-archaeology of the home. Larger issues of identity as expressed through housing are explored by C.C. Marcus (1993) with respect to the deeper meaning of dwellings. On identity factors in domestic architecture see also Sircar (1987), Arhem (1998), and Csikszentmihalyi and Rochberg-Halton (1981), the latter focusing on domestic symbols of self in different social settings. Gregory and Urry (1985) look at housing forms as sites where social relations are both produced and reproduced. Another work which looks at architecture, social structure, and considerations of space over time is Mark Horton's (1994) discussion of the Swahili built environment. On the global impact and issues of village modernity in Togo see Piot (1999). Wright's socially redolent analyses of housing

in the United States (1981, 1985) examines how idioms of moralism shape American housing form. Issues of self-reference are taken up in the (1985) volume edited by I. Altman and C.M. Werner on home environments framed around concerns with not only housing, but also homelessness; E. Relph (1976) studies complementary issues of place and placelessness. For other factors of space, place, and politics see Doreen Massey (1993).

A broad array of scholars has addressed questions of gender and sexuality with respect to housing and spatial organization, among these Shirley Ardener (1981), Daphne Spain (1992), Beatriz Colomina (1992), and Diana Agrest et al. (1996). Sanders's anthology *Stud: Architectures of Masculinity* (1996) also looks at core spatial considerations of gender. Ethnographic studies of space provide vital and diverse details of gender in building form, use, and symbolism. Huntington (1988) examines these concerns in Madagascar and Houseman (1988) looks at Beti housing contexts. Townsend (1990) documents the ways in which settlement forms reflect gender and other concerns in the Sepik river of Papua New Guinea. Issues raised by Nast (1993) with respect to Hausa spatial conceptualization in Kano also look at gender, in this case shaped by both Islamic and local considerations. Celik Zeynep (1996) examines gender issues in colonial Algiers. The importance of gender in the construction of space in ancient contexts has been explored by Rendell et al. (1999) and Gero and Conkey (1991), among others. Lisa Nevett (1994) queries separation versus seclusion idioms in ancient Greek household contexts. With specific reference to contemporary forms of housing and implications for gender in the United States see Hayden (1982/2002) and Friedman (1998) on the roles of women in the making of design decisions. In Native America, the special roles of women as builders have been addressed by Wolf (1972) and Brasseur (1976) with respect to tipis.

Considerations of spatial mobility also have come to the foreground in a range of studies. Okley (1983) addresses nomadic considerations in life and settlement configuration within gypsy communities. Stone Age archaeological contexts of mobility in terms of strategies of space and site use are taken up by Susan Kent (1991). Margaret C. Rodman's (1985) essay on residential mobility in Longana, Vanuatu, is a provocative discussion of Polynesian patterns of spatial movement. The primacy of migration in Indonesia as well as its impact on local architectural and cultural forms is explored in Waterson (1989). Still another noteworthy contribution is Humphrey's (1974) study of the Mongolian *yurt*, which examines the striking ways that Buddhist cosmological beliefs shape these native forms, with core elements suggesting at once local and broader Asian religious values.

Tent forms which predominate in the circum-Sahara region of south-west Morocco are examined by Andrews (1971). Labelle Prussin's 1995 overview of African nomadic traditions also makes particular reference to the prominent roles of women as builders and home owners. She also looks at the symbolic dimensions and adaptability of these forms. In southern Africa, Biermann's 1977 study of Zulu domed dwellings points to the primacy of symbolic considerations; Kuper (1993) looks at the ways in which Zulu nomadic forms also convey important political concerns. A sizable grouping of scholars also have addressed nomadic architecture among the Mbiti (Turnbull 1961) and the !Kung and other Kalahari residents, among the latter publications are works by Lee (1972), Silberbauer (1981), and Kent (1995b). In these case studies, we see the central socio-symbolic load that nomadic housing forms carry in communities in which material goods are often minimal.

Related theoretical issues also have been addressed in post-structuralist contexts. See especially Gilles Deleuze (with Felix Guattari 1987), a complex, theoretically provocative volume called *A Thousand Plateaus: Capitalism and Schizophrenia*. This work looks at how, in new global economies, transnational mobility has in some cases led to a sense of schizophrenic unease, in which housing insecurity is given heightened primacy. Lynette Jackson also has pressed this discussion into the foray of the new global economy in her provocative 1999 essay on 'stray women', mobility, and issues of disease in colonial and postcolonial Zimbabwe. Allan Wallis's (1989) study of house trailers and how they constitute exemplars of both innovation and accommodation is also of broad interest. Mobility now, as in the past, is shaping the lives of individuals and communities in ways that impact vernacular architecture and the perception of it.

The dominant emphasis on social factors and others has come under some criticism for privileging housing–social interconnections above other considerations. Shea (1990), for example, points out that sociological development cannot effectively be indexed by technological development, urban propensities, or population density, indicating that there are far too many exceptions to make for any viable rule. So too,

as Shea explains (1990: 30), 'economic factors and, in particular, modes of production, are part of – not independent of – culture, and contribute importantly to vernacular settlement'. Studies also have made clear that buildings are part of larger regional and global interactions and that these factors also are important.

ANTHROPOMORPHISM, WORLD VIEW, COSMOLOGY, ASTRONOMY, AXIALITY

Not surprisingly in light of the primacy of the human as models of sociocultural construction, anthropomorphic idioms figure prominently in building symbolism. Anthropomorphism is one of architecture's universals, and in many cultures specific body-linked terminologies and actions are identified with core building parts. Bloomer and Moore's *Body, Memory, and Architecture* (1977) addresses the centrality of anthropomorphism in Western architectural contexts. House facades constitute the 'face' of the dwelling, garbage containers – like the end point of digestion – are placed often at the domicile rear, and the fireplace mantle – like the heart or soul – is a repository for family mementoes, a function also taken up in the kitchen (in particular the refrigerator) with its array of family snapshots and reminders. Among the broad range of ethnographic studies emphasizing anthropomorphism are Lebeuf (1961), Griaule (1965), and Malaquais (2002). Another important and influential text is Y-F. Tuan's eloquent *Topophilia* (1974) with its exploration of the intersection of the human body and a range of spatial considerations. Tuan, a geographer by training, offers a broadly philosophical analysis of the aesthetics of environment and the affinities which have long existed between humans and landscape.

The fashioning of world view finds widespread expression in building form as well. Interest in this question has been long-standing, as seen in, among other sources, William Lethaby's 1891 *Architecture, Mysticism and Myth* with its examination of the iconic elements of housing. Mircea Eliade's widely influential writings (see especially 1959) also have shaped related discussions in important ways with their highlighting of the connections between dwelling forms and features of sacred space. Paul Oliver (1975) brings together a range of scholarly contributions which address this from both theoretical and regional perspectives.

The importance of the house as an *imago mundi* is widespread too. In many contexts, a rich array of metaphoric elements come into play. See among others Littlejohn's (1967) examination of the Temne house, Bourdieu's 1973 elaboration of the interface between the Berber built environment and world view, Kuper's (1980) discussion of the symbolic dimensions of Bantu homesteads, and Tilley's (1999) provocative volume on metaphor and material culture, which includes important references to architecture. Dolores Hayden's (1976) thought-provoking work on seven American utopian communities and related architectural forms points to among other exemplars how Shakers convey vital attributes of their sect through design and related ritual practice. As Hayden notes, core features of simplicity and honesty as expressed in Shaker furniture reveal core religious tenets of material and spiritual 'truth'. Cities, in particular newly planned capitals, also express core utopian values. Such centers – among these Brasilia – also have been seen to have core problems (Holston 1989). Related concerns are also seen in architectural manifestoes (Conrads 1971), with texts by among others Adolf Loos (1982) on ornament and crime, Frank Lloyd Wright (1963) on the importance of organic architecture, and Buckminster Fuller (1973) on the architect as world planner.

With reference specifically to building traditions and world view in China, see Chang (1956) and Krupp (1989). Hindu traditions expressing factors of body, cosmology, and space are often cojoined in temple architecture (Beck 1976; Snodgrass 1985; Slusser 1982). Cosmological considerations in the Native American southwest also have been frequent subjects of scholarly interest, going back to, among other texts, White's (1962) discussion of cosmology in Pueblo life, Ortiz's (1969) examination of Tewa space, and Witherspoon's (1977) overview of Navajo *hogan* structures. Religious and other symbolism specifically linked to caves has been taken up as well, among these Vedic and Saiva contexts (Bäumer 1991). Heyden (1975a) shows the sacred importance of the cave in the central Mexican highlands site of Teotihuacan.

Axial positioning and ritual movement figure importantly as well. Lethaby's above cited 1891 volume makes particular note of the primacy of the rising sun in an array of communities and historical contexts around the world. Also see Irwin (1980) on axial symbolism in early Indian *stupas* and Meister (1991) on similar concerns in various Indian temple sites. Krupp's 1989 examination of axial positioning in early Beijing and Deal's 1987 analysis of Mayan ritual space and architecture also

offer important insights. On the relationship between building traditions and astronomic perceptions see Aveni's publications on archaeo-astronomy in pre-Columbian America (1977) and architectectural dimensions of non-Western time keeping (1989).

Rykwert's *On Adam's House in Paradise* (1981) reveals how models of primeval house forms figure in later architectural exemplars in a range of contexts. Lord Raglan's *The Temple and the House* (1964) draws on a range of traditions to argue for the primacy of the house as temple (rather than shelter *per se*), drawing on idioms such as foundation rituals, hearth-fire symbolism, material use, and primary shapes (house form) to support this view. See also his 1965 discussion of the origin of vernacular architecture with respect to religious concerns in domestic architecture more generally, as well as Deffontaines's (1972) discussion of the links between vernacular built form and both belief structures and ritual practices. In addition to the role that domestic structures play in conveying religious concerns, specialized ritual structures are also important, among these Shinto shrines (Watanabe 1974), Meso-American ball courts (Scarborough and Wilcox 1991), Igbo structures erected in honor of local deities (Cole 1982), and Polynesian Marae and Heiau temple complexes (Emory 1969; Kolb 1992). In various areas of Melanesia, larger community-built structures also assumed vital religious significance. See Hauser-Schäublin (1989) on the rich symbolism of men's houses in the Sepik river area of Papua New Guinea and Waterson's 1990 examination of religious and other forms in Indonesia.

BUILDERS, TECHNOLOGIES, AESTHETICS, AND DECORATION

Some of the most enduring issues of vernacular architecture have been those of building technology and construction. The range of issues involved in the construction of a Malay house are addressed in Gibbs et al. (1987). Needham's 1971 exploration of engineering factors in Chinese architecture is important as well. See also Arnold's examination of building practices in Egypt (1991) and Stanier (1953) on cost considerations in building the Parthenon in early Athens. On Mayan building technologies see Pendergast (1988) and Abrams (1994). Protzen's 1993 volume on Inka architecture and construction techniques also addresses a range of related concerns. Paul Oliver (1990) takes up the critical question of vernacular know-how in broader comparative terms, pointing to the ways in which construction knowledge necessarily embraces broader features of material experimentation and adaptation.

In addition to exploring the input of individual and community traditions of construction, a number of studies also have looked at the role guilds have assumed in building processes in certain areas. In the western Sudan, guilds established during periods of empire (Mali, Songhai, and Hausa, among others), which were comprised initially of persons forced into the service of the state, played an important role. Some guild members eventually rose to positions of power, status, and wealth (see Moughtin 1985). In the Djenne area of Mali, many of these guild-linked masons were members of the indigenous population who, because of their ritual primacy in the area, were seen to have unique abilities to address spirits of the land. The impact of African slavery populations on architectures of state not only in this Western Sudan area, but also in North Africa, and Spain also has been addressed (Blier 2003).

Another important factor of vernacular architecture is that of aesthetics. Whereas Rapoport's 1969 volume privileged social and environmental factors over aesthetic considerations, Rudofsky's 1964 text has been criticized for its overly aestheticized approach to vernacular building form to the exclusion of concerns such as building use and meaning. Most studies of vernacular architecture, however, have pointed to the interpenetration of aesthetic and sociocultural factors in architectural expression. Aldo van Eyck's (1968) discussion of Dogon architecture points out, for example, that the supplemental spanning elements of local Toguna structures are far greater than the related needs of load support, suggesting that these structural elements convey larger social and religious ideas – a notable feature also of the surfeit of load-bearing features in some vernacular Indonesian and South Asia building forms. Architectural style, aesthetics, and ethnicity are taken up by Herzfeld in Greece (1991). Decorative programs frequently convey important symbolic concerns. In Chios specifically, Politis (1975) has focused on how certain forms reflect religious values. Braithwaite (1982) on the other hand notes that decorative elements in Azande building contexts suggest social ambiguities, the hidden meanings of these motifs promoting political interests, and serving to denote exchange processes across the spheres of men and women. Donley (1982) has observed in turn how Swahili Coast trading houses on

the east coast of Africa emphasize decorative motifs which reference protection and cleansing, attributes also addressed in West African Islamic facade decorations (Prussin 1986). Van Wyk (1993) has noted how decorative building motifs serve as forms of resistance for the Sotho-Tswana women painters who create them.

SETTLEMENT PLANS AND URBAN PLANNING

Approaches to rural and city planning also are of fundamental importance to vernacular building study. Numerous scholars have sought to chart social identity, ritual practice, patterns of connectedness and difference in an array of spatial contexts; among these works are Hodder's 1978 volume on typologies of spatial relations. On the wider implications for vernacular architecture, see also Ligget and Perry (1995). Littlejohn's 1963 and 1967 studies of Temne spatial concerns in Sierra Leone look at the ordering of space, numerical strategies in village organization, and larger questions of Temne versus European values of place. Perin's analysis of American suburbs (1977: 210, 216) elaborates the centrality of physical proximity, social and income homogeneity, and symbolic elements of house style, as well as larger values of cosmic order and salvation. Vital attributes of transitional factors of space are addressed by Nancy Munn (1983). She sees paths (of objects and individuals) as impacting centrally on social construction and change. Other studies which explore these issues include J. Hyslop's 1984 examination of the Inka road system, and Zeynep et al. (1994) on the nature of streets and public spaces more broadly. Transcending long-standing concerns with urban centers and formal planning features also have been several studies which take up post-structural questions framed around so-called 'non-places', i.e., transitional areas such as airports, highways, shopping malls which are important precisely because they are both everywhere and nowhere, popular and elite (Augé and Howe 1995).

Several volumes have set the stage for a broader consideration of settlement questions in village settings, among these Douglas Fraser's 1968 structural-functional overview of village planning forms in varied world contexts. Ucko et al.'s 1972 volume, *Man, Settlement and Urbanization*, is also an important contribution, the authors of this anthology exploring multiple factors of environment, planning, and settlement structure. Both cross-culturally and transhistorically, settlement patterns show not only unique similarities and differences but also core concerns with materials, social relations, economies of scale, periodicity, and regional value. Among the important foundational studies of urban planning is Kevin Lynch's (1960) exploration into the image of the city, Jane Jacobs's 1969 study on the ecology of the city, and Joseph Rykwert's (1976) provocative cross-cultural examination of how towns historically have taken shape. See also Eisner et al. (1992) on issues of the urban fabric. Fustel de Coulanges explores (1896/1980) important ritual and other factors that have long shaped the city of Rome, suggesting the important ways that past and present intersect. Another notable study which addresses the urban experience from a cross-disciplinary vantage is Borden et al.'s (2002) anthology on architectural contestation and its social dimensions.

Broader historical considerations specifically in Meso-America are the focus of Hardoy (1973) and Vogt and Leventhal (1983). See also Ashmore's (1992) analysis of Mayan settlement organization, Danien and Sharer (1992) on Maya planning more generally, and Rust's (1992) overview of geography and social setting at the earlier Olmec site of La Venta. Urban considerations in the central highlands site of Teotihuacan are addressed in Bray (1972, 1983) and Berlo (1992), among others. For Peruvian urban settlement concerns see Garcilasco (1961), Zuidema (1964), and Kolata (1983).

Within the Islamic world, Hourani and Stern (1970) look at various dimensions of city planning, and Montêquin (1979) discusses how factors of morphology shape the Islamic urban fabric. In Asia, the conceptualization, shape, and architecture of the city also have been extensively explored. Wheatley (1971) provides insight into the roots and cosmological significance of the early Chinese city. Bacon (1974) focuses on the city of Beijing and its architectural forms; Steinhardt (1990) examines the Chinese imperial city and larger political issues at play with respect to planning. The nature of spatial organization in Nepal has been explored by Gutschow and Kölver (1975). A quite different, but also insightful, work is Blair's 1983 study of four Nepalese villages and the ways in which social values find expression. Theodore Bestor (1989) addresses neighborhood primacy in modern Tokyo.

In Africa, both pre-colonial city planning and modern metropolitan centers have been subjects of scholarly attention. While Hull (1976) focused attention on 'traditional' urban settings, Coquery-Vidrovich (2005) looks at the city

more broadly defined in contemporary and historical contexts. Abdoul's *Under Siege* (2003) examines four contemporary African urban centers – Freetown, Johannesburg, Kinshasa, and Lagos – from the standpoint of infrastructure, transportation, informal architecture, open areas, issues of poverty, and new urban paradigms. The authors of this provocative volume include historians (Achille Mbembe), urbanists (AbdouMaliq Simone), architects (Rem Koolhaas), and others.

ARCHITECTURES AND THE SUBALTERN: EMPIRE, SLAVERY, COLONIALISM, AND GLOBALIZATION

It is well acknowledged that empires across history have employed architecture to convey values of power and perpetuity. Architectures of state which denote, by their very scale, permanence of materials, control of landscape vistas, and larger-than-life-size sculptural programs promote ideas of dominance in particularly notable ways. Lefebvre (1991) looks at the role that monumentality often assumes in promoting idioms of fear and dominance. He also looks at political economies, dominated versus appropriated space, abstract versus absolute space, housing versus residence, homogeneity versus fragmentation, and contradictory dimensions of space and power. Examples as varied as the Great Wall of China (Luo 1981; Waldron 1990) and Fascist period forms in Italy and Germany suggest how these architectures promote particular political concerns. The force of empire in the construction of building programs also has been provocatively explored by Butzer (1982) in the context of Ethiopia and both Grabar (1978) and Meeker (2002) with respect to Islamic states. (See also Geertz (1981).) In South East Asia, the complex nature of palace buildings is examined by Dumerfaya (1991). The role modern domestic and other building models play in both addressing and promoting fear is explored by Ellin (1997). Setha Low's (2003) overview of gated communities in the United States also investigates this, and how issues of security and fortress mentality shape suburban American life. Another notable investigation into these issues is Steven Robins's (2002) examination of planning and idioms of suburban bliss in Cape Town.

Attention also has turned to the architectures of slaves and other subaltern populations with respect to complementary concerns with dominance, resistance, mediation, and retension. The Americas have been a particularly important focus of such research. Among the notable related studies are John Vlach's 1980 analysis of the US shotgun house form as a West African legacy. See Samford's (1999) overview of West African ancestor shrines and sub-floor pits in African-American quarters in the US. George McDaniel (1981) and Leland Ferguson (1992) also study vital issues of African American slave architecture. Focused primarily on early plantation life in South Carolina and tidewater Virginia, Ferguson demonstrates, through building and other evidence, the work and ritual spheres of slaves. Schuyler (1980) explores the archaeology of ethnicity with respect to both African American and Asian diaspora contexts in the United States. Sidney Mintz and Richard Price (1980) discuss Afro-American life in the Caribbean. Barton (2001) elaborates the role of race and ethnicity in constructing sites of memory. Bahloul (1996) and Slymovics (1998) address the importance of memory in Jewish and Muslim contexts in Algeria, on the one hand, and Palestinian communities on the other. These various studies are important in bringing to light the architectural contributions of historically disempowered and academically marginalized populations in various world contexts.

In many parts of the world, colonialism has left a fundamental imprint on the local built environment. Okoye (2002) offers an assessment of the colonial impact on southeastern Nigerian architecture. Ranger (1999) looks at the ways that colonialism and landscape have shaped each other in Zimbabwe. On colonialism and Egypt see Mitchell (1991). Neich (2003) examines colonial responses to Maori building forms, and Maori counter-responses. See also Purser's (2003) study of Fiji settler identities in the later colonial era and Yeoh's (2000) overview of contexts of colonial neglect in post-independence Singapore housing (2000). Issues of creolization as expressed through colonial building form also have been taken up by Edwards (2001), who encourages us to think broadly about sources and the ways in which cultures creatively draw on an array of forms which cross-pollinate each other.

Several important studies also have looked at how violence to architecture reflects broader political concerns (Bourgeois and Pelos 1989; Malaquais 1999, 2002; Roberts 2003). In key respects related forms of architectural violence share features in common with art iconoclasm, although, as Glassie has noted broader issues are at play as well: 'The decision to create a building is the decision to destroy some part of the material universe' (1990: 280). Related issues of violence and destruction also find

expression in questions of urban planning (Blier in press). In the Dahomey kingdom in West Africa, city planners in the seventeenth century seem to have anticipated later-era destruction and renovation, creating a spatial plan which allowed and indeed encouraged each new monarch to raze buildings in a designated area of the city, with the king then establishing important family members, ministers, and attendants in the newly cleared areas. Such planned destruction conveys a unique sense of political imperative and temporality. The marked destructive impact of segregation – and its extreme extension, apartheid – also has been taken up by scholars. Among the many contributions to this subject are Lemon's multi-authored 1991 volume on South African segregated cities and Rakodi's 1995 analysis of Harare, Zimbabwe's capital, as a settler colonial city. Janet Abu-Lughod (1980) addresses issues of urban apartheid in Morocco. See also Delaney (1998) on issues of race, law, and segregation in the United States with specific attention to the geographies of slavery and the geopolitics of Jim Crow.

In many parts of the world, sprawling shanty towns fueled by massive population movements have reflected deeply entrenched poverty and disempowerment, while also conveying the unique ingenuity and creativity of related inhabitants. (See among others Berman (1988) and Hardoy and Satterthwaite's *Squatter Citizen* (1989).) Watson and Gibson (1995) examine adaptive space in postmodern cities and Harvey (1993) discusses an array of modernity factors. Development considerations are a significant focus as well, as elaborated by Potter and Salau (1990) with respect particularly to the Third World. Marshell Berman's *All that is Solid melts into Air: The Experience of Modernity* 1988 is a provocative text in theoretical and other terms, and addresses the tragedy of development and underdevelopment with specific reference to social theorists (Marx), philosophers (Baudelaire on modernism in the streets), literary sources (Goethe's *Faust*), and core cities (Petersburg). See also Venturi et al. (1972) on learning from Las Vegas.

CONCLUSION

In addition to the larger theoretical issues which shape scholarly perspectives on vernacular architecture in significant ways, building forms and meanings also are defined fundamentally by an array of local, regional, and global factors. Questions of domesticity and mobility, as well as symbolic dimensions such as world view, cosmology, axiality, and anthropomorphism are central to our understanding of the built environment. Core considerations are how the buildings are experienced by and further shape the lives of their varied occupants – urban, rural, suburban as well as nomadic and the homeless. These are increasingly important subjects of consideration as well, defined from the vantage of psychological, phenomenological and other viewpoints.

Power relations as embodied in architecture – class, ethnicity, political institutions, gender – figure prominently in building forms of various types. Contemporary social theory has paid particularly close attention to the ways in which political-economic factors and institutions – slavery, imperialism, colonialism, apartheid, nation-state considerations, and globalization impact lives through habitus.

Key divisions between 'elite' and 'vernacular' forms (and scholarship) are likely to dissipate in the years ahead as scholars across the disciplines continue to move to counter narrow West versus non-West considerations. The complex push-pull between society and individual, pattern and anomaly, is playing out in interesting ways as well. Increasingly scholars also are reaching beyond issues of resistance and response, as popular forms or works at the 'periphery' are seen to shape and reshape the center. Studies also are reframing narrow concerns with 'tradition' and 'change' (as well as 'historic form' and 'modernity') to a consideration of cross-cultural and quantitative factors. One of the tools which is seeing increasing use is global mapping software such as GIS/GPS, which allows broad consideration of settlement planning, environment, and other architectonic considerations regionally and historically. In practical terms, the needs of sustainable global development are also continuing to be explored.

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