Vernacular Architecture in the Twenty-First Century

Theory, education and practice

Edited by Lindsay Asquith
and Marcel Vellinga

Chapter 5

Traditionalism and vernacular architecture in the twenty-first century

Suha Özkan

Introduction

The study of architecture and its theory has posed a continuous dilemma over the centuries. Especially after positivism in science and philosophy prevailed, architecture remained rather crippled, placing itself neither as an objective enquiry as in science, nor as a speculative and personal form of expression as in the arts. As far as its theory is concerned, architecture as a field of knowledge and as an area of practice occupies perhaps the most obscure place among both the sciences and the arts. It is a field of enquiry where the end product, the building, is formed by a process of design and is based on experiential values. Although the latter may be considered a reflection of the 'soft' values of art, they are implemented through the hard and verifiable knowledge of applied sciences, i.e. engineering. Therefore, in the tree of knowledge of the philosophy of science, architecture falls between the hard and soft realms of scientific enquiry. To be objective and therefore scientific is an ambition of positivist thinking in the design process. However, when the so-called scientific pursuit is over-exercised, the meaning of the process, one that relies so heavily on creativity and psychological factors, is reduced.

Throughout history, architecture has informed its practice simultaneously in terms of values and aesthetics, which have been recognized as the mission of the profession, and in terms of safe and correct building methods. Therefore the theory of architecture is a collection of disparate contributions that

combine the ideas, missions, assertions and approaches of many individuals. In the end, the theory is actually the literature that expresses and externalizes findings, convictions and manifestoes in literary form. When there is a prevalent agreement on what is 'good', or 'beautiful' for that matter, the theory becomes instructive and valid. When these agreements are challenged, alternative movements arise and spawn change.

Throughout history, we have witnessed distinct eras when these common agreements were effective among architects. The discourse of Ancient Greek and Roman as well as Renaissance architecture was based on these openly expressed theoretical assertions. However, this open transmission of knowledge was challenged by Gothic architecture, when the original theoretical premises being developed were retained by master masons as trade secrets, and only discreetly transmitted orally to following generations, in order to safeguard the know-how of the epoch (Rykwert 1988: 31–48). Subsequently, Neo-Classicism and Modernism returned to what had previously prevailed, enjoying open agreements to guide the profession. The theoretical discourse consisted mainly of proliferations and of variations on agreed valid principles of architecture.

Since the beginning of the twentieth century, Modernism has encapsulated and declared itself within two slogan-like assertions: those of Adolf Loos, 'Ornament is crime' and Louis Sullivan, 'Form follows function'. Modernism, addressing the aesthetics of industry and mass production, developed in leaps and bounds and became the uncontested *lingua franca* of architecture. It not only flourished in many other expressions of art, but also became the political manifestation of 'progressive' thought. Although this 'progressive' tide coincided with the worldwide spread of uniform, tedious and uninteresting buildings and urban environments, it would be unfair to blame Modernism for this, as these undesirable consequences were mainly the result of profit driven enterprises. Nevertheless, the distorted use or abuse of Modernism has been regarded by many as a set of values and premises that lacks respect for cultural identity, historical continuity and climatic relevance.

The reaction to Modernism took many forms, starting with post-Modernism, a short lived movement, inspired by shallow ethics. Unlike Modernism, which found expression in other fields like painting, sculpture, music, dance and industry, post-Modernism emerged within architecture and spread to other fields rather thinly. The notable exception to this is in the field of literature, where post-Modern structure was employed by many authors to great effect, significantly enhancing the quality and breadth of contemporary writing. The post-Modern movement was tirelessly preoccupied with reflections on meaning, historical continuity and the expression of identity.

From another angle, a 'revolutionary' movement known as the 'Architecture of Freedom' became a widespread repudiation of any control. Here Modernism was not revered. This was a denial of the need for political and planning control over building practices by the people themselves, who took the initiative to solve their own, primarily housing, problems. This movement based its discourse on *de facto* construction, generating vast settlements like the

favellas and *barrios* in South America, the *basti* in the Indian subcontinent, the *prosphika* in Greece, the *bidon-villes* in North Africa, the *kampung* in Indonesia, and the *gecekondu* in Turkey, all of which took off in the aftermath of the Second World War as 'people's solutions' for housing in rapidly urbanising countries. Recognition of this form of building as a solution that challenged the incapable institutional (or, for that matter, Modern) architecture, one that did not cope with the dynamism of the vast post-war demand, found its catch phrase in John F.C. Turner's declaration: 'Freedom to build' (Turner and Fichter 1972; Turner 1976).

The third and perhaps most influential reaction is traditionalism. Traditionalism's focus on research in vernacular architecture and the revitalization of traditional building practices placed it critically in the centre of architectural theory.

Vernacular architecture research

Many have contributed to the research on vernacular architecture, including Bernard Rudofsky (1910–87) and Paul Oliver – two pioneers in the subject's recent history.[1] Rudofsky did not have an academic interest or similar pursuit when, in 1964, he put together an exhibition of traditional architecture at New York's coveted Museum of Modern Art. The title itself was a challenge to the profession: 'Architecture without Architects' (Rudofsky 1964). Indeed, Rudofsky did not address the familiar discussion about whether or not builders who create spectacular architecture ought to be considered architects. Instead, he provokingly brought to the fore and introduced onto the agenda of world architecture an area of architecture that had, as yet, gone largely unnoticed and which used to belong solely to a rather hidden field of academic architectural research. Suddenly, edifices that had been kept within the field of interest of human geographers, folklorists, anthropologists and architectural scholars became a subject of wider architectural interest.[2]

Paul Oliver, an artist whose main research interest was the origins of Blues music, discovered an enormous wealth of architectural expressions. From among many qualifications for this form of building, he borrowed the term 'vernacular' from linguistics and opened a vast field of exploration. In his first book, *Shelter and Society* (Oliver 1969), he quite eloquently and thoroughly places vernacular architecture within the discursive history of architectural theory. He orchestrated the subject by generously voicing the research of a wide spectrum of, particularly young, researchers worldwide, including myself, allowing me to present one of my first research papers to an international readership. Oliver crowned his dedication to the subject with a three-volume *magnum opus*: *The Encyclopedia of Vernacular Architecture of the World* (Oliver 1997a).

Since the early 1970s, thanks to Oliver and his followers, research in vernacular architecture has developed into a respectable academic field and has yielded extraordinary findings. Vernacular architecture research filled the biggest vacuum within architectural theory: the lack of laboratory conditions within the theory of architecture, which previously had prevented the discipline from deriving valid and verified knowledge from cases and field studies. Research done in

the realm of vernacular architecture embraces social, economic, cultural and technological aspects of architecture and describes and analyses how buildings emerge and are sustained through cultural processes. The research carried out on this premise also seeks to understand the historical depth behind architectural formation and development, together with the cultural and environmental factors that are involved. As one might expect, vernacular architecture research, a truly multi-disciplinary field, not only expanded the scope of architecture but also provided niches of academic interaction, offering faculty members the opportunity to work with people from departments outside their own. This led to the emergence of a new field of academic enquiry, which defined its scope as architectural anthropology, using the research techniques of anthropology, enriched with those of architecture (e.g. Amerlinck 2001). In short, vernacular architecture research became a mainstream academic activity, using processes of objective analysis and evaluation for architecture by displaying its determinants in their contextual entirety and historical continuity.

Until Paul Oliver's appropriation of the term 'vernacular', architecture that evolved from within communities and perfected itself with the test of time in conformity with societal, climatic and technological conditions was referred to by many different terms. The term 'traditional architecture' emphasized a process that had culminated in built form, one that is sustained by tradition as the binding tissue of that particular society. For those who named it 'primitive architecture' (Guidoni 1975), it meant that the architecture in question contained the basic necessities of society in their simplest form. When it was referred to as 'folk', it signified that the architecture formed part of the ethnographic premises. The term 'indigenous' architecture regarded this form of building as a particular and original aspect of building in a definable geographical setting. This type of architecture was also referred to as 'anonymous', given that the buildings did not have any significantly determinable architectural authorship. Finally, in the same vein, the term 'un-institutionalized architecture' was used in some academic discourse to define the same phenomenon. Thus, the term vernacular defined the subject by embracing its entirety, including the complexities of societal and cultural processes (Oliver 1969).

In the relatively short period of the three decades since then, hundreds of academics have explored vernacular architecture within their reach and presented their research in international fora. One of the leading media for sharing the outcomes of vernacular architecture research was established by Jean Paul Bourdier and Nezar AlSayyad as a part of the Centre for Environmental Design Research at the University of California, Berkeley. Their first international symposium, entitled 'Traditional Dwellings and Settlements in a Comparative Perspective', in 1988, brought together more than one hundred papers and as many scholars, sharing a similar interest. Their seriousness of purpose was made clear as these symposia continued to take place periodically in many different countries and on a range of different themes, making this newly founded institution an important medium for interaction and the exchange of findings on this particular subject.

Vernacular architecture in the history of theory

Throughout the centuries, those who have theorized on architecture have attempted to define the genesis of architecture or the point zero condition from which architecture originated and developed. The earliest known architectural treatise that deals with this issue is by Antonio Filarete di Averlino (Filarete 1965). In his well-illustrated treatise, he focuses on that episode in human history in which the need for shelter first emerges. Although his work concentrates on the origins of architecture, Filarete's initial aim was not to write a book on the subject, but to foster interest and try to persuade Lord Sforza of Florence to build a new ideal town named Sforzinda, by relating his vision of architecture and urbanism in the form of evening stories. In concordance with the monotheistic faiths, human life on earth is explained by the Biblical legend of Adam and Eve and their eventual expulsion from Paradise, where perfect conditions precluded any need for shelter. Only on expulsion from Eden did the prophetic couple and, thus, humankind, encounter the harshness of earthly conditions and climatic realities, and thus the need for protection. A simple shelter as a means of protection for survival during this period is Filarete's explanation of the genesis of architecture.

Filarete does not take a ready-made set of circumstances as the generic mode for his theory. Instead he returns to the basic necessities of refuge for human beings in order to discover the origins of architecture. From a religious perspective, the point of genesis comes from Adam and Eve's need to protect themselves as they are driven out of Paradise. At this point, Filarete refers to the sticks and leaves as the most original and pragmatic aspects of building. Filarete's point of departure, from the essential as opposed to the formal conditions, aims to have a sound, generic and unquestionable beginning for architecture and its theory. Unfortunately, others did not share this line of thinking until as late as the mid-eighteenth century, when a similar understanding was defended by the French architectural theorist Marc Antoine Laugier using the concept of *beauté primitif.* Laugier took the same primeval existence and named it 'primitive beauty', prior to his elaborate discourse on the 'high' architecture of his time.

In his most important and probably most influential works, the eighteenth-century French theorist Laugier bases his discourse on the rudiments of architecture. His two editions of *Essai sur l'Architecture* (1966), which were released in 1753 and 1755, and his *Observation sur l'Architecture* (Herrmann 1966), twelve years later, reflect the mainstream theory of the period.[3] This is not surprising given that Laugier essentially adhered to the line of classical theory, only rarely diverging from it. Nevertheless, his written work remains a valuable contribution to the most up to date establishment of classical, normative, canonic aspects of architectural theory.

This judgement does not aim to underrate his various efforts. Laugier, for instance, derived the basic rules or reasons for the existence of architecture by referring to the primitive hut, a popular reasoning even in today's architectural discourse. Laugier's point of departure for architectural principles, which is

reflected in the frontispiece of *Essai*, is probably the same generic pattern followed by those who search for the governing and generic patterns of architecture in the vernacular mode of building. Laugier asserts that the first step in architecture begins with four sticks and beams to connect them, i.e. the rustic hut. The hut becomes a generic, iconic model for architecture from which many issues have been derived. In that respect he reminds us of Filarete's story of Adam and Eve's expulsion from Paradise.

By taking the 'rustic hut' as the generic model for architecture, Laugier makes a revolutionary leap from the Renaissance analogy that deduced all its laws and principles from 'Man'. Laugier's contribution is extremely important, because it brings reason as opposed to dogma into architectural thinking. Primarily, the Vitruvian model in which a creation of God, i.e. man, is analogous to man's own creation, i.e. architecture, is replaced by a point of departure where ideas and valid results are generated from an archetypal solution to man's necessity for shelter. Laugier takes an analytical view of the subject, as opposed to an 'unquestionable dogma' of an analogy, which would be impossible to validate.

When we compare Laugier's 'rustic hut' with Filarete's archetypal shelter with 'four posts', we may conclude that Laugier takes up a pre-Renaissance position on the genesis of architecture. But he does so with a difference in purpose: he intends to derive the basic principles of architecture analytically instead of pandering to the scholastic dogma of the Renaissance, a dogma that arose from prescribed analogical paradigms.

Contemporary architectural discourse and traditional building practices

As previously mentioned, since the beginning of the twentieth century, the prevalent paradigm in architecture has been Modernism. Even though it dominated both educational theory and the practice of architecture, reactions to this prevailing 'ideology' have never subsided. Over time, Modernism, with its strong roots, has become diversified and has developed a plurality of its own. We may categorize this plurality within the following seven groups.

The first group comprises those who unquestionably adopt the minimalist architecture of Ludvig Mies van der Rohe and the Modernist principles of Walter Gropius as they were initially set out and declared. Minimalist modernism as an expression of progress claimed to be valid for any geographical or cultural context. Gradually it became not only a conviction but a lifestyle, and even a political attitude towards the built environment. Architects who committed themselves to this approach have adopted it as their mission. Minimalist internationalism in time became the most challenged and criticised aspect of Modernism, as it not only ignored the cultural and climatic aspects of life, but also ventured to reform them.

The second group of architects consists of the followers of Le Corbusier and his simple and sublime expressions, explained by his affinity for the Mediterranean. This opened up avenues to explore a valid Modernism for different cultural and specific climate settings. Perhaps the most prominent

architect in this respect was Alvar Aalto, who developed a new Modernism specific to Finland, without making any compromises to Modernist principles. Luis Barragan, Geoffrey Bawa, Tadao Ando, Charles Correa, Balkrishna Doshi, Rafael Muneo, Ricardo Legoretta, Alvaro Sisa and Sedad Eldem can be mentioned among the hundreds who are committed to culture- and climate-specific modern architecture, which has been referred to as 'modern regionalism'.

The third group of architects can be called 'new moderns'. They do not diverge from most of the principles of Modernism, yet they do not take 'function' as the basic determinant of form. On the contrary, they believe that when function is underplayed, a huge area opens up for free expression by engaging many means and techniques of contemporary design. Architects such as Frank Gehry, Zaha Hadid, Peter Eisenman, Wolf Prix, Renzo Piano, Daniel Liebeskind and Santiago Calatrava are generally held to belong to this group.

The fourth group embraces those who made the visions and the ambitions of the Archigram Group a contemporary reality: the use of the most sophisticated contemporary technologies and the highest possible precision for building. Jean Nouvel, Norman Foster and Richard Rogers are the pioneers who sustained this line of work and designed notable buildings of our times.

The fifth group is made up of those who from the outset regarded Modernism as a rigid canon that would limit original and creative expression. In their opinion, architectural design should not obey any limitation of expressiveness. Talents like Antonio Gaudi, Hans Scharoun, Paolo Soleri and Bruce Goff took risks by not taking part in the mainstream. They remained on the margins and maintained a vivid line of opposition to all, obliterating modernity.

The sixth group of architects blindly obeyed Modernism, but did so lightly and with creative cynicism. They regarded the realities of life, as they manifested themselves in building, very seriously. Their main opposition to Modernism can be seen principally by their lack of symbolic references to identify buildings within their context, their past and with the aspirations of their clients. Theoretically led and enriched by Charles Jencks, this reaction became a short-lived movement spanning the two decades from the 1970s to the 1990s, and gave rise to many novel expressions. Charles Moore, Robert Venturi, Paolo Portoghezi, Aldo Rossi, Rob Krier, Rifat Chadirji and Richard England are mentioned as the proponents of post-Modern architecture.

The seventh group are the conservatives who believe in the wisdom and accomplishments of the past and commit their careers to perpetuating history. Even though this group shares a similar discourse, social aspects divide them into two fundamentally different sub-groups. On the one hand, classicists who enjoy the royal support of Prince Charles, and who have been represented by Quinlan Terry and Leon Krier, believe that whatever was built in the past is good enough for the urbanized world to repeat in most loyal form. By doing so, they believe, we respect our architectural heritage and enjoy more culturally relevant urban environments. On the other hand, traditionalists, who in essence hold similar aspirations, have a mission that is more geared to the rural environments and the use of appropriate technologies.

Traditionalism and Hassan Fathy

Traditionalism in architecture cannot be discussed without taking a close look at the Egyptian architect and activist Hassan Fathy (1900–86), who single handedly challenged Modernism.[4] Through his discourse and influence, Hassan Fathy has come to occupy a 'saintly' position in the world of architecture, even though he has not enjoyed a similar degree of success or recognition with regards to his own architecture. His honesty and determination have made him a hero among generations of architects who, like him, respect the social concerns present in architecture, and its mission.

Hassan Fathy's strife and commitment to architecture was an endless battle and has endured long after his death. He symbolized his own convictions by keeping a statue of Miguel de Cervantes's timeless character Don Quixote in his bedroom as a continuous reminder of man's aspiration to help those less fortunate. In literature, Don Quixote has become an icon of honesty, conviction, perseverance and a continuous struggle against power and those who possess it. The symbolic association between Fathy and the protagonist was very clear, and was understood and acknowledged by his visitors over the years. Fathy also dedicated his life to an uncompromising struggle against the prevalent forces of internationalism, which he felt were becoming the architectural reflection of 'modern society'. He regarded internationalism as a forceful intrusion that obliterates the meaning and social consciousness of architecture. He was cognisant of the fact that he was engaged in an uphill battle, but took little notice. He persevered throughout and in the end left us with an enormous legacy. In time, he had radicalized his position and turned it into a battle against the totality of institutionalized architecture. After seeing a building with a curtain wall and mirrored glazing, he once remarked to me: 'Look at the architect. He is so much in shame with his own design that he only dares to reflect the architecture around it.'

The intrinsic creativity, modesty and dedication of Fathy and his architecture have never been denied, even by those who do not share his vision. However, his failure to garner support from the social forces in which he had confidence has been widely used as proof that the traditionalist approach used and pioneered by Fathy does not work. This was clearly illustrated when two of his rural resettlement projects, New Gourna Village and Bariz Village, failed to succeed, even though this disappointing outcome was due in large part to pre-existing social and economic realities, rather than to the settlements themselves. The inhabitants of Gourna had originally based their livelihood on local clandestine archaeological digs, and so when prompted to move, they refused to do so as they did not want to risk losing their only source of income. This refusal to resettle scarred Fathy's work methods, which relied heavily on communal participation. In fact, Fathy had ingeniously re-mastered the traditional Nubian vaulting system of mud bricks without using any wooden formwork, instead stacking bricks at a slight angle and resting them against a wall to form vaults. Although this was a very simple construction technique, it yielded well-insulated, comfortable spaces and impressive, robust architectonics for architects and non-architects to admire.

'Building with people', Fathy's main thesis, did not hold for Bariz Village either.[5] In the end, Fathy was criticized not for his architecture per se, but for the negative reaction of the communities involved. In short, the very people to whom he had dedicated his mission very sadly rejected him. Naturally this was not a deliberate reaction on their part, or one targeted specifically at him, but the indirect result was a betrayal on behalf of those whom he loved and wanted to help the most. Fathy's priority had been to improve the living conditions of the poor by using appropriate architecture, but the outcomes of his endeavours led him instead to the design of exquisite stone masonry villas for the well-to-do intelligentsia of Cairo. Cynics, envious of Fathy's international reputation, voiced this contradiction with slogans such as: 'He is writing about the poor and building for the rich.' However, they deliberately ignored Fathy's underlying belief that if the leaders of Egyptian society would appropriate and make good use of his architecture for their high aspirations and lifestyles, the underprivileged would follow suit. But this dream did not materialize, at least not in his lifetime.

In the end, Fathy divorced his beloved wife over a trivial argument (the music of Johannes Brahms) and dedicated his life to his powerful discourse and intellectual existence. His residence, which he shared with more than thirty cats, was a portion of an old Mamluk house next to Saladin's Citadel on Darb el-Labbana, and soon became frequented by many who admired his mission and wished to benefit from his wisdom. His permanent appeal to those interested in talking to him, or at least listening to what he professed, took the form of an invitation to join him for tea every afternoon. From the 1960s to the late 1980s, having tea with Fathy was considered a deed, a responsibility or perhaps a ritual not to be missed. He was possibly the only internationally acclaimed person for centuries whose door was open to everyone. His outward reach and hospitality linked him with people all over the world – which is how I met him for the first time in 1969, and then many times after. Fathy had clearly become an undeclared *guru* for alternative architectural discourse.

Fathy's followers

Many who deliberately chose his discourse and benefited from his talks became important architects and activists, perpetuating his mission in their work. Among these, many have received the prestigious Aga Khan Award for Architecture including: André Ravereau (Mopti Medical Centre, Mali, 1980), Abdelwahed el-Wakil (Halawa House, Egypt, 1980, and Corniche Mosque, Jeddah, Saudi Arabia, 1989), Jak Vauthrin (Pan African Institute for Development, Ouagadougou, Burkina Faso, 1992) and Fabrisio Carola with Vauthrin (Regional Hospital, Kaedi, Mauritania, 1995). When classicism dominated architectural discourse in the late 1980s, the Egyptian architect Abdelwahed el-Wakil always referred to Fathy's prophesies with pride. He was also among the pioneers of the classicist movement, along side Quinlan Terry and Leon Krier.

As important as these individual accomplishments in architecture may be, groups have been formed that have institutionalized Fathy's teachings and refined his mission in order to use architecture for human, social and economic

development. One of Fathy's dedicated followers, John Norton, together with Alan Cain and Farokh Afshar, established the Development Workshop (DW). This group coupled international consciousness and economic support with local needs and technologies, blending all with architectural wisdom. They have since become one of the outstanding forces in socially responsible architecture, a helping hand working to bring architecture into the social realm.

In addition to its social and technological concerns, DW has distinguished itself by commitment to the protection of nature, by developing materials and methods of construction that take into consideration the scarcity of natural resources. DW started work in the mid 1970s in Iran and later became involved in Angola, Vietnam, Mali and Mauritania. In each of its projects, DW developed innovative and appropriate technologies based on abundant and readily available natural materials. Moreover, in order for the projects to be successful in the long run, they regularly implemented very thorough training programmes for local builders. Over the years, DW has received funding from many international organizations and continues to enjoy the support of the international community in general, who wholeheartedly share the wider environmental concerns.

Among the DW projects is 'Woodless Construction', an initiative not to use scarce wood in geographical areas of sub-Saharan Africa that are susceptible to or already suffering from desertification. Supported by the United Nations Organization for the Conservation of Nature, 'Woodless Construction' in essence is faithful to Fathy's legacy and teachings of Nubian vaulting and doming without wooden formwork construction systems.

Hugo Houben is another follower of Fathy's who frequented his tea meetings for many years. With the help of Patrice Doat, he established CRATerre (Centre for Research in Earthen Architecture), a research centre based at the University of Grenoble that immediately gained the support of Jean Dethier. Dethier was responsible for organizing the legendary earthen architecture exhibition entitled 'Down to Earth', at the Centre Pompidou in Paris, and became the director of CRATerre's architecture section. This exhibit tirelessly travelled the world for two decades and was viewed by millions; it has been as influential as was Rudofsky's exhibition.

Houben, a civil engineer, had a very pragmatic and in many ways scientific approach to earthen construction. CRATerre established laboratories and workshops at the University of Grenoble to test various technologies of earth construction. Mud bricks, compacted earth, earthen building blocks with reinforcing additives and *pisé* were among the materials they investigated. In the field, they demonstrated fast building techniques and displayed prototypes. Their prototype of a primary school building in Somalia and their Exhibition Centre in Riyadh attracted professional interest.

Perhaps the most interesting exercise that CRATerre conducted was in collaboration with the local authority of the new town of Ile d'Abeau in southern France. It involved the commissioning of five architects to design, and five contractors to build, a series of houses. This experimental project aimed to encourage architects to use mud and mud bricks as the principal building

material, and to allow them to explore possibilities in mud construction techniques. These houses have now been in use for more than fifteen years and convincingly prove that the material, mud, indigenous to the Lyon region, can be put back into use. The serious commitment of the local authority in Ile d'Abeau to make use of local resources, an approach long espoused by Fathy, was rewarded by naming one of the streets after him, 'Rue Hassan Fathy', as a gesture to recognize and eternalize the great architect. It is worth noting that no such recognition has yet been made in Fathy's city of origin, Alexandria, or in Cairo where he spent most of his life.

CRATerre also conducted major housing projects using appropriate local materials other than earth. Their involvement in mass housing in Mayotte spanned more than two decades and provided hundreds of houses. In various types of compounds, different house types, architectural solutions and site plans were all executed in respectful appreciation of the plurality of expressions among this remote island population.

Jak Vauthrin is another of the leading disciples of Fathy. He established ADAUA (Association for the Development of an African Urbanism and Architecture), an institution that works primarily in Africa. The mission resembles that of DW, although perhaps with stronger emphasis on the development of local capabilities. ADAUA established branches in Mali, Mauritania, Burkina Faso and Senegal. Vauthrin remained faithful to his mission and persevered, despite the change in name of his central organization to Mirhas and then FISA (International Foundation for Architectural Syntheses), and moves from Geneva to Seville.

ADAUA's most substantial urban intervention was to supply housing for a refugee population that moved out of their original settlements in Mauritania, due to drought, to Senegal's coastal town of Rosso. In the early 1980s, more than three hundred houses were built in brick, with particularly developed and very simple vaulting technology. Simple load-bearing brick walls formed a single square module as the basic room. The roof was derived from a construction technology of spiralling equidistant layers of bricks to form a dome. They based their solution on the abundant earth available in the area, transforming it into building materials and eventually forming expressive domed dwellings. Although outsiders admired the project for its simplicity and for local people's participation, the residents themselves did not like the houses. It has been suggested that the domed appearance reminded them of funerary structures, repelled them from living in them. Part of the resistance also stemmed from the fact that this innovative solution had been brought in by foreigners, even though it employed local resources. The similarity of this experience with Fathy's Gourna is compelling. Both are well-intentioned and good-will gestures that were prevented from fulfilling their goals because of pre-existing, complex cultural forces that emanated from within these local communities.

Under such circumstances, it is not easy to be successful. First of all, it is impossible to objectively select the criteria that define the term 'success'. Is the measure of success the number of houses provided for people? Is it people's acceptance of what has been offered to them? Or is it their own definition or

expectation of a lodging? Whatever the criteria may be, the critical issue at hand is the lack of understanding by local people for those who came to their assistance with good intentions and an open heart, bringing what they thought would be 'good' for them. Unfortunately, local suspicions and continual questioning of the innocent nature of this 'volunteer spirit' have led to the defeat of these projects.

Sustainability

Among the new environmental ethics of the twenty-first century, sustainability has emerged as one of the most important and internationally endorsed principles, especially in the world of architecture and in terms of appropriate building practices. Its international adoption means that it has now become a major criterion in the judgement of any architectural or planning practice, and has placed itself within the expectations of new policies set out by international organizations. Needless to say, vernacular architecture is the highest form of sustainable building, as it not only uses the most accessible materials, but also employs the widest available technologies.

Architectural theory, which encompasses all the factors that surround the art of building, is embedded within society and is passed on from one generation to the next by means of tradition. This is a cyclical period of sustention. It applies to dwellings as well as to religious or communal monuments. It is when these cycles of transmission of information or technology are broken by outside forces that tradition ceases to be active. Unfortunately, changes that ignore the complex nature of social and environmental forces yield inappropriate architecture.

At the beginning of the twenty-first century, globalization has a forceful impact on every aspect of our lives. From music to food, and from lifestyles to architecture; there are no areas of our existence that have not been affected by global forces and values. While bringing convenience in living and communication, this globalization has a homogenising effect and threatens to reduce the meaning of the architecture and built environments we live in. Meaning naturally comes with cultural awareness and historical continuity. In order to combat the threat of homogenization, the issue of cultural appropriateness, advocated by Oliver and others, will have to be taken more seriously.

Awareness of the importance of the conservation of architectural heritage, especially in areas where haphazard urban and rural building in inexpensive materials has taken place, has been raised. In the last ten years or so, many decision-makers have realized that the cultural identity that they are proud of is clearly related to the architectural heritage that they have been losing. The carelessly condoned heritage, when destroyed, becomes an important priority for conservation. Unfortunately, in most cases, what has been selected for conservation are the physical shells of the traditions, i.e. the buildings, rather than the cultural values and practices underlying them.

In time, the followers of Hassan Fathy and Paul Oliver are destined to be successful. In a world where the scarcity of energy resources and synthetic materials is only likely to increase, their determination to make use of abundant

local resources and their desire to respect and engage with the complexities of cultures, historical contexts and the pressing needs of habitat, will most certainly give rise to the impressive, durable and socially conscious vernacular architecture that Fathy, Oliver and their followers hoped to realize.

Notes

1 Later, in 1977, Rudofsky revisited the subject as 'notes toward a natural history of architecture with special regard to those species that are traditionally neglected or downright ignored' (Rudofsky 1977).

2 Prior to Rudofsky and Oliver, there had been a vivid line of research on vernacular architecture. Among this work was a series of theses written at the Istanbul Technical University in the 1950s. However these works primarily focused on traditional, regional architecture in various cities such as Ankara, Diyarbakır, Konya, Erzurum and Kastamonu.

3 I only had access to the 1755 edition of *Essai* (1966). The references made to the 1753 edition of *Essai* are based on Herrmann (1962).

4 In 1972, Paul and Valerie Oliver, and Hassan Fathy visited the Middle East Technical University in Ankara as my guests. They enjoyed a field trip together, looking at the extraordinary rock cut vernacular architecture of the Central Anatolian region of Capadoccia.

5 Hassan Fathy's *magnum opus* is his *Architecture for the Poor* (1973), which was originally published as *Gourna: a tale of two villages*, Cairo, Ministry of Culture, 19 9. This book found its real meaning when translated into French (Fathy 1970).

Bibliography

Abbott, A. (1988) *The System of Professions: An Essay on the Division of Expert Labor*, Chicago: The University of Chicago Press.

Abernethy, F.E. (1985) 'Folk art in general, yard art in particular', in F.E. Abernethy (ed.) *Folk Art in Texas*, Dallas: Southern Methodist University Press.

Abrahams, I. (1988) 'Some booths I have known', in P. Goodman (ed.) *The Sukkot/Simhat Torah Anthology*, Philadelphia: Jewish Publication Society.

Abu-Lughod, J. (1992) 'Disappearing dichotomies: First world–third world; traditional–modern', *Traditional Dwellings and Settlements Review*, 3 (2): 7–12.

Afshar, F. and Norton, J. (1997) 'Developmental', in P. Oliver (ed.) *Encyclopedia of Vernacular Architecture of the World*, Cambridge: Cambridge University Press.

Ahmed, A.S. (1982) 'Nomadism as an ideological expression', *Economic and Political Weekly*, 3 July 1982: 1101–6.

Akbar, J. (1988) *Crisis in the Built Environment: The Case of the Muslim City*, Singapore: Mimar Books.

Alcock, J. (2001) *The Triumph of Sociobiology*, New York: Oxford University Press.

Alexander, Ch. (2003) *The Process of Creating Life* (Book Two of *The Nature of Order*), Berkeley: Center for Environmental Structure.

Alexander, Ch., Ishikawa, S. and Silverstein, M. (1977) *A Pattern Language*, New York: Oxford University Press.

AlSayyad, N. (ed.) (2004) *The End of Tradition?*, London: Routledge.

Altman, I. (1975) *The Environment and Social Behavior: Privacy, Personal Space Territory, Crowding*, Monterey, CA: Brooks/Cole.

Alward, W.L.M. (2003) 'A new angle on ocular development', *Science*, 299 (5612): 1527–8.

Amerlinck, M-J. (2001) *Architectural Anthropology*, Connecticut and London: Bergin & Garvey.

Ames, K.L. (1977) *Beyond Necessity: Art in the Folk Tradition*, New York: W.W. Norton for the Henry Francis du Pont Winterthur Museum.

Arendt, H. (1971) 'Introduction', in H. Arendt (ed.) *Walter Benjamin*, München: Piper.

Arias, E.G. (ed.) (1993) *The Meaning and Use of Housing*, Aldershot: Avebury.

Aronson, D.R. (1980) 'Must nomads settle? Some notes towards policy on the future of pastoralism', in P.C. Salzman (ed.) *When Nomads Settle*, New York: Praeger Publishers.

Arreola, D.D. (1984) 'House color in Mexican-American barrios,' paper presented at Conference on Built Form and Culture Research, Lawrence, KS, October.

—— (1988) 'Mexican-American housecapes', *Geographical Review*, 78 (3): 299–315.

Asad, T. (1970) *The Kababish Arabs*, London: C. Hurst.

Ashmore, J. *et al.* (2003) 'Diversity and adaptation of shelters in transitional settlements for IDPs in Afghanistan', *Disasters* 27 (4): 273–87.

Asquith, L. (2003) 'Spatial construction: An evaluation of space use and claim in family homes', unpublished PhD thesis, Oxford Brookes University.

Austin, M.R. (1997) 'Maori', in P. Oliver (ed.) *Encyclopedia of Vernacular Architecture of the World*, Cambridge: Cambridge University Press.

Aysan, Y., Clayton, A., Cory, A., Davis, I. and Sanderson, D. (1995) *Developing Building for Safety Programmes: Guidelines for Organizing Safe Building Improvement Programmes in Disaster Prone Areas*, London: Intermediate Technology Publications

Bachelard, G. (1964) *The Poetics of Space*, 2nd edn, New York: Orion Press.

Bachman, C.G. (1961) *The Old Order Amish of Lancaster County*, Lancaster, PA: Pennsylvania German Society.

Banning, E.B. and Byrd, E.F. (1987) 'Houses and the changing residential unit: Domestic architecture at PPNB 'Ain Ghazal', Jordan,' *Proceedings of the Prehistoric Society*, 53: 309–25.

Barker, K. (2004) *Delivering Stability: Securing Our Future Housing Needs*. Online. Available HTTP: http://www.hm-treasury.gov.uk/media/053/C7/barker_review_execsum_91.pdf.

Barkow, J.H., Cosmides, L. and Tooby, J. (1992) *The Adapted Mind: Evolutionary Psychology and the Generation of Culture*, New York: Oxford University Press.

Barnett, R. (1977) 'The libertarian suburb: Deliberate disorder', *Landscape*, 22 (3): 44–8.

Barry, M., Roux, L., Barodien, G. and Bishop, I. (2002) 'Video-evidencing and Palmtop computer technology to support formalising land rights', *Development Southern Africa*, 19 (2): 261–71.

Barth, F. (1961) *Nomads of South Persia*, Boston: Little, Brown & Company.

Barton, H. and Tsourou, C. (2000) *Healthy Urban Planning*, London: E. & F.N. Spon.

Bartsch, U. and Mueler, B. (2000) *Fossil Fuels in a Changing Climate: Impacts of the Kyoto Protocol and Developing Country Participation*, Oxford: Oxford University Press.

Bauman, R. (1972) 'Differential identity and the social base of folklore', in A. Paredes and R. Bauman (eds) *Toward New Perspectives in Folklore*, Austin: University of Texas Press.

—— (1983) 'Folklore and the forces of modernity', *Folklore Forum*, 16: 153–8.

—— (1992) 'Performance', in R. Bauman (ed.) *Folklore, Cultural Performances, and Popular Entertainments: A Communications-Centered Handbook*, New York: Oxford University Press.

Becker, J.S. (1998) *Selling Tradition: Appalachia and the Construction of an American Folk, 1930–1940*, Chapel Hill: University of North Carolina Press.

Bedaux, R., Diaby, B., Maas, P. and Sidibe, S. (2000) 'The restoration of Jenné, Mali: African aesthetics and Western paradigms', in International Committee for the Study and Conservation of Earthen Architecture and the University of Plymouth (Centre for Earthen Architecture) (eds) *Terra 2000: 8th International Conference on the Study and Conservation of Earthen Architecture*, London: James & James.

Bedaux, R., Diaby, B., Maas, P., Sidibe, S. and Keita, M.K. (1995) *Plan de Projet: Rehabilitation et Conservation de l'Architecture de Djenné (Mali)*, Leiden: Bamako.

Ben-Amos, D. (1984) 'The seven strands of "tradition": Varieties in its meaning in American folklore studies', *Journal of Folklore Research*, 21: 97–131.

Bendix, R. (1989) 'Tourism and cultural displays: Inventing traditions for whom?', *Journal of American Folklore*, 102: 131–46.

Berland, J.C. and Salo, M.T. (1986) 'Peripatetic communities: An introduction', in *Nomadic Peoples: Special Issue on Peripatetic Peoples*, 21–2: 1–4.

Bernstein, B. (1970) *Class Codes and Control: Theoretical Studies Towards a Sociology of Language*, London: Routledge & Kegan Paul.

Bernstein, F. (2002) 'A critic takes the Catholic church to task for its architecture', *New York Times*, 7 September 2002.

Biederman, I. (1987) 'Recognition by components: A theory of human image understanding', *Psychological Review*, 90: 115–47.

Blanton, R.E. (1994) *Houses and Households: A Comparative Study*, New York: Plenum.

Blasdel, G.N. (1968) 'The grass-roots artist', *Art in America*, 56: 24–41.

Blier, S.P., (1987) *The Anatomy of Architecture: Ontology and Metaphor in Batammaliba Architectural Expression*, Cambridge: Cambridge University Press.

Boden, M.A. (1990) *The Creative Mind: Myths and Mechanisms*, London: Sphere.

Bonine, M. (1979) 'The morphogenesis of Iranian Cities', *Annals of the Association of American Geographers*, 69 (2): 208–23.

Boudon, P. (1972) *Lived-in Architecture: Le Corbusier's Pessac Revisited*, Cambridge, MA: MIT Press.

Bourdieu, P. (1977) *Outline of a Theory of Practice*, Cambridge: Cambridge University Press.

—— (1990) *The Logic of Practice*, Cambridge: Polity Press.

Bourdier, J.-P. and AlSayyad, N. (eds) (1989) *Dwellings, Settlements and Tradition: Cross-Cultural Perspectives*, Lanham: University Press of America.

Bourdier, J.-P. and Minh-ha Trinh, T. (1996) *Drawn from African Dwellings*, Indiana: Indiana University Press.

Bourgeois, J.-L. (1989) *Spectacular Vernacular: The Adobe Tradition*, New York: Aperture Foundation.

Boyden, S. (1987) *Western Civilization in Biological Perspective: Patterns in Biohistory*, Oxford: Oxford University Press.

Boyer, E.L. and Mitgang, L.D. (1996) *Building Community: A New Future for Architectural Education and Practice*, Princeton: The Carnegie Foundation for the Advancement of Teaching.

Brackman, B. (1999) 'Remember the grotto: Individual and community', in B. Brackman and C. Dwigans (eds) *Backyard Visionaries: Grassroots Art in the Midwest*, Lawrence: University Press of Kansas.

Brackman, B. and Dwigans, C. (eds) (1999) *Backyard Visionaries: Grassroots Art in the Midwest*, Lawrence: University Press of Kansas.

Bronner, S.J. (1979) 'Concepts in the study of material aspects of American folk culture', *Folklore Forum*, 12: 117–32.

—— (1985) 'Researching material folk culture in the modern American city', in S.J. Bronner (ed.) *American Material Culture and Folklife*, Ann Arbor: UMI Research Press.

—— (1986a) *Grasping Things: Folk Material Culture and Mass Society in America*, Lexington: University Press of Kentucky.

—— (1986b) 'Folk objects', in E. Oring (ed.) *Folk Groups and Folklore Genres*, Logan: Utah State University Press.

—— (ed.) (1992) *Creativity and Tradition in Folklore: New Directions*, Logan: Utah State University Press.

—— (1998) *Following Tradition: Folklore in the Discourse of American Culture*, Logan: Utah State University Press.

—— (1999) 'Cultural historical studies of Jews in Pennsylvania: A review and preview', *Pennsylvania History*, 66: 311–38.

—— (2000a) 'The meanings of tradition: An introduction', *Western Folklore*, 59: 87–104.

—— (2000b) 'The American concept of tradition: Folklore in the discourse of traditional values', *Western Folklore*, 59: 143–70.

—— (2002a) *Folk Nation: Folklore in the Creation of American Tradition*, Wilmington, DE: SR Books.

—— (2002b) 'Questioning the future: Polling Americans at the turn of the new millennium', *Prospects: Annual of American Cultural Studies*, 27: 665–86.

Bronowski, J. (1978) 'The imaginative mind in art', in J. Bronowski (ed.) *The Visionary Eye*, Cambridge, MS and London: MIT Press.

Brown, D.E. (1991) *Human Universals*, Philadelphia: Temple University Press.

Brown, P.L. (2002) 'Megachurches as minitowns', *New York Times*, 9 May 2002.

Bucko, R.A. (1998) *The Lakota Ritual of the Sweat Lodge: History and Contemporary Practice*, Lincoln and London: University of Nebraska Press.

Bunge, M. (1998) *Philosophy of Science*, vol. 1, New Brunswick, NJ: Transaction Publishers.

Bunimovitz, S. and Faust, A. (2000) 'Ideology in stone: Understanding the four room house', *Biblical Archaeology Review*, 28 (4): 32–41, 59.

Burnham, P. (1975) '"Regroupement" and mobile societies: Two Cameroon cases', *The Journal of African History* 16 (4): 577–94.

—— (1979) 'Spatial mobility and political centralization in pastoral societies', in L'Equipe Écologie et Anthropologie des Sociétés Pastorales (ed.) *Pastoral Production and Society*, Cambridge: Cambridge University Press.

Burns, G.L. (1991) 'What is tradition?', *New Literary History*, 22: 1–22.

Cain, A., Afshar, F. and Norton, J. (1975) 'Indigenous building and the third world', *Architectural Design*, 4: 207–24.

Canaan, T. (1932–3) 'The Palestinian Arab house: Its architecture and folklore', *Journal of the Palestine Oriental Society*, 12: 223–47, 13: 1–83.

Cannon, H. (ed.) (1980) *Utah Folk Art: A Catalog of Material Culture*, Provo: Brigham Young University Press.

Cantwell, R. (1993) *Ethnomimesis: Folklife and the Representation of Culture*, Chapel Hill: University of North Carolina Press.

Cardinal, R. (1972) *Outsider Art*, New York: Praeger.

Carlhian, J.P. (1979) 'The École des Beaux-Arts: Modes and manners', *Journal of Architectural Education*, 33 (2): 7–17.

Carroll, S.B. (2003) 'Genetics and the making of Homo sapiens', *Nature*, 422 (6934): 849–57.

Carroll, S.B., Grenier, J.K. and Weatherbee, S.D. (2001) *From DNA to Diversity: Molecular Evolution and the Evolution of Animal Design*, Oxford: Blackwell.

Carter, T. (1997) 'Folk design in Utah architecture, 1849–1890', in T. Carter (ed.) *Images of an American Land: Vernacular Architecture in the Western United States*, Albuquerque: University of New Mexico Press.

Casey, E. (1996) 'How to get from space to place in a fairly short stretch of time', in S. Feld and K. Basso (eds) *Senses of Place*, Santa Fe, NM: School of American Research Press.

Casimir, M.J., Lancaster, W. and Rao, A. (1999) 'Editorial', *Nomadic Peoples* 3 (2): 3–4.

Chatty, D. (1980) 'The pastoral family and the truck', in P.C. Salzman (ed.) *When Nomads Settle*, New York: Praeger Publishers.

Check, E. (2002) 'Worm cast in starring role for Nobel Prize', *Nature*, 419 (6907): 548–9.

Chomsky, N. (1972) *Language and Mind*, New York: Harcourt Brace Jovanovich.

Cierrad, I. (ed.) (1999) *At Home: An Anthropology of Domestic Space*, New York: Syracuse University Press.

Clottes, J. and Lewis-Williams, J.D. (1998) *The Shamans of Prehistory: Trance and Magic in the Painted Caves*, New York: Harry Abrams.

Cohen, D.H., Yamaguchi, A. and Spengler, J.D. (2003) 'A bio-regional approach to environmental building: A case study of the KST house', in R.J. Cole and R. Lorch (eds) *Buildings, Culture and Environment: Informing Local and Global Practices*, Oxford: Blackwell.

Collins, T.K. (1996) *The Western Guide to Feng Shui: Creating Balance, Harmony and Prosperity in Your Environment*, Carlsbad: Hay House.

Corsellis, T. and Vitale, A. (2004) *Transitional Settlement Displaced Populations*, Cambridge: Martin Centre.

Crinson, M. and Lubbock, J. (1994) *Architecture, Art or Profession? Three Hundred Years of Architectural Education in Britain*, Manchester: Manchester University Press.

Daniels, T. (1981) 'A Philadelphia squatter's shack: Urban pioneering', *Pioneer America: Journal of Historic American Material Culture*, 13: 43–8.

Davis, H. (1999) *The Culture of Building*, New York: Oxford University Press.

Davis, I. (1978) *Shelter After Disaster*, Oxford: Oxford Polytechnic Press.

—— (ed.) (1981) *Disasters and the Small Dwelling*, Oxford: Pergamon Press.

—— (1985) 'Shelter after earthquakes', unpublished thesis, University College London.

—— (2001) *Location and Operation of Evacuation Centres and Temporary Housing Policies: Global Assessment of Earthquake Countermeasures*, Kobe: Hyogo Province.

De Saussure, F. (1972) 'Course in general linguistics', in R. and F. DeGeorge (eds) *The Structuralists from Marx to Lévi-Strauss*, Garden City, NY: Doubleday.

Dewhurst, C.K. (1984) 'The arts of working: Manipulating the urban work environment', *Western Folklore*, 43: 192–202.

—— (1986) *Grand Ledge Folk Pottery: Traditions at Work*, Ann Arbor: UMI Research Press.

Dewhurst, C.K. and MacDowell, M. (1983) 'The conduit tile buildings of Grand Ledge, Michigan', *Pioneer America: Journal of Historic Material Culture*, 15: 91–104.

Dillehay, T.D. (2002) 'Climate and human migrations', *Science*, 298 (5594): 764–5.

Dissanayake, E. (1988) *What is Art For?*, Seattle and London: University of Washington Press.

Dovey, K. (1999) *Framing Places, Mediating Power in Built Form*, London: Routledge.

Downing, F. and Fleming, U. (1981) 'The bungalows of Buffalo', *Environment and Planning B*, 8. Online.

Dugatkin, L.A. (ed.) (2001) *Model Systems in Behavioral Ecology: Integrating Conceptual, Theoretical and Empirical Approaches*, Princeton: Princeton University Press.

Dyson-Hudson, N. (1972) 'The study of nomads', in W. Irons and N. Dyson-Hudson (eds.) *Perspectives on Nomadism*, Leiden: E.J. Brill.

Eco, U. (1980) 'Function and sign: The semiotics of architecture', in G. Broadbent, R. Bunt and C. Jencks (eds) *Signs, Symbols, and Architecture: Architecture as Communication*, New York: Wiley.

Edmonds, D. and Eidinow, J. (2001) *Wittgenstein's Poker*, London: Faber.

Edwards, B. and Turrent, D. (2000) *Sustainable Housing: Principles and Practice*, London: Routledge.

Edwards, J.D. (1971) 'An analysis of vernacular architecture in the Western Caribbean', Paper presented at the 1971 meeting of the Southern Anthropological Society, Dallas, April 1971.

Ellen, R.F., Parkes, P. and Bicker, A. (eds) (2000) *Indigenous Environmental Knowledge and its Transformations: Critical Anthropological Perspectives*, Amsterdam: Harwood.

Ellis, R.D. (1995) *Questioning Consciousness: The Interplay of Imagery, Cognition, and Emotion in the Human Brain*, Amsterdam and Philadelphia: J. Benjamins.

Encyclopaedia Britannica (1911), London: Encyclopaedia Britannica Ltd, 14: 17.

Ennis, M. (2002) 'Small stuff', *Texas Monthly*, April 2002. Online. Available HTTP: http://www.texasmonthly.com/mag/issues/2002–04–01/art.php.

Ensminger, R.F. (1992) *The Pennsylvania Barn: Its Origin, Evolution, and Distribution in North America*, Baltimore: Johns Hopkins University Press.

Environmental Protection Agency (1995) *The Inside Story: A Guide to Indoor Air Quality*, (United States Environmental Protection Agency and the United States Consumer Product Safety Commission, Office of Radiation and Indoor Air (6604J) Document # 402-K-93–007), Cincinnati, OH: National Service Center for Environmental Publications. Online. Available HTTP: http://www.epa.gov/iaq/pubs/insidest.html.

Essex County Council (1973) *A Design Guide for Residential Areas*, Chelmsford: Essex County Council Planning Department.

Esteves, A., Ganem, C., Esteban, F. and Mitchell, J. (2003) 'Thermal insulating material for low-income housing', in W. Bustamante G. and E. Collados B. (eds) *Rethinking Development: Proceedings of the 20th PLEA International Conference*, vol. 2, Santiago de Chile: Escuela de Construction Civil, Pontifica Universidad Catolica de Chile.

Evans, C. and Humphrey, C. (2002) 'After-lives of the Mongolian yurt: The "archaeology" of a Chinese tourist camp', *Journal of Material Culture*, 7(2): 189–210.

Evans, D. (1982) *Big Road Blues: Tradition and Creativity in the Folk Blues*, Berkeley: University of California Press.

Fathy, H. (1970) *Construire Avec le People: Histoire d'un Village d'Égypte, Gourna*; trans. Y. Kornel, Paris: Sindbad.

—— (1973) *Architecture for the Poor: An Experiment in Rural Egypt*, Chicago and London: The University of Chicago Press.

Feld, S. and Basso, K. (eds) (1996) *Senses of Place*, Santa Fe, NM: School of American Research Press.

Ferris, W. (1974) 'Don't throw it away: Folk culture and our dwindling resources', *Yale Alumni Magazine*, 37: 19–24.

Filarete, A.P.A. (1965; 1st edn 1465) *Treatise on Architecture*, New Haven: Yale University Press.

Fodor, J., Miller, G.A and Langendoen, D.T. (1979) *The Language of Thought*, Cambridge, MA: Harvard University Press.

Foster, G.M. (1953) 'What is folk culture?', *American Anthropologist*, 55: 159–73.

Foster, S.C. (1984) 'The folk environment: Some methodological considerations', in D.F. Ward (ed.) *Personal Places: Perspectives on Informal Art Environments*, Bowling Green, OH: Bowling Green State University Popular Press.

Foy, M. (1976) *The Sugar Industry in Ireland*, Dublin: Cómhlucht Siúcre Éireann TEO.

Frantz, C. (1978) 'Ecology and social organization among Nigerian Fulbe (Fulani)', in W. Weissleder (ed.) *The Nomadic Alternative*, The Hague and Paris: Mouton Publishers.

Frye, H.N. (1957) *The Anatomy of Criticism*, Princeton: Princeton University Press.

Gallier, F. (2002) 'Analyse du Projet de Barrage de Talo et ses consequences prévisibles sur les systèmes de production ruraux du Djenneri', *Djenne Patrimoine Informations*, 13: 15–27.

Gao, K.-Q. and Shubin, N.H. (2003) 'Earliest known crown-group salamanders', *Nature*, 422 (6930): 424–6.

Garcia Chavez, J.R. (2004) 'Application of sustainable strategies for a new ecological community', in M.H. de Wit (ed.) *Built Environments and Environmental Buildings: Proceedings of the 21st PLEA International Conference, Eindhoven*, Eindhoven: Technische Universiteit.

Gardi, B., Maas, P. and Mommersteeg, G. (eds) (1995) *Djenné, il y a cent ans*, Eindhoven: Lecturis.

Gellner, E. (1973) 'Introduction to nomadism', in C. Nelson (ed.) *The Desert and The Sown* (Research Series 21, Institute of International Studies), Berkeley: University of California Press.

Giere, R.N. (ed.) (1992) *Cognitive Models of Science*, vol. 15, Minneapolis, MN: University of Minnesota.

Glaser, P. (2004) 'A digital gulf divides the world', *World Press Review*, February 2004: 25.

Glassie, H. (1968) *Pattern in the Material Folk Culture of the Eastern United States*, Philadelphia: University of Pennsylvania Press.

—— (1972) 'Eighteenth-century cultural process in Delaware Valley folk building', *Winterthur Portfolio*, 7: 29–57.

—— (1974) 'The variation of concepts within tradition: Barn building in Otsego County, New York', *Geoscience and Man*, 5: 177–235.

—— (1975) *Folk Housing in Middle Virginia: A Structural Analysis of Historical Artifacts*, Knoxville: University of Tennessee Press.

—— (1985) 'Artifact and culture, architecture and society', in S.J. Bronner (ed.) *American Material Culture and Folklife*, Ann Arbor: UMI Research Press.

—— (1993) *Turkish Traditional Art Today*, 2nd edn, Bloomington: Indiana University Press.

—— (2000) *Vernacular Architecture*, Bloomington: Indiana University Press.

Goldsmith, T.H. (1991) *The Biological Roots of Human Nature: Forging Links Between Evolution and Behavior*, New York: Oxford University Press.

Goldstein, S. (1992) 'Profile of American Jewry: Insights from the 1990 National Jewish Population Survey', in D. Singer (ed.) *American Jewish Yearbook 1992*, New York and Philadelphia: American Jewish Committee and the Jewish Publication Society.

Gould, S.J. (2002) *The Structure of Evolutionary Theory*, Cambridge, MA: Belknap Press of Harvard University.

Graf, D. (1986) 'Diagrams', *Perspecta*, 22: 43–57.

Graham, A. (1989) 'Railroad-tie architecture in Elko County, Nevada', in T. Carter and B.L. Herman (eds) *Perspectives in Vernacular Architecture*, vol. 3, Columbia: University of Missouri Press.

Greenfield, V. (1986) *Making Do or Making Art: A Study of American Recycling*, Ann Arbor: UMI Research Press.

Gregory, R.L. (1998) *The Oxford Companion to the Mind*, Oxford: Oxford University Press.

Griaule, M. (1949) 'L'Image du Monde au Sudan', *Journal de la Société des Africanists*, 19: 11.

—— (1975; 1st edn 1966) *Dien d'Eace: Entretiens avec Ogotemmêli*, Paris: Fayard.

Griaule, M. and Dieterlen, G. (1965) *Le Renard Pâle*, Paris: Institut d'Ethnologie.

Grillo, R.D. (1997) 'Discourses of development: The view from anthropology', in R.D. Grillo and R.L. Stirrat (eds) *Discourses of Development: Anthropological Perspectives*, Oxford: Berg.

Grunne, B. de (1995) 'An art historical approach to the terracotta figurines of the Inland Niger Delta', *African Arts*, 28 (4): 70–9.

Guidoni, E. (1975) *Primitive Architecture*, Milan: Electa.

Gulliver, P.H. (1975) 'Nomadic movements: causes and implications', in T. Monod (ed.) *Pastoralism in Tropical Africa*, London, Ibadan and Nairobi: Oxford University Press.

Gupta, R. (2000) 'Study on the optimization of the performance of vernacular housing in the Near East', unpublished dissertation, Oxford Brookes University.

Gutman, R. (1988) *Architectural Practice: A Critical View*, Princeton: Princeton Architectural Press.

Hakim, B.S. (1986) *Arabic-Islamic Cities: Building and Planning Principles*, London: KPI.

—— (1994) 'The "URF" and its role in diversifying the architecture of traditional Islamic cities', *Journal of Architectural and Planning Research*, 11 (2): 108–27.

—— (2001) 'Julian of Ascalon's treatise of construction and design rules from sixth-century Palestine', *Journal of the Society of Architectural Historians*, 60 (1): 4–25.

Hall, E.T. (1969) *The Hidden Dimension: Man's Use of Space in Public and Private*, London: Bodley Head.

Hannan, D.F. (1979) *Displacement and Development: Class, Kinship and Social Change in Irish Rural Communities*, Dublin: Economic and Social Research Institute.

Hannerz, U. (1989) 'Notes on the global ecumene', *Public Culture*, 1 (2): 66–75.

Hanson, J. (1998) *Decoding Homes and Houses*, Cambridge: Cambridge University Press.

Hasan, A. (1999) *Understanding Karachi*, Karachi: City Press.

Hasty, P., Campisi, J., Hooijmakers, J., Steeg, H. van and Vijg, J. (2003) 'Aging and genome maintenance: Lessons from the mouse', *Science*, 299 (5611): 1355–9.

Hatfield Dodds, S. (2000) 'Pathways and paradigms for sustaining human communities – some thoughts for community designers', in R. Lawrence (ed.) *Sustaining Human Settlement: A Challenge for the New Millennium*, Newcastle-upon-Tyne: Urban International Press.

He, S., Dong, W., Deng, Q., Weng, S. and Sum, W. (2003) 'Seeing more clearly: Recent advances in understanding retinal circuitry', *Science*, 302 (5644): 408–11.

Heath, K.W. (1988) 'Defining the nature of vernacular', *Material Culture*, 20: 1–8.

Heinrich, B. (2003) 'New buzz on the humble bee', *Science*, 302 (5644): 395–6.

Herdeg, K. (1983) *The Decorated Diagram: Harvard Architecture and the Failure of the Bauhaus Legacy*, Cambridge, MA: MIT Press.

Herman, B.L. (1985) 'Time and performance: Folk houses in Delaware', in S.J. Bronner (ed.) *American Material Culture and Folklife*, Ann Arbor: UMI Research Press.

Herrmann, W. (1962) *Laugier and the Eighteenth Century French Theory*, London: A. Zwemmmer.

—— (1966; 1st edn 1765) *Observations sur l'Architecture*, London: Gregg Press.

Hillier, B. (1996) *Space is the Machine: A Configurational Theory of Architecture*, Cambridge: Cambridge University Press.

Hillier, B. and Hanson, J. (1984) *The Social Logic of Space*, Cambridge: Cambridge University Press.

Hillier, B. and Leaman, A. (1976) 'Space syntax', *Environment and Planning Bulletin*, 3: 137–85.

Hirschfeld, Y. (1995) *Traditional Palestinian Dwelling in the Roman-Byzantine Period*, Jerusalem: Franciscan Press – Israel Exploration Society.

Hoare, A. (2002) 'Irish travellers: Landscape, society and the architecture of nomadic movement', unpublished MA dissertation, Oxford Brookes University.

Hobsbawn, E. and Ranger, T. (eds) (1983) *The Invention of Tradition*, Cambridge: Cambridge University Press.

Hoefel, F. and Elgar, S. (2003) 'Wave-induced sediment transport and sandbar migration', *Science*, 299 (5614): 1885–7.

Hostetler, J.A. (1963) *Amish Society*, Baltimore: Johns Hopkins University Press.

Hubka, T.C. (1984) *Big House, Little House, Back House, Barn: The Connected Farm Buildings of New England*, Hanover, NH: University Press of New England.

—— (1994) 'The Americanization of the barn', *Blueprints*, 12: 2–7.

—— (2003) *Resplendent Synagogue: Architecture and Worship in an Eighteenth-Century Polish Community*, Hanover, NH: University Press of New England.

Humphrey, C. and Sneath, D. (1999) *The End of Nomadism?*, Durham NC: Duke University Press.

Hymes, D. (1972) 'The contribution of folklore to sociolinguistic research', in A. Paredes and R. Bauman (eds) *Toward New Perspectives in Folklore*, Austin: University of Texas Press.

Ingold, T. (1986) *The Appropriation of Nature*, Manchester: Manchester University Press.

International Union for the Conservation of Nature (1980) *World Conservation Strategy*, New York: United Nations Environment Programme.

Irons, W. (1974) 'Nomadism as a political adaptation: The case of the Yomut Turkmen', *American Ethnologist* 1 (4): 635–58.

Jakobson, R. and Bogatyrev, P. (1980) 'Folklore as a special form of creation', *Folklore Forum*, 13: 1–21.

Jean-Baptiste, P. and Ducroux, R. (2003) 'Energy policy and climate change', *Energy Policy*, 74 (4): 155–66.

Jencks, C. and Silver, N. (1972) *Adhocism: The Case for Improvisation*, New York: Doubleday.

Johnson, D.L. (1969) *The Meaning of Nomadism* (Research Paper 118, Department of Geography), Chicago: University of Chicago.

Johnson-Laird, P.N. (1988) *The Computer and the Mind: An Introduction to Cognitive Science*, Cambridge, MS: Harvard University Press.

Jolly, M. (1992) 'Specters of inauthenticity', *Contemporary Pacific*, 4: 49–72.

Jones, M.O. (1987) *Exploring Folk Art: Twenty Years of Thought on Craft, Work, and Aesthetics*, Logan: Utah State University Press.

—— (1989) *Craftsman of the Cumberlands: Tradition and Creativity*, Lexington: University Press of Kentucky.

—— (1993) 'Why take a behavioral approach to folk objects?', in S. Lubar and W.D. Kingery (eds) *History from Things: Essays on Material Culture*, Washington, DC: Smithsonian Institution Press.

—— (1994) 'How do you get inside the art of outsiders?', in M.D. Hall and E.W. Metcalf Jr (eds) *The Artist Outsider: Creativity and the Boundaries of Culture*, Washington, DC: Smithsonian Institution Press.

—— (1995) 'Why make (folk) art?', *Western Folklore*, 54: 253–76.

—— (1997) 'How can we apply event analysis to material behavior, and why should we?', *Western Folklore*, 56: 199–214.

—— (2000) '"Tradition" in identity discourses and an individual's symbolic construction of self', *Western Folklore*, 59: 115–42.

—— (2001) 'The aesthetics of everyday life', in C. Russell (ed.) *In Self-Taught Art: The Culture and Aesthetics of American Vernacular Art*, Jackson, MS: University Press of Mississippi.

Jung, C.G. (1922) 'On the relation of analytical psychology to poetry', *The Spirit in Man, Art and Literature*, 15: 65–83.

Kahn, Ll. (2004) *Home Work: Handbuilt Shelter*, Bolinas: Shelter Publications.

Kandel, E.R. and Squire, L.R. (2001) 'Neuroscience: Breaking down scientific barriers to the study of brain and mind', in A.R. Damasio *et al.* (eds) *Unity of Knowledge: The Convergence of Natural and Human Science* (Annals, NYAS, 935) New York: New York Academy of Science.

Kant, I. (1952) *Critique of Judgement*; trans. J. Creed Meredith, Oxford: Clarendon Press.

Kausarul Islam, A.K.M. (2003) 'Patterns and changes of vernacular architecture in Bangladesh: An application of Amos Rapoport's theory of defining vernacular design', unpublished dissertation, Royal Institute of Technology, Stockholm.

Keech McIntosh, S. (ed.) (1995) *Excavations at Jenné-Jeno, Hambarketolo, and Kaniana: Inland Niger Delta, Mali: The 1981 Season*, Berkeley: University of California Press.

Kehoe, A.B. (2002) 'Theaters of power', in M. O'Donovan (ed.) *The Dynamics of Power* (Center for Archaeological Investigations, Occasional Paper 30), Carbondale: Southern Illinois University Press.

Kent, S. (1990) *Domestic Architecture and the Use of Space*, Cambridge: Cambridge University Press.

Khammash, A. (1986) *Notes on Village Architecture in Jordan*, Lafayette, LA: University Art Museum, University of Southern Louisiana.

Khan, A.H. (1996) *Orangi Pilot Project: Reminiscences and Reflections*, Karachi: Oxford University Press.

King, A.D. (1976) *Colonial Urban Development: Culture, Social Power and Environment*, Boston: Routledge & Kegan-Paul.

—— (1984) *The Bungalow: The Production of a Global Culture*, Boston: Routledge & Kegan Paul.

—— (1995) *The Bungalow: The Production of a Global Culture*, 2nd edn, New York and Oxford: Oxford University Press.

Kingston, K. (1996) *Creating Sacred Space with Feng Shui*, London: Judy Piatkus.

Kirshenblatt-Gimblett, B. (1983) 'The future of folklore studies in America: The urban frontier', *Folklore Forum*, 16: 175–234.

—— (1995) 'From the paperwork empire to the paperless office: Testing the limits of the "science of tradition"', in R. Bendix and R. Lévy Zumwalt (eds) *Folklore Interpreted: Essays in Honor of Alan Dundes*, New York: Garland.

Kopytoff, I. (1986) 'The cultural biography of things: Commodification as process', in A. Appadurai (ed.) *The Social Life of Things*, Cambridge: Cambridge University Press.

Kosslyn, S.M. (1994) *Image and Brain: The Resolution of the Imagery Debate*, Cambridge, MS and London: MIT Press.

Kraybill, D. (2001) *The Riddle of Amish Culture*, revised edn, Baltimore: Johns Hopkins University Press.

Kraybill, D. and Nolt, S.M. (1995) *Amish Enterprise: From Plows to Profits*, Baltimore: Johns Hopkins University Press.

Krinsky, C.H. (1996) *Contemporary Native American Architecture: Cultural Regeneration and Creativity*, New York: Oxford University Press.

Kristeller, P.O. (1983) '"Creativity" and "tradition"', *Journal of the History of Ideas*, 44: 105–14.

Lacey, M. (2003) 'With all the little wars, big peace is elusive', *New York Times*, 9 April 2003.

Lagopoulous, A.-P. (1975) 'Semiological urbanism: An analysis of the traditional western Sudanese settlement', in P. Oliver (ed.) *Shelter, Sign and Symbol*, London: Barrie & Jenkins.

Larson, M.S. (1993) *Behind the Postmodern Façade*, Berkeley: University of California Press.

Latter, R. and Oliver, P. (eds) (1997–2004) 'International Studies in Vernacular Architecture', unpublished course handbook, Oxford Brookes University.

—— (eds) (2002) 'Delving Valldigna: Cultural continuity of a Mediterranean valley', unpublished report, Oxford Brookes University.

—— (eds) (2003) 'Accommodating cultures: Supporting home building in development contexts', unpublished report, Oxford Brookes University.

Laughlin, C. and Brady, I. (eds) (1978) *Extinction and Survival in Human Populations*, New York: Columbia University Press.

Laugier, M.A.P. (1966; 1st edn 1753; 2nd edn 1755) *Essai sur l'Architecture*, Farnborough: Gregg Press.

Lave, J. and Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*, Cambridge: Cambridge University Press.

Lawrence, R. (1985) 'A more humane history of homes', in C.M. Werner, I. Altman and D. Oxley (eds) *Home Environments*, vol. 8, New York: Plenum Press.

—— (1987) *Housing, Dwelling and Homes: Design, Research and Practice*, Chichester: John Wiley & Sons.

—— (1990) 'Learning from colonial houses and lifestyles', in M. Turan (ed.) *Vernacular Architecture: Paradigms of Environmental Response*, Aldershot: Avebury.

—— (1995) 'Meeting the challenge: Barriers to integrate cross-sectoral urban policies', in M. Rolén (ed.) *Urban Policies for an Environmentally Sustainable World*, Stockholm: Swedish Council for Planning and Co-ordination of Research.

—— (1996) 'Urban environment, health and the economy: Cues for conceptual clarification and more effective policy implementation', in C. Price and A. Tsouros (eds) *Our Cities, Our Future: Policies and Action Plans for Health and Sustainable Development*, Copenhagen: World Health Organization Regional Office for Europe.

—— (1999) 'House, form and culture: What have we learnt in 30 years?'. Unpublished draft.

—— (ed.) (2000) *Sustaining Human Settlement: A Challenge for the New Millennium*, Newcastle-upon-Tyne: Urban International Press.

—— (2001) 'Human ecology', in M.K. Tolba (ed.) *Our Fragile World: Challenges and Opportunities for Sustainable Development*, vol. 1, Oxford: Eolss Publishers.

Le Corbusier (1987) *The Journey to the East*; edited and annotated by Ivan Zaknic; trans. Ivan Zaknic in collaboration with Nicole Pertuiset, Cambridge, MA: MIT Press.

Lewcock, R.B. (1975) 'The boat as symbol of the house', in P. Oliver (ed.) *Shelter, Sign and Symbol*, London: Barrie & Jenkins.

Lewis-Williams, J.D. (2002a) *The Mind in the Cave: Consciousness and the Origins of Art*, London: Thames and Hudson.

—— (2002b) *A Cosmos in Stone*, Walnut Creek, CA: Altamira Press.

Liao, C.J. and Cech, I.I. (1977) 'Effect of abrupt exposure to outdoor heat on humans accustomed to air-conditioning', *Urban Ecology*, 2: 355–70.

Ligers, Z. (1964) *Les Sorko (Bozo): Maîtres du Niger*, Paris: Librarie des Cinq Continents.

Lobell, M. (1983) 'Spatial Archetypes', *ReVISION* 6–2: 69–82.

Lockwood, W.G. (1986) 'East European gypsies in western Europe: The social and cultural adaptation of the Xoraxané', *Nomadic Peoples*, 21–2: 63–70.

Lockwood, Y.R. (1984) 'The joy of labor', *Western Folklore*, 43: 202–11.

Loevenstein, H.M., Berliner, P.R. and Keulen, H. van (1991) 'Runoff agroforestry in arid lands', *Forest Ecology and Management*, 45 (1–4): 59–70.

Logsdon, G. (1989) 'The barn raising', in J.A. Hostetler (ed.) *Amish Roots*, Baltimore: Johns Hopkins University Press.

Lomax, J.F. (1985) 'Some people call this art', in F.E. Abernethy (ed.) *Folk Art in Texas*, Dallas: Southern Methodist University Press.

Lopreato, J. and Crippen, T. (1999) *Crisis in Sociology: The Need for Darwin*, New Brunswick, NJ: Transaction Publishers.

Low, S. and Chambers, E. (eds) (1989) *Housing Culture and Design: A Comparative Perspective*, Pennsylvania: University of Pennsylvania Press.

Low, S.M. and Ryan, W.P. (1985) 'Noticing without looking: A methodology for the integration of architectural and local perceptions in Oley, Pennsylvania', *Journal of Architectural and Planning Research*, 2 (1): 3–22.

Lynch, K. (1981) *Good City Form*, Cambridge, MA: MIT Press.

Lyon, B.E. (2003) 'Egg recognition and counting reduce costs of avian conspecific brood parasitism', *Nature*, 422 (6931): 495–9.

Maas, P. and Mommersteeg, G. (1992) *Djenne: Chef-d'Oeuvre Architectural*, Bamako: Institut des Sciences Humaines and Amsterdam: Institut Royal des Tropiques.

McCoy, E. (1974) 'Grandma Prisbrey's bottle village', in Walker Art Center (ed.) *Naives and Visionaries*, New York: E.P. Dutton.

McCullough, M. (1996) *Abstracting Craft: The Practiced Digital Hand*, Cambridge, MA: MIT Press.

McIntosh, R. and Keech McIntosh, S. (1995) 'Background to the 1981 Research', in S. Keech McIntosh (ed.) *Excavations at Jenné-Jeno, Hambarketolo, and Kaniana (Inland Niger Delta, Mali): The 1981 Season*, Berkeley: University of California Press.

McMichael, A. (1993) *Planetary Overload: Global Environmental Change and the Health of the Human Species*, Cambridge: Cambridge University Press.

Macsai, J. (1985) 'Architecture as opposition', *Journal of Architecture Education*, 38 (4): 8–14.

Mangin, W. (1967) 'Latin American squatter settlements: A problem and a solution', *Latin American Research Review*, 2 (3): 65–98.

—— (1970) *Peasants in Cities: Readings in the Anthropology of Urbanization*, New York: Houghton Mifflin.

Magnuson, C. (1999) 'Aesthetics and grassroots art: A folklorist's perspective', in B. Brackman and C. Dwigans (eds) *Backyard Visionaries: Grassroots Art in the Midwest*, Lawrence: University Press of Kansas.

Mandler, G. (1975) *Mind and Emotion*, New York: Wiley.

Manley, R. (1989) *Signs and Wonders: Outsider Art Inside North Carolina*, Raleigh: North Carolina Museum of Art.

Marans, R. and Stokols, D. (eds) (1993) *Environmental Simulation: Research and Policy Issues*, New York: Plenum Press.

Marchand, T.H.J. (2001) *Minaret Building and Apprenticeship in Yemen*, London: Curzon.

Marcus, C. Cooper (1995) *House as a Mirror of Self*, Berkeley: Conari Press.

Marcuse, P. (1998) 'Sustainability is not enough', *Environment and Urbanization*, 10 (2): 103–11.

Marshall, H.W. (1982) *Missouri Artist Jesse Howard, with a Contemplation on Idiosyncratic Art*, Columbia: University of Missouri.

Marshall, Y. (2000) 'Transformations of Nuu-chah-nulth houses', in R.A. Joyce and S.D. Gillespie (eds) *Beyond Kinship: Social and Material Reproduction in House Societies*, Philadelphia: University of Pennsylvania Press.

Martin, C.E. (1983) 'Howard Acree's chimney: The dilemma of innovation', *Pioneer America: Journal of Historic American Material Culture*, 15: 35–50.

Marx, E. (1978) 'Ecology and politics of Middle Eastern pastoralists', in W. Weissleder (ed.) *The Nomadic Alternative*, The Hague and Paris: Mouton Publishers.

Marx, J. (2003) 'Building better mouse models for studying cancer', *Science*, 299 (5615): 1972–5.

Mathews, M.M. (1966) *Americanisms*, Chicago: University of Chicago Press.

Mayer, E., Kosmin, B. and Keysar, A. (2003) *American Jewish Identity Survey 2001*, New York: Center for Cultural Judaism.

Meir, I.A. (2000) 'Courtyard microclimate: A hot arid region case study', in K. Steemers and S. Yannas (eds) *Architecture-City-Environment: Proceedings of the 17th PLEA International Conference*, London: James & James.

—— (2002) 'Building technology in the Negev in the Byzantine Period (4–7 c. CE) and its adaptation to the desert environment' (in Hebrew), unpublished thesis, Ben-Gurion University.

Meir, I.A. and Gilead, I. (2002) 'Underground dwellings and their microclimate under arid conditions', in GRECO and ACAD (eds) *Design With the Environment: Proceedings of the 19th PLEA International Conference, Toulouse*, vol. 2, Toulouse: Ecole d'Architecture.

Meir, I.A. and Roaf, S.C. (2002) 'Thermal comfort, thermal mass: Housing in hot dry climates', in H. Levin (ed.) *Indoor Air 2002: Proceedings of the 9th International Conference Indoor Air Quality and Climate*, Santa Cruz, CA.

Meir, I.A., Gilead, I., Runsheng, T., Mackenzie Bennett, J. and Roaf, S.C. (2003) 'A parametric study of traditional housing types from the Middle East', in K.W. Tham, C. Sekhar and D. Cheong (eds) *Energy-Efficient Healthy Buildings: Proceedings of the 7th HB International Conference*, vol. 2, Singapore: NUS and ISIAQ.

Meir, I.A., Mackenzie Bennett, J. and Roaf , S.C. (2001) 'Learning from the past, shaping the future: Combining archaeology and simulation tools to teach building physics and appropriate solutions', in Pereira F.O.R *et al.* (eds) *Renewable Energy for a Sustainable Development of the Built Environment: Proceedings of the 18th PLEA International Conference Florianopolis, Brazil*, vol. 2, Florianapolis, Brazil: Org. Committee of PLEA 2001.

Meir, I.A., Pearlmutter, D. and Etzion, Y. (1995) 'On the microclimatic behavior of two semi-enclosed attached courtyards in a hot dry region', *Building and Environment*, 30 (4): 563–72.

Middleton (2001) 'Troubled waters', *Building Design*, October 2001: 18–25.

Mihailović, K. (1989) 'Tradition and industrialization', in S. Gustavsson (ed.) *Tradition and Modern Society*, Stockholm: Almqvist & Wiksell.

Mill, J.S. (1969; 1st edn 1873) *Autobiography*, Boston: Houghton Mifflin.

Miller, D. (1995) 'Consumption studies as the transformation of anthropology', in D. Miller (ed.) *Acknowledging Consumption: A Review of New Studies*, London and New York: Routledge.

Milspaw, Y.J. (1983) 'Reshaping tradition: Changes to Pennsylvania German folk houses', *Pioneer America*, 15: 67–84.

Ministry of Housing and Local Government Report (1969a) *Family Houses at West Ham: An Account of the Project with an Appraisal*, London: HMSO.

Ministry of Housing and Local Government Report (1969b) *The Family at Home: A Study of Houses in Sheffield*, London: HMSO.

Mithen, S. (1996) *The Prehistory of the Mind: The Cognitive Origins of Art and Science*, London: Thames & Hudson.

Monteil, C. (1932) *Une Cité Soudanaise: Djénné, Métropole du Delta Central du Niger*, Paris: Édition Anthropos.

Morell, V. (2002) 'Placentas may nourish complexity studies', *Science*, 298 (5595): 945.

Morgan, L.H. (1965; 1st edn 1881) *Houses and House Life of the American Aborigines*, Chicago: University of Chicago Press.

Morgenthaler, F. (1977) 'Reflex-modernization in tribal societies', in P. Oliver (ed.), *Shelter, Sign and Symbol*, New York: The Overlook Press.

Morris, A.E.J. (1972; 2nd edn 1979; 3rd edn 1994) *History of Urban Form: Before the Industrial Revolutions*, Harlow: Longman.

Munro, M. and Madigan, R. (1999) 'Negotiating space in the family home', in I. Cieraad (ed.) *At Home: An Anthropology of Domestic Space*, New York: Syracuse.

Nature (2003) 'Crick's immodest ambitions', 422 (6931): 455.

Nazaroff, W.W., Weschler, C.J. and Corsi, R.L. (2003) 'Indoor air chemistry and physics', *Atmospheric Environment*, 37 (39–40): 5451–3.

Negev, A. (1980) 'House and city planning in the ancient Negev and the Provincia Arabia', in G. Golany (ed.) *Housing in Arid Lands: Design and Planning*, London: The Architectural Press.

Nemeth, D.J. (1987) *The Architecture of Ideology: Neo-Confucian Imprinting on Cheju Island, Korea* (Geography 26), Berkeley: University of California Publication in Geography.

Netting, R. (1981) *Balancing on an Alp: Ecological Change and Continuity in a Swiss Mountain Community*, New York: Cambridge University Press.

Nicolaisen, W.F.H. (1979) '"Distorted function" in material aspects of culture', *Folklore Forum*, 12: 223–36.

Niles, S.A. (1997) *The Dickeyville Grotto: The Vision of Father Mathias Wernerus*, Jackson, MS: University Press of Mississippi.

Nitschke, G. (1964a) 'The Metabolists of Japan', *Architectural Design*, 34: 509–24.

—— (1964b) 'The work of Kikutake', *Architectural Design*, 34: 608–11.

—— (1966) 'Ma, the Japanese sense of place', *Architectural Design*, 36: 115–56.

Noble, A.G. (1984) *Wood, Brick, and Stone: The North American Settlement Landscape*, 2 vols, Amherst: University of Massachusetts Press.

Norton, J. (1997) 'Woodless constructions: Unstabilised earth brick vaulted dome roofing without formwork', *Building Issues*, 9 (2): 3–26.

Nuñez, L., Grosjean, M. and Cartajena, L. (2002) 'Human occupations and climate change in the Puna de Atacama, Chile', *Science*, 298 (5594): 821–4.

Odum, H.T. and Odum, E.C. (2004) 'The prosperous way down', *Energy*. Online. Available HTTP: http://www.sciencedirect.com/science?.

Ohrn, S. (1984) 'Faith into stone: Grottoes and monuments', in S. Ohrn (ed.) *Passing Time and Traditions: Contemporary Iowa Folk Artists*, Ames: Iowa State University Press.

Okely, J. (1983) *The Traveller-Gypsies*, Cambridge: Cambridge University Press.

Oliver, P. (ed.) (1969) *Shelter and Society*, London: Barrie & Rockliff.

—— (ed.) (1971) *Shelter in Africa*, London: Barrie & Jenkins.

—— (ed.) (1975) *Shelter, Sign and Symbol*, London: Barrie & Jenkins.

—— (1981) 'The cultural context of shelter provision', in I. Davis (ed.) *Disasters and the Small Dwelling*, Pergamon Press: Oxford.

—— (1979) 'The anthropology of shelter', in M. Keniger (ed.) *Market Profiles,* Brisbane: Architectural Education Conference.

—— (1984) 'Round the houses', in A. Papadakis (ed.) *British Architecture, 1984,* London: Architectural Design.

—— (1986) 'Vernacular know-how', *Material Culture,* 18: 113–26.

—— (1987) *Dwellings: The House Across the World,* Oxford: Phaidon.

—— (1989) 'Handed down architecture: Tradition and transmission', in J.-P. Bourdier and N. AlSayyad (eds) *Dwellings, Settlements and Tradition: Cross-Cultural Perspectives,* Lanham, MD: University Press of America.

—— (1990) 'Vernacular know-how', M. Turan (ed.) *Vernacular Architecture: Paradigms of Environmental Response,* Aldershot: Avebury.

—— 'Culture, dwellings and design', paper presented for an International Study Seminar on Design and New Strategies for the Contemporary Residence, March 1992.

—— (ed.) (1997a) *Encyclopedia of Vernacular Architecture of the World,* 3 vols, Cambridge: Cambridge University Press.

—— (1997b) 'Introduction', in P. Oliver (ed.) *Encyclopedia of Vernacular Architecture of the World,* Cambridge: Cambridge University Press.

—— (1997c) 'Tradition and transmission', in P. Oliver (ed.) *Encyclopedia of Vernacular Architecture of the World,* Cambridge: Cambridge University Press.

—— (1999) 'Vernacular architecture in the twenty-first century', Hepworth Lecture, London: Prince of Wales Institute.

—— (2003) *Dwellings: The Vernacular House World Wide,* London: Phaidon.

Oliver, P. and Doumanis, O. (1975) *Shelter in Greece,* Athens: Architecture Greece.

Oliver, P. and Vellinga, M. (forthcoming) *Atlas of Vernacular Architecture of the World,* London: Routledge.

Oliver, P., Davis, I. and Bentley, I. (1981) *Dunroamin: The Suburban Semi and its Enemies,* London: Barrie & Jenkins.

Ó Tuathaigh, G.G. (1998) 'Life on the land', in K.A. Kennedy (ed.) *From Famine to Feast: Economic and Social Change in Ireland 1847–1997,* Dublin: Institute of Public Administration.

Panofsky, E. (1948) 'Gothic architecture and scholasticism', Wimmer Lecture, Latrobe, PA: Archabbey Press.

Park, R., Burgess, E. and McKenzie, R. (1925) *The City,* Chicago: Chicago University Press.

Payne, G. (1968) 'Japan Rebuilds', *Arena,* 83 (921): 19–33.

—— (1969) 'Housing and urban growth', *Official Architecture and Planning,* 32 (4): 427–38.

—— (1977) *Urban Housing in the Third World,* Boston: Leonard Hill and London: Routledge & Kegan Paul.

Pearlmutter, D. (1993) 'Roof geometry as a determinant of thermal behavior: A comparative study of vaulted and flat roof surfaces in an arid zone', *Architectural Science Review,* 36 (2): 75–86.

—— (1998) 'Street canyon geometry and microclimate: Designing for urban comfort under arid conditions', in E. Maldonado and S. Yannas (eds) *Environmentally Friendly Cities: Proceedings of the 14th PLEA International Conference,* London: James & James.

Pearlmutter, D. and Meir, I.A. (1995) 'Assessing the climatic implications of lightweight housing in a peripheral arid region', *Building and Environment,* 30 (3): 441–51.

Pearson, B.J. and Doe, C.Q. (2003) 'Regulation of neuroblast competence in Drosophila', *Nature,* 425 (6958): 624–8.

Peeters, A. and Meir, I.A. (2002) 'More than a hole in the ground? Fusing object and context in subterranean architecture', *Open House International,* 25 (3): 47–57.

Pegram, J. (2002) *The Vastu Home,* London: Duncan Baird Publishers.

Peifer, M. (2002) 'Colon construction', *Nature,* 410 (6913): 274–6.

Peters, W. (1997) 'Nama', in P. Oliver (ed.) *Encyclopedia of Vernacular Architecture of the World,* Cambridge: Cambridge University Press.

Pinker, S. (1997) *How the Mind Works,* New York: W.W. Norton.

Posen, I. Sheldon and Ward, D.F. (1985) 'Watts Towers and the "Giglio" tradition', in A. Jabbour and J. Hardin (eds) *Folklife Annual 1985,* Washington, DC: Library of Congress.

Price, H.W. and Walters Jr, W.D. (1989) 'Barn raising at Metamora: A photographic essay', *Material Culture,* 21: 47–56.

Prussin, L. (1970) 'Sudanese architecture and the Manding', *African Arts,* 3 (4): 13–19, 64–7.

—— (1986) *Hatumere: Islamic Design in West Africa*, Berkeley: University of California Press.

—— (1995) *African Nomadic Architecture: Space, Place and Gender*, Washington, DC: Smithsonian Institution Press.

—— (1996) 'When nomads settle', in M.J. Arnoldi, C.M. Geary and K.L. Hardin (eds) *African Material Culture*, Bloomington and Indianapolis: Indiana University Press.

Putnam, R.D. (2000) *Bowling Alone: The Collapse and Revival of American Community*, New York: Touchstone.

Quatremere de Quincy, A.C. (1999; 1st edn 1789) *The True, the Fictive and the Real: The Historical Dictionary of Architecture of Quatremere de Quincy*, trans. S. Younes, London: Papadakis.

Ragette, F. (1980) *Architecture in Lebanon: The Lebanese House During the Eighteenth and Nineteenth Centuries*, Delmar and New York: Caravan Books.

Ramirez, M. (2005) 'Architecture class to create shelters for tsunami victims', *Office of International Communications*, Houston: University of Houston.

Rao, A. (1987) 'The concept of peripatetics: An introduction', in A. Rao (ed.) *The Other Nomads*, Köln: Böhlau Verlag.

Rapoport, A. (1969) *House, Form and Culture*, Englewood Cliffs, NJ: Prentice-Hall.

—— (1977) *Human Aspects of Urban Form*, Oxford: Pergamon Press.

—— (1979) 'An approach to designing Third World environments', *Third World Planning Review*, 1 (1): 23–40.

—— (1980) 'Cross-cultural aspects of environmental design', in I. Altman, A. Rapoport and J.F. Wohlwill (eds) *Human Behaviour and Environment*, vol. 4, New York: Plenum Press.

—— (1982a) 'An approach to vernacular design', in J.M. Fitch (ed.) *Shelter: Models of Native Ingenuity*, Katonah, NY: Katonah Gallery.

—— (1982b) 'Urban design and human systems: On ways of relating buildings to urban fabric', in P. Laconte, J. Gibson and A. Rapoport (eds) *Human and Energy Factors in Urban Planning: A Systems Approach* (NATO Advanced Institute Series, series D: Behavioral and Social Sciences 12), The Hague: Nijhoff.

—— (1983a) 'Development, culture-change and supportive design', *Habitat International*, 7 (5–6): 249–68.

—— (1983b) 'The effect of environment on behavior', in J.B. Calhoun (ed.) *Environment and Population: Perspectives on Adaptation, Environment and Population*, New York: Praeger.

—— (1984) 'Culture and the urban order', in J. Agnew, J. Mercer and D.E. Sopher (eds) *The City in Cultural Context*, London: Allen & Unwin.

—— (1987) 'Learning about settlements and energy from historical precedents', *Ekistics*, 54 (325–7): 262–8.

—— (1988a) 'Spontaneous settlements as vernacular design', in C.V. Patton (ed.) *Spontaneous Shelter: International Perspectives and Prospects*, Philadelphia: Temple University Press.

—— (1988b) 'Levels of meaning in the built environment', in F. Poyatos (ed.) *Cross-Cultural Perspectives in Non-Verbal Communication*, Toronto: H.J. Hogrefe.

—— (1989) 'On the attributes of tradition', in J.-P. Bourdier and N. AlSayyad (eds) *Dwellings, Settlements and Tradition: Cross-Cultural Perspectives*, Lanham, MD: University Press of America.

—— (1990a) *History and Precedent in Environmental Design*, New York: Plenum.

—— (1990b) *The Meaning of the Built Environment*, Tucson: University of Arizona Press.

—— (1990c) 'Defining vernacular design', in M. Turan (ed.) *Vernacular Architecture: Paradigms of Environmental Response*, Aldershot: Avebury.

—— (1990d) 'Levels of meaning and types of environments', in Y. Yoshitake *et al.* (eds) *Current Issues in Environment-Behavior Research: Proceedings of the Third Japan–US seminar, Kyoto 1990*, Tokyo: University of Tokyo.

—— (1990e) 'Systems of activities and systems of settings', in S. Kent (ed.) *Domestic Architecture and the Use of Space: An Interdisciplinary Cross-Cultural Study*, Cambridge: Cambridge University Press.

—— (1990f) 'Science and the failure of architecture: An intellectual history', in I. Altman and K. Christensen (eds) *Environment and Behavior Studies: Emergence of Intellectual Traditions*, vol. 11, New York, Plenum.

—— (1992) 'On regions and regionalism', in N.C. Markovich, W.F.E. Preiser and F.G. Sturm (eds) *Pueblo Style and Regional Architecture*, New York: Van Nostrand Reinhold.

—— (1993a) 'On cultural landscapes', *Traditional Dwellings and Settlements Review*, 3 (2): 33–47.

—— (1993b) 'On the nature of capitals and their physical expression', in J. Taylor, J.G. Lengellé and C. Andrew (eds) *Capital Cities: International Perspectives/Les Capitals: Perspectives Internationales*, Ottawa: Carleton University Press.

—— (1993c) *Cross-Cultural Studies and Urban Form*, College Park, MD: University of Maryland, Urban Studies and Planning Program.

—— (1994) 'Sustainability, meaning and traditional environments', IASTE Working Papers Series, vol. 75, Berkeley: Center of Environmental Design Research, University of California.

—— (1995a) 'Settlements and energy: Historical precedents', in A. Rapoport, *Thirty-Three Papers in Environmental-Behavior Research*, Newcastle: Urban International Press.

—— (1995b) 'Environmental quality and environmental quality profiles', in A. Rapoport *Thirty-Three Papers in Environmental-Behavior Research*, Newcastle: Urban International Press.

—— (1995c) 'Culture and built form: A reconsideration', in A. Rapoport, *Thirty-Three Papers in Environmental-Behavior Research*, Newcastle: Urban International Press: 399–436.

—— (1995d) 'Flexibility, open-endedness and design', in A. Rapoport, *Thirty-Three Papers in Environmental-Behavior Research*, Newcastle: Urban International Press: 529–62.

—— (1995e) 'Culture and environment', in A. Rapoport, *Thirty-Three Papers in Environmental-Behavior Research*, Newcastle: Urban International Press: 269–82.

—— (1997) 'Theory in environment-behavior studies: Transcending times, settings and groups', in S. Wapner *et al.* (eds) *Handbook of Japan-US Environment-Behavior Research*, New York: Plenum.

—— (1998) 'Using "culture" in housing design', *Housing and Society*, 25 (1–2): 1–20.

—— (1999a) 'A framework for studying vernacular design', *Journal of Architecture and Planning Research*, 16 (1): 52–64.

—— (1999b) 'Archaeological inference and environment-behavior studies', in F. Braemer *et al.* (eds) *Habitat et Societiété*, Antibes: Éditions APOCA.

—— (1999–2000) 'On the perception of urban landscapes', *Urban Design Studies*, 5–6: 129–48.

—— (2000a) 'Theory, culture and housing', *Housing, Theory and Society*, 17 (4): 145–65.

—— (2000b) 'Science, explanatory theory and environment-behavior studies', in S. Wapner *et al.* (eds.) *Theoretical Perspectives in Environment-Behavior Research*, New York: Kluwer Academic/ Plenum Publishers.

—— (2001) 'Architectural anthropology or environment-behavior studies', in M-J. Amerlinck (ed.) *Architectural Anthropology*, Westport, CT: Bergin and Garvey.

—— (2002a) 'On the size of cultural groups', *Open House International*, 27 (3): 7–11.

—— (2002b) 'Environment-behavior research in an Asian-Pacific context', *Journal of Asian Urban Studies*, 3 (3): 17–20.

—— (2002c) 'The role of neighborhoods in the success of cities', *Ekistics*, 69 (412–14): 145–51.

—— (2004a) *Culture, Architecture and Design*, Chicago: Locke Science Publishing.

—— (2004b) 'How can we use "culture" in analysis and design', *Ekistics*.

Rapoport, A. and Watson, N. (1972) 'Cultural variability in physical standards', in R. Gutman (ed.) *People and Buildings*, New York: Basic Books.

Rapoport, M. (2003) 'Nomads within their homes: The forces that shape intramural migration in arid climates', in W.G. Bustamante and E.B. Collados (eds) *Rethinking Development: Proceedings of the PLEA 2003 International Conference Santiago: Escuela de Construction Civil, Pontifica Universidad Catolica de Chile.*

Redfield, R. (1947) 'The folk society', *American Journal of Sociology*, 52: 293–308.

—— (1960) *The Little Community and Peasant Society and Culture*, Chicago: University of Chicago Press.

Restak, R.M. (1985) *The Brain*, Toronto and New York: Bantam Books.

RIBA (2003) *Criteria for Validation*, London: RIBA Publications.

Rich, T. (2002) 'Sukkot', *Judais*, 101. Online. Available HTTP: http://www.jewfaq.org/holiday5.htm.

Riesman, D. (1961) *The Lonely Crowd*, New Haven: Yale University Press.

Rice, M. (2003) *Village Buildings of Britain*, London: Time Warner Books.

Roaf, S. (1989) 'The windcatchers of Yazd', unpublished thesis, Oxford Polytechnic.

—— (1990) 'The traditional technology trap: Stereotypes of the Middle Eastern traditional building types and technologies', *Trialog*, 25: 26–33.

Roaf, S. with Crichton, D. and Nicol, F. (2004a) *Adapting Buildings and Cities to Climate Change*, Oxford: Architectural Press.

Roaf, S., Fuentes, M. and Gupta, R. (2003) *Ecohouse 2: A Design Guide*, Oxford: Architectural Press.

Roaf, S. with Horsley, A. and Gupta, R. (2004b) *Closing the Loop: Benchmarks for Sustainable Buildings*, London: RIBA Publications.

Rosen, S. (1979) *In Celebration of Ourselves*, San Francisco: California Living in association with the San Francisco Museum of Modern Art.

Rowntree, L.B. and Conkey, M.W. (1980) 'Symbolism and the cultural landscape', *Annals of the Association of American Geographers*, 70 (4): 459–74.

Rudofsky, B. (1964) *Architecture without Architects*, New York: Doubleday & Co.

—— (1977) *The Prodigious Builders*, New York: Harcourt Brace Jovanovich.

Runsheng, T., Meir, I.A. and Etzion, Y. (2003a) 'Thermal behavior of buildings with curved roofs as compared with flat roofs', *Solar Energy*, 74 (4): 273–86.

—— (2003b) 'An analysis of absorbed radiation by domed and vaulted roofs as compared with flat roofs', *Energy and Buildings*, 35 (6): 539–48.

Rykwert, J. (1988) 'On the oral transmission of architectural theory', in J. Guillaume (ed.) *Les Traites d'Architecture de la Renaissance*, Paris: Picard.

Rzadkiewicz, J. and J. Young (2003) 'The bottle houses of Edouard Arsenault', *Valence*. Online. Available HTTP: http://www3.sympatico.ca/valence/bottlehouses.

Sahlins, M. (1999) 'What is anthropological enlightenment? Some lessons of the twentieth century', *Annual Review of Anthropology*, 28: i-xxiii.

Salama, R. (1995) 'User transformation of government housing projects: Case study, Egypt', unpublished dissertation, McGill University.

Salo, M.T. (1986) 'Peripatetic adaptation in historical perspective', *Nomadic Peoples*, 21–2: 7–36.

Salzman, P. (1967) 'Political organization among nomadic peoples', *Proceedings of the American Philosophical Society* 111 (2): 115–31.

—— (1972) 'Multi-resource nomadism in Iranian Baluchistan', in W. Irons and N. Dyson-Hudson (eds) *Perspectives on Nomadism*, Leiden: E.J. Brill.

—— (ed.) (1980) *When Nomads Settle*, New York: Praeger Publishers.

—— (1995) 'Studying nomads: An autobiographical reflection', *Nomadic Peoples* 36–7: 157–66.

Santamouris, M. *et al.* (2001) 'On the impact of urban climate on the energy consumption of buildings', *Solar Energy*, 70 (3): 201–16.

Santino, J. (1986) 'The folk "assemblage" of autumn: Tradition and creativity in Halloween folk art', in J.M. Vlach and S.J. Bronner (eds) *Folk Art and Art Worlds*, Ann Arbor: UMI Research Press.

Sastrosasmita, S. and Nurul Amin, A.T.M. (1990) 'Housing needs of informal sector workers: The case of Yogyakarta, Indonesia', *Habitat International*, 14 (4): 75–88.

Sauerhaft, B., Berliner, P.R. and Thurow, T.L. (1998) 'The fuelwood crisis in arid zones: Runoff agriculture for renewable energy production', in H.J. Bruins and H. Lithwick (eds) *The Arid Frontier: Interactive Management of Environment and Development*, Dordrecht and London: Kluwer.

Schildkrout, E. (1978) 'Age and gender in Hausa Society: Socio-economic roles of children in urban Kano', in J.S. La Fontaine (ed.) *Sex and Age as Principles of Social Differentiation*, London: Academic Press.

Schopenhauer, A. (1966; 1st edn 1818) *The World as Will and Representation*; trans. E.F.J. Payne, New York: Dover Publications.

Science (2002a) 298 (5594).

—— (2002b) 298 (5595).

—— (2003a) 299 (5613).

—— (2003b) 302 (5644).

Sciorra, J. (1989) 'Yard shrines and sidewalk altars of New York's Italian Americans', in T. Carter and B.L. Herman (eds) *Perspectives in Vernacular Architecture*, vol. 3, Columbia: University of Missouri Press.

Segal, H. (1983) 'Kleinian analysis', in J. Miller (ed.) *States of Mind: Conversations with Psychological Investigators*, London: BBC.

Segerstråle, U. (2000) *Defenders of the Truth: The Sociobiology Debate*, New York: Oxford University Press.

Seltzer, D.J. (2000) 'Bottle houses', *Roadside Architecture*. Online. Available HTTP: http://www.agilitynut.com/bh.html.

Semper, G. (1851) *Die vier Elemente der Baukunst: Ein Beitrag zur Vergleichenden Baukunde*, Braunschweig.

Sewell, E.P. and Linck Jr, C.E. (1985) 'The rural mailbox', in F.E. Abernethy (ed.) *Folk Art in Texas*, Dallas: Southern Methodist University Press.

Shapiro, M. (1997) *Impressionism: Reflections and Perceptions*, New York: George Braziller.

Sheehy, C.J. (1998) *The Flamingo in the Garden: American Yard Art and the Vernacular Landscape*, New York: Garland.

Shils, E. (1971) *Tradition*, Chicago: University of Chicago Press.

Sider, G. (1986) *Culture and Class in Anthropology and History: A Newfoundland Illustration*, Cambridge: Cambridge University Press.

Silas, J. (1984) 'The Kampung Improvement Programme in Indonesia: A comparative case study of Jakarta and Surabaya', in G. Payne (ed.) *Low-Income Housing in the Developing World: The Role of Sites and Services and Settlement upgrading*, Chichester and New York: John Wiley.

Sillitoe, P., Bicker, A. and Pottier, J. (2002) *Participating in Development: Approaches to Indigenous Knowledge*, London: Routledge.

Silva, K.D. (2001) 'Advances in environmental cognition research 1980–2000', unpublished thesis, University of Wisconsin-Milwaukee.

Skinner, T. (2003) *Log and Timber Frame Homes*, Atglen, PA: Schiffer.

Smith, E.L. (1960) *The Amish Today: An Analysis of Their Beliefs, Behavior and Contemporary Problems*, Allentown: Pennsylvania German Society.

Smith, E.L. and Stoltzfus, G.M. (1959) 'The community barn-raising', *Historical Review of Berks County*, 24: 37–43.

Smith, K.R. (2003) 'The global burden of disease from unhealthy buildings: Preliminary results from comparative risk assessment', in K.W. Tham, C. Sekhar and D. Cheong (eds) *Energy-Efficient Healthy Buildings: Proceedings of the 7th HB International Conference*, vol. 1, Singapore: NUS and ISIAQ.

Sokolowski, M.B. (2002) 'Social eating for stress', *Nature*, 419 (6910): 893–4.

Sontag, S. (1982) 'Writing itself: On Roland Barthes', in S. Sontag (ed.) *Barthes: Selected Writings*, London: Fontana/Collins.

Sordinas, A. (1976) 'Traditional building materials in rural Corfu, Greece: A technological and socio-cultural analysis 1800–1950', Paper presented at 4th International Congress of Agricultural Museums, Reading, April.

Spalding, S. (1992) 'The myth of the classic slum: Contradictory perceptions of Boyle Heights Flats, 1900–1991', *Journal of Architectural Education*, 45 (2): 107–19.

Sphere Project (2004) *Humanitarian Charter and Minimum Standards in Disaster Response*, Oxford: Oxfam Publishing.

Spooner, B. (1972) 'The status of nomadism as a cultural phenomenon in the Middle East', in W. Irons and N. Dyson-Hudson (eds) *Perspectives on Nomadism*, Leiden: E.J. Brill.

Stanley, T. (1984) 'Two South Carolina folk environments', in D.F. Ward (ed.) *Personal Places: Perspectives on Informal Art Environments*, Bowling Green, OH: Bowling Green State University Popular Press.

Steemers, K. (2003) 'Energy and the city: Density, buildings and transport', *Energy and Buildings*, 35 (1): 3–14.

Steen, B., Steen, A. and Komatsu, E. (2003) *Built by Hand: Vernacular Buildings Around the World*, Salt Lake City: Gibbs Smith.

Stenning, D.J. (1994) *Savannah Nomads*, Munster and Hamburg: LIT Verlag and the International African Institute.

Stern, P. (2002) 'Neuroscience: A vibrant connection', *Science*, 298 (5594): 769.

Stevens, A. (1982) *Archetype: A Natural History of the Self*, London: Routledge & Kegan Paul.

Stevenson, G. (1991) *Common Property Economics: A General Theory and Land Use Applications*, Cambridge: Cambridge University Press.

Stone, L., Zanzi, J. and Iversen, E. (1999) 'In imitation of nature: Father P.M. Dobberstein's Grottoes in Iowa and Wisconsin', in B. Brackman and C. Dwigans (eds) *Backyard Visionaries: Grassroots Art in the Midwest*, Lawrence: University Press of Kansas.

Sunstein, C.R. (2003) 'Sober lemmings', *The New Republic*, 228 (4606): 34–7.

Syntichaki, P, Xu, K., Driscoll, M. and Tavernakaris, N. (2002) 'Specific aspartyl and calpain proteases are required for neurodegeneration in C. elegans', *Nature*, 419 (6910): 939–44.

Szabo, A. and Barfield, T.J. (1991) *Afghanistan: An Atlas of Indigenous Domestic Architecture*, Austin: University of Texas Press.

Tapper, R.L. (1979) 'The organization of nomadic communities of the Middle East', in L'Equipe écologie et anthropologie des sociétés pastorales (ed.) *Pastoral Production and Society*, Cambridge: Cambridge University Press.

Taylor, A. (1994) 'The wisdom of many and the wit of one', in W. Mieder and A. Dundes (eds) *The Wisdom of Many: Essays on the Proverb*, Madison: University of Wisconsin Press.

Theis, S. (1998) 'The drive to create: Three handmade personal spaces in Houston', *Folk Art Messenger*, 11 (2). Online. Available HTTP: http://www.folkart.org/mag/drive/drivetocreate.html.

Time (1976) 'Moss the Tentmaker', 26 July 1976: 60.

Tipple, G. (2000) *Extending Themselves: User-Initiated Transformations of Government-Built Housing in Developing Countries*, Liverpool: Liverpool University Press.

Tishler, W.H. (1982) 'Stovewood construction in the Upper Midwest and Canada: A regional vernacular architectural tradition', in C. Wells (ed.) *Perspectives in Vernacular Architecture*, Annapolis, Maryland: Vernacular Architecture Forum.

Tortora, V.R. (1980) *The Amish Folk of Pennsylvania Dutch Country: Their Life, Manners, Customs and Costumes*, Manheim, PA: Photo Arts Press.

Tuan,Y.F. (1977) *Space and Place: The Perspective of Experience*, London: Edward Arnold.

—— (1989) 'Traditional: What does it mean?', in J.-P. Bourdier and N. AlSayyad (eds) *Dwellings, Settlements, and Tradition: Cross-Cultural Perspectives*, Lanham, MD: University Press of America.

Tuleja, T. (ed.) (1997) *Usable Pasts: Traditions and Group Expressions in North America*, Logan: Utah State University Press.

Turan, M. (ed.) (1990) *Vernacular Architecture: Paradigms of Environmental Response*, Aldershot: Avebury.

Turner, J.F.C. 'Uncontrolled urban settlement: Problems and policies', paper presented at United Nations Seminar on Development Policies and Planning in Relation to Urbanization, Pittsburgh, PA, 1965.

—— (1967) 'Barriers and channels for housing development in modernizing countries', *American Institute of Planners*, 33 (3).

—— (1976) *Housing by People: Towards Autonomy in Building Environments*, London: Mario Boyars.

Turner, J.F.C and Fichter, R. (1972) *Freedom to Build: Dweller Control of the Housing Process*, New York: Macmillan.

Tyrwhitt, J. (1947) *Patrick Geddes in India*, London: Lund Humphries.

United Nations (1993) *Agenda 21: Programme of Action for Sustainable Development*, New York: United Nations.

—— (2001) *Johannesburg Summit 2002: World Summit on Sustainable Development*, New York: United Nations.

United Nations Commission on Human Settlements (2001) *The State of the World's Cities*. (document HS/619/01^{E}), Nairobi: UNCHS (Habitat).

United Nations Disaster Relief Organisation (1982) *Shelter after Disaster: Guidelines for Assistance*, New York: United Nations.

United Synagogue of Conservative Judaism (2003) 'Sukkot'. Online. Available HTTP: http://www.uscj.org/scripts/uscj/paper/ARticle.asp?ArticleID=286.

Upton, D. (1979) 'Toward a performance theory of vernacular architecture: Early Tidewater Virginia as a case study', *Folklore Forum*, 12: 173–98.

—— (1985) 'The preconditions for a performance theory of architecture', in S.J. Bronner (ed.) *American Material Culture and Folklife*, Ann Arbor: UMI Research Press.

—— (1990) 'Outside the academy: A century of vernacular architecture studies, 1890–1990', in E.B. MacDougall (ed.) *The Architectural Historian in America*, Washington: National Gallery of Art.

—— (1993) 'The tradition of change', *Traditional Dwellings and Settlements Review*, 5 (1): 9–15.

Upton, D. and Vlach, J.M. (eds) (1986) *Common Places: Readings in American Vernacular Architecture*, Athens and London: University of Georgia Press.

Vellinga, M. (2004a) *Constituting Unity and Difference: Vernacular Architecture in a Minangkabau Village*, Leiden: KITLV Press.

Vellinga, M. (2004b) 'The attraction of the house: Architecture, status and ethnicity in West-Sumatra', in P.J.M. Nas, G. Persoon and R. Jaffe (eds) *Framing Indonesian Realities: Essays in Symbolic Anthropology in Honour of Reimar Schefold*, Leiden: KITLV Press.

Vernez Moudon, A. (1986) *Built for Change*, Cambridge, MA: MIT Press.

Vernez Moudon, A. *et al.* (1980) 'The development of San Francisco zoning legislation for urban environs', in R.R. Stough and A. Wandersman (eds) *Optimizing Environments* (EDRA 11) Washington, DC: EDRA.

Vlach, J.M. (1985) 'The concept of community and folklife study', in S.J. Bronner (ed.) *American Material Culture and Folklife*, Ann Arbor: UMI Research Press.

—— (1986) '"Properly speaking": The need for plain talk about folk art', in J.M. Vlach and S.J. Bronner (eds) *Folk Art and Art Worlds*, Ann Arbor: UMI Research Press.

—— (2003) *Barns*, New York: W.W. Norton.

Wackernagel, M. and Rees, W. (1996) *Our Ecological Footprint: Reducing Human Impact on Earth*, Gabriola Island Canada: New Society Publishers.

Walbert, D. (2002) *Garden Spot: Lancaster County, the Old Order Amish, and the Selling of Rural America*, New York: Oxford University Press.

Walker Art Center (1974) *Naives and Visionaries*, New York: E.P. Dutton.

Wallman, S. (1984) *Eight London Households*, London and New York: Tavistock Publications.

Wampler, J. (1976) *All Their Own: People and the Places They Build*, Oxford: Oxford University Press.

Ward, D.F. (1984) *Personal Places: Perspectives on Informal Art Environments*, Bowling Green, OH: Bowling Green State University Popular Press.

Warner, H.R. (2003) 'Use of model organisms in the search for human aging genes', *Science*, 299 (5609): 971.

Warnock, M. (1994) *Imagination and Time*, Oxford: Blackwell.

Waterson, R. (1990) *The Living House: An Anthropology of Architecture in South-East Asia*, Singapore: Oxford University Press.

Weaver-Zercher, D. (2001) *The Amish in the American Imagination*, Baltimore: Johns Hopkins University Press.

Weissleder, W. (1978) 'Introduction' in W. Weissleder (ed.) *The Nomadic Alternative*, The Hague/Paris: Mouton Publishers.

Welsch, R.L. (1970) 'Sandhill baled-hay construction', *Keystone Folklore*, 15: 16–34.

—— (1976) 'Railroad-tie construction on the pioneer Plains', *Western Folklore*, 35: 149–56.

Werner, C.M., Altman, I., Oxley, D. (eds) (1985) *Home Environments*, vol. 8, New York, Plenum Press.

Weslager, C.A. (1969) *The Log Cabin in America: From Pioneer Days to the Present*, New Brunswick: Rutgers University Press.

World Health Organization (1999) 'Air Pollution' (Fact Sheet 187), revised Sept. 2000. Online. Available HTTP: http://www.who.int/inf-fs/en/fact187.html.

Williams, M.A. and Morrisey, L. (2000) 'Constructions of tradition: Vernacular architecture, country music, and auto-ethnography', in S. McMurry and A. Adams (eds) *People, Power, Places: Perspectives in Vernacular Architecture*, vol. 8, Knoxville: University of Tennessee Press.

Williams, N., Kellogg, E.H. and Lavigne, P.M. (1987) *Vermont Townscape*, New Brunswick, NJ: Center for Urban Policy Research, Rutgers University.

Williamson, T., Radford, A. and Bennetts, H. (2002) *Understanding Sustainable Architecture*, London: Routledge.

Wilson, E.O. (1998) *Consilience: The Unity of Knowledge*, New York: Knopf.

Wobst, H.M. (1977) 'Stylistic behavior and information exchange', in C.E. Cleland (ed.) *For the Director: Research Essays in Honor of James B. Griffin*, (Museum of Anthropology, Anthropological Papers 61), Ann Harbor: Museum of Anthropology, University of Michigan.

Wolff, E.R. (1982) *Europe and the People Without History*, Berkeley: University of California Press.

Woods, M.N. (1999) *From Craft to Profession: The Practice of Architecture in Nineteenth Century America*, Berkeley: University of California Press.

World Commission on Environment and Development (1987) *Our Common Future: The Bruntland Report*, Oxford: Oxford University Press.

Yethiraj, A. and Blaaderen, A. van (2003) 'A colloidal model system with an interaction tunable transition from hard sphere to soft and dipolar', *Nature*, 421 (6922): 513–16.

Young, M. and Wilmott, P. (1957) *Family and Kinship in East London*, London: Routledge & Kegan Paul.

Zug, C.G., III (1994) 'Folk art and outsider art: A folklorist's perspective', in M.D. Hall and E. Metcalf Jr (eds) *Artist Outsider: Creativity and the Boundaries of Culture*, Washington, DC: Smithsonian Institution Press.