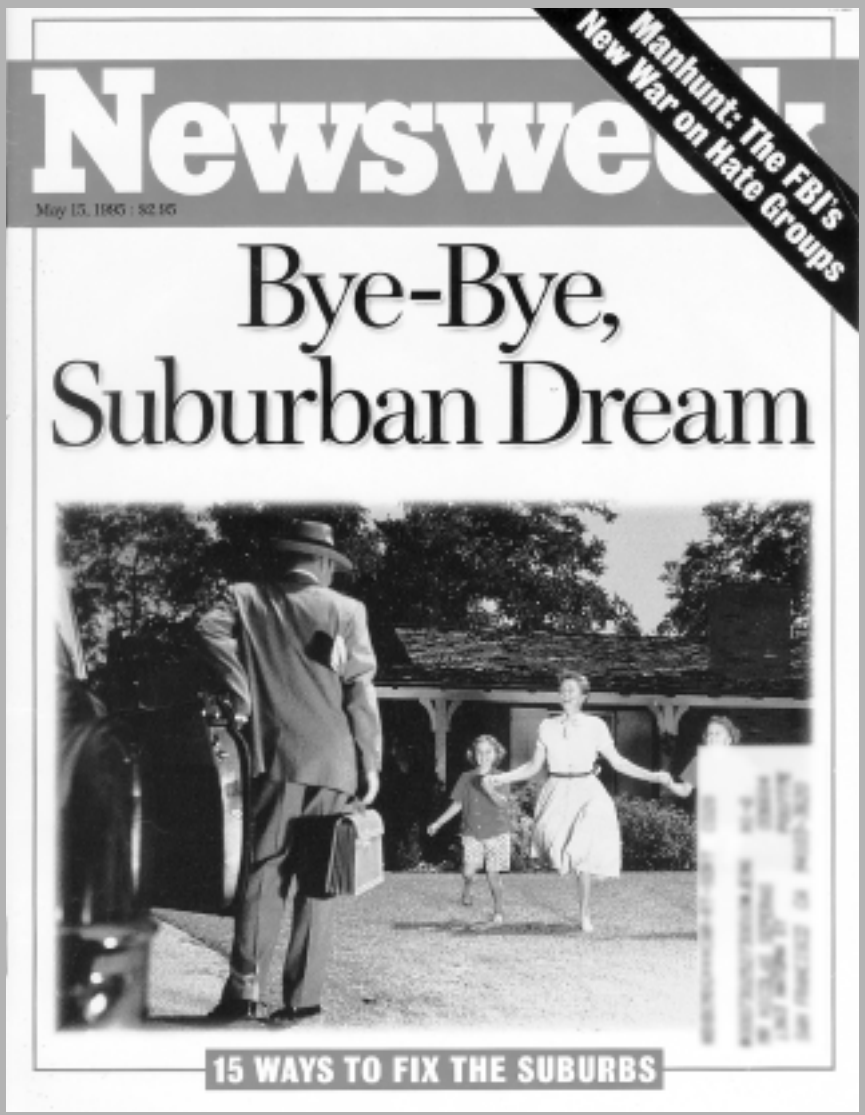
TRADITIONAL DWELLINGS AND SETTLEMENTS REVIEW

JOURNAL OF THE INTERNATIONAL ASSOCIATION FOR THE STUDY OF TRADITIONAL ENVIRONMENTS

ON AMERICA



The International Association for the Study of Traditional Environments (IASTE) was established at the First International Symposium on Traditional Dwellings and Settlements held at Berkeley in April 1988. IASTE is an interdisciplinary forum where scholars from various disciplines and countries can exchange ideas, discuss methods and approaches, and share findings. As opposed to disciplinary associations, IASTE is a nonprofit organization concerned with the comparative and cross-cultural understanding of traditional habitat as an expression of informal cultural conventions. IASTE's purpose is to serve as an umbrella association for all scholars studying vernacular, indigenous, popular and traditional environments. Current activities of IASTE include the organization of biennial conferences on selected themes in traditional-environments research, a public outreach program which includes supporting films and documentaries, and the publication of the Traditional Dwellings and Settlements Working Paper Series which includes all papers presented at IASTE conferences and accepted for publication.

Traditional Dwellings and Settlements Review is the official publication of IASTE. As a semi-annual refereed journal, *TDSR* acts as a forum for the exchange of ideas and a means to disseminate information and report on research activities. All articles submitted to *TDSR* are evaluated through a blind peer-review process. *TDSR* has been funded by grants from the Graham Foundation, the Getty Publication Program, the National Endowment for the Arts, the Center for Environmental Design Research, and the office of the Provost at the University of California at Berkeley.

IASTE membership is open to all who are interested in traditional environments and their related studies. In addition to receiving the Association's semi-annual journal, members are eligible to attend the biennial conference at reduced rates. Subscription to the journal is available only with membership in IASTE. Annual rates are: Individual, $45; Institutional, $90; Corporations, $160. Foreign members add $12 for mailing. Libraries, museums, and academic organizations qualify as institutions. Subscriptions are payable in U.S. dollars only (by check drawn on a U.S. bank, U.S. money order, or international bank draft). Send inquiries to:

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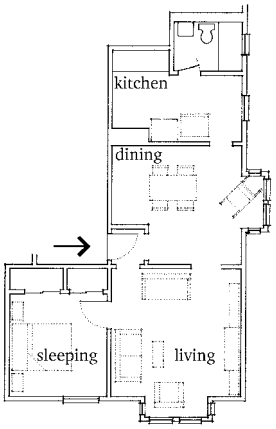
Contents



COVER ILLUSTRATION: Illustration appearing as FIG. 1 in Denise Hall's article in this issue.

Editor's Note

We must begin this issue with an important congratulatory note. Our colleague and active IASTE member Paul Oliver has finally completed EVAW *(The Encyclopedia of Vernacular Architecture of the World)*, which was published by Cambridge University Press in December. The publication of this monumental work caps more than ten years of effort that Paul started in the mid-1980s. IASTE members who attended our first conference in 1988 may remember the organizational meeting that Paul held to announce the project and discuss its objectives. Since that time many of us have worked with Paul, identifying categories, recruiting authors, and writing entries. IASTE is proud that more than one hundred of its members have contributed short and long pieces to this important work. We take this opportunity to congratulate Professor Oliver on his great achievements and acknowledge the vision of Cambridge University Press for having taken on such an important project. In a future issue of *Traditional Dwellings and Settlements Review* we hope to engage in an extensive review of the encyclopedia as a significant work of scholarship.

We begin this issue of *TDSR* with a feature article by geographer Piper Gaubatz exploring the ways in which urban traditions were both maintained and transformed on China's multicultural northwestern frontier in the Late Imperial period. Following this article we present a section "On America" comprising three theme articles by architects and planners. The first, by Denise Hall, delivers a powerful critique of "The New Urbanism." Hall writes that although New Urbanists pay much attention to terms like "tradition" and "community," their designs are neither truly communally conceived nor traditionally informed. She argues that the rhetoric of the movement disguises both its disengagement from real issues of race, poverty and housing and its support for the continuance of present suburban real estate development practices. Mahbub Rashid and Renee Chow then provide alternative interpretive scenarios. Lamenting what he sees as the erosion of values that once sustained urban environments, Rashid suggests that the concept of physical boundaries can be used to reconstitute these values in contemporary cities. Chow is more concerned with the practical problem of how to build choice into standardized housing typologies. She argues that in an urban culture as diverse as that of the U.S., architects and planners should be less concerned with specific program-driven alternatives than with understanding how basic arrangements of space can facilitate a variety of living patterns.

Finally, in the Field Report section, Fernando Varanda reflects upon twenty years of change in the built environment of Yemen. Varanda, whose *The Art of Building in Yemen* (Cambridge, MA: MIT Press, 1982) is a classic, describes the transformations of the traditional regional vocabularies in that country from the period of "reconciliation" in the 1970s to that of unification in 1990. In so doing, he provides a valuable report on how the traditional settlement patterns of an isolated society may be influenced by an opening to outside influences.

We would like to remind all of you that the next IASTE conference will be held December 15-19 of this year in Cairo, Egypt, under the co-sponsorship of Cairo University. The conference theme "Manufacturing Heritage/Consuming Tradition: Development, Preservation, and Tourism in the Age of Globalization" has already attracted many abstracts. We have begun the process of evaluating them and hope to publish the final program soon. The event promises to be both culturally exciting and intellectually rewarding. We hope to see you in Cairo.

Nezar AlSayyad

Mosques and Markets: Traditional Urban Form on China's Northwestern Frontiers

PIPER GAUBATZ

The Chinese have long been known for their ancient and well-defined urban traditions. This article explores the ways in which those traditions were both maintained and transformed on China's multicultural northwestern frontiers in the Late Imperial period, and provides a brief overview of the contemporary situation. After a general discussion of traditional Chinese urban form and urban design on the frontier, the article uses case studies of four frontier cities — Lanzhou, Xining, Hohhot and Urumqi — to illustrate ways in which divided settlement morphologies, culturally distinct neighborhood landscapes, functional differentiation of space along ethnic lines, and cross-cultural diffusion of architectural and ornamentation styles contributed to the development of distinctive urban forms.

In the late nineteenth century Chinese residents of Dihua (Urumqi), the desert capital of China's Xinjiang Province, referred to the large, fortified gateway which separated the walled Chinese settlement from the walled Muslim settlement as the "gate which divides heaven from earth."[1] In so distancing themselves from their near neighbors, with whom they were inextricably linked through the economic and social life of the city, they affirmed a social hierarchy which had long been expressed in the form and function of cities across the vast expanses of China's northwestern frontier regions. Wherever the Chinese established and developed these frontier fort-cities to control and maintain trade and trade routes they not only replicated the archetypal urban forms of the eastern core area,[2] but also accommodated cultural diversity through the development of distinctive frontier urban forms. This article will suggest that the adaptation of both the Chinese and the frontier peoples to multicultural urban life in pre-revolutionary China was articulated in urban form in four ways.

***Piper Gaubatz** is an Assistant Professor of Geography at the University of Massachusetts, Amherst. Her research focuses on urban morphology and development in East Asia.*

1. *Divided settlement morphology.* Congregation of different peoples into distinct neighborhoods and settlement areas based on ethnicity, place of origin, religious beliefs, occupation and economic status, including physical separation within multiple-walled cities, resulted in a five-part division of space, from the predominantly Chinese precincts of the central walled core to the tent camps of nomads on nearby pasture lands.

2. *Culturally distinct neighborhood landscapes.* Cultural variation in the organization and construction of urban space occurred differently within the five divisions of urban space to the extent permitted within the limitations imposed by the Chinese urban superstructure.

3. *Functional differentiation.* Economic and social functions within the urban sphere tended to be differentiated by ethnicity both as prescribed and controlled by the Chinese and through the choice and tradition of the non-Chinese peoples.

4. *Cross-cultural diffusion.* The diffusion of architectural and urban design practices between peoples was expressed in the physical and social construction of the urban landscape of the frontiers.

These four historical processes provide a basis for understanding the vernacular landscapes of contemporary frontier cities. While the massive reworking of urban form wrought by China's socialist transformation continues to alter the traditional landscapes of cities on the northwestern frontier, nonetheless, the distinctive patterns and styles of the multicultural frontier cities persist.

This article first discusses traditional Chinese urban form, cultural diversity in frontier cities, and urban design on the frontier, and then highlights in turn each of the four characteristics of frontier cities identified above, drawing on examples from field research in four cities on the northwestern frontiers: Lanzhou, the capital of Gansu Province at the gateway to the Silk Route; Xining, the capital of Qinghai Province at the edge of the Tibetan Plateau; Hohhot, the capital of the Inner Mongolian Autonomous Region; and Urumqi, the capital of the Xinjiang Uygur Autonomous Region in Chinese Central Asia (FIG.1).[3]

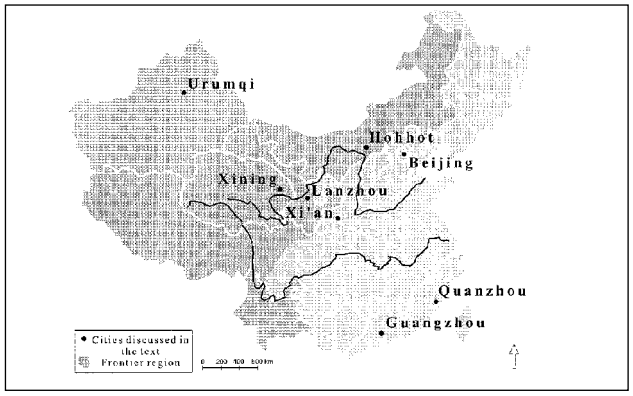


FIGURE 1. *City locations and the frontier.*

TRADITIONAL CHINESE URBAN FORM

Chinese urban history spans both a long time frame and a vast region. Although traditional Chinese cities varied considerably across the centuries and China's vast territory, some aspects of Chinese urban form and conception remained remarkably consistent from ancient times to the late nineteenth century. By the Late Imperial period (1368-1911) the typical Chinese city stood solid among the fields and villages of rural China — its massive crenellated walls with their carefully placed guard towers and gates surrounding elaborate multi-roofed temples, bell and drum towers, and expanses of one- and two-story structures, all located in relation to a grid of primary avenues oriented to the cardinal directions.[4] Below these rudimentary aspects of morphology lay a multilayered philosophical underpinning: Chinese urban design practice was shaped by a set of ideal principles addressing relationships between people, their constructs, and nature.

City siting and planning were grounded not only in administrative and economic utility, but also in traditions influenced by beliefs in ideal urban forms that had been established and passed down through centuries of scholarly writing and construction practice. Thus, geomancers were consulted to ensure the city's favorable position in both the natural and supernatural worlds, and texts were consulted to reproduce the city in accordance with the historical ideal. The primary features of this traditional Chinese urban ideal included the following: (1) the siting of the city on the basis of geomantic principles; (2) the establishment of city walls following a square or rectangular path; (3) the placement of important political and religious structures near the center of the city; and (4) the orientation of the city walls, main axial streets (anchored by gates), all monumental structures, and many private homes along north-south axes. As Nancy Schatzman Steinhardt has noted, the achievement of the ideal was so important to the legitimization of political regimes that published plans of imperial capitals were often rendered more true to the ideal than the settlements actually were.[5]

Like the physical structure of the city, many social and cultural elements were defined by decree, tradition and practice. Thus, the political and social elites occupied the most favored space in the city, usually near the center of the central walled core, while those with the least social power were barred access to many of the city's walled and gated precincts. Power was measured first in terms of political status, second by ethnicity, and only third by economic wealth. Not only were the walls themselves physical boundaries between social status areas, such as those between the Chinese and non-Chinese realms of the cities, but the space within the city walls was further subdivided as well. Urban neighborhoods both within and outside the city walls tended to be organized around trade, craft, and place-of-origin guilds.[6] If non-Chinese people lived within the central walled city, they were often expected or required to live in designated enclaves, such as those established at Ningbo in the thirteenth century and Nanjing in the fourteenth century.[7]

This traditional city form served as both a physical and a socio-cultural superstructure, which was reproduced throughout Chinese-controlled territory despite widely varying environmental and social conditions. While the placement of monumental features and primary streets was carefully planned, the development of the areas between monumental structures was often left to individual builders.[8] Nonetheless, while variations reflecting regional context thus occurred within the precincts of the city, these did not, for the most part, affect the superstructure.

In contrast to the rigid specifications of the core walled area, settlement outside the city walls, normally clustered around the major land or water entrances to the city, was comparatively unplanned. These outlying districts were sometimes surrounded by secondary walls to protect the residents and encourage commercial development. During peaceful periods and with population growth in Late Imperial times, settlements outside the walls sometimes grew quite large, with populations surpassing those within the walls. This was often a response to higher rates of taxation and/or overcrowding within the central walled area. In these urban areas outside the walled central core planning, settlement and architectural expression took place within a more flexible context than in the Chinese core area, and as a result, landscapes were more overtly influenced by cultural or regional conditions.

On the frontiers, Chinese urban forms served as both physical and symbolic superstructures within which a variety of non-Chinese and variant Chinese urban forms coexisted. Traditional Chinese urban form exhibited a fundamental dualism between the monumental, carefully planned superstructure and the vernacular landscape.[9] In the case of frontier cities, the disjunction between the monumental Chinese aspects of the cities and vernacular landscapes influenced by local conditions, traditions and cultures was particularly striking.

CULTURAL DIVERSITY IN TRADITIONAL FRONTIER CITIES

During the Late Imperial period, nearly all of the ethnically Chinese (Han)[10] population lived in the eastern third of China's claimed land area, while the remaining two-thirds of the land area was occupied sparsely and almost entirely by non-Chinese peoples, with the exception of the frontier fort-cities. Within China at the time there were three main types of culturally diverse cities: (1) administrative centers in the core area, such as Xi'an and Beijing, where small populations of peoples from all corners of the empire and foreign emissaries gathered; (2) coastal trade centers, such as Quanzhou and Guangzhou, which developed small enclaves of foreign traders and, over time, enclave communities of the traders' descendants; and (3) inland frontier administrative/trade cities established within the homelands of non-Chinese peoples, such as Xining and Urumqi. The inland cities of the northwestern frontier are the subject of this article.

The northwestern frontiers were home to many peoples: primarily Tibetans, Mongolians, and a diverse set of Islamic peoples. In many cases populations of all three settled either within or in the vicinity of the Chinese frontier fort-cities. The ethnic composition of these cities varied considerably, and each of the four cities considered in this study — Lanzhou, Xining, Hohhot and Urumqi — was situated in a distinctive cultural milieu. In the Late Imperial period each had majority population of Han Chinese migrants (often including the descendants of migrants from a wide range of Chinese provinces), along with a significant population of Manchu during the Qing dynasty (1644-1911). In all four cases the largest minority group represented within the cities themselves was the Muslim Chinese (Hui).[11] Each city, however, also included distinctive populations of other peoples which varied considerably by region. The frontier cities were thus far more diverse than their eastern counterparts. In Lanzhou significant groups included the Dongxiang (Muslim descendants of Chinese-Mongol intermarriages) and Sala (Muslim migrants from Central Asia). Tibetans also played an important role in Lanzhou's urban realm, although they lived outside the city proper. Like Lanzhou, Xining supported a significant population of Sala Muslims and a nearby population of Tibetans, while nomadic Tibetans and Mongolians also participated in the life of the city. In Hohhot large numbers of Mongolians, most of whom were associated with the city's monasteries, joined the Chinese, Muslim Chinese, and Manchu, as well as sojourning Mongolian nomads, in creating a complex cultural landscape. In Urumqi the Chinese, Manchu, and Muslim Chinese population was augmented by a number of Islamic peoples within the city walls, including Uygur, Tatar and Sala. Kazak nomads also traded within the city, and during the nineteenth century Urumqi also developed a large trade settlement of "foreigners" (primarily Russians, but with a few Americans and Europeans).

URBAN DESIGN ON THE FRONTIER

The Chinese were the regional minority in the frontier regions, and alternative local architectural and urban traditions, combined with the marked difference in local availability of building materials, presented the potential for quite different and distinctive cities. At the monumental scale, however, such distinctive urban forms did not develop. Quite to the contrary, Chinese cities on the frontier were built with rigid, if sometimes unsophisticated, adherence to the basic tenets and archetypes of Chinese city building.

Nearly all of the Chinese cities on the northwestern frontiers began as military outposts. As early as the Han dynasty (206 BC-221 AD), forts were constructed that carried out a number of urban functions while fulfilling their primary mission of guarding key trade routes and maintaining the integrity of the empire. Fort-cities were intended to be self-sufficient.[12]

Under the Han dynasty *tun tian* system, more than half the personnel in frontier forts were laborers assigned to support the fort's soldiers; similar arrangements were common throughout the history of the Chinese frontiers.

Fort settlements varied in size from only a handful of soldiers and support personnel to thousands with their families. Most never developed beyond their limited function as forts and small way-stations along transport routes. Dozens passed into obscurity as the often-tenuous and factional political and economic power of the Chinese empire waxed and waned on the frontier.[13] But a few, most prominently Lanzhou and Xining (both founded in the second century BC), survived and flourished for more than two millennia as multifunctional cities and towns that eventually became centers of regional development and drew both Chinese and non-Chinese people for purposes ranging from trade and administration to religious pilgrimage. Hohhot and Urumqi were established much later, during the sixteenth and eighteenth centuries, yet followed similar patterns of development.

Chinese-built cities on the frontier were established in previously unoccupied sites, though they were sometimes built quite close to indigenous settlements or the ruins of earlier Chinese settlements. Moreover, unlike cities and towns in eastern China, which sometimes grew from agricultural villages, the frontier cities were purpose-built as walled fort-cities.[14] The general locations of military outpost-cities were determined by central authorities, who dispatched soldiers to construct them. In the absence of the geomancers often employed in eastern China to attune cities to their natural sites and situations, the military builders of fort-cities selected specific sites on the basis of military concerns and used standardized plans for laying out the cities.[15]

These standardized plans called for square cities with either four or six gates, with a primary street grid formed either by four streets crossing at right angles in a grid pattern (#), or two orthogonal streets meeting at the center in a "cross" pattern (+).[16] The central walled areas of cities on the northwestern frontier tended to conform to Chinese urban ideals with greater frequency than their more subtly planned counterparts in eastern China. Frontier cities also tended to be square more often than their core-area counterparts, and to employ simple axial street patterns, central positioning of key monumental structures, and faithful orientation with the cardinal directions.[17]

Outside the central walled core area, the functional and spatial integration of non-Chinese peoples into the urban milieu stood in contrast to the strictly Chinese forms of the city center. Non-Chinese neighborhoods in walled suburbs attached to the core walled area often reflected the diverse cultural characteristics of their inhabitants. Monumental structures in these neighborhoods, such as temples and mosques, conformed to the general Chinese patterns but sported a wide variety of non-Chinese decorative features. Houses were built in non-Chinese or modified Chinese styles using locally available building materials, and markets and restaurants displayed distinctive wares catering to non-Chinese tastes. Some of these distinctly non-Chinese landscapes survive in contemporary frontier cities. In Urumqi's old Muslim neighborhoods, for example, are narrow alleyways of mud-walled courtyard houses interspersed with mosques, markets and restaurants catering to both the local Muslim population and growing numbers of traders from neighboring Central Asian countries. Beyond the walled areas described above each frontier city developed a dispersed functional urban realm which contained a variety of settlements built in characteristic local, non-Chinese forms. These will be discussed in more detail below

DIVIDED SETTLEMENT MORPHOLOGY

Chinese frontier cities rarely began as multicultural, multiple-walled settlements. Rather, they began as small Chinese forts, then grew to encompass broader spatial and functional spheres. The construction of new walled areas usually came in response to a growing and changing population. In many regions of the frontier, from the Tang dynasty onward and especially during the Ming dynasty (1368-1644), those Chinese frontier towns that survived gradually developed a distinctive multicultural urban form. At the heart of this form was a Chinese-built and occupied core area, with an adjacent non-Chinese urban settlement, both of which were spatially and functionally related to communities of non-Chinese people who lived outside the city proper but were integrated into the local urban economy. At its most complex, the multicultural landscape of the typical Chinese frontier city included at least five zones representing settlements of distinct peoples (**FIG.2**). These were (1) the Chinese walled core; (2a) attached or (2b) adjacent non-Chinese or low-status Chinese walled suburbs; (3) attached non-walled suburbs; (4) close (within a day's journey), but physically separate, non-Chinese settlements; and (5) non-Chinese settlements within the greater functional urban sphere. Zones 1-3 comprised the city proper and often took multiwalled forms, and sometimes double-city forms. This landscape was further

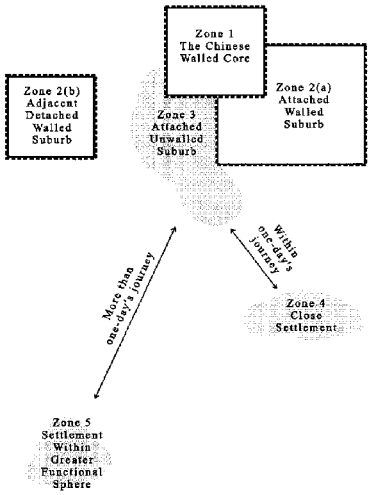


FIGURE 2. *The five zones of settlement in a typical Chinese frontier city.*

systematized by the congregation of Chinese and Muslim people, in particular, into separate neighborhoods based on occupation and place of origin within the walled precincts. Beyond the immediate walled city and its walled and unwalled suburbs (zones 1-3), there was often an urban sphere that included both a set of satellite communities with economic, social or political ties to the city itself but which remained physically separate from the walled urban center (zone 4), and pasture areas where nomads camped and herded (zone 5). Thus, for example, in the area surrounding Xining a number of Tibetan and Muslim communities developed which engaged in market gardening and other farming and livestock activities for the markets of Xining, but which remained spatially separate from the city itself.[18]

In many cases, settlement immediately outside the city walls of the core area consisted of clusters of structures grouped around road or port entrances to the city. This type of settlement pattern was not unlike the *faubourg* settlements that formed along the roads and at the gates leading to medieval French castles. In China these suburbs were later walled in when the authorities of the central city decided to protect or control the residents of these outer areas. Thus, whereas the construction of walls for the core area usually preceded settlement, secondary, suburban walls followed settlement. This resulted in two distinct city forms: the double-walled (or multiple-walled) city with one or more walled settlements physically attached to the city (as in zone 2a in Figure 2); and twin-walled cities, where the adjacent outer settlements were walled but physically separated by a short distance from the Chinese city center (as in zone 2b in Figure 2).

The development of this spatial hierarchy within the urban form was long a feature of Chinese urbanism, but it became most highly developed during the Ming and Qing periods.[19] The Qing dynasty Manchu domination of China added another level of complexity both to the overall ethnic mosaic of cities on the frontier and to their urban morphology. The Manchu Qing retained the Ming style of urban development to the extent that they built square walled cities in the classic Chinese style. But the Manchu also adopted the concept of ethnic self-segregation, separating themselves not only from the Chinese, but also from other non–Chinese peoples. This created twin city forms in which the Manchu built separate walled rectangular enclaves for themselves at a short distance from pre-existing Chinese/non-Chinese settlements. While the Manchu replicated this form throughout China, it was most common on the frontier.[20] By the fifteenth century, many cities in China had double or twin walls. One of the most commonly cited examples of a double-walled city is Late Imperial Beijing. Many other core-area cities had similar differentiated districts at some point in their history. Nonetheless, cities with walled, ethnically-based suburbs were far more common on the frontier. An analysis of 233 city plans from all regions of China indicates that by the late nineteenth century, as many as 62 percent of frontier cities had multiple walls, while for the whole of China, only 15 percent of cities had multiple-walled forms.[21]

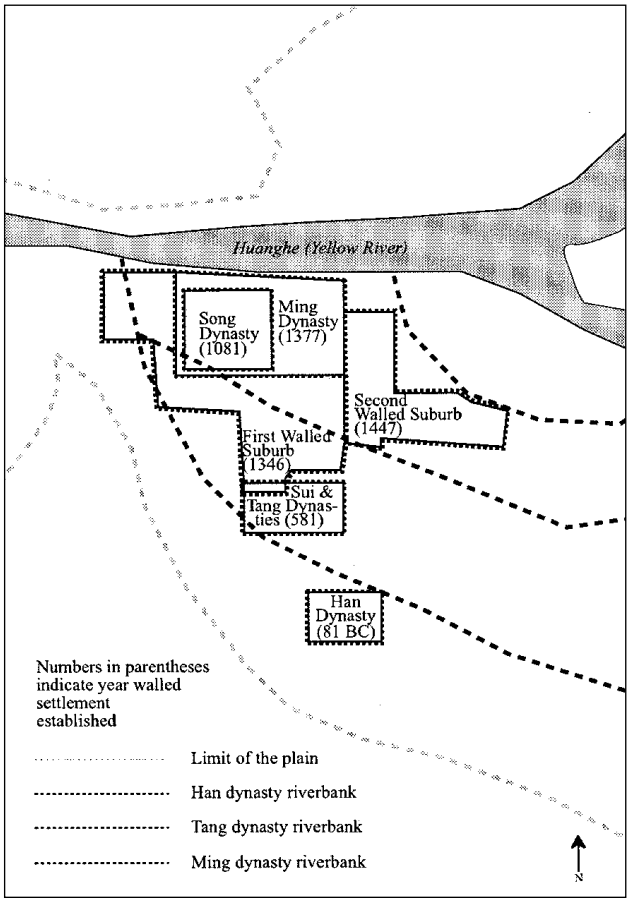


FIGURE 3. *The development of walled settlements at Lanzhou.*

FOUR FRONTIER CITIES: LANZHOU, XINING, HOHHOT AND URUMQI

Lanzhou began its Chinese history between 115 BC and 111 BC. During this period armies that the Han emperor had sent to conscript local labor established two small fort-cities on the site in order to operate and control a ferry terminal on the Yellow River. Lanzhou gradually grew to serve as a main way-post on the then-expanding Silk Route (FIG.3). As the Silk Route declined in the third century AD, the region fell under the control of the nomadic empire of the Xianbi, and the Chinese did not regain control until the Sui and Tang dynasties (581-907), when the city was reestablished as a Silk Route town and also became a major site for the tea-and-horse trade between the Chinese and the nomads. As the course of the Yellow River gradually shifted northward, the city was rebuilt several times, with new walls on new sites constructed in 1081, 1083 and 1377. The 1377 core-area wall, faced in brick by the Ming administration, lasted into the twentieth century and can still be seen on a few scattered sites in the city. In classic traditional Chinese style, the walled city was rectangular in form, and was oriented to the cardinal directions, with one large gate on each

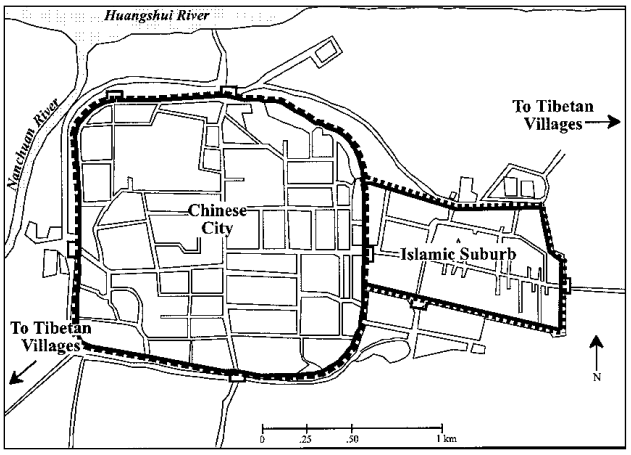


FIGURE 4. *Nineteenth-century Xining.*

side. Throughout its early history Lanzhou developed as a series of single-walled cities.

During the fifteenth century several new walls were constructed at Lanzhou to enclose adjacent areas of the city to the west, south and southeast where large populations of Muslims had settled. In 1436 a wall was constructed to enclose a settlement of Chinese tradesmen and Muslims on the south and west sides of the city. In 1447 another adjacent settlement was walled, enclosing the eastern side of the core area so that all sides of the city (except the north, which stood on the banks of the Yellow River) were flanked by walled settlements.[22] The eastern suburb was enlarged in 1497 to house military personnel. During the Qing dynasty the Manchu constructed a separate walled fort outside the main walls of the city. This Manchu settlement remained small and separate, rather than becoming the nucleus of a second settlement as was common in many other cities. Urban growth instead remained concentrated around the old Chinese core area. By the beginning of the twentieth century, Lanzhou was a flourishing commercial city with a complex cultural landscape.[23]

Like Lanzhou, Xining was established during the Han dynasty. First founded as a Chinese garrison in 121 BC, the city was the main settlement in a turbulent region in which control passed back and forth between the Chinese, Tibetans, and other nomadic peoples at least six times before the Mongols finally secured it for the empire in 1227. Prior to the Mongol conquest, Xining had served as the capital of a Tibetan kingdom. This capital was a rectangular walled city 10 km. in circumference divided by a north-south wall into eastern and western sections. Its population included at least a thousand Tibetan families, with the elites cloistered inside the palace confines of the western section.[24] By the Ming dynasty, Xining had become a multicultural city. In 1380, soon after the Ming secured the city for their recently founded empire, the Islamic community built a mosque that became the focal point for all the Islamic communities in the region.[25] In 1386 the city's primary walls were rebuilt with a circumference of 4.5 km., to enclose approximately half the area previously enclosed by walls. Subsequently, a second wall was constructed which enclosed the Muslim settlement which had formed around the mosque on the eastern side of the city proper (FIG.4).[26]

Hohhot was long an indigenous city site, although the first Chinese garrison was established there in the first century BC. Like Xining, control over the region was disputed and the site passed back and forth between different peoples over the centuries. The Chinese first lost control of the region in the second century AD. The indigenous Toba clan eventually established a capital, Shengle, at the site of an old Han garrison in 259 AD. This city made use of the walls of the former Han garrison as a portion of a multiple-walled city. In the seventh century the Chinese reasserted power in the region and constructed several forts at the site. After the Tang era, Chinese control lapsed again and another non-Chinese group, the Liao, gained control of the site. The Liao established Fengzhou, a walled city 4.5 km. in circumference, just east of present-day Hohhot. In the mid-sixteenth century Mongolians controlled the region, and established a monastic city at the site. The Ming dynasty eventually established an administrative post at Hohhot; and by 1634, when the Manchu first arrived at the city (then called Guihua by the Chinese), the city comprised a small, walled Chinese administrative outpost adjacent to a densely populated area settled by Chinese, Mongolians, and Islamic peoples in separate, unwalled communities. This settlement included several Mongolian Lamaist (Tibetan Buddhist) monasteries that, along with the Chinese imperial state, owned much of the local land and resources.

In 1735-39 the Manchu constructed a separate walled fort-city, Suiyuan, to house their Eighth Army and its support staff (FIG.5).[27] This settlement, which was larger than the pre-existing city, was constructed just over two kilometers northeast of Guihua. The fort operated as a self-contained city in its own right, but, at the same time, it maintained strong ties with Guihua, where most of the region's trade was carried out.[28]

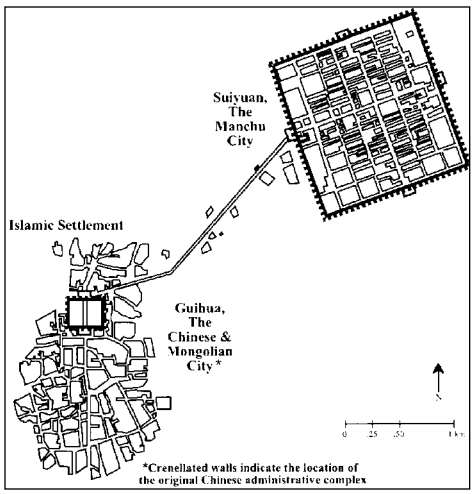


FIGURE 5. *Nineteenth-century Hohhot.*

Present-day Hohhot has developed from the expansion of urban settlement around and between these two nuclei.

Urumqi was first established in the mid-eighteenth century, when the Qing constructed a small fort there to protect a trade route. The Manchu first commissioned the construction of a single-walled city (Dihua) in 1767. Chinese and Manchu lived together in this city for only a few years before the Manchu constructed a separate walled settlement for themselves, Gongning Cheng, about 2.5 km. northwest of Dihua. A settlement for Muslims was also walled in on the south side of Dihua, and contained a number of different Islamic peoples (FIG.6).[29] This multiethnic trading center grew further during the nineteenth century when a number of foreign firms (primarily Russian) were established there, and the new foreign residents settled south of the walled Islamic settlement. The twin-city structure of Urumqi was ended abruptly in the late nineteenth century, when the Manchu city (Gongning Cheng) was burned down during a revolt led by Muslims, and the Manchu retreated to the walled precincts of the Chinese city for the remainder of the Qing era.[30]

CULTURALLY DISTINCT NEIGHBORHOOD LANDSCAPES

While the Chinese urban superstructure imposed some limits on cultural variation in the organization and construction of urban space, within the districts and settlement zones of cities and the wider urban realms diverse cultural practices and traditions of different ethnic and regional populations created distinct local neighborhood patterns of urban morphology and architecture. Neighborhoods with distinctive cultural characteristics developed and were tolerated as long as they did not conflict with the cultural, social and political goals and requirements of "Chinese" urban design and administration. Within the central, square-walled Chinese city the superstructure was laid out on a grid pattern of streets, with monumental structures placed at key intersections; opportunities for stylistic variations were limited to architectural variations within the blocks. In the walled settlements attached to the outside of the core walled area, settlement was much less confined within the bounds of a rigid, gridded street pattern. Instead, a single main street led from the outer gate to the gate which divided the outer walled settlement from the core walled area, creating a linear "spine" pattern. From this main linear street, which was usually lined with shops, stalls and inns, narrow, crooked alleyways led into small neighborhoods of courtyard houses, mosques, temples and local markets. Larger mosques and markets were sometimes located along the main street. In Urumqi, for example, the rigid north-south, east-west grid of the Chinese city was broken in the southern walled Islamic settlement, where streets followed a less geometric pattern in the neighborhoods adjacent to a northwest-southeast axis street. Similarly, at both Xining and Lanzhou the grid of the central Chinese cities broke into elongated, linear street patterns in the walled suburbs. At Hohhot, while the Manchu part of the city (Suiyuan) and the small walled Chinese fort area in the old city (at Guihua) were laid out on rigid, orthogonal grids, the remaining streets consisted of a few primary axis thoroughfares that traversed a maze of meandering alleys and dead-end streets.

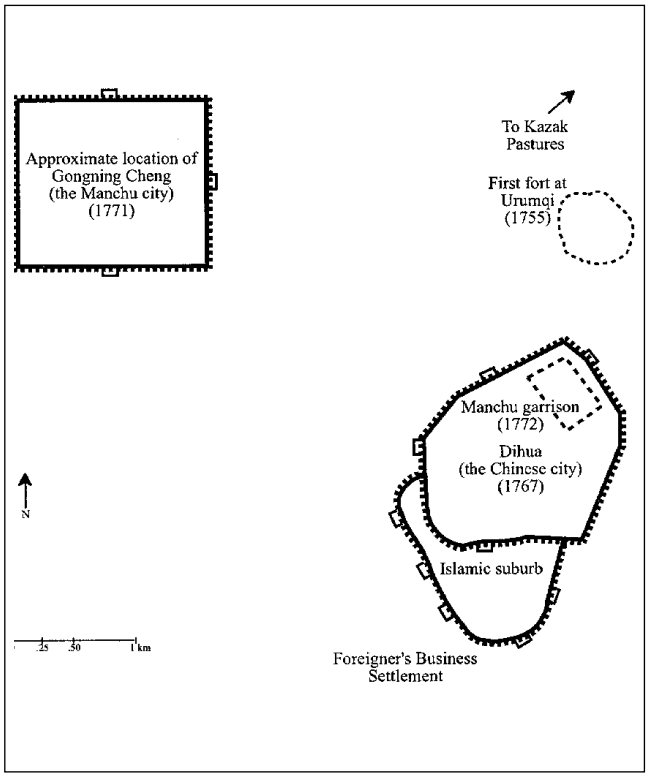


FIGURE 6. *The development of walled settlements at Urumqi.*

Muslim neighborhoods, where a mosque and adjacent street market provided a focus for the community, were a distinctive feature of most Chinese frontier cities. Muslim neighborhoods were usually located outside the central walled area of the city in alleyways off the main street of the walled secondary settlement. Both Han Chinese and Central Asian Muslim traditions favored the clustering of retailers according to trade within the markets, and thus the Muslim markets were easily accommodated in the Chinese city. These markets usually included both retail and service functions, such as food shops, tailors, and repair shops. In Urumqi, the walled Islamic neighborhood south of the south gate was a maze of microvillages, each with its mosque and market. There, the Uygur, Tatar, Sala and Muslim Chinese each had distinct communities within the greater structure of the Islamic settlement (FIG.7). In Urumqi's Ningxiawan area, where Muslim Chinese migrants from Ningxia established the city's first Islamic neighborhood, there were separate mosques for groups of Muslim Chinese migrants from Suiyuan (modern-day Hohhot), Xining, Suzhou and Lanzhou, as well as separate mosques for other Islamic peoples such as the Sala.[31] Other mosques in the southern walled area were established separately by Muslim Chinese from Shaanxi, Uygur migrants from Hami, and Tatar migrants.

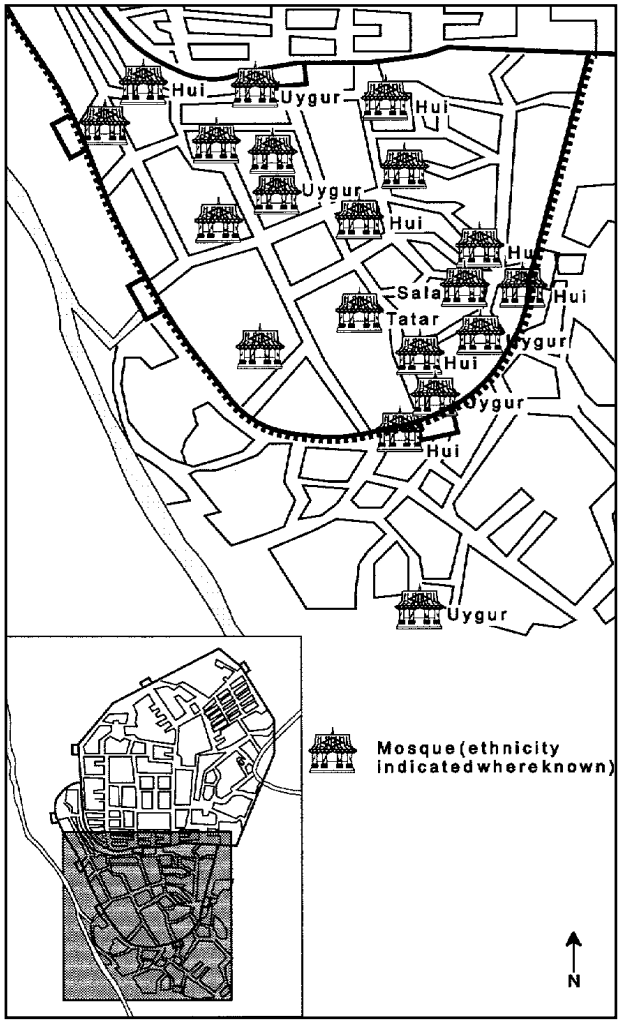


FIGURE 7. *Muslim neighborhoods in Urumqi.*

In Hohhot, where the Muslim population was predominately Muslim Chinese, there was an organized network of mosques within the old city, named after their locations as the North, Northeast, South, East and West Mosques. The Great Mosque of Hohhot, located just to the north of the north gate of the city in the midst of the city's main Muslim settlement area, served as the Friday mosque.

Chinese frontier cities typically were located at considerable distances from each other, with the intervening regions inhabited by non-Chinese agricultural and nomadic peoples. The rural hinterland immediately around the cities tended to consist of villages of non-Chinese people or of Chinese Muslims. Some non-Chinese peoples, such as the Tibetans, maintained their own settlement patterns outside the frontier cities, settling at some distance from the core area of the Chinese city. Villages surrounding the city could be spatially separate and quite distinct in form from the city itself while still being integrated into the economic and social structures of the urban area. In Xining, for example, Tibetans lived in villages scattered among the foothills of the valley in which Xining is located, in some cases several kilometers distant from the densely settled area of Xining proper. In form and architecture, these Tibetan settlements, with their clusters of one- and two-story courtyard houses in Tibetan style and their village shrines and Buddhist temples, were quite distinctive from Chinese settlements. Records from the early years of the Qing dynasty indicate that of the nineteen Tibetan clans which carried out trade with Xining, six lived in walled towns near the city. The Jiazhong clan, for example, had a walled village with 600 residents about 16 kilometers from Xining.[32] In some cases predominately Tibetan villages were themselves multiethnic, with some Muslim Chinese and Chinese residents.

FUNCTIONAL DIFFERENTIATION

Economic roles within the city were often divided along ethnic lines, following patterns established by the Chinese for themselves, in which the Chinese people living within a city tended to specialize in guild-centered trades on the basis of clan or place of origin.[33] Similarly, non-Chinese peoples tended to pass on occupational specializations from generation to generation. In traditional Chinese cities it was common for districts with distinct economic functions to remain spatially separate. Commercial streets and blocks could usually be identified with specializations, such as booksellers, tailors or metalsmiths. This economic differentiation often complemented congregation of peoples within the city. Non-Chinese peoples often carried out different trades from the Chinese, and these trades were carried out in spatially separate locations from the Chinese trade neighborhoods. It was common for the Muslim Chinese to assume occupations many Chinese would have considered distasteful, such as butcher, tanner and money-lender, as well as such other more common occupations as jeweler, innkeeper, tea trader, interpreter and caravaneer.[34] The Muslim Chinese also served as brokers in transactions between the Chinese and the other non-Chinese peoples.

In regions in which a number of non-Chinese groups resided, functional hierarchies usually developed among the non-Chinese groups in their economic relations with the Chinese. Thus, the Muslim Chinese served as brokers for trade not only between the Tibetans and the Chinese, but also between Tibetans. This practice continues today. Tibetan traders, for example, deal in furs, animal horns, traditional medicines, and woven goods with Muslim Chinese merchants in Xining, who then retail these items in stalls in Xining's markets.

In urban areas with Mongolian or Tibetan as well as Chinese populations, the economic function of both Mongolians and Tibetans was primarily to provide pastoral trade products, such as wool, hides and horses. It was not unusual for nomadic or semi-nomadic inhabitants of the surrounding regions to become at least partially integrated into the urban economy. These itinerant hunters, herdsmen and

traders contributed much to the economic integrity of the frontier outposts, whose very existence was often based on trade in goods produced beyond their demesne. Although long-distance trade in northwestern China during the two periods of the Silk Road (second century BC — third century AD, and seventh century AD — fifteenth century AD) is usually thought of in terms of those goods which passed through the northwestern frontier cities, there was also demand in China's eastern core area for goods produced within the frontier zones. Horses bred by Mongolians and Tibetans were enough in demand by the seventh century that the Chinese empire established official "tea-and-horse" markets. Tea became a staple drink among the peoples of the frontier, while frontier-bred horses were prized throughout the empire, particularly for their military uses. Most of the tea traded at the northwestern tea-and-horse markets came from Sichuan and Hunan provinces. Government-controlled, taxed markets were established adjacent to or within the vicinity of frontier cities to facilitate trade between the Chinese and Tibetan and Mongolian horse-breeders. At the city of Xining, for example, the tea-and-horse market was located on the northern edge of the city. Chinese records classified the clans of Tibetans in the region according to the average number of horses they brought to market each year (which were considered to be tribute to the empire). In the nineteenth century clan tributes ranged from fifteen horses per year, brought by the Dabushou clan who lived and herded nearby, to 550 horses per year, brought by the Longba clan who lived and herded some distance from the city. Other products brought by Tibetans to exchange with the Chinese included yak-cattle crossbreeds, wool, felt, musk, horse tails, buzzards, and fox furs.[35] During the Late Imperial period, however, trade in these products was increasingly managed privately rather than in the government-controlled market.

The markets of Hohhot during the Qing era provide a good example of the different scales of trade carried out between the Mongolians, the Chinese, and the Manchu in Late Imperial times. There were five kinds of markets in Hohhot: the tribute (tea-and-horse) market of the imperial court, government markets, people's markets, night markets, and small local markets. The government-controlled markets were primarily involved in regulating the horse trade, for which rules were negotiated and trade mainly took place between Mongolian feudal chiefs and the Ming court. The people's markets and night markets were the sites of trade in common goods between Mongolians and Chinese. The Mongolians brought camels, cattle and sheep, hides, horsehair, horse tails, felt, salt, fodder, wood products, gold and silver to trade for grains, cloth, spun threads and yarns, silks and satins, kitchen and farming implements, cotton, tea and agricultural products. Hohhot developed especially as a regional trade center, to which Mongolians from outlying regions came to trade at special markets once or twice each year.[36]

The non-Chinese populations of frontier cities also generated economic activity through their support of religious institutions. They supported religious professionals such as Muslim imams and Tibetan and Mongolian lamas, and produced specialized foods, arts and architecture related to religious customs. By the late eighteenth century, for example, the city of Hohhot supported 40 lamaist temples housing about 3,000 monks.[37] The largest of these, such as the Great Temple (Dazhao), owned considerable amounts of land in the city and controlled active markets at their entrances where both religious paraphernalia and everyday goods were traded. This economy was further supported by transient populations of pilgrims come to visit the temples.

In addition to their economic functions, the Chinese frontier cities played a key role in the political systems of the Chinese empire. The Chinese empire used local leaders, especially Mongolians and Tibetans, to control far-flung frontier nomadic populations, a system that Owen Lattimore called "frontier feudalism."[38] What is notable about the system of frontier feudalism, in urban terms, is that Chinese patronage led some local leaders to establish homes in the vicinity of frontier cities in order to participate in the patronage system. For example, the Inner Mongolian capital of Hohhot had a number of homes for elite Mongols to use, often with courtyards large enough to accommodate a yurt when necessary or desirable. It also contained edifices such as the Chinese-style palace of Princess Haibang, which served the needs of both the Chinese princess (married to a Mongol leader in 1697) and her new Mongolian family.[39]

Non-Chinese communities carried out some community-oriented administrative functions separate from those of the Chinese. Islamic communities, for example, sometimes maintained the practice of the *shari'a* (Islamic law). There is evidence that the early Islamic communities along the Chinese coast, composed primarily of migrants and traders, were governed almost entirely by the *shari'a* in spite of the fact that they were located in or adjacent to Chinese cities.[40] When Islamic communities were organized around place-of-origin-associated mosques, in particular, these mosques administered and adjudicated the affairs of their communities. For example, the Shaanxi mosque and the Qinghai mosque in Urumqi served the needs, respectively, of Islamic migrants from Shaanxi and Qinghai. Other non-Chinese groups also maintained their own administrative and judicial structures for the resolution of their affairs. In Hohhot, Lamaist monasteries held land, collected taxes, and provided administrative and judicial functions for the Mongolian community living within the city.

CROSS-CULTURAL DIFFUSION

The Chinese had a substantial impact on the architectural and urban-planning practices of non-Chinese peoples living within the Chinese frontier cities. The limitations of the grid and superstructure constrained the ability of some non-

Chinese peoples to build in accordance with their belief systems. For example, Islamic people were not normally permitted to construct tall, pointed minarets, as the Chinese believed that such structures would pierce the sky and possibly harm the free flow of good forces through the air, thus affecting the site's *feng shui* (geomancy).[41] The rigidly structured primary grid of the city, oriented to the cardinal directions, made it difficult for non-Chinese peoples to build large structures against orientation of the grid. This had a substantial impact on the siting of mosques in Chinese cities, which were often oriented due west rather than precisely toward Mecca.[42] These two influences on building and site development, possibly together with other factors such as a desire to conform to the Chinese landscape restrictions, or in some cases a lack of alternative monumental architectural models to draw on, led to the development of a distinctive form of mosque architecture in China. Monumental structures built within the city's walled precincts were nearly always built in orthodox Chinese forms. The Muslim Chinese built mosques with the outward form and site plan of a Chinese temple. Minarets became squat pavilions, and it was only in decorative detail that Islamic iconography was clearly expressed (**FIG.8**). This outward conformity stood in sharp contrast to the simple interiors of the mosques, which maintained an orthodoxy that contrasted with the ornate statuary and gilded columns of typical Chinese temple interiors.

The non-Chinese peoples had relatively little influence upon Chinese monumental architecture within the frontier cities. The non-Chinese people did, however, have some influence on Chinese vernacular architecture in the frontier areas. In some regions Chinese settlers adapted to local customs and resources, building, for example, two-story wooden houses in a similar manner to the Tibetans in some settlements along the Gansu-Tibet borderland. In some cities Chinese residents also adopted local non-Chinese decorative styles such as the elaborately carved wooden door frames of Xining, which were decorated with flowers carved in the style of the Muslim Chinese of Qinghai (**FIG.9**).

FIGURE 8. *Islamic iconography on the Great Mosque, Hohhot. The Koran is depicted on the left. (Courtesy of Stanford Univ. Press.)*

FIGURE 9. *Wooden door frame on a Chinese house in Xining, with Muslim-carved ornamentation. (Photo by author.)*

Beyond architecture and decorative arts, the Chinese were influenced by non-Chinese people in many aspects of daily life, such as the adoption of some foods and handicrafts. Nonetheless, the overall impact of contact with the non-Chinese in frontier urban areas was relatively slight in Chinese people's daily lives.

More striking intermixing of cultural forms took place among non-Chinese peoples as a result of the borrowing of architectural styles and modes of ornamentation, gifts, and the use of skilled craftsmen of other ethnicities. A classic example of such intermixing is the use of Tibetan roof ornaments to adorn mosques in frontier areas. Tibetan and Mongolian Lama temples are decorated with several types of 0.5–1.5 m. tall roof ornaments quite different from those on Chinese temples. One of these is a spire composed of a succession of shapes: a stylized lotus blossom and several successively smaller globes topped by a bell-shaped ornament. Another type of distinctive Tibetan roof ornament is a slightly tapered cylinder, topped by a domed cap. Both ornaments are usually made in gold or gold-plated metal, embossed with sacred Tibetan sutras. Such ornaments, common throughout the Tibetan culture region, can be seen on the roofs of the Potala palace in Lhasa, the Kumbum Jampa Ling Monastery in Qinghai, and the Xilituzhao Lama temple in Hohhot. Both types of ornaments

FIGURE 10. *Tibetan-style roof ornaments on the Great Mosque, Xining. (Courtesy of Stanford Univ. Press.)*

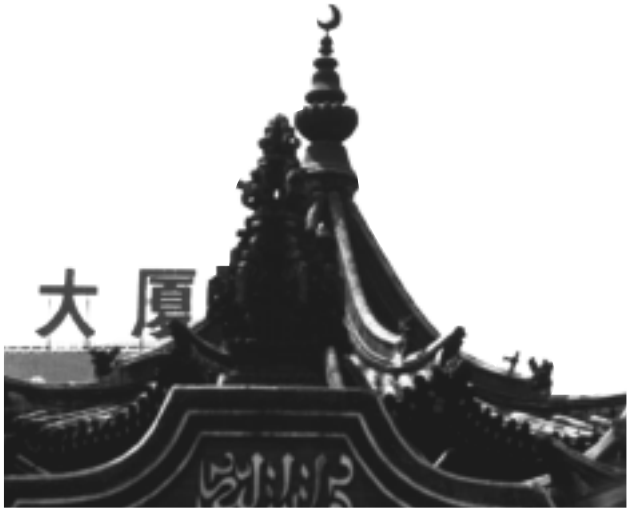


FIGURE 11. *Tibetan-style roof ornaments on the Great Mosque, Hohhot. (Courtesy of Stanford Univ. Press.)*

continue to adorn the roofs of many frontier mosques, such as the Great Mosque in Xining and the Great Mosque in Hohhot (FIG.10). In Xining the ornaments were a gift from the Kumbum Jampa Ling Monastery to the mosque, and were deemed appropriate for display on the main hall of worship for centuries, despite their non-Muslim origin and character. The lotus-based ornament can also be found rendered in dark gray stone at the peak of the highest roof on the Great Mosque in Hohhot (FIG.11). The Tibetans have, on occasion, borrowed Islamic modes of decoration as well. Most notable are the elaborate doorways at Kumbum Jampa Ling Monastery in Xining, framed by Muslim Chinese flower carvings (FIG.12).

FRONTIER CITIES TODAY

Although the tea-and-horse markets have given way to department stores, the Holiday Inn has replaced the caravanserai, and factories stand where nomads once grazed their livestock (FIG.13), the distinctive multicultural character of Chinese frontier cities persists today both in the official sponsorship of distinctive, if cliché, architectural styles, and in continuing vernacular expressions of non-Chinese culture. This persistence is remarkable in light of the systematic architectural and urban-planning practices which dominated and transformed Chinese urban landscapes during the Maoist period. In the post-Mao period, several fundamental changes in policy and practice have enabled a revival of traditional landscape styles on the frontier.

At the level of officially sponsored architecture (which in China includes construction ranging from factories and department stores to government buildings), a revival of interest in

FIGURE 12. *Wooden door frame at Kumbum Jampa Ling Monastery in Xining, with Muslim flower carvings. (Courtesy of Stanford Univ. Press.)*

FIGURE 13. (TOP) *Contemporary Xining. (Courtesy of Stanford Univ. Press.)*
FIGURE 14. (BOTTOM) *An abstracted "mosque" adorns the top of the administrative offices of the Xinyiang Uygur Autonomous Region. (Courtesy of Stanford Univ. Press.)*

regional architectural styles began in the 1980s. As the Chinese architect Rirui Guo explained, "the root of architectural style in non-Han Chinese regions was deeply buried, and . . . it was time to seek this root, to research, study, apply, and develop it."[43] Other Chinese scholars echoed these sentiments, and a series of meetings in the mid-1980s led to the design of numerous public structures with architectural reference to traditional regionally or culturally specific styles.[44] These architectural references are usually simplified decorative elements, such as yurt- or mosque dome-shaped ornaments placed on top of otherwise nondescript structures **(FIGS.14,15)**. These efforts have met with mixed success. While they are certainly a contrast to the previous monotony of Soviet-influenced block construction, they rarely satisfy the desire of local residents to see their culture represented in the landscape. One elderly Muslim resident of Urumqi remarked to me, while looking up at the dome-shaped ornaments atop the government center of the Xinjiang Uygur Autonomous Region (refer to **FIG.14)**, that he could not understand why they would bother to put a mosque on top of the building when those who occupy the building are not Muslim. In his view, this architectural gesture had no substance.

While the official, monumental approach to the reassertion of culturally distinct landscapes in Chinese cities has met with mixed success, however, there has been a revival of cultural expression in vernacular landscapes. This has been enabled not only by official tolerance of divergent architectural styles, but also by the official tolerance of religion in China in the post-Mao era. Religious organizations have been permitted, within limits and subject to ever-changing political climates, to rebuild and restore religious edifices, and it is in this realm that the most visible vernacular expressions of non-Han culture are evident in China today. In many cases there is little or no government funding or professional architectural expertise available for the restoration of mosques and temples, and communities have resorted to their own design and construction techniques. While Tibetan Buddhists have tended to rebuild their temples in traditional forms, some Chinese Muslim communities have chosen to introduce new, more culturally-distinct designs in mosque reconstruction. Whereas in the pre-1949 era many Chinese Muslim mosques in the northwestern frontier regions were architecturally similar to Chinese temples, in the post-Mao era, many communities are choosing to create mosques more reminiscent of Central Asian architectural styles. These are rarely executed with much sophistica-

FIGURE 15. (TOP) *An abstracted "yurt" adorns the top of a department store in Urumqi. (Courtesy of Stanford Univ. Press.)*
FIGURE 16. (BOTTOM) *A locally designed dome adorns the top of this recently constructed mosque in Xining. Local community members designed the dome, which is purely ornamental and does not open into the space of the mosque below. (Courtesy of Stanford Univ. Press.)*

tion, and their inexpensive materials tend to deteriorate rapidly. Nonetheless, they are exuberant expressions of difference in an otherwise homogenous landscape (**FIG.16**).

There are fewer ethnic enclaves in Chinese cities today than there were in 1949. Nearly fifty years of residential assignments by employers and the construction of modern apartment buildings have eroded the distinctive neighborhood differentiation which once characterized Chinese cities. Yet, on the frontier, there is also a high degree of persistence in neighborhood diversity. This derives, in part, from the fact that non-Han residents of cities such as Urumqi, Hohhot, Xining and Lanzhou were often left in their traditional neighborhoods, while most new housing was assigned to the thousands of people relocated from eastern China to the frontier to promote industrial growth and development.

CONCLUSION

Over the course of many centuries the highly developed traditions of Chinese urbanism were exported to the inland frontiers not only as monumental constructs of stone and wood which formed the basic structure of each settlement, but also as spatial expressions of power and cultural relationships within multicultural frontier cities. Centuries of Chinese urban design and architectural experience were replicated and faithfully executed by the military personnel who supervised the construction and administration of the frontier outposts. Yet, especially outside the central walled Chinese urban core, frontier cities also displayed expressions of cultural diversity that were visible in their structure and morphology. This diversity was expressed through the congregation of peoples into distinct districts; through functional differentiation by cultural affiliation; through the formation of culturally distinct neighborhood landscapes; and through the cross-cultural diffusion of life-styles, architecture, decorative motifs, and landscapes. The absence of non-Chinese features from much of the monumental landscapes of the urban centers is evidence of the power of the Chinese to maintain their culture even at far remove from their core area. At the same time the frontier cities, especially in non-Chinese neighborhoods, exemplify the ability of minority communities to maintain aspects of their own urban architectural landscape and life-styles, despite cultural, social and economic domination by the Chinese.

This article began with a portrayal of Urumqi as a sharply divided community, with the gate between the Chinese and Muslim settlements viewed as a gate between heaven and earth. Yet other observers have seen a different side to Urumqi's multicultural character. In 1774 the Qing dynasty poet Yuan Qun wrote of a visit to Urumqi: "the buildings are systematically arranged like the scales of a fish," and "the diverse peoples converge like the spokes of a wheel."[45] Like the spokes of a wheel, which maintain separate identities which are evident upon close inspection but blur from a distance, the neighborhoods and peoples of Urumqi have simultaneously affirmed the dominance of the Chinese urban model and expressed their own identities in the landscape.

REFERENCE NOTES

1. Y. Zan, *Wulumuqi Shihua (Essays on the History of Urumqi)* (Urumqi: Xinjiang Renmin Chubanshe, 1983), p.37.
2. The Chinese core area — the heartland of Chinese culture and civilization in the Late Imperial era — covered approximately one-third of the land area of contemporary China, roughly from 105 degrees east longitude eastward to the coasts, and southward to about 22 degrees latitude and northward to about 42 degrees latitude. For a discussion of the role of cities in China's frontier regions, see G.W. Skinner, ed., *The City in Late Imperial China* (Stanford: Stanford University Press, 1977), pp.319-22.
3. The author conducted one year of fieldwork in these cities in 1987-1988, supported by the Committee on Scholarly Communications with China and the Fulbright DDRA Program, and bases the discussion on both that fieldwork and consultation of historical sources.
4. For more thorough discussions of traditional Chinese urban form in English, see: S. Chang, "The Chinese Hsien Capital: A Study in Historical Urban Geography," Ph.D. Diss., Department of Geography, University of Washington, Seattle, 1961; "The Historical Trend of Chinese Urbanization," *Annals of the Association of American Geographers,* Vol.53, No.2 (1963), pp.109-43; "Some Observations on the Morphology of Chinese Walled Cities," *Annals of the Association of American Geographers,* Vol.60 No.1 (1970), pp.63-91; and "The Morphology of Walled Capitals," in Skinner, ed., *The City in Late Imperial China.* Also see P. Gaubatz, *Beyond the Great Wall: Urban Form and Transformation on the Chinese Frontiers* (Stanford: Stanford University Press, 1996); F. Mote, "The City in Traditional Chinese Civilization," in J.T.C. Liu and W. Tu, eds., *Traditional China* (Englewood Cliffs, NJ: Prentice Hall, 1970); C.W. Pannell, "Past and Present City Structure in China," *Town Planning Review,* Vol.48 No.2 (1977), pp.157-72; A. Schinz, *Cities in China* (Berlin: Gebruder Borntraeger, 1989); N.S. Steinhardt, *Chinese Imperial City Planning* (Honolulu: University of Hawaii Press, 1990); P. Wheatley, *Pivot of the Four Quarters* (Chicago: Aldine, 1971); and L. Wu, "A Brief History of Ancient Chinese City Planning," *Urbs et Regio* Vol.38 (1986).
5. Steinhardt, *Chinese Imperial City Planning,* pp.83,146,147,160-61,171.
6. Trades and crafts were strongly linked with place of origin. See W.T. Rowe, *Hankow: Commerce and Society in a Chinese City,* 1796-1889 (Stanford: Stanford University Press, 1984).
7. Y. Shiba, "Ningbo and its Hinterland," in Skinner, ed., *The City in Late Imperial China,* p.396; and F. Mote, "The Transformation of Nanking, *1350-1400*," in *Ibid.*, p.696.
8. Chang, "The Chinese Hsien Capital"; "The Historical Trend of Chinese Urbanization"; and "Some Observations on the Morphology of Chinese Walled Cities."
9. Chang, "The Chinese Hsien Capital"; "The Historical Trend of Chinese Urbanization"; and "Some Observations on the Morphology of

Chinese Walled Cities." Also see Gaubatz, *Beyond the Great Wall.*

10. For a discussion of the political derivation of the term "Han" as an ethnonym, see D. Gladney, *Muslim Chinese* (Cambridge, MA: Harvard Univ. Press, 1991). For the purposes of this article, I will use the terms "Chinese" and "non-Chinese." For an extended discussion of Chinese, or "Han," ethnicity, see L. Moser, *The Chinese Mosaic: The Peoples and Provinces of China* (Boulder, CO: Westview, 1985). For discussion of non-Chinese ethnicity in China, see J. Dreyer, *China's Forty Million: Minority Nationalities and National Integration in the People's Republic of China* (Cambridge: Harvard Univ. Press, 1976); and W. Eberhard, *China's Minority Nationalities: Yesterday and Today* (Belmont, CA:Wadsworth, 1982).

11. Muslim Chinese, referred to by the government of the PRC as Hui, are peoples of Chinese origin who practice Islam. They are considered a distinct ethnicity (minority nationality) in China today. See Gladney, *Muslim Chinese,* for the complex definitions of Muslim Chinese identity.

12. Skinner, ed., *The City in Late Imperial China*, p.18; H.J. Wiens, *China's March to the Tropics* (New Haven: Shoe String Press, 1954), pp.187-200,277-87.

13. Y. Yuan, ed., *Chengshi Jianshe Yu Guihua Jichu Lilun (The Theoretical Foundations of Urban Development and Planning)* (Tianjin: Tianjin Kexue Zhishu Press, 1992), p.14.

14. Skinner, ed., *The City in Late Imperial China,* p.18.

15. Wu, "A Brief History of Ancient Chinese City Planning," pp.113-21; Yuan, *Chengshi Jianshe Yu Guihua Jichu Lilun,* p.14.

16. Yuan, *Chengshi Jianshe Yu Guihua Jichu Lilun,* p.14.

17. For example, while about 84 percent of all the cities in a survey of 233 Qing-dynasty city plans were oriented southward, this figure rose to as much as 97 percent when limited to frontier cities. And while 61 percent of all cities in the same survey had square or rectangular central walled areas, 97 percent of frontier cities had square or rectangular central walled areas (Gaubatz, *Beyond the Great Wall*, pp.165-71,321-25).

18. D. Chow, "Geographic and Historic Foundations of Present Day Distribution of Peoples in the Nan Shan — Kokonor Area," Master's Thesis, Department of Geography, University of California, Berkeley, 1949, pp.110,120.

19. Wu, "A Brief History of Ancient Chinese City Planning."

20. Cities with distinct or walled Manchu settlements (often originally established as military garrisons) included, for example, Fuzhou (Fujian Province), with a neighborhood of 10,000 Manchu in the southwestern corner of the city; Guangzhou, with an unwalled Manchu garrison inhabited by 47,000 Manchu; and Xi'an, Chengdu, Hangzhou, Urumqi, Hohhot, Jiangling (Hubei Province), and others which all had walled Manchu garrisons (Schinz, *Cities in China,* pp.266,267,272,306,355,450; Gaubatz, *Beyond the Great Wall,* pp.174-5).

21. Gaubatz, *Beyond the Great Wall*, p.325.

22. X. Xian and L. Chen, *Lanzhou Dili (The Geography of Lanzhou)* (Lanzhou: Lanzhou Xuegan, 1982); and *Lanzhou Fenglai (Spirit of Lanzhou)* (Lanzhou: Gansu Renmin Chubanshe, 1987).

23. Xian and Chen, *Lanzhou Dili; Lanzhou Fenglai,* pp.3-4; and *Lanzhoufu Zhi (Gazetteer of Lanzhou, 1834)* (Reprint, Taibei: Chengwen Chubanshe, n.d.). Also see: W.W. Rockhill, *The Land of the Lamas: Notes of a Journey Through China* (London: Longmans Green, 1891); and L. Richard, *Comprehensive Geography of the Chinese Empire* (Shanghai: T'usewei Press, 1908), p.37.

24. *Qinghai Lishi Jiyao (Record of the Important Facts of Qinghai History)* (Xining: Qinghai Renmin Chubanshe, 1987), pp.29-159; *Qinghai Fangzhi Ciliao Leipian (Edited Collection of Materials from Qinghai's Local Gazetteers and Histories)* (Xining: Qinghai Renmin Chubanshe, 1987), p.1653; *Xiningfu Xinzhi (The New Gazetteer of Xining)* (Xining: Xining City Government, 1930s), p.355.

25. B. La and X. Kong, "Mingwen Xiaer De Xining Dongguan Qingzhen Dasi" ("Xining's Renowned Great Mosque"), *Qinghai Minzu Xueyuan Xuebao,* Vol.11 No.2 (1985), pp.57-63.

26. Xining had developed a sizable Islamic population under Mongol rule, when Central Asian Muslims began to settle there. This Islamic community was enlarged during Ming times when the Ming resettled a number of Muslims from Shanghai to Xining. *Qinghai Lishi Jiyao,* pp.116-22.

27. *Huhehaoteshi Dimingzhi (Hohhot Gazetteer of Place Names)* (Hohhot: Huhehaote Shi Renmin Zhengfu, 1985), p.9; Y. Rong, "Huhehaoteshi Yange Jiyaogao" ("Draft Summary of Hohhot's Development and Evolution") (Hohhot: unpublished manuscript, 1979), pp.22-24,27-28,30; X. Dai, ed., *Huhehaote Jianshi (A Short History of Hohhot)* (Beijing: Zhonghua Shuju, 1981), pp.21,24-26; *Huhehaote Shi (Hohhot City)* (Hohhot: Huhehaote Shi Renmin Zhengfu, 1985), p.9; P. Hyer, "An Historical Sketch of Koke-Khota City, Capital of Inner Mongolia," *Central Asiatic Journal*, Vol.26 No.1 (1982), pp.56-77; W.R. Jankowiak, *Sex, Death and Hierarchy in a Chinese City* (New York: Columbia University Press, 1993), p.11; *Guisui Quanzhi (Complete Gazetteer of Guisui)* (Reprint, Taibei: Huawen Shuju, n.d., 1910).

28. Rong, *Huhehaoteshi Yange Jiyaogao*; Dai, ed., *Huhehaote Jianshi;* Jankowiak, *Sex, Death and Hierarchy;* and Hyer, "An Historical Sketch."

29. W. Yu, *Xinjiang Jianzhi Yange Yu Diming Yanjiu (The Course of Change and Development, and Place Name Research, in Xinjiang)* (Urumqi: Xinjiang Renmin Chubanshe, 1986), pp.1-2; Zan, *Wulumuqi Shihua,* pp.8,9,23-24,26,37; *Xinjiang Dilizhi (Gazetteer of Xinjiang Geography)* (Reprint, Taibei: Chengwen Chubanshe, n.d., 1914), p.166.

30. Yu, *Xinjiang Jianzhi Yange Yu Diming Yanjiu,* p.1; Zan, *Wulumuqi Shihua*, pp.8,23-24.

31. Z. Ma, "Minzu Tuanjie De Ningxiawan" ("United Nationalities of Ningxiawan") *Wulumuqi Wenshi Ciliao,* Vol.8 (1984), p.150.

32. *Xining Zhi (Annals of Xining)*, published in the 1640s, reprinted in *Qinghai Fangzhi Ciliao Leipian (Edited Collection of Materials from Qinghai's Local Gazetteers and Histories)* (Xining: Qinghai Renmin Chubanshe, 1987), pp.1211-14.

33. Moser, *The Chinese Mosaic.*

34. Gladney, *Muslim Chinese,* pp.96-97.

35. *Xining Zhi,* pp.1211-14.

36. Dai, *Huhehaote*, pp.37-39.

37. *Ibid.*, pp.60-61

38. O. Lattimore, *Inner Asian Frontiers of China* (London: Oxford Univ. Press, 1940); and *Studies in Frontier History: Collected Papers 1928-1958* (Paris: Mouton, 1962).

39. B. Gao and J. Wang, eds., *Qingcheng Lansheng (Blue City: A View of Victory)* (Hohhot: 1987), p.25.

40. H. Lo, "Islam in Canton in the Sung Period," in F.S. Drake, ed., *Symposium on Historical, Archaeological and Linguistic Studies on Southern China, South-East Asia and the Hong Kong Region* (Hong Kong: Hong Kong Univ. Press, 1967), p.177.

41. Sara Rossbach, *Feng Shui: The Chinese Art of Placement* (New York: Dutton, 1983), p.94.

42. Michael Bonine has made a study of the precision of mosque orientation in other parts of the Islamic world. (M. Bonine, "Islamic and Middle Eastern Cities: Some Myths and Realities," paper presented at the Colloquium, Department of Geography, University of California, Berkeley, 1987.) Zhiping Liu's published plans of 27 mosques in China indicate 21 which are oriented due west rather than correctly toward Mecca. *(Zhongguo Yisilanjiao Jianzhu (Islamic Architecture of China)* (Urumqi: Xiajiang Remmin Chubanshe, 1985).
43. R. Guo, "Minzu Fenge Yu Jiejian Zhuantong" ("Creating National Style and Drawing Lessons from Tradition"), *Jianzhushi,* Vol.27 No.1 (1987), p.15; and Gaubatz, *Beyond the Great Wall,* p.300.
44. S. Wang, *Lixing Yu Langman De Jiaozhi: Zhongguo Jianzhu Meixue Lunwenji (The Interweaving of Reason and Romance: Collected Essays on Aesthetics in Chinese Architecture)* (Beijing: Zhongguo Jianzhu Gongye Chubanshe, 1987); C. Fu, "1977 Nian Yihou Zhongguo Dalu Jianzhu Fazhan Gaikuang" ("A General Review of Mainland Chinese Architecture since 1977"), and "Xiandai Jianzhuzhong De Diyu Juyi Quxiang" ("Regionalist Approaches in Chinese Modern Architecture"), *Jianzhushi Taibei,* Vol.14 No.12, pp.67-77; Q. Zhang, "Cong Jianzhu Chuangzuo De Fangxiang Tan Jianzhu Fenge De Gongxing Yu Gexing" ("Generality and Individuality of Architectural Style in Architecture Creation"), *Jianzhushi,* Vol.27 No.1 (1987); and Gaubatz, *Beyond the Great Wall,* pp.298-308.
45. Zan, *Wulumuqi Shihua,* p.9.

On America

Community in the New Urbanism: Design Vision and Symbolic Crusade

DENISE D. HALL

The design strategy known as "The New Urbanism" is familiar parlance to anyone who keeps abreast of urban design trends. Part of the New Urbanism's widespread appeal has been its invocation of "community," a term which provides little actual practical or ideological direction, yet which is vague enough to embody everybody's hopes. This essay analyzes the use of this term, along with the terms "tradition" and "urban," as expressions of New Urbanist theory. Through the use of such value-laden expressions and criticism of rational planning, proponents of the New Urbanism have implied that social and economic integration will result from their projects. However, the movement's attachment to these terms is largely aesthetic and self-serving; New Urbanist designs are neither communally conceived, traditionally constructed, nor urban. The essay demonstrates how New Urbanism's use of the term community to imply social and economic plurality is largely symbolic, disguising continued advocacy of conventional real estate development practices. That the movement claims to remedy complex social and economic issues without serious consideration of nonmainstream populations amounts to a willful disengagement from issues of race, ethnicity and poverty.

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"Bye-Bye, Suburban Dream: 15 Ways to Fix the Suburbs" read the cover story of the May 15, 1995, issue of *Newsweek* (FIG.1).[1] Recognition in a mass-circulation publication such as *Newsweek* confirmed that the group of architects and physical planners espousing the New Urbanist design vision had caught the attention of a mainstream audience. Indeed, in the last ten years almost every major popular publication has reported the story of the New

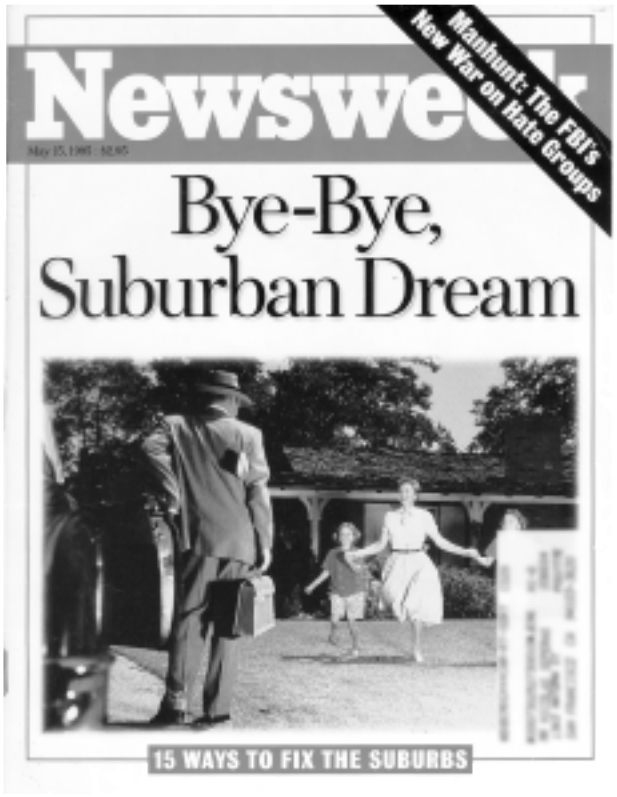

FIGURE 1. *This* Newsweek *cover article on the New Urbanism positions New Urbanism as working against the powerful force of planners and developers still building for the mythical 1950s nuclear family. New Urbanism designers, the article claims, promise to bring real community to the suburbs. (Copyright (1995) Newsweek, Inc. All rights reserved. Reprinted by permission.)*

Urbanism as a solution to the supposed social ills of contemporary suburbs. Concurrently, professional and academic journals have featured an astonishing number of articles, not only about the built projects, but also about the books, conferences, and workshops that have disseminated the New Urbanist design vision. That vision, proponents assert, is simple: houses built at a higher density and offered at a wider price range than in most contemporary residential developments, a commercial corridor within walking distance of residences, an interlocking street system, sidewalks, and perhaps a transit station will facilitate more vibrant neighborhoods. With a little ingenuity and common sense, the proponents claim, these features can be incorporated into new developments to correct social and economic segregation and foster the sense of community missing in contemporary suburbia.

The New Urbanism's widespread appeal emanates from its all-enabling invocation of "community," a term that provides little practical or ideological direction yet which is vague enough to embody everybody's hopes. Although a general definition of community is difficult to pin down, social theorists have agreed it encompasses three distinct characteristics: social interaction between people, one or more shared social or cultural ties, and an area or territory context.[2] From its initial designation as neo-traditionalism to its current incarnation as the New Urbanism, New Urbanism theorists have drawn upon the legacy of rational planning critiques to imply a link between the concept of community and their new suburban developments. They have not, however, given serious consideration to the social and cultural beliefs, values and norms suggested by the concept of community, particularly a nonmainstream traditional one. Nor have their projects actually been urban. Rather, the notion of community has been used in the New Urbanism to camouflage conventional real estate developments and development practices.

This essay does not review the individual physical developments of New Urbanism practitioners. Rather, it examines the New Urbanist vision through structured qualitative and quantitative analysis of language content. Content-analysis procedures create quantitative indicators to assess the degree of attention or concern devoted to particular issues.[3] Inferences can then be drawn about the senders of a message and the message itself. Certainly, all perspectives and methods are representative of one's own biases. Physical analyses are limited to physical phenomena and the reviewer's inferences, and ethnographic analyses are limited to observed behaviors and the observer's inferences. Similarly, any analysis involving media will be influenced not only by the reviewer but by the media's presentation of the message. While it is true that editorial decisions have shaped the delivery of the New Urbanist vision, it is also true that this edited form is what audiences understand and value about the movement.

No doubt, many proponents of the New Urbanism would argue that any analysis of the movement should consider its built projects. Indeed, figure-ground, architectural, historical, or ethnographic analyses are very informative and useful.[4] But the analysis presented in this essay focuses more narrowly on the content of the New Urbanist vision and the dissemination of that vision. Just as the idea of the New Urbanism has resulted in physical developments, so has it resulted in numerous articles, workshops, conferences, and modifications to local development policy. Although this form of analysis may not be entirely acceptable to proponents of the New Urbanism, its purpose is not to be antagonistic, but to assess critically the role of New Urbanist theory in the process of real estate development.

In this essay, the term "community" and its relation to the terms "tradition" and "urban" will be analyzed as key expressions of New Urbanist theory. First, the meaning of community will be analyzed from the perspective of architects, planners, and real estate developers, as expressed in their respective trade journals. Articles in these journals have often inferred a link between the idea of traditional developments and the social and cultural promises of community that is ultimately self-serving to the professions involved. Second, a word-in-context analysis of the term community will be used to reveal the exclusionary nature of New Urbanist ideology.

Detailed study of the use of the term in the four principal New Urbanist books reveals that the primary focus of the movement is on physical aspects of project development, targeted to mainstream home-buyers. The emphasis on physical design provides a role for architects, acceptable to their professional peers, in the process of suburban development. The movement's attachment to the notion of community is thus shown to be largely aesthetic and self–serving. In fact, New Urbanist designs are not communally conceived or traditionally constructed; nor are they truly urban. They stem from conventional development practices, not from social or cultural beliefs, values, or norms.

NEW URBANIST THEORY AS A CRITIQUE OF RATIONAL PLANNING

New Urbanist theory has depended on a criticism of planners and planning — particularly rational planning. Rational planning theory specifies that a planner should become aware of a problem, propose a goal, carefully weigh all alternative means of achieving it and their consequences, and then select among the means according to estimates of their merit. Once a strategy is implemented, unanticipated consequences may be dealt with through a feedback process to inform a new goal or modify the old one. Rationalist models tend to posit a high degree of control over the decision-making situation on the part of the decision-maker or planner. Direction comes from the top, and planners, by implication, wield a great deal of expertise and authority.[5]

Criticism of rational planning theory has tended to be directed at the limited human capacity for anticipating all alternative goals, means and consequences.[6] Critics have also pointed to the inadequacy of the model in addressing the needs of disenfranchised populations. The rise of interest in traditional building forms and settlements stemmed from a critique of development theory, a derivative of rational planning.[7] Roughly thirty years ago, with an eye toward the relationship between the social and physical position of minority populations, social activists and cultural geographers began to point out that oppressive social phenomena were being physically mapped on the landscape, and they identified the totalitarian ideals of top-down, centralized planning as one of the causes. Eminent domain, slum clearance, and single-land-use zoning — practical tools aimed, in part, at segregating populations by class, race and income — were criticized by sociologists and advocacy planners in the United States for fueling suburban flight at the expense of urban, often minority, neighborhoods.[8] Similarly, in developing countries, planners were criticized as working for the state to advance the interests of elites, while paying little attention to the needs and beliefs of native or indigenous populations and traditional settlements.[9] Critics pointed to the inability of rational processes of Western science to provide the kind of knowledge necessary to build and maintain culture and community in developing countries.[10] Observers of urban neighborhoods and traditional settlements stressed the intricate and often supportive social relationships beneath the drab and sometimes violent exterior of these areas in order to emphasize the legitimacy and complexity of the workings of community among disenfranchised populations.

In imitation of these critiques, New Urbanism theorists have blamed rational planning for creating a deficient contemporary landscape. They claim that post-war suburban planning left a legacy of monotonous, suburban "sprawl" which segregated suburban dwellers economically and socially. The movement's theorists further argue that contemporary planning methods such as building codes, single-land-use zoning, and hierarchical street design were the direct outcome of a rational ideology, the physical effects of which now appear as wide streets, cul-de-sacs, segregated land uses, and minimal public space. The social isolation many suburban dwellers experience, the theorists claim, has worked against the development of a sense of community. New Urbanism seeks a remedy by counteracting the physical imprint of rational planning.

In short, New Urbanism theorists have co-opted the expressions of previous socially oriented critiques of rational planning and turned them inside out. Rather than pointing out that the destruction of community has occurred through the destruction of traditional settlements or urban neighborhoods, they have argued for creating community through the design of new developments they describe as traditional or urban. Their use of certain words and phrases readily associated with pluralist perspectives has led many to infer that the movement is founded on concern for incorporating a variety of social and cultural needs, beliefs and values into these new developments. But the key to the New Urbanist strategy has been to rely on creating only the appearance of these values through the use of imagery described as traditional or urban. Along the way, the expression "community" has been used to obfuscate the centralized, top-down methods required to implement New Urbanist projects and the inability of New Urbanist theory to accommodate a pluralist perspective.

NEO-TRADITIONALISM: JOURNAL DISCOURSES AND THE THEORETICAL GENESIS OF NEW URBANISM

Articles on the neo-traditionalist design movement first appeared in professional journals serving architects, developers and planners. Early on, observers of the movement associated with these journals inferred a link between the idea of traditional developments and the social implications of community, and they sought to pinpoint the relevance of the New Urbanism for their professions. Analysis of how the notion of community was viewed through the lens of these specialized professional journals demonstrates how the movement served the interests of each group and later shaped the presentation of the movement by mainstream publications.[11]

Architectural Journals

Among architecture publications, the first use of the expression "neo-traditional" to describe a type of development occurred in a 1984 article in the British journal *Architectural Design* by architectural critic Charles Jencks. In its original context, the term was primarily concerned with building form and architectural style, with little regard for questions of social pluralism and multiculturalism. When Jencks originally described the concept of neo-traditionalism, he categorized it as a subset of the Post-Modern Architecture movement.[12] The varied, old-fashioned aesthetic of neo-traditional projects appeared at the time to present an alternative to the much-maligned totalitarian image of Modern Architecture.[13] But through the presentation of neo–traditionalism as the opposite of Modernism, neo-traditional design soon also came to connote community in architectural trade magazines.

The association between neo–traditionalism and community was also assisted by the presentation of an Urban Planning Citation to the Seaside development, designed by the architectural firm of Andres Duany and Elizabeth Plater-Zyberk (DPZ), from the now-defunct journal *Progressive Architecture (P/A)* (**FIG.2**).[14] The architects described their design intention as "refocusing on traditional American urban typologies, specifically that of a small Southern town before World War II." DPZ proposed a strategy involving a mixture of building uses, organized on a street grid around a central public space. Such a mix of residential, retail and office space, the architects claimed, would allow people to walk to work and facilitate a population mix resembling that of a traditional small American town. However, the article gave no explanation from the architects as to exactly how this population mixing would occur. Rather, the jury seemed to accept the social processes suggested by the architects as part of the expression of the traditional aesthetic.

The architectural press applauded DPZ's ability to control future building form, and by implication "community," through their building design codes in Seaside and subsequent projects. Architecture journals reported that Seaside's design codes and site plan assured that the neo-traditional image would be maintained by discouraging "mediocre suburban building" and "encouraging architecture." They supported this point of view by featuring houses built at Seaside and designed by famous architects.[15] Other projects designed by DPZ, such as the Kentlands in Maryland, Windsor in Florida, and the commercial development of Mashpee Commons in Massachusetts, also appeared in feature-length articles.[16] Several articles mentioned that design workshops allowed local residents to determine design guidelines and provide input about project appearance. Although the articles discussed building codes, the photographs and drawings emphasized building appearance (**FIG.3**). In May 1989 *P/A's* cover story, "Reordering the Suburbs," featured DPZ's Traditional Neighborhood District prototype development model with Peter Calthorpe's similar Transit Oriented Development.[17] Both models were described as providing "a benevolent form of social engineering," and so reiterated the idea that social interaction and behavior would result from the design codes.

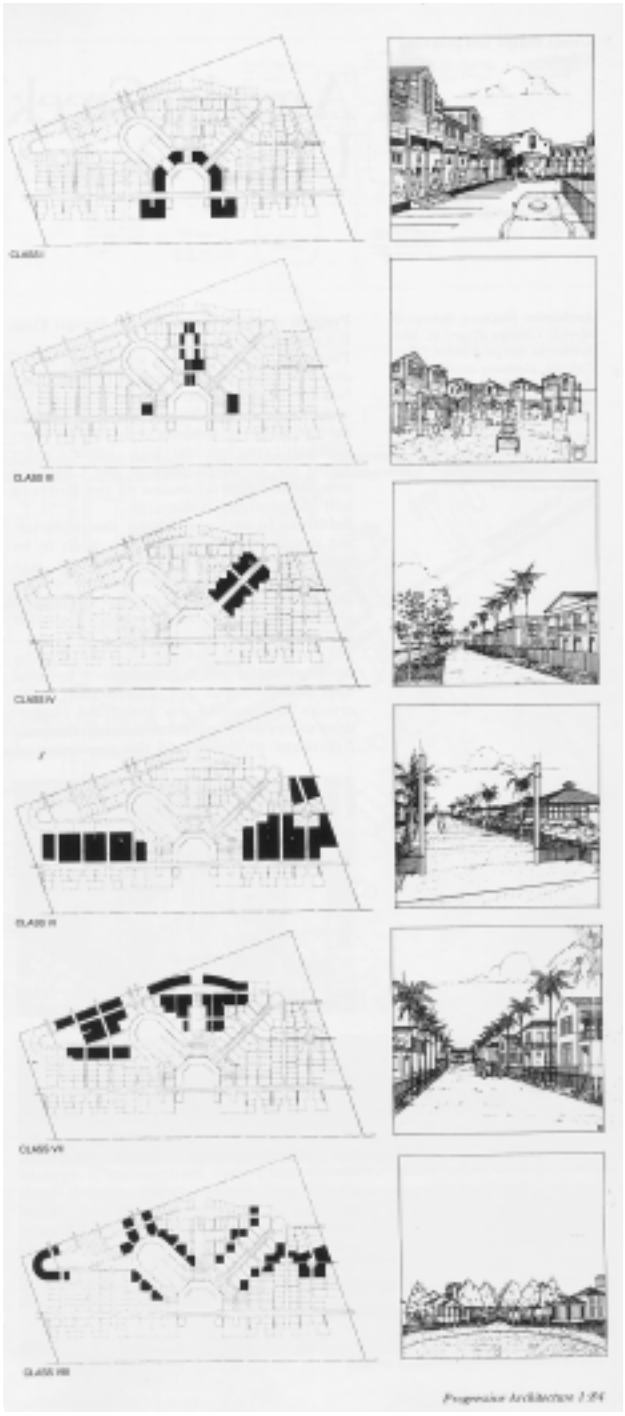

FIGURE 2. *The Town of Seaside debuted as an urban design award-winner in* Progressive Architecture. *The project was praised for its mixture of building types within a single development and the "traditionally" styled plan. (Source:* Progressive Architecture*, January 1984.)*

Since the role of an architecture journal is to present architectural design, particularly buildings designed by archi-

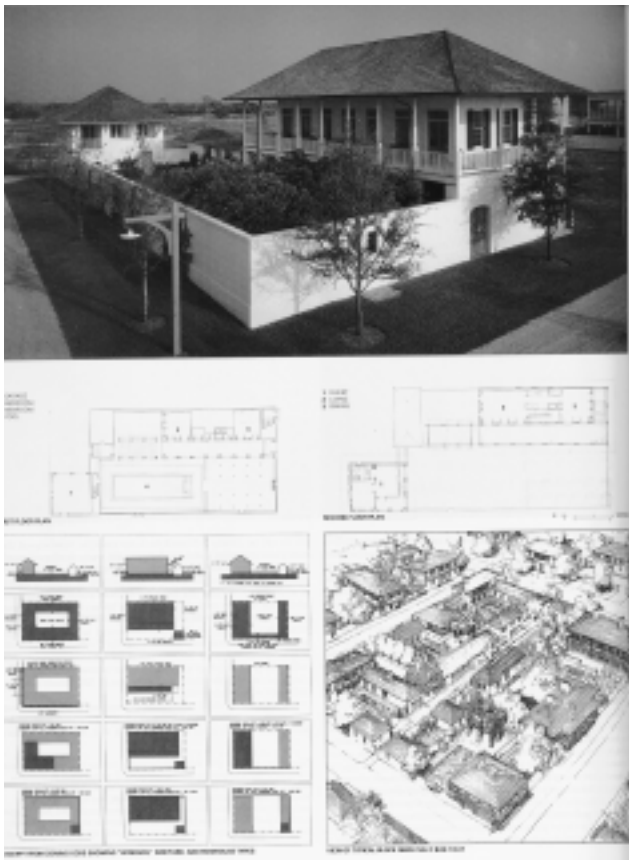

FIGURE 3. *These representations of the Town of Windsor, a vacation development in Florida, demonstrate the connection that architecture journals anticipated between building design guidelines and building appearance. Reviewers in the architecture journals applauded the architects' use of building design guidelines to assure their "traditional" design vision — and, by implication, their vision of "community." (Source:* Progressive Architecture*, June 1992.)*

tects, it follows that DPZ's use of design codes to shape new developments was the primary interest of the journals. But the early attention to the neo-traditional concept by architecture magazines also suggested that the profession saw potential in the movement in other regards. Control over the design of buildings and site plans for subdivisions excited a profession that had long dismissed suburban development as a realm of developer-built mediocrity and blandness. In addition, since neo-traditional expression began as a subset of the Post-Modern style in architecture, its vaguely historical image served as a counterpoint to the streamlined and functional images of Modernism. Architects' identification of Modernism as a totalitarian controller and oppressor of community allowed architecture journals to present the neo-traditional image and the notion of community as interrelated.

Real Estate Journals

The second group of journals examined in relation to the rise of neo-traditionalism were those serving the residential development industry. Here, neo-traditionalism was seen first as a promising real estate development concept in an increasingly competitive market. Two years after *Progressive Architecture* presented its Urban Citation to Seaside, *Builder* magazine, in its 1986 award issue, featured Seaside as "The New Town Built The Old Ways."[18] The journal praised the project for its high level of construction and design detail and pointed out the financial success of its developer, Robert Davis. In 1988 the journal also featured the DPZ-designed Kentlands development as an example of how to apply the Seaside "neo-traditional" concept to a truly suburban environment (FIG. 4). Then, in January 1990 *Builder* featured several projects that were then under construction, designed by the architecture firms of DPZ and Calthorpe Associates.[19] The article outlined five characteristics common to neo-traditional proposals: a mixed-use core within "walking distance" for most residents; employment centers providing residents the opportunity both to live and work within the development; street life created by pedestrian-friendly environments with narrow streets, wide sidewalks, and many street trees; a sense of community created by building public spaces and civic centers; and a sense of tradition created through building design guidelines requiring front porches, detached and setback garages, and "granny" flats. The reviewer described each physical characteristic as being necessary to bring about an imagined behavior or social action. Not surprisingly, however, the journal focused attention entirely on issues concerning project development, rather than social reforms.

In subsequent articles, both *Builder* and another widely circulated development journal, *Urban Land*, presented the potential pros and cons of the neo-traditional concept. *Urban Land* claimed that the neo-traditional ingredient of higher-density residential development could offer a palatable strategy on both coasts to offset the high costs of land, infrastructure, social services, and environmental mitigation.[20] It also pointed

FIGURE 4. *The reviewer described the Kentlands development, pictured here, as breaking "every code in the book" to successfully achieve community through mixed building types and traditionally styled architecture. When finally built, however, the Kentlands development did not include commercial buildings adjacent to residential development, and the housing types were not as varied as originally intended. (Reprinted from the September 1988 issue of* Builder *magazine. Copyright Hanley-Wood, Inc. Reprinted by permission.)*

out that in a slow real estate market, the neo-traditional concept might appeal to discriminating home-buyers looking for a life-style component to their investment. From this point of view, the neo-traditional concept could be aimed either at a clientele who preferred older neighborhoods and small towns or at home-buyers uncomfortable with the image of suburban life.[21] Concerns over the neo-traditional premise of mixing housing types, densities and prices, however, was reinforced when *Builder* presented results from a consumer survey suggesting that a mixed neighborhood was not desirable to about two-thirds of home-buyers.[22] *Urban Land* confirmed the industry's skepticism of the neo-traditionalist claim that the suburban dream of large lots and detached houses was fatally flawed by pointing out that houses on cul-de-sacs still sold well.[23]

Although Seaside sent the hopeful message to the home-building industry of an untapped customer market, reviewers were hesitant to endorse the neo-traditionalist movement wholeheartedly. The development trade journals instead focused on the physical differences between the neo-traditional concept and conventional subdivisions. Although developers were intrigued by the mixed-use component of neo-traditional design, market studies suggested that home-buyers primarily considered cost and size when making home-purchase decisions. Thus, the journals' uneasy presentation of neo-traditional developments reflected a "wait-and-see" attitude. The journals did, however, identify a potential target market: suburban home-buyers looking for a life-style component to their housing purchases. And although they did not explicitly question the validity of the relationship between social interaction and physical form, they did recognize the beneficial social implications of the term community as an important enticement to home-buyers.


Repent, Ye Sinners, Repent

FIGURE 5. *The headline of* Planning*'s initial report on neo-traditional development reflected the defensive position of planners accused of facilitating the post-war suburban landscape. Single-land-use zoning, cul-de-sacs, and curving, hierarchical street layouts, features the neo-traditionalists condemn as working against "community," are contrasted with features common to neo-traditional residential developments. (Reprinted with permission from* Planning *magazine. Copyright August 1989 by the American Planning Association.)*

Planning Journals

Among the third group of journals studied, those devoted to planning, neo-traditional design was not featured in an article for more than five years after the first article in an architecture journal. Perhaps the late entrance of a planning voice to the neo-traditional conversation can be attributed to the neo-traditionalists' harsh criticism of planners and post-war rational planning. From the point of view of the planning journals, the criticism that rational planning had destroyed community tapped into a long-standing professional insecurity. The subsequent defensive tone of articles reporting on neo-traditional developments can thus be seen as reflecting a guilty conscience on the part of planners who had for years been accused of facilitating mediocre suburban development.

The title of the August 1989 article in the American Institute of City Planners journal, *Planning*, "Repent, Ye Sinners, Repent," reflected these harsh criticisms (**FIG.5**).[24] Although the article adopted a tongue-in-cheek tone to defend against the allegations of neo-traditionalists, the story elicited a barrage of letters from readers, debating the validity of neo-traditionalist accusations.[25] Zoning and the rigid dictates of traffic engineers constituted the most frequently cited issues. Many readers agreed with the neo-traditionalist critique that single-land-use zoning had caused segregation by class and income. But one letter claimed developers and traffic engineers, not planners, were to blame for the appearance of suburbs. Overall, readers did not question the underlying premise that social factors could be addressed by physical solutions. Both the journal's editors and the authors of the letters it published presumed a connection could exist between community and neo-traditional design, and they concentrated on defending the institution of planning from further attack.

After the initial appearance of the neo-traditional concept on the pages of *Planning* in 1989, related articles soon followed on "converting the traffic engineers," street design, mixed-use zoning, and individual neo-traditional developments then under construction. Several articles presented the pros and cons of specific features of neo-traditional projects, such as design controls and street layout.[26] Others discussed planning issues raised in the process of neo-traditional projects.[27] Such "reports" described zoning variances, density bonuses, and other special procedures required to implement neo-traditional projects. They maintained a procedural, apolitical tone, never questioning the implied social premise of community behind the neo-traditional concept.

As practitioners of a profession born out of social reform, planners imagine that their activities further the public good. However, the neo-traditionalists' accusation that planning had destroyed community in the suburbs echoed earlier accusations of rational planning by socially minded critics. Planners were

thus drawn to the neo-traditionalist idea both out of a sense of guilt over past practice and a belief that planning could still play an important role in addressing social ills. Moreover, a strategy that claimed to create community simply through physical alterations to subdivision street layout and building density offered a new rationale for the use of existing professional tools such as zoning variances and density bonuses. In short, the belief that community could be achieved through neo-traditional developments offered planners a way to expunge their guilt over previous suburban development without requiring them fundamentally to change their role in the development process.

The brief review of architecture, real estate development, and planning journals above shows how each of these professional groups accepted the neo-traditionalist inference that the social or cultural benefits of community would emerge from new development patterns. However, it also shows that all three groups were primarily concerned not with developing new communitarian values, but with the physical appearance of the neo-traditionalist product. This overconcern for the physical aspects of community formation points to one of the main shortcomings of the neo-traditional concept: its lack of engagement with the idea of settlement as a social and cultural process.

CRITIQUING THE NEO-TRADITIONAL CONCEPT

Criticism of neo-traditionalism's shortcomings began to emerge in the early 1990s when some observers questioned the validity of applying the term traditional to new residential subdivisions. Some scholars pointed out that the tradition invoked in the neo-traditional projects reflected a presumption of physical determinism.[28] Others emphasized that the entire neo-traditional concept could not exist without the geographic "otherness" of the suburb.[29] Critics also noticed that neo-traditionalists appeared to be as convinced of a singular ideological solution to urban planning as had been the Modern architects they panned.[30] Several planning columnists, wary of architectural treatises, echoed such criticisms, warning against universal solutions, and calling instead for proposals tailored to their social and environmental contexts.[31]

The harshest critique of the use of the term traditional, ironically, came from within professional architectural circles. In July 1993 an entire issue of *Architecture New York (ANY)* was devoted to a roundtable discussion among well-known architects, critics, historians and theorists entitled "Seaside and the Real World: A Debate on American Urbanism."[32] As part of the discussion, questions were raised as to whether it was possible to extrapolate the development of Seaside, a resort, to more general suburban conditions. Architect Peter Eisenman argued that the neo-traditional movement was most interested in design ideology and style. He and fellow attendees critiqued neo-traditional planners by observing that architecture and design alone could not change social conditions, and that any claim of returning to "good old design" was paternalistic and simplistic.

By the 1990s it was also becoming apparent that neo–traditional developments were proving difficult to build. In particular, developers' difficulty providing a mix of residential and commercial land uses placed one of the crucial, defining features of the movement in jeopardy. Once-hopeful developers kept a tentative eye on the movement, as the developers of two projects, The Kentlands in Maryland and Laguna West in California, went bankrupt, confirming the concerns of many real estate analysts that the neo-traditional concept was not appealing to home-buyers.

Criticism of neo-traditional imagery as nostalgic, much of it from within architectural circles, also played a part in a retreat from the use of the term traditional. And while neo-traditionalist advocates claimed they only wanted to "give the middle class what it wants," scholars and critics accused the group of appealing to a concept of tradition held only by upper-middle-class whites.[33] Meanwhile, skeptical developers came to believe that the financial problems of the neo-traditional developments then underway proved that the middle-class was not as enamored of the concept as were the advocates themselves. Under attack, proponents of neo-traditionalism reaffirmed their commitment to bringing community to the suburbs. But they evaded further debate on the issue of tradition by emphasizing their anti-suburban mission and focusing instead on the terms "urban" and "urbanism." Although the movement's semantics changed, actual project content did not.

THE NEW URBANISM: EVOLUTION OF A CONCEPT AND DEVELOPMENT OF A PRACTICE

In 1994 publication of the book *The New Urbanism: Towards an Architecture of Community* helped rebut a growing number of accusations that the movement was based on a narrowly defined interpretation of tradition. In this defining work, editor Peter Katz described the movement's change in terminology as a way to create common ground between DPZ's traditional developments and similar projects by other architects such as Peter Calthorpe.[34] By invoking phrases such as "urban villages" and "urban communities," made famous by sociologist Herbert Gans and journalist Jane Jacobs, New Urbanism theorists were also able to associate the concept of urban with the word community in a context familiar to architects and planners.

However, acceptance of the expression "The New Urbanism" among professional journals and mainstream periodicals was uneven. Architecture journals accepted the change, and continued to present the New Urbanism as a design solution to the suburbs.[35] But planning journals did not respond to the name change until more than a year later.[36] And development and real estate journals continued to refer to the move-

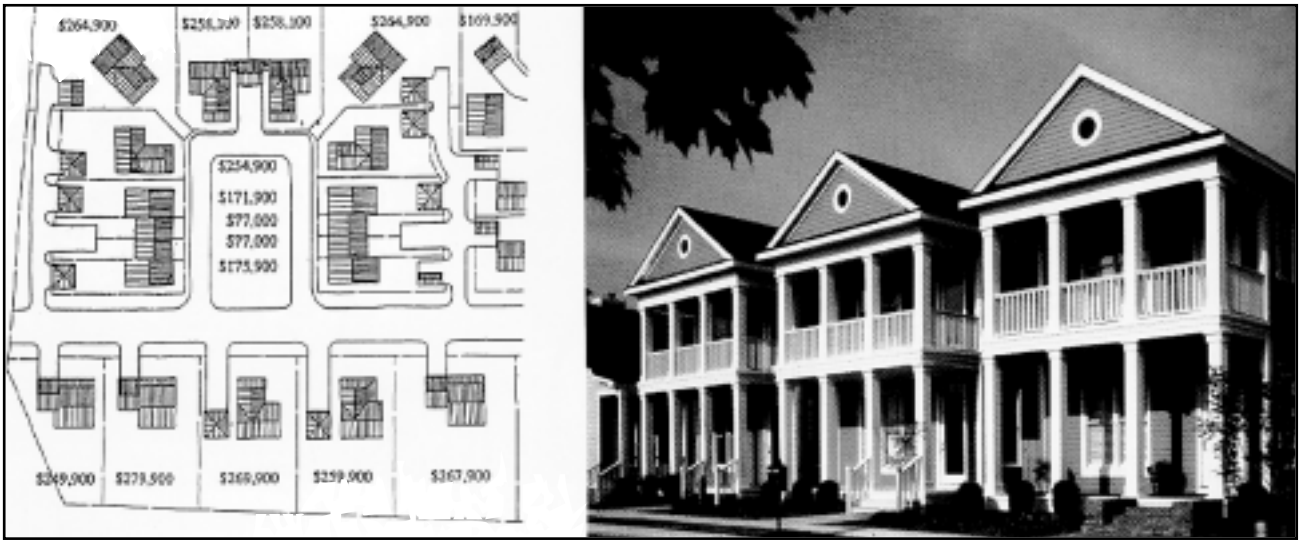

FIGURE 6. *Although the real estate journals initially doubted the feasibility of mixing a variety of house types within a single development, this drawing illustrates that eventually a certain amount of variety was achieved in some developments. The diversity implied by theorists of the New Urbanism, however, is questionable. All of the residents are homeowners, not renters. (Reprinted by permission from the Fall 1995 issue of* Land Development *magazine. Copyright, National Association of Home Builders.)*

ment as neo-traditional planning.[37] For their part, mainstream periodicals used both the neo-traditional and new urban nomenclature and emphasized the idea of restoring community to the suburbs. The uneven acceptance of the new terminology suggested the uneven appeal of urban connotations.

Some educated guesses can be made as to why certain journals resisted the change in semantics. First, developers and planners knew quite well that New Urbanist developments were actually suburbs. Although street layouts and widths were modified and houses were built closer together, the developments still required a developer and a builder and were marketed through existing real estate channels. Thus, articles in developer journals still focused on buyer appeal and the difficulties of guiding such projects through the development process. And planning journals continued to review neo-traditional projects as they passed through the planning approval process. But from a developer's or a planner's point of view, neo-traditional developments, by any name, remained new residential subdivisions.

A second reason for resisting the change in name may have been that developers, in particular, understood that the term urban did not have favorable connotations for many potential home-buyers. Unlike architects and planners, who sympathized with commentaries such as that of Jane Jacobs on the need for a mixture of building types and uses within a truly urban community, developers understood that many home-buyers sought out suburban settings precisely to escape perceptions of street crime and uncertain property values associated with urban neighborhoods. Coupled with this, they feared that the mixed-use requirement for neo-traditional developments was not necessarily a desirable feature for many home-buyers. Thus, commercial development generally remained unfeasible, and even though some developers offered a modest range of house prices in their neo-traditional developments, the vast majority of these houses were still single-family detached units for sale, not for rent (**FIG.6**). Despite their resistance to certain aspects of the New Urbanist vision, however, developer and real estate journals did continue to refine the life-style component of the neo-traditional concept, placing great emphasis on the idea of building a community — just not an urban one.

That mainstream periodicals and newspapers also continued to use the name neo-traditional only reinforced the reluctance to switch terminology. As recently as December 1997, the *New York Times Magazine* was still referring to New Urbanist planning as a "new traditionalism."[38] Concurrently, however, articles appeared in *Time*, *Newsweek*, *Wilson Quarterly,* and *The Atlantic Monthly,* among other sources, that referred to the movement as the New Urbanism.[39] It seems that although mainstream publications have chosen to refer to the movement as the New Urbanism, they have described its buildings and projects as neo-traditional. Despite this confusion in terminology, almost all mainstream articles have presented New Urbanism as working against powerful forces of planning-and-zoning law to infuse suburban developments with community (**FIG.7**).[40] More recently, however, as developments designed by New Urbanism practitioners have reached fruition, a few commentaries have managed to focus on the new residents to determine if this community actually exists.[41] And a few articles have pointed to the emergence of political tensions, raising the question of whether New Urbanism practitioners have been capable of

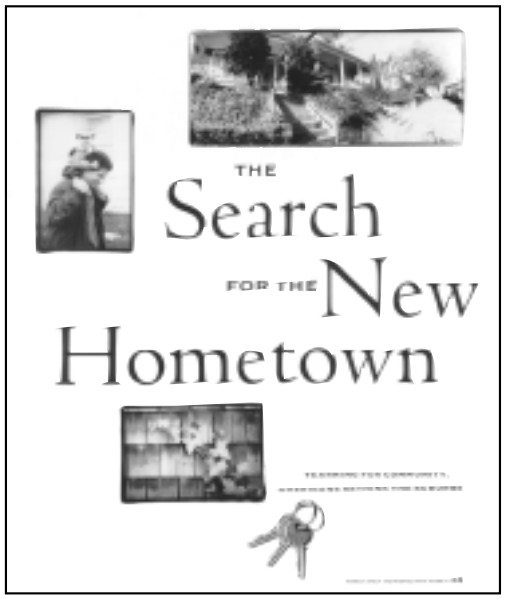

FIGURE 7. *This title graphic for an article in* Metropolitan Home *on neo-traditional development captures the sentimental connection between the traditional American town and the concept of community. Like most articles in the popular press, this piece frames neo-traditional development as the answer to the lack of community commonly associated with the suburbs. (Photographs by Joyce Ravid, as seen in* Metropolitan Home*, March 1992. Reprinted by permission.)*

delivering the sense of community they promised.

To spread their movement, proponents of the New Urbanism have engaged in many activities beyond merely publishing books and articles. In 1994 New Urbanist architects and theorists formed the nonprofit Congress for the New Urbanism (CNU).[42] CNU outreach now consists of facilitating large annual congresses, fielding press inquiries, and disseminating information to financial decision-makers, developers, builders, governments, and professional associations.[43] Toward this latter goal, CNU holds workshops and information sessions to inform developers and planners of New Urbanist design goals.[44] Attendees at these events are encouraged to promote new developments as communities rather than mere houses. Workshop participants have included developers, planners, architects, and local-government employees, many of whom control the reins of future development or are potential clients.

The New Urbanist promise of community is now embedded at all levels of the development process. Architecture journals have used the promise of community through design guidelines to justify the services of architecture firms to planners and developers. The Congress for a New Urbanism has augmented this effort by disseminating the group's strategy through marketing and development workshops. Planning journals have used the social implications of facilitating community through New Urbanist planning to expunge planners' previous unease over aiding suburban development. All the while, such a stance has allowed planners to maintain their existing role in the development process. And developers have used the appeal of community to target the neo-traditional concept to suburban homebuyers looking for life-style amenities. Finally, as recent articles have pointed out, the concept of community has succeeded in attracting a self-selected group of residents to New Urbanist developments. But nowhere have the real issues of social or economic segregation that New Urbanism theorists claim to be solving really been addressed.

THE THREAD OF COMMUNITY

As New Urbanism theorists have attempted to shift their focus away from the concept of neo-traditionalism and toward an emphasis on urbanism, their invocation of the term community has increased. The acceptance of the term has much to do with the nature of the expression itself. Social theorist Raymond Williams once pointed out that suspicion should attend any use of a term, such as community, whose meaning is rarely negative. Certainly, no one would ever want to be known as speaking or acting against the community.[45] Yet, because the term carries so many meanings, its intended usage often passes unquestioned.

The concept of community has been one of the primary concerns of social theorists since the industrial revolution began to change fundamental social relationships. Part of the problem stems from nostalgic attachment to an idealized notion of community embodied in a village or small town. Here, human associations are often characterized as *gemeinschaft* — that is, intimate, familiar, sympathetic, mutually interdependent, and reflective of shared social consciousness. Such a condition is often contrasted to relationships that are *gesellschaft* — that is, casual, transitory, without emotional investment, and based on self-interest. According to the nostalgic notion of community, the requirements of communal existence can be met only within the confines of a limited, shared physical territory.[46]

An alternative, less restrictive conception of community does exist, which can accommodate the persistence of community in highly mobile, urbanized societies. It argues that community can be achieved independent of physical arrangements when social networks exist that are sufficient to sustain a quality of interaction and association.[47] In a 1955 content analysis of 94 definitions of community in sociological literature, Hillary discovered basic consensus on only three definitive elements: social interaction between people, one or more shared ties, and an area context. Of these three elements, area or territory was the least necessary to achieve a high level of consistency among definitions of community.[48] Although many other definitions of community have been advanced in the decades since this analysis, the dominant discriminating element and point of debate remains the role of territorial and physical arrangements.[49]

By examining the four principal books written by New Urbanism theorists, the term community can be isolated in context to draw attention to the variation or consistency in its meaning and identify how it has been used to structure the

vision of the New Urbanism. The books examined were those written and edited by Douglas Kelbaugh, Alex Krieger, Peter Calthorpe, and Peter Katz.[50] Three of the four are edited collections of essays written by proponents of the movement. Those by Kelbaugh and Krieger were published during the early, neo-traditional, period; those by Calthorpe and Katz were published after the Congress for a New Urbanism was formed. All four books were intended for architects and architecture buffs — readers generally more interested in the visual aspects of architecture as art than the more technical or financial aspects of building and construction. The publications should be considered examples of architectural culture, not academic texts. They should also be understood as manifestos, or collections of ideals and beliefs, rather than critical analyses or histories of suburban development.

In conducting the review of the use of the term, each appearance of the word community in the four books was categorized according to the three definitions identified by Hillary: physical territory, social interaction, and common bonds.[51] Such categorization revealed that the New Urbanist vision is highly exclusionary, focused largely on the physical aspects of settlement.[52] One might infer from this that New Urbanist theory uses the concept of community to distract attention from what are, in effect, conventional development practices. That the frequency of the term increases in each volume indicates that New Urbanism theorists have discovered that this expression resonates with a variety of interest groups, including architects, planners, developers, and potential home-buyers (**FIG.8**).

Community as Physical Territory

The contextual definition of community which appears most frequently in the four books is that of a physical locality, specific territory, built development, or building type.

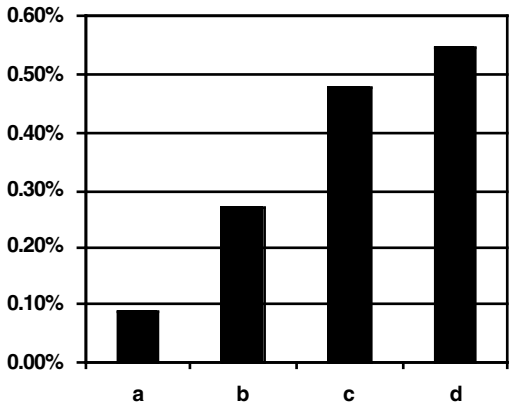

FIGURE 8. *Frequency of the use of the word "community" as a percentage of total words in each book.*

a) The Pedestrian Pocketbook *(1989)*

b) Towns and Town-Making Principles *(1991)*

c) The Next American Metropolis *(1993)*

d) The New Urbanism *(1994)*

"Members of its planning team are committed to building a community that is ecologically and economically viable within a framework of strict controls" is one example of how the term may be used in this sense.[53] As an adjective, the term may also be used in the books to describe buildings or shared facilities: as in "community building," "community center," or "community clubhouse." The widespread appearance of the term in this contextual definition stresses the purely physical and architectural concerns of New Urbanist theory.

In terms of implied value, while community as a territory does in a few instances carry a neutral or slightly negative connotation — such as "bedroom community" — it is almost always used positively. The terms suburb, suburbia and subdivision, on the other hand, almost always appear in the pejorative. In fact, the two terms are often used in direct contrast to one another. In general, use of the term community, rather than suburb or subdivision, serves to differentiate New Urbanist developments from conventional suburbia, and to reiterate the CNU's efforts to sell communities rather than merely houses.

Community as Social Interaction

The second definition of community is that of social interaction, best described as fellowship or a sense of belonging. Although this use tends to be more variable than other definitions, some very informative contextual patterns emerged from the analysis of the term's use in this sense in the four books. Generally, when New Urbanism theorists use community to describe social interaction, the word acts as a dependent variable to physical surroundings. Either community is caused by New Urbanist design requirements, or it is destroyed by conventional development. Such usage highlights the logical fallacy of physical determinism in New Urbanist theory.

The following quotations illustrate the dependence of community, construed in this sense, on physical requirements. The first shows how New Urbanism theorists often claim that physical guidelines alone — in this case narrower streets — will create social interaction or a sense of belonging:

> *Today, such streets would be practical, not merely nostalgic: practical for single parents in need of some mobility for their kids; for the elderly without a car; for the single person looking for accessibility; and for the working family looking for a stronger community.*[54]

In addition to highlighting the stark physical determinism of the New Urbanism, such uses (which imply that belonging will materialize from built features such as narrower streets) assures New Urbanist designers a role in future development. The second example shows how the theorists often claim that contemporary physical development and building has threatened social values:

> *The result of this growth and development has been a wholesale transformation of American metropolitan life, in which traditional concepts of community, civic place*

and neighborhood have been either overrun or severely threatened.[55]

Such a singular emphasis on physical growth and development as the agent of change in metropolitan life leaves little room for the effects of social, economic or technological change. In fact, the quotation suggests that physical growth and development alone changed social values. Again, by pointing to the physical imprint of development as the sole culprit behind the demise of community, proponents of the New Urbanism have positioned themselves as the providers of expertise for future development. This usage further demonstrates how New Urbanist theory allows its supporters — architects and physical planners — to justify the need for their services in the design of future subdivisions.

Community as Common Bonds

The final definition of community is indicated by phrases such as "the architecture community," "the larger community," or "the preservationist community." It denotes a socially defined or interconnected group associated through interest, profession or culture. Considering that the New Urbanism's primary concern is physical design, it should come as no surprise that this definition occurs least frequently in the four books. Examination of the type of imagined shared ties, however, does provide insight into the nature of the groups about which the New Urbanism is concerned. Shared professions ("the planning community"), shared culture ("the American community"), and shared demographics ("the elderly community") are several representative examples of how the term is used in this category. There is almost no mention of ethnic or minority groups or low-income populations. Such a use occurs only three times across the four publications. Despite such lack of attention, however, New Urbanism theorists regularly speak as if their developments will integrate various types of residents, as illustrated by the following quotations:

All of these proven options from the past [referring to physical elements of New Urbanist projects] seem again suited to the needs of a diverse society.[56]

We must find regional and neighborhood forms which can honor the needs of our diverse population, while safeguarding the environment.[57]

The full range of housing types and workplaces helps to integrate all age groups and economic classes.[58]

Theorists of the New Urbanism clearly intend to imply that their developments will accommodate a wide range of social and economic populations. But the lack of specific attention to such groups undermines the credibility of their claims that New Urbanist communities will accommodate a diverse population. Particular words or idioms that might indicate specific attention to social or cultural needs, such as race or ethnicity, occur only rarely. In addition, the idiom "affordable housing" is frequently correlated with the terms elderly and senior, as if to assure readers that New Urbanist communities will contain only a nonthreatening form of low-income population. The following quotation highlights the identity of people New Urbanism theorists imagine will live in their developments:

The neighborhood's fine-grained mix of activities includes a range of housing types for a variety of incomes, from the wealthy business owner to the school teacher and the gardener. Suburban areas, which are most commonly segregated by income, do not provide for the full range of society.[59]

New Urbanist theory may thus be seen as accommodating a "full range of society" that is firmly rooted in the educated, employed, middle to upper-middle class. Such a definition of community indicates that the vision of the New Urbanism is far from all-inclusive. In fact, New Urbanism theorists tend to direct their attention to their own peer group and to others with like-minded, mainstream values. Their vision makes little effort to accommodate non-mainstream cultural perspectives, values or beliefs, and would appear to undermine their claims of social and economic integration.

The above word–in–context analysis of the use of the term community in the four major books by New Urbanism theorists reveals how the movement's use of the term is overwhelmingly concerned with community as physical area or territory. Considering that the movement grew out of an architectural background, this is hardly surprising. But the stark physical determinism of New Urbanist theory can also be read as serving to justify a professional role for New Urbanist designers in future development. And analysis of the use of the term community as a set of shared bonds or common ties in the books demonstrates how the New Urbanist vision simply leaves out groups with social and cultural beliefs, values and norms that differ from those of the New Urbanism theorists and their anticipated audiences.

Given that the New Urbanism is primarily concerned with the physical appearance of community, it thus becomes clear how icons such as gridded street layouts, small lot sizes, eclectic building styles, and a commercial center are intended to communicate a particular image of the city and city life to a target audience. This audience has been identified by developers as home-buyers looking for the life-style associated with community. The presentation of suburbia as a mediocre, monotonous, cultural wasteland further reinforces the physical alternative New Urbanism refers to as community.[60] Based on the use of the term community in the four books, it is possible to see how the New Urbanist vision is primarily a reflection of what New Urbanism theorists think suburban

development should look like. Their heavily illustrated books serve as marketing brochures to disseminate this vision and promote their architectural design services to implement it.

COMMUNITY IN THE NEW URBANISM

The New Urbanism's imagery of traditional forms and urban streetscapes, combined with a lack of attention to social and cultural processes, has resulted in a highly codified expression of community.[61] As this essay has tried to demonstrate, the New Urbanism's concern with community, tradition, and urban values is aesthetic and self-serving. New Urbanist designs are neither communally conceived, nor traditionally constructed through shared social or cultural processes; neither are they cities. New Urbanism theory, as presented by the proponents of the movement and recycled through the media, simply assures a role for architects and physical planners in future suburban development. This role is to create palliative and politically feasible designs acceptable to others with values like theirs.

But is the New Urbanism really only a marketing ploy for suburban development? Certainly, New Urbanism theorists believe they are offering a new and valuable approach to development. Would it not be more appropriate to accuse them of being well-intentioned idealists? To its credit, the New Urbanism has succeeded in bringing the issue of suburban design to the table for discussion among architects, a group which long ago dismissed suburban development as a sea of mediocrity. In this regard, developments featuring small building clusters, organized around common spaces and an interlocking street system, undoubtedly represent the type of image many architects find appealing: distinctive forms and site designs that suggest the aesthetic of settlement formation over time. But as an expression to describe this aesthetic, the term community has been used indiscriminately by New Urbanists. Just because proponents of the New Urbanism can draw an image that might suggest the existence of community does not mean that the social and cultural processes implied by the term will follow. As more New Urbanist projects are built, the disjunction between what the New Urbanist vision expresses (a socially and economically diverse community) and what the projects actually achieve (artfully designed developments) will become more apparent.

Is it important that New Urbanism theorists have succeeded in using the word community as a marketing sound bite for their developments? Why should it matter how they position their development concept in the real estate market? One reason is that, through its linkage between community and simplistic images of traditional or urban forms, the New Urbanism has co-opted the important critique of the top-down, centralized control involved in rationalist planning. In its place have been installed the values of the New Urbanism theorists, their peer group, and others with personal stakes in real estate development. Thus, while New Urbanism design workshops may allow participants to determine certain physical planning guidelines, fundamental decisions about development have already been made. Community workshops are offered as a cost-effective way to mitigate potential opposition to developers and real estate investors. Poor and minority populations, many with their own traditions and who live in real urban areas, have no identity in New Urbanist theory. These are noncommunities in the New Urbanist vision.

As New Urbanism practitioners and the CNU have begun to shape housing policy-making at the local and federal level and export their design services abroad, it should also be of concern that the New Urbanist vision is starting to become a physical reality. Outside the U.S., in developing countries, the New Urbanism developments are simplistic traditional forms, which imply community while disguising the global extension of American-style suburban development. In the U.S., physical codification of community in the New Urbanist mold presents a politically effective symbol of tradition and urban values to opponents of large-scale suburban developments. The U.S. Federal Department of Housing and Urban Development recently adopted New Urbanist design guidelines to build new housing on the sites of demolished public housing.[62] The single-family homes, row houses, and duplexes built in place of high-rises will accommodate fewer housing units and serve a higher-income population.[63] In this case, the New Urbanist aesthetic has been used to whitewash the displacement of the poorest tenants in the name of bringing community back to urban neighborhoods.

The New Urbanist view that social and economic diversity can be brought about by physical design represents a symbolic crusade, behind which the continued development of suburbs and disinvestment in cities are disguised and the interests of disenfranchised populations continue to be ignored. If new housing projects look like urban communities, American society will find it easy to continue to ignore pressing issues of urban poverty and homelessness. If new developments look like "traditional American towns," American society may avoid confronting important challenges of growing social polarization and the silencing of minority populations.[64] The New Urbanism represents an insidious form of that same design totalitarianism that critics of rational planning pointed to more than thirty years ago. The fact that the movement claims to address the major issues facing cities today without rigorous consideration of major demographic and social change represents a willful disengagement with issues of race, ethnicity and poverty.

Such an analysis raises difficult questions. How should conventional suburban tract development be built in the global era? What does the New Urbanist vision reflect about society's priorities when addressing complicated social questions? Does it principally facilitate an avoidance of difficult socioeconomic dilemmas by cloaking conventional development behind the veneer of community? As a movement, New Urbanism is still young. One can only hope that as it matures, it will be able to answer these questions.

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Much of the research for this article was originally completed as part of a Master of Architecture thesis under the supervision of committee members Nezar AlSayyad, Galen Cranz, and Michael Southworth.

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40. Adler, "Bye-bye Suburban Dream"; "Land Use: Sprawl Versus Communities," *In Business* (May/June 1995); P. Morris, "The Revival of Town Planning," *Southern Living* (May 1994); R. Gerloff, "The New Urbanism Takes Hold: Anti-Suburb Architects are Finally Getting Some Respect," *Utne Reader* (May/June 1994); and H. Lindgren, "Whither the New Urbanism," *Metropolis* (July/August 1994).
41. B. Dunlop, "The New Urbanists: The 2nd Generation," *Architectural Record* (January 1997), p.132; and W. Rybczynski, "Tomorrowland," *The New Yorker* (July 22, 1996), p.36.
42. Although CNU began with a core group of six architects, it now boasts a dues-paying membership of well over 1,000. CNU's board of directors consists of the original six architect-founders.
43. Congress for the New Urbanism, "A Proposal for Foundation Support," (November 8, 1995).
44. For example, on February 23, 1996, "The New Urbanism: Making it Work in the Marketplace," a one-day workshop was held through the University of California, Davis, University Extension, as part of its Land Use and Natural Resources series. The cost was $235 per participant.
45. R. Williams, *Culture and Society* (New York: Columbia University Press, 1958), p.313.
46. F. Tonnies, *Community and Association,* C. Lommis, trans. and ed., (London: Routledge and Kegan Paul, 1985; orig, 1887). In the introduction, Tonnies summarizes the concept of *gemeinschaft* vs. *gesellschaft* and the transition from "folk" to "urban" society. For a succinct presentation of the decline-of-community hypothesis, see: L. Wirth, "Urbanism as a Way of Life," *American Journal of Sociology,* Vol.44 (1938), pp.1-24. See also: C.C. Zimmerman, *The Changing Community* (New York: Harper and Brothers, 1938).
47. For critiques of the decline-of-community hypothesis, see: R. Warren, *The Community in America* (Chicago: Rand McNally, 1978); and T. Bender, *Community and Social Change in America* (New Brunswick: Rutgers University Press, 1978).
48. Hillary, Jr., "Definitions of Community."
49. See: R.B. Fowler, "Community: Reflections on Definition," in A. Etzioni, ed., *New Communitarian Thinking: Persons, Virtues, Institutions, and Communities* (Charlottesville: University of Virginia Press, 1995), pp.88-95; and G. Suttles, *The Social Construction of Communities* (Chicago: University of Chicago Press, 1972).
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51. All of the coding was done by the author, and although coder reliability was not formally calculated, it is estimated at approximately 90 percent. The definitions of community are reviewed in order of their frequency.
52. Research for the word-in-context analysis is taken from D. Hall, "The New Urbanism: History, Community and the Media," M. Arch. thesis, Department of Architecture, University of California at Berkeley, 1997.
53. Calthorpe, *Next American Metropolis,* p.127.
54. *Ibid.*, p.156.
55. A. Krieger, "Forward," in Krieger, ed., *Towns and Town-Making Principles,* p.7.
56. P. Katz, "Forward," in Katz, ed., *The New Urbanism,* p.x.
57. Calthorpe, *Next American Metropolis,* p.12.
58. A. Duany and E. Plater-Zyberk, "Traditional Neighborhood Zoning Ordinance," in Krieger, ed., *Towns and Town-Making Principles,* p.102.
59. Katz, "Forward," in Katz, ed., *The New Urbanism,* p.xix.
60. For an analogous analysis of Modern Architecture, see: J.P. Bonta, *Architecture and its Interpretation: A Study of Expressive Systems in Architecture* (New York: Rizzoli, 1979).
61. As demonstrated by Bozdogan in "Vernacular Architecture and Identity Politics," pp.7-18. Bozdogan describes how an architectural form — in this case the traditional Turkish House — can be enframed within very different cultural and political agendas, a condition undermining the New Urbanist supposition that democratic community will be born from the use of supposedly democratic forms.
62. "Cisneros Calls for 'New Urbanism' Stressing Small Scale Communities," *ADR Current Developments* (October 23, 1995), pp.3-61; and H.G. Cisneros, open letter to "public housing colleagues," U.S. Department of Housing and Urban Development (July 26, 1996).
63. Displaced tenants will receive housing vouchers to be renewed annually pending HUD's budget adjustments.
64. This view is supported by Veregge in "Traditional Environments and the New Urbanism," pp.59-60. Here, she asserts that, "In its exclusion of temporal change and cultural diversity, 'the traditional American town' model implicitly speaks of New Urbansim's basis as a response to widely held fears current among the property-owning class about neighborhood deterioration and the growing presence of populations of non-European origin."

Reconstituting Traditional Urban Values: The Role of the Boundary in the Contemporary City

MAHBUB RASHID

Critics have pointed out that in many contemporary cities wasteful modes of consumption, encouraged and facilitated by fantastic developments in technology, have significantly eroded the values of the traditional urban environment. Contemporary cities very often lack the sense of placeness, vibrant public life, and harmonious relationship between man and nature characteristic of the traditional urban environment. This article studies how the configuration of the physical boundary may be used as an important tool to reconstitute these values in contemporary cities. It suggests that the boundary is more than an abstract pattern of lines. Rather, it is integral to life within the city, and should possess greater significance in the design of the built environment.

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The word "boundary," as found in standard English-language dictionaries, means "that which bounds, divides, or separates,"[1] or "something that indicates a border or limit."[2] In its generally accepted meaning, the concept of boundary is used to describe the physical landscape at various levels of granularity. In some cases, it may be used to describe the shape and size of individual plots; in others, it may be used to describe the configuration of much bigger units, such as urban blocks, census tracts, districts, etc.; and in others, it may be used to describe the configuration of cities, regions and countries. Such uses imply that the concept of boundary is an important elementary device in the conceptualization of the physical landscape, that it helps people map the landscape they inhabit (FIG.1).

In none of the standard uses of the concept of boundary, however, is there a recognition that the manmade physical landscape is more than an agglomeration of land plots. Nor does a clear sense emerge that the concept of boundary-making involves more than the

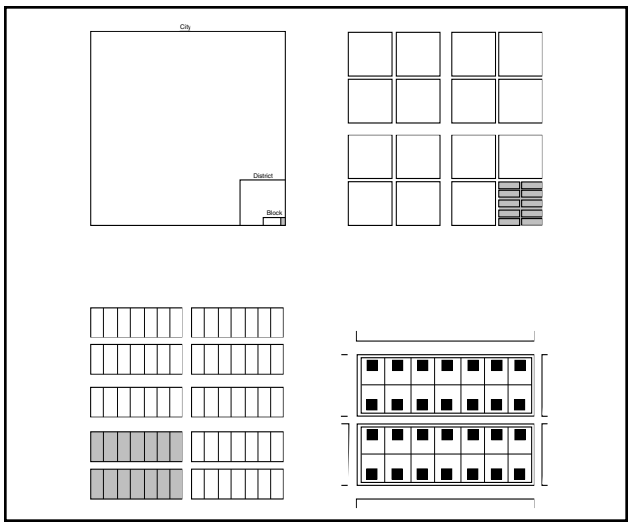

FIGURE 1. *This schematic drawing shows the hierarchy of boundaries at different levels of granularity within a city. (Drawing by author.)*

establishment of sets of abstract lines. In common usage, the word thus fails to convey a sense of the importance of human actions that define the physical world through the disposition and configuration of boundaries.

In contrast to the standard uses of the word, Ernst Cassirer wrote in *The Philosophy of Symbolic Forms,* "there can be no boundary independent of what it bounds — it exists only in the act of division itself, not as something which could be thought before this division and detached from it."[3] For Cassirer, then, the boundary is not a passive divider, but something intrinsically related to the object it defines. Such a view suggests that the problem of proper conceptualization of the boundary is to be determined through the action which puts the whole in relation to its parts. Put another way, Cassirer's concept implies that in physical-spatial domains such as the built environment, the problem of the boundary must be resolved with respect to various actions and processes incessantly occurring in these domains. Hence, any understanding of the built environment requires exploration of how societies create the need for specific spatial concepts, and how these concepts are materialized through the creation of various types of boundary.

Among architectural and urban theorists, Amos Rapoport has proposed a definition of the boundary which is comparable to that of Cassirer. According to Rapoport, urban form may be considered, at least partly, in terms of the articulation of boundaries — i.e., which elements or domains are linked, and which separated; and what barriers or rules define their levels of interaction, inclusion or exclusion, etc. Rapoport also suggests that the choice of which boundaries to use and how to arrange them in different physical domains demands an understanding of the prevailing socio-cultural system and its behavioral, spatial and symbolic components.[4] In other words, according to Rapoport, to understand the status of the physical boundary in the landscape of contemporary cities requires an understanding first of the basic socio-cultural and socio-political dimensions of these cities, and then of how these dimensions are realized in spatial forms.

CONTEMPORARY CITIES AND THE STATUS OF THE BOUNDARY

The term "contemporary cities" is used in this article to refer to a class of built environment probably best exemplified by cities in the Sunbelt region of the United States. The region, as commonly defined, includes Southern California; the states of Arizona, Texas, New Mexico and Florida; and perhaps other Southern states such as Alabama, Mississippi and Georgia. Of course, not all the cities in this region possess the characteristic features of contemporary cities. Likewise, cities outside the region may possess many of these qualities. A list of contemporary cities might include Albuquerque, Atlanta, Charlotte, Dallas, Denver, Houston, Los Angeles, Miami, Orlando, Phoenix, Portland, Tampa and Tucson. In order to facilitate a finer description of the nature of urbanism in these cities, authors have used such terms as exurbs, technourbs, urban villages, supersuburbs, and edge cities. In this article, the term "contemporary cities" is used in a generic sense to include all these types of built environment.

Among the primary attributes of contemporary cities is that they seem to have a nonhierarchical structure. Instead of a single, dominant center, these cities have a number of equally dominant centers. More specifically, the cities normally comprise several clusters of offices, shopping centers, and even cultural facilities, scattered over a vast geographic region, with residential developments occupying the in-between spaces. These contemporary cities are characterized by a society which Daniel Bell has called "post-industrial."[5] However, it would be a mistake to suggest that Bell's post-industrial society exists only in such locales. In fact, the mentality underlying post-industrial society seems to be more pervasive, and may be found even in more traditional American cities. But, while it may be possible to map the socio-political dimensions of a post-industrial society onto the physical domain of a so-called contemporary city, it may not be possible to do so onto the physical domain of a more traditional city.

One important feature of post-industrial society is the existence of a tension between reality and image. According to Richard Bolton, post-industrial society "is marked by the loss of object, by the invisibility created by communication, by the electronic and photographic distribution of images, information, and capital."[6] Jean Baudrillard identified four successive phases in the use of images. First, as representations, images reflect reality; second, they distort reality; third, they mask the absence of reality; and finally, they bear no relationship to reality whatsoever. In the last phase, images are their own simulacra.[7] Baudrillard believes that the use of images in post-industrial soci-

FIGURE 2. *Rene Magritte's* The Human Condition *(1933) suggests that the disorientating relationship between the representation and the reality had already become a theme for painters by the 1930s. However, the issue eluded architects until the 1960s. (Source:* The Twentieth-Century Art Book, *London: Phaidon Press Limited, 1996.)*

ety has already reached the fourth stage: that the present danger is not simply that images distance us from the reality, but that images substitute for it. He describes this as a self-perpetuating system, "when the real is no longer what it used to be. . . ."[8] The line becomes blurred between the real and the artificial (**FIG.2**). Or, as Abraham Moles has written: "As we enter the age of *telepresence*, we seek to establish an equivalence between *actual presence* and *vicarial presence*."[9] "This vicarial presence," Moles continues, "is destroying the organizing principle upon which our city has, until now, been constructed. We have called this principle the *law of proximity*: What is close is more important, true, or concrete than what is far away, smaller, and more difficult to access (all other factors being equal)."[10]

Whether or not one endorses Baudrillard's and Moles' views in their entirety, it would appear that, in contemporary cities, mass access to independent transportation and increasingly flexible communication and production technologies have helped eliminate certain spatial dependencies that bound the traditional city into a coherent whole. And, as new technology increases the ability to move and communicate, it simultaneously erodes the connection to place, and perhaps alters identity and problematizes those notions of time and distance with which people traditionally measured and mapped their world.

Another important feature of post-industrial society is its emphasis on modes of consumption. Charles Leven has suggested that while "old" cities were designed to maximize production, "new" cities are determined spatially to maximize consumption.[11] An undifferentiated proliferation of malls, offices, hotels, drive-in theaters, and fast-food restaurants may exemplify the nature of this kind of urbanism in contemporary cities. Margaret Crawford has used the shopping mall to illustrate the spectacle of consumption, arguing that the design of malls is calculated in every respect to stimulate consumption. In the mall, time, space and weather are suspended; connections to real places are replaced by a spectacle of exotic attractions and diversions; and images of commodities are used in attractive ways to enhance consumption. According to Crawford, shopping malls provide clues to why and how contemporary cities impoverish the richness of traditional urbanity. She claims malls essentially provide a symbolic rejection of the diversity of street life. The safe, controlled, clean environment of the mall is calculated to serve a socioeconomically homogeneous clientele and to exclude those who do not fit the profile (**FIG.3**). Instead of providing inhabitants with a real interface between the private and public realms of the city, such privatized worlds simulate a public realm in order to fulfill fantasies of desire and consumption. Thus, the presence of people, instead of generating a body politic, masks a true condition of alienation.[12]

The kind of urbanism offered by contemporary cities has been summarized by Ellen Dunham-Jones: "Post-industrial urbanism removes us from the institutional center of the city, segregates our public and private lives, increases the spatial and cultural distance between classes, and habituates us to wasteful modes of consumption. Physically and culturally, we are losing ground."[13] In contemporary cities, one might add, the concept of place has lost ground to the sense of a universal, placeless

FIGURE 3. *Shopping malls in contemporary cities are essentially a symbolic rejection of the diversity of street life. (Photo by author.)*

FIGURE 4. *Muralist Thomas Hart Benton in his* City Activities with Subway *(1930) depicts the city life as sets of events and experiences which no more cohere in any sense. (Source:* The Twentieth-Century Art Book*, London: Phaidon Press Limited, 1996.)*

domain. And since the act of differentiation based on a sense of placeness has largely been reduced to the undifferentiated "singularity" of a placeless domain, the role of the boundary as a significant physical-spatial device to create differentiation has been greatly reduced as well. Any intrinsic differentiation is little more significant, because modern life is enchanted with small, insignificant differences. Such differentiation is certainly not what Emile Durkheim had in mind when he tied organic solidarity to the rise of differentiation in *The Division of Labor in Society.*[14] Durkheim failed to see that any differentiation taken to its extreme can collapse into an anonymous "singularity," where the sense of intrinsic, significant differentiation will be lost (**FIGS.4,5**). This is possibly what led Melvin Webber to coin such terms as "community without propinquity" or "non-place urban realm" to rationalize the loss of civic domain in post-industrial society.

Figures 6-10 present a set of very different boundary conditions in the physical landscape of the United States. They serve to help visualize the nature of the transformations within the landscape of the contemporary city. One of the most significant human interventions in the landscape of the United States was the laying down of a rectilinear grid over a vast territory of the country in the late-eighteenth and early-nineteenth century. This grid, which covered most of the Sunbelt region, gave political definition to the territory, and throughout the nineteenth century it was used as a primary tool for organizing the urban landscape (**FIG.6**).[15] Generally, within cities of the

FIGURE 5. *Zarina Bhimji's work* 1822-Now *(1993) illustrates that any differentiation taken to its extreme may collapse into an anonymous "singularity," where the sense of any intrinsic, significant* differentiation *may be lost. (Source:* The Twentieth-Century Art Book*, London: Phaidon Press Limited, 1996. Reprinted by permission of Phaidon Press.)*

FIGURE 6. *A landscape yet to be urbanized. The grid defines the political boundary. (From D. Canty, ed.,* The New City. *© 1969 by Urban America Inc. Reprinted by permission of Henry Holt and Co., Inc.)*

period, a hierarchy of streets ensured a sufficient level of differentiation in the locational attributes of plots within the grid. Such attributes facilitated different types of land uses, ensuring a diversity in urban life (**FIG.7**). However, by the mid-twentieth century, various socioeconomic and technological inventions could no longer be accommodated within the political boundaries defined by the earlier grid. Instead of supporting a diversity of urban life, the built environment was now seen as comprising a set of zones containing specialized functions. In some cases, the grid was totally ignored to ensure a homogeneity of locational attributes for a socioeconomically homogeneous clientele (**FIG.8**). In others, the grid accommodated networks of freeways in ways that introduced discontinuity into the fabric of the city (**FIG.9**). More recently, the grid has been ignored for purely economic reasons. For example, it is now profitable to build shopping centers, hotels, and recreational facilities in clusters, and most of the time such huge complexes destroy several blocks within the grid to facilitate the easy movement of people and goods (**FIG.10**).

Paradoxically, critics argue, as the boundary is losing its value at the level of physical space, it is becoming more important in terms of time. As people are becoming more used to movement, breaks in continuity occur less within the boundary of a physical space than within a span of time, which is being incessantly restructured by advanced technology and industrial redeployment. Now urban space is no longer designated simply by a line between here and there, but it has become synonymous with the programming of a "time schedule." For example, the theory of "shared jobs" offers each member a community an alternative plan in which shared timetables open onto whole new ways of sharing space. Paul Virilio has suggested that it has become imperative to deal with the question of "technological space-time." He has written:

> *If metropolis still occupies a piece of ground, a geographical position, it no longer corresponds to the old division between city and country, nor to the opposition between center and periphery. The localization and the axiality of the urban layout faded long ago. . . . Replacing the old distinctions between public and private and "habitation" and "circulation" is an overexposure in which the*

FIGURE 7. *A landscape of public-private dialectics. The boundary serves its traditional purpose as the interface between the self and the environment through the elaboration of place. Blocks of different sizes, a network of streets of different hierarchy, and a set of open spaces available at local levels could have sustained community life in this environment. (Source: Georgia Aerial Survey, Inc, 1995.)*

FIGURE 8. (TOP LEFT) *A landscape of homogeneity. The boundary eliminates any interaction between individuals, as well as between the individual and the collective. The lack of the hierarchy in the street system, the lack of definition of blocks, and the lack of open spaces at local levels may discourage community life in this environment. (From D. Canty, ed.,* The New City. *© 1969 by Urban America Inc. Reprinted by permission of Henry Holt and Co., Inc.)*

FIGURE 9. (BOTTOM LEFT) *A landscape of movement. The existing grid accommodates a network of freeways. (Source: Georgia Aerial Survey, Inc.., 1995.)*

FIGURE 10. *A landscape of consumption. A cluster of shopping malls, theaters, offices, and hotels easily accessible by a road network allow individuals to participate in a "transient" public life without politics. (Source: Georgia Aerial Survey, Inc., 1995.)*

> *gap between "near" and "far" ceases to exist, in the same way that the gap between "micro" and "macro" disappears through electronic microscope scanning.*[16]

In such a context, it may not be enough simply to reveal the fact that the boundary is losing its value as a physical-spatial device, that the built environment is losing its sense of placeness, and that old distinctions between center and periphery, public and private, far and near, are fading. It may be necessary to decide whether to enhance this process of dematerialization and universalization, to create a homogenous, placeless domain without boundaries; or whether to restrict the process, and allow the boundary to serve its traditional purpose as the interface between self and environment. But an intermediate approach may also exist, as suggested by Paul Ricoeur: to achieve both ends — i.e., to take part in universalization while at the same time returning to traditional sources.[17]

THE CONTEMPORARY CITY AND THE RICOEUR OBJECTIVE

There is no easy way to achieve Ricoeur's objective. To copy the material forms of the historical and traditional artifacts is no solution to the problems of contemporary cities. These problems cannot be resolved through simple-minded imitation of the past. Studies of premodern cultures reveal that material order in such cultures became meaningful only in relation to an invisible order that revealed the place of man not only within society and the built environment, but within a cosmological totality. Without such purposeful, invisible order, no amount of structure was sufficient to generate a meaningful environment. The problem in the modern world is that no such intrinsic relationship between material form and invisible order exists. Neither does it seem likely that this archetypal ground of meaning can be made accessible from any set prescription. This may partly explain why zoning ordinances used by city authorities have failed to impede the process of impoverishment within the built environment of contemporary cities.

In addition, it does not seem that the available means of modern technology are going to provide any solution to the problem of an impoverished built environment. Martin Heidegger has written that technology, which once revealed natural conditions and provided access to natural resources, now processes and conceals nature. Heidegger distinguished between modern technology, which exploits nature and treats it as a standing reserve, and premodern technology, which revealed nature. He traced the root of the word "technology" back to the Greek word for art, *techne*, meaning a crafted art that expressed constructional logic poetically. Such "technology," he wrote, is related to nature in the sense that it reveals it; modern technology, by contrast, distances man from nature by minimizing the effects of time, distance, climate, topography, and even physical presence.[18]

If neither traditional forms nor modern technology is able to impede the process of impoverishment within the built environment of the contemporary city, how can this process be resisted? Perhaps the most pertinent message on this issue is contained in Immanuel Kant's *Critique of Judgment*. Here, Kant suggested that no amount of rule may be sufficient to ensure a prescribed end.[19] Even when everything knowable is known, it may still be necessary to depend on the ability to recognize what the Greeks called *kairos*, i.e., knowing when to speak, and in what manner. *Kairos* cannot be understood by reference to a set of prescribed rules, or to the *techne*. It is part of practical reason and therefore inextricably bound up with the notion of the good. Plato advanced an analogy for this in *The Statesman*, where he compared political craft to artistry in weaving. Like weaving, he suggested, politics also must weave opposing factors into unity from an acute sense of what constitutes the good in life.[20] Urbanism surely belongs in such company, because its dialectic must be driven by something like *kairos*. In order to constitute the good in cities, residents of those cities must locate the source and content of moral and ethical affairs in city building.

The boundary is important in the above context, precisely because it modulates the distance between self and world. As Cassirer has claimed, the boundary is not simply an instrument of spatial organization; it does not merely contain life led within the city, but it is integral to it, and therefore possesses great significance in the process of city building. It is therefore necessary to understand the full dimensions of the bond between boundary and society and situate architecture and urbanism according to these dimensions. Designers and planners within the contemporary city have, however, often failed to recognize this bond between the boundary and the life contained within it, and so trace only the abstract pattern of lines on a map. They fail to recognize that the configuration of boundaries has profound significance within the physical landscape, and that the interaction between different domains of city life may depend to great extent on the nature of the interface provided by the configuration of the intervening boundary.

How has the boundary lost its concrete specificity both within modern consciousness and within the modern built

environment? One answer may lie in the persistent confusion between ethics and morality.

ETHICS, MORALITY, AND THE EROSION OF THE BOUNDARY

Etymological investigation of the words "morality" and "ethics" reveals that both are connected to the idea of custom, or of accepted ways of behavior in society. However, whereas morality, irrespective of its level of consideration, tends to establish *a priori* foundations or standards for human behavior, the notion of what is ethical is more vague. In his *Nicomachean Ethics*, Aristotle sought to limit Platonic intellectualism, and founded ethics as a discipline independent of metaphysics. Aristotle emphasized the contingent nature of ethics, as opposed to Plato's extreme mathematical exactness.

To Plato, good was an external unchanging ideal, an object of contemplation removed from the world. Aristotle, however, observed that each situation in a person's life is profoundly different from every other, and that it is a person's actions that give a situation its fundamentally inimitable quality. Hence, in his ethics the realization of the good comes about as an ongoing critique of the concrete actions of people in specific situations. In other words, in Aristotelian philosophy, ethics arises out of the recognition that there is a complex reciprocal relationship between a situation and those who act within it and constitute it. Similarly, in Hegelianism, the notion of the "moral" pertains to virtuous conduct or natural excellence, as distinguished from the notion of the "ethical," which pertains more to civic or legal legitimacy. "Morality" in such a system has a clearly transcendental dimension. The distinction between ethics and morality is best expressed by Gilles Deleuze: "Ethics is *a typology of immanent modes of existence,* whereas morality *always* refers *existence to transcendental values.*"[21]

The above distinction between ethics and morality has clear implications to an understanding of the built environment: while the "moral" implies that the ultimate purpose of the built environment is to ensure an ideal state of goodness, the "ethical" implies that the built environment should determinantly bear upon the more immediate aspects related to humans. According to Clive Dilnot: "We know that any activity which, like architecture, works to inter-implicate physical structure and figural conditions has direct implications for the subjects who inhabit the results of that activity. This means that architecture is ethical, and is so not merely contractually (as a legal principle), or as a formal idea (as a morality), but substantively, as a making."[22] On the basis of such a view, it would seem that any architectural decision may inherently be an ethical one which relates both to the political (i.e., how to build) as well as the social (i.e., how to live). This would also seem to imply that from an ethical viewpoint it is more important to judge the built environment against a set of concrete and immanent issues, than it is to evaluate it in terms of its attainment in relation to an ideal state.

However, in today's context, due to an overemphasis on the "moral," designers and planners have lost sight of the immediate, concrete aspects of the built environment. According to Hannah Arendt, such overemphasis on the "moral" is a by-product of the rise of the "social":

> *Historically, we know of only one principle that was ever devised to keep a community of people together who had lost their interest in the common world*[23] *and felt themselves no longer related and separated by it. To find a bond between people strong enough to replace the world was the main political task of the early Christian philosophy, and it was Augustine who proposed to found not only the Christian "brotherhood" but all human relationships on charity. . . . The unpolitical, non-public character of the Christian community was early defined in the demand that it should form a* corpus, *a "body," whose members were to be related to each other like brothers of the same family. The structure of communal life was modeled on the relationship between the members of a family because these were known to be non-political and even antipolitical.*[24]

Thus, instead of the dichotomy between private and public realms typical of a Classical Greek polis or a Roman town, what has become important since the rise of Christian ideology has been a hierarchical social structure where relationships between members are an issue of morality. According to Arendt, such a sense of morality became necessary only when a sense of "worldlessness" began to dominate the political scene:

> *Worldlessness as a political phenomena is possible only on the assumption that the world will not last. . . . This happened after the downfall of the Roman Empire and, albeit, for quite other reasons and in very different, perhaps even more disconsolate forms, it seems to happen again in our own days. The Christian abstention from worldly things is by no means the only conclusion one can draw from the conviction that the human artifice, a product of mortal hands, is as mortal as its makers. This, on the contrary, may also intensify the enjoyment and consumption of the things of the world, all manners of intercourse in which the world is not primarily understood to be the koinon, that which is common to all.*[25]

One of the implications of the onset of such an overarching concept of morality was a diminishment in the sense of the concrete responsibility of individuals in society to each other and to the collective. Thenceforth, goodness would be dependent on an individual's relation to a set of predefined codes of morality; as long as individuals in a society followed these codes, the good of society was secured. Thus, in its aspiration to create an ideal state, Christian ideology turned away from an immediate accounting of the consequences of individual

action, and undermined previous notions of responsibility among individuals, and between individuals and the collective. The advent of such a powerful new concept also changed the notion of the boundary. The demarcation of boundaries had once been a matter of ethical responsibility, related to context and to immediate actions and relations. But the new sense of morality proposed that the boundary was an empty vessel, devoid of any kind of permanence, into which the "social" could be poured, or onto which an external use could be stamped as an obligation from without. Far from conjoining man and his artifice, the boundary now denoted their real, abyssal separation. Under such a condition, the relationship between artifice and its "otherness" became inherently problematic and unstable. By constantly forcing artifice into an external relationship with the other, the new sense of morality caused one of two things: either it led to the collapse of the physical boundary configuration into the social, thereby threatening whatever sense of meaning the boundary offered; or it resulted in the defensive preservation of the "real illusion" of the autonomy of the boundary, but only at the terrible price of being unable to bring to consciousness the complex relationship between human beings and their artifice.

One way to disentangle the "ethical" from the "moral" may be to disentangle the "public" from the "social" — which, as Arendt would argue, is possible only by understanding the "non-private" part of the private realm, and without which, as John Locke has pointed out, "the common is of no use." For example, in the ancient Greek world it was not the interior, but the exterior appearance of the "hidden" private realm which was important for the city, and which appeared in the realm of the city at the boundaries between one household and another. The law was originally identified with the boundary line, which in ancient times was actually a space, a kind of no-man's land between the private and the public. Though the law of the Classical Greek *polis* transcended the ancient Greek understanding, it retained the original spatial significance of the boundary. Arendt has written about this as follows:

> *It was quite literally a wall, without which there might have been an agglomeration of houses, a town* (asty), *but not a city, a political community. Without it, public realm could no more exist than a piece of property without the fence to hedge it in; the one harbored and inclosed political life as the other sheltered and protected the biological life process of the family.*[26]

Elsewhere, Arendt has remarked on contrasts between premodern and modern thinking about the importance of the boundary:

> *While it is only natural that the non-private traits of privacy should appear most clearly when men are threatened with deprivation of it, the practical treatment of private property by premodern political bodies indicates clearly that men have always been conscious of their existence and importance. This, however, did not make them protect the activities in the private realm directly, but rather the boundaries separating the privately owned from other parts of the world, most of all from the common world itself. The distinguishing mark of modern political and economic theory, on the other hand, in so far as it regards private property as a crucial issue, has been its stress upon the private activities of property owners and their need of government protection for the sake of accumulation of wealth at the expense of the tangible property itself. What is important to the public realm, however, is not the more or less enterprising spirit of private businessmen, but the fences around the houses and gardens of citizens.*[27]

According to Arendt, then, it is the loss of the importance of the boundary in modern sensibilities which has significantly contributed to the loss of the distinction between the private and public realms, as well as the loss of the sense of responsibility of the public to the private or of the private to the public. Subsequently, all these factors contributed to the loss of the sense of placeness. Seen in this way, it would seem that the ethical structure of the built environment relates directly to the existence and recognition of the importance of the boundary. This would also seem to imply that the configuration of the physical boundary might serve as an important tool in the rediscovery of the lost sense of placeness, in the redefinition of the public and private realms, and in the minimization of the destructive dimensions of those present patterns of unregulated consumption that have resulted from a lack of mutual responsibility between public and private domains in contemporary cities.

TIME, SPACE, AND THE IMPORTANCE OF THE BOUNDARY

As noted above, critics now agree the physical boundary has lost much of its relevance in contemporary cities because of a lack of interest in the intrinsic differentiation of placeness, and because of a shift in emphasis from the spatial to the temporal domain. It can be argued, however, that the distinction between "of space" and "of time" that underlies this commonly held view cannot be totally correct. Critics use such a distinction to argue that time is becoming increasingly more important than space in contemporary cities. But these two domains are, in fact, inseparable, because ultimately both have to converge in the spatial-temporal mode of understanding.[28] Put another way, any understanding of the built environment, either as an establishment of place or of time, is essentially one-sided; and if the boundary is somehow important in time, it must be important in space. Thus, Heidegger's famous description of a Black Forest farmhouse in the article "Building, Dwelling, Thinking" depended equally on the tem-

poral and spatial dimensions of dwelling and building. He wrote: "The nature of building is letting dwell. . . . Only if we are capable of dwelling, only then can we build."[29]

More recently, Fredric Jameson wrote that contemporary cities are impoverished mostly because they do not allow their residents to cognitively map their space of action. He argued that, in their fascination with movement and temporal space, architects and planners have undermined the importance of physical space in these cities. For Jameson, the ability to cognitively map physical space is essential in order to ensure a lively urban environment. Hence, he emphasized the importance of the configuration of the boundary, which is the primary device to map — both cognitively and physically.[30]

THE SENSE OF PLACENESS

In "Building, Dwelling, Thinking," Heidegger favored the concept of *raum*, as a phenomenologically bounded clearing or domain, over the concept of infinite space, which he called *spatium in extensio*. For him, the boundary was important because it marked the beginning of the sense of placeness. He wrote: "A boundary is not that at which something stops, but as the Greeks recognized, the boundary is that from which something begins its presencing."[31] This sense of presencing, according to Heidegger, involved an act of differentiation between a specific place and a sea of unbounded, unlimited space, without which a phenomenological existence would have been impossible. Likewise, Heidegger claimed that to live detached from place and community was to inhabit without dwelling, to exist without being.

In contrast to Heidegger, in *The Human Condition*, Arendt defined the necessity of placeness from a political point of view. She proposed at least three distinctive features of the public realm with direct relevance to the sense of placeness: 1) that the public realm was where things or actions were made visible and accessible; 2) that the public realm was what everybody held in common; and 3) that the public realm was what allowed human beings to acquire a sense of immortality. She wrote:

> *Only the existence of a public realm and the world's subsequent transformation into a community of things which gathers men together and relates them to each other depends entirely on permanence. If the world is to contain a public space, it cannot be erected for one generation and planned for the living only; it must transcend the life span of the mortal men. . . . Without this transcendence into a potential earthly immortality, no politics, strictly speaking, no common world and no public realm is possible.*[32]

Arendt's insistence on the necessity of permanence echoes the famous passage in Aristotle: "Considering human affairs, one must not . . . consider man as he is and not consider what is mortal in mortal things, but think about them [only] to the extent that they have the possibility of immortalizing."[33] The definition of boundaries is important precisely because it is the first step of human intervention in the physical landscape which guards against the futility of individual life, and which can define a space of relative permanence (**FIGS.11,12**). Some contemporary architects have put forward a similar viewpoint. For example, according to Krieger:

> *. . . a lack of boundary simply creates a kind of chaotic environment which none of us feel very proprietary towards — neither the residents nor the rest of the community nor certainly outsiders. . . . Making boundaries is akin to stabilizing the city so that its virtues remain across generations rather than seeming to be temporary, not like those houses that gather feet and go away. So create edges and boundaries. Make them very strong. They are akin to making a defined environment, a series of places of stasis which, in all of our cities, are the places that we most enjoy and love.*[34]

SIMILARITY AND DIFFERENTIATION

The necessity for apparent separation for the purpose of bringing together perhaps finds its first expression in the *Sophist*, where Plato wrote: "The isolation of everything from everything else means a complete abolition of all discourse, for any discourse we can have owes its existence to the weaving together of forms."[35] We can find a similar theme in the

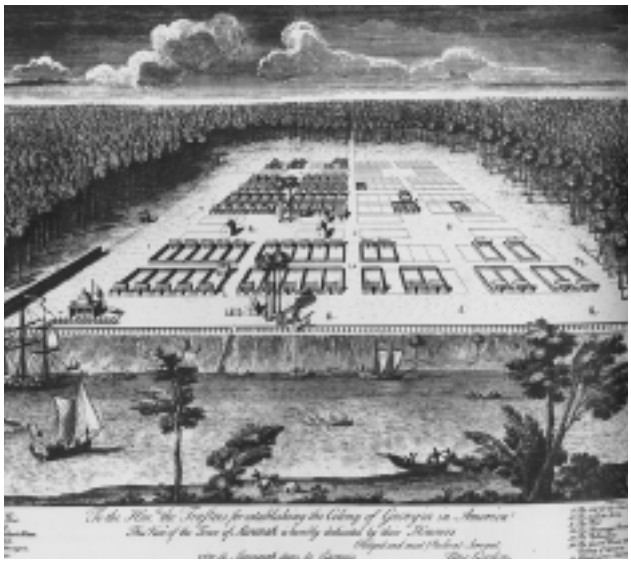

FIGURE 11. *Savannah in 1734. According to Martin Heidegger, "A boundary is not that at which something stops, but . . . that from which something begins its presencing." (Source: M. Lane,* Savannah Revisited: A Pictorial History*, Savannah: Beehive Press, 1973.)*

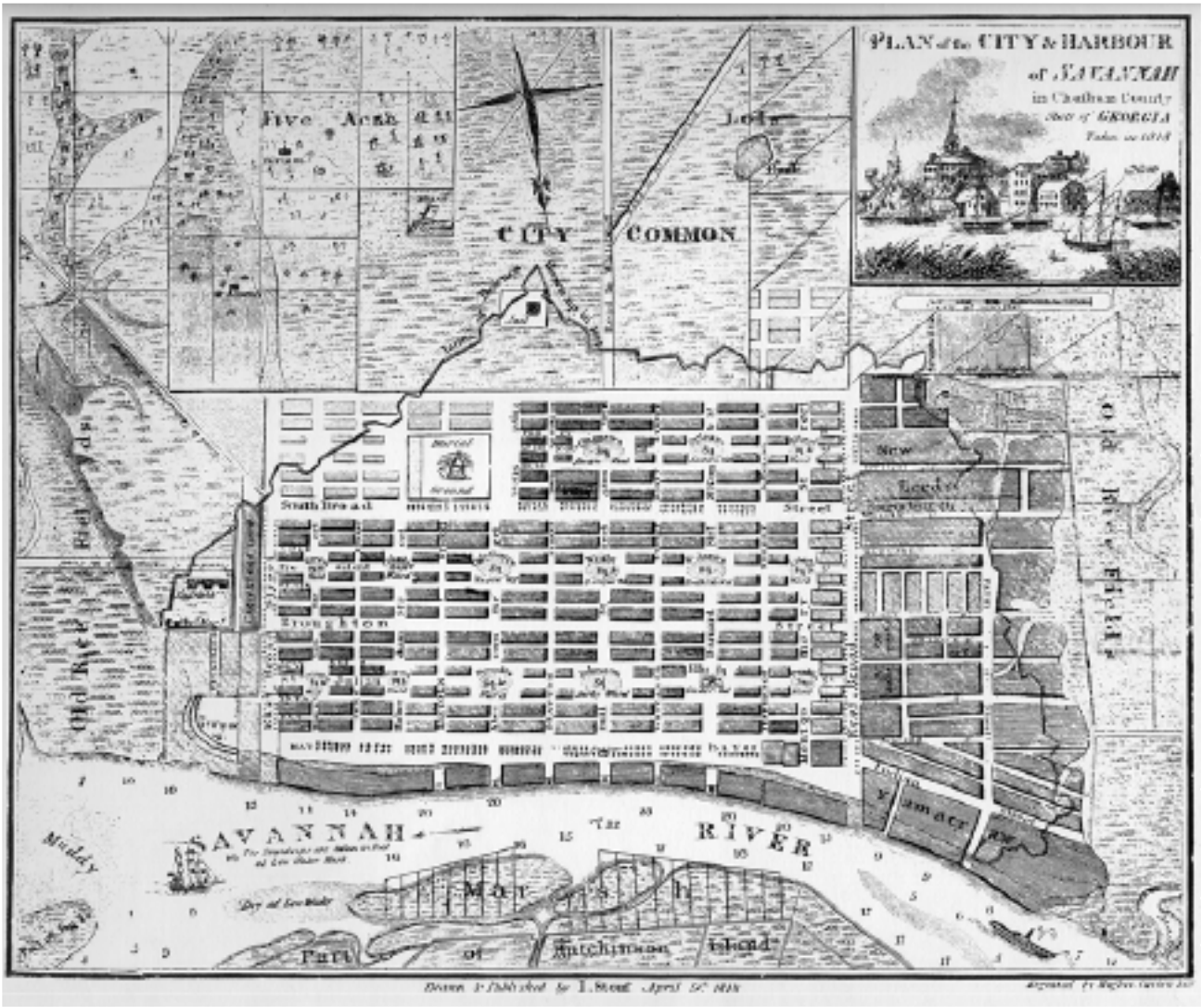

FIGURE 12. *Savannah in 1818. By now the lines on the ground have been transformed into a stable interface between the public and the private realms of the city. In addition, the relationship between the center and the periphery has also become clearer through the articulation of the boundary. (Source: M. Lane,* Savannah Revisited: A Pictorial History*, Savannah: Beehive Press, 1973.)*

Timeaus, where Plato identified similarity and differentiation as two of the three basic elements out of which the whole universe is created.[36] Thus, even for Plato, who considered the good to be an external unchanging ideal, the demarcation of the boundary became an important act in his ideal city. Arendt described this as follows:

> *What prevented the* polis *from violating the private lives of its citizens and made it hold sacred the boundaries surrounding each property was not the respect for private property . . . , but the fact that without owning a house a man could not participate in the affairs of the world because he had no location in it which was properly his own. . . . Even Plato, whose political plans foresaw the abolition of private property and an extension of the public sphere to the point of annihilating private life altogether, still speaks with great reverence of Zeus Herkeios, the protector of borderlines, and calls the* horoi, *the boundaries between one estate and another, divine, without seeing any contradiction.*[37]

On the one hand, the permanent visible presence of the boundary separates and protects people from falling onto one another; on the other, it allows for a unity because separate individuals can relate to it and thus create a common world out of difference. Arendt has written: "To live together in the world means essentially that a world of things is between those who have it in common, as a table is located between those

who sit around it; the world, like every in-between, relates and separates men at the same time."[38]

Of course, spatial proximity strengthens the force of connecting separate things in the built environment. However, the feeling of being close together does not depend on spatial proximity only. Distance can be either dissolved or stretched to virtual infinity by intervening boundaries. In order to create a unity out of diversity which all may call "public," suitable ways must be found to define this intervening boundary in today's cities. In this regard, an over-defined or too — rigidly defined boundary may be as harmful as a lack of boundary. Thus, the concept of zoning in modern planning has often resulted in too-rigidly defined boundaries that have segregated urban life into isolated functions; such boundaries eliminate the possibility of encounter and interaction, which is the basic ingredient of a public life (**figs.13,14**). According to Roger Scruton, in the absence of a public life with which to contrast his or her inner isolation, the individual cannot achieve a truly secure private life. "[In] this 'decontaminated' world [of separate zones] there can be no objective order. All is subjectivity, the isolated and unjustified 'I want' built upon itself in a thousand repetitions."[39] Arendt's profound observation on this issue is also worth quoting:

> *. . . the reality of the public realm relies on the simultaneous presence of innumerable perspectives and aspects in which the common world presents itself and for which no common measurement or denominator can ever be devised. . . . The end of the common world has come when it is seen only under one aspect and is permitted to present itself in only one perspective. [This could happen] under conditions of mass society or mass hysteria, where we see all people suddenly behave as though they were member of one family, each multiply and prolonging the perspective of his neighbor. In both instances, men have become entirely private, that is, they have been deprived of seeing and hearing others, or being seen and being heard by them.*[40]

ATTITUDES AND CONSUMPTION

Some of the most fatal consequences of the consumptive attitude of post-industrial society toward the physical landscape are not always intentional, and hence have long eluded concern. A general term for such phenomena is "externality." An abbreviation for external economies and diseconomies, externalities are unpriced and perhaps nonmonetary effects of the activity of one element upon other elements in an urban system.[41] Some fairly standard examples of urban externalities are loss of time due to traffic congestion, noise and pollution arising from vehicles and industries, and loss of life consequent upon the increase in air or ground traffic. Externalities exist as "spatial fields" of effects. Effects of these spatial fields may vary in intensity and extent depending on the type of function or use. Externality fields may be negative or positive, or sometimes both. For example, an airport has important benefits for employment and movement, but it is also a major source of pollution and noise. Very little is known about the shape and form of these externality fields in an urban environment, but there can be no doubt that their locations have powerful impacts. Even though such external effects may arise from both private and public activities, it can be argued that their basis lies in economic self-interest. This is because it is usually cheaper to discharge waste products directly into the commons than to purify them first.

figure 13. *Nolli's Plan of Rome (1748) shows how the city had sustained a structural relationship between its private and public domains through the articulation of the boundary. (Source: S. Anderson,* On Streets*, Cambridge, MA: MIT Press, 1986.)*

One way to internalize externality effects is to put a positive market price on currently unpriced scarce resources. However, the internalization of an external effect does not mean that its potentially adverse impact will be removed. The introduction of an adverse external effect into the economy is a bad thing no matter how the economy adapts to it. Furthermore, the necessary legal and technological means and relevant market mechanisms do not exist to control three-dimensional territory, and it is unlikely that the means to control these externalities will be developed in the foreseeable future.[42]

The absence of any easy solution to externality effects in the built environment reveals the importance of situation ethics, which define an act as a function of the state of the system at the time it is performed.[43] For example, to use the com-

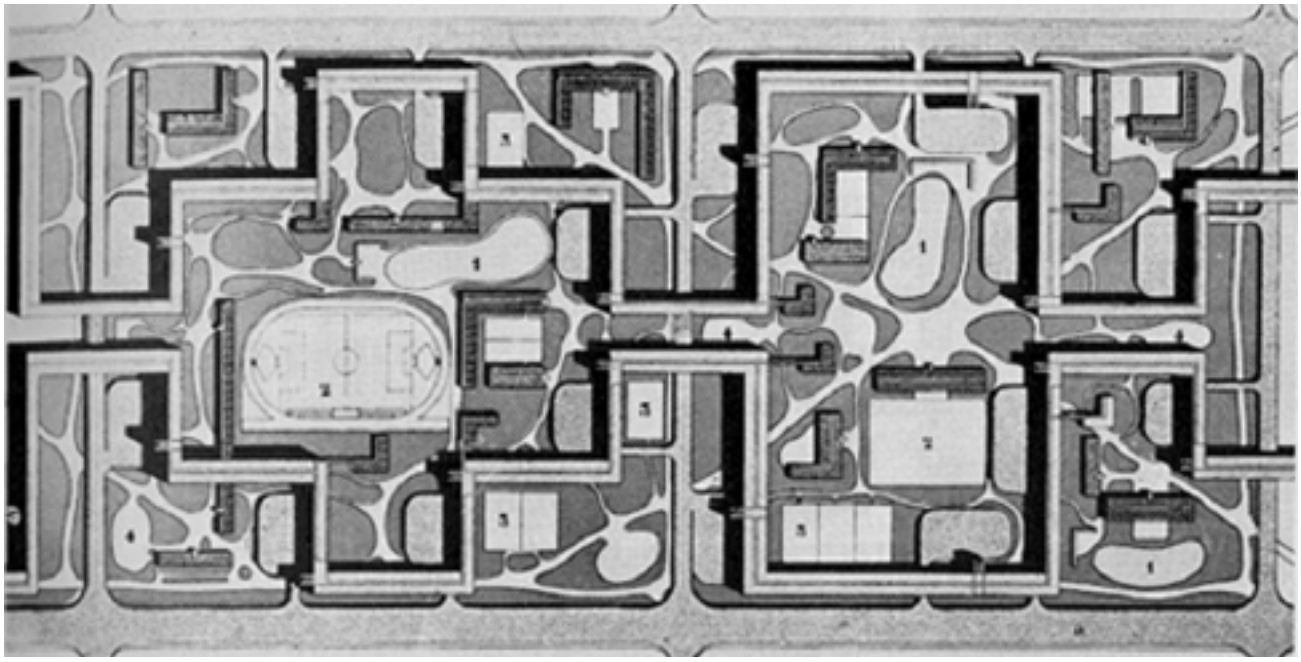

FIGURE 14. *In "La Ville Verte" (1930) Le Corbusier conceives the open space independently of the buildings. Hence, the articulation of the space becomes a matter of cosmetic treatment rather than of structural definition. The boundary loses its significance as a structural element of the city. (Source: Le Corbusier,* Radiant City.*)*

mons as a subject of private interest may not harm the general public in a low-density settlement; however, the same behavior in a dense city may be unbearable. Administrative laws are invented to augment statutory laws in order to take care of different situations. However, since these situations may vary infinitely, no amount of legal invention may be sufficient to control an unpredictable future.

Under these circumstances, the best solution to the problem of externality effects may be to plan for a condition where no such effects are generated, or where such effects are minimized. In this regard, it is conceivable that boundaries can be stipulated in ways so as to reduce, or to eliminate the spatial field effects of externalities. This is because many basic city-planning tools, such as land-use plans, future-growth controls, and measures used to protect valued resources depend on the stipulation of boundaries. More importantly, the boundary defines the manner in which the individual and collective come together in the world of action. The character and disposition of boundaries signal our relationship to the world outside, or how we perceive our relationship to nature. As Reinhold Niebuhr has written: "The fence and the boundary line are the symbols of the spirit of justice. They set the limits upon each man's interest to prevent one from taking advantage of the other."[44]

In sum, it is possible to suggest that for several reasons the configuration of the boundary maybe a useful tool in reconstituting some of the traditional values in the urban environment of contemporary cities. First, it is the most elementary cognitive tool used to map the built environment. Second, it is the most elementary physical act of differentiation in the built environment. Third, it is the most elementary visible tool used in the organization of the built environment. Fourth, it is the most elementary physical act of permanence in the built environment. And, fifth, it is the most elementary act of initiating a process of growth in the built environment. By implication, then, the configuration of the boundary must be treated as one of the most important planning tools used in the organization of the built environment. As long as its configuration depends on the dimensions of ethical practice — where the myth of progress is defined by the symbiotic limits of the individual and the collective, of man and nature — it is possible to expect it will not only prevent one from taking advantage of the other, but also that it will enhance the qualities of the built environment as a whole.

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I am most grateful to Prof. Douglas Allen at the College of Architecture, Georgia Tech, for his comments on the ideas presented in the paper. I would also like to thank the unknown reviewers for their comments.

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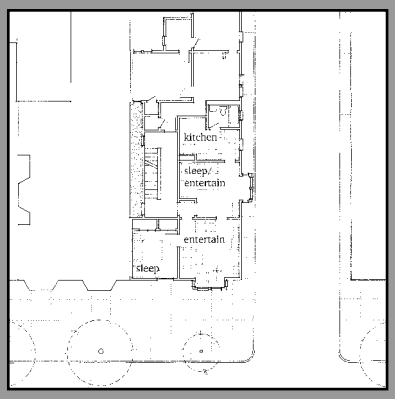
kitchen
sleep/
entertain
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House Form and Choice

RENEE Y. CHOW

The objective of residential design concerned with supporting American cultures needs to move beyond designing prototypical houses or neighborhoods for ethnic or sub-cultural groups. The character of culture in the U.S. is woven and rewoven from many strands: to fix housing to a programmed life-style is to limit the practice of culture both in its diversity and its temporality. The task for architects and planners is to design dwelling environments with the capacity to provide residents with choices in the use of a place. Through a comparative study of two residential settings, this article identifies three attributes of house form which limit or contribute to choice.

If historians view the built environment as a material artifact of culture, and politicians and social advocates view the house as a tool for promoting particular visions of culture, what should the perspective of the architect be? Rather than serving as a purveyor of popular culture, high culture, or any singular, hegemonic culture, the architect's role in the United States should be to enable choices for the practice of culture, the generation of ways of living in the conduct of everyday life.[1]

This article compares two residential settings that illustrate different design paradigms for addressing cultural practice and house form. In one setting, culture is programmed in a house's form through a functional specification of ways of living; in the other, culture is embedded as choice — through a capacity that enables residents to choose how to dwell. The first limits resident choices by assuming culture to be static; the second increases choice by recognizing culture as constantly defined and renewed. Through observing how people use spaces, this research identifies three attributes of house design — access, dimension and claim — that architects can use to enable choices.

For designers and researchers exploring links between housing and ways of living in the United States, diversity is a topic of common concern. As in the exhibit "House Rules" at the Wexner Center in 1994, the questioning typically begins with recognition of the need to reconstitute the image of the American household from that of one mother, one father, 2.5 children, and a dog. Curator Mark Robbins asked, "Can the suburban house be reprogrammed to acknowledge and reflect social change?"[2]

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Since a pluralistic reality effectively challenges the common view of the household, it is doubtful the variety of ways in which people live can be addressed simply by "reprogramming" — by redefining household composition and life-style — because culture in America is too diverse and changable.[3] Its diversity arises from the multiplicity of ways in which Americans associate with a national culture as well as with sub-groups based on such factors as ethnicity, race, religion, region, occupation, economic status, and stage-of-life. American culture is also temporal because Americans continually change associations to these sub-cultures.

One important expression of culture comes through the ways in which people dwell. People develop a correspondence between the ways they live and the spaces of a house through choices that express their cultural values and traditions.[4] When it comes to providing options in housing, some think that the task of housing American cultures is solved through providing a variety of types of dwellings — supplying consumer choice. This research proposes that the task is better solved through providing opportunities for variety in ways of dwelling — enabling cultural choice.

There are three salient characteristics that define the approach to choice embedded in contemporary housing development. First, it is market driven: that is, it is interested in appealing and selling to a mass market. Second, it is obsessed with identifying normative life-styles, with differences in ways of living seen as variations from the norms. Third, it is program driven, attempting to match life-styles with houses. This last characteristic involves a process of specifying the activities and spaces of a life-style, determining the appropriate adjacencies, and producing model homes with options and accessories that personalize them. This approach limits the definition of the diversity of American cultures, capitalizing upon the nature and ability of people and households to adapt to defined norms. More significantly, it involves a view of culture that is static rather than temporal, limiting everyday choices and longer-term changes.

The alternative view presented in this article presumes that culture will find its place — if it is allowed to do so. Rather than seeing the task of housing American cultures as prescribing a precise fit between a sub-culture's activities and a house's form, it conceives the design of dwellings in terms of allowing interpretations of the ways in which they are used. This requires thinking about how each household inhabits its home, observing how people live, and studying inhabitation as a continuous expression of choice. For instance, where should each person sleep? How do they sleep — all together or separately? On what should they sleep? What other activities accompany sleeping? Are guests allowed into the sleeping area? Should one sleep in the front of the house or the back, above or below? Where should a guest or new family member sleep? The alternative presented in this article assumes that residents make choices and changes by assessing their ways of living in relation to the basic structure of the house. This research studies how a house's form either constrains or enables a variety of answers to these questions.

STORIES OF CHOICE

In this paper each person's culture is expressed as a story, a story about how individuals as members of sub-cultural groups personalize a house. The stories are encouraged or inhibited by the spaces of a house. Some houses comfortably accommodate the uniqueness of each story; others limit stories to fit a theme. Two neighborhoods, one in San Francisco and one in Clayton, a suburb of San Francisco, illustrate the dichotomy of how choice is constrained or enabled by the form of the house. By comparing the stories of residents of these two neighborhoods, the difference between market choice and cultural choice in housing becomes apparent.

Leo Lopez owns a six-unit San Francisco Victorian.[5] Of the units, he selected a second-floor front unit for himself. Leo was once married, but is now an avowed bachelor with a grown son who visits on weekends. Leo and his son mostly eat out. If and when they are home, the two enjoy entertaining and watching television. At first glance, Leo's unit might seem most readily occupied as a one-bedroom apartment with entertaining, dining, and food-preparation activities assigned to the front, middle and inner rooms, respectively, and with a bedroom off the front entertaining area (**FIG.1**). Yet Leo needs two sleeping areas since he and his son do not want to share a room.

Leo uses his space in a way that is similar to his childhood courtyard house in Guadalajara (**FIG.2**). In that house all the activities and rooms were organized around a central, outdoor courtyard. Although no assigned activity occurred in the courtyard itself, it was the center around which daily activities occurred. Rooms used for sleeping, dining, entertaining and cooking were all accessible from the courtyard, with an internal route between rooms. Several family mem-

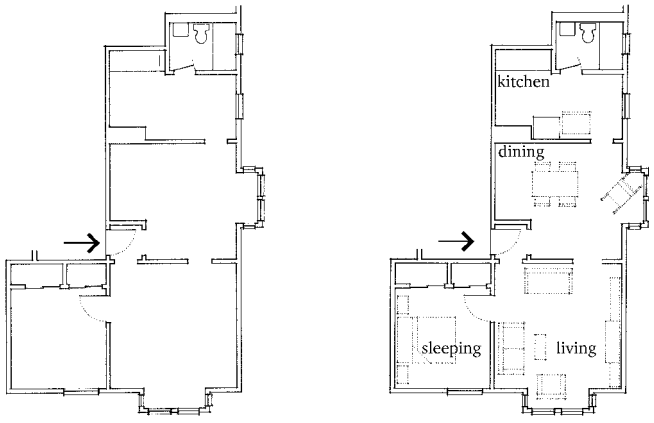
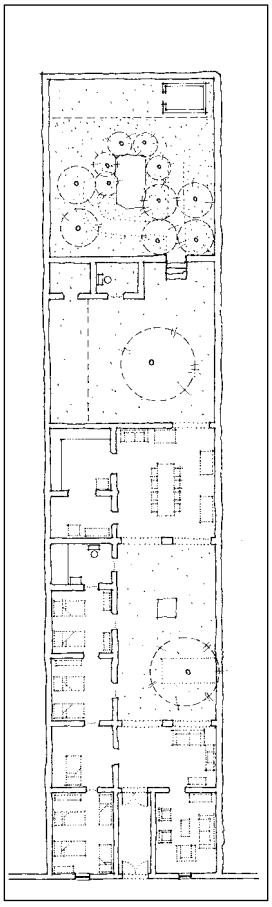


FIGURE 1 **A**) *Leo selected this apartment as best suiting his way of living.* **B**) *Leo's apartment as a possible one-bedroom unit.*



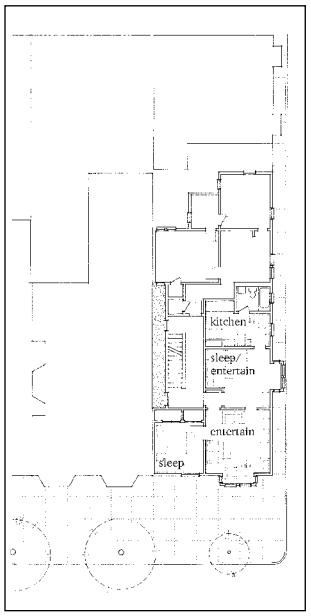


FIGURE 2.(LEFT) *Leo's home in Guadalajara, with activities organized around a courtyard. Rooms with beds are used for sleeping as well as entertaining.*

FIGURE 3.(TOP) *Leo's apartment with* recamaras *surrounding a common area.*

bers occupied each *recamara*, using the rooms for sleeping and entertaining as well.

Although Leo's current home does not have an outdoor courtyard, he locates his television/entertainment activities in the front room, with two *recamaras* surrounding it (**FIG.3**). While others may use this unit as a linear, one-bedroom apartment, Leo occupies it as a centrally organized, two–*recamara* dwelling.[6]

The second story is about the Changs, who purchased a house in a San Francisco suburb (**FIG.4**).[7] It is typical for the Changs and their five-year-old son to be together in a room, although they may be engaged in separate activities. As a result, several rooms hold similar furnishings. Whether a bedroom, living room or kitchen, there are books and toys for the son and tables and shelves for the parents. The room designated as a bedroom for their son is rarely used — except as a guest room. Instead, the family sleeps together in one room, using a small trundle bed for the boy.

The Changs complain only about the fireplace and the dining room. Although they would have preferred a house without a dirty, cold and smoky fireplace, they take advantage of the fireplace's focal location by placing their wide-screen television on the hearth. As for the dining room, it is too narrow to hold a round table with a lazy susan on it. Instead, the Changs had to buy a rectangular table. Now, when hosting a dinner party, they must pass dishes to their guests, rather than serve them directly.

These two homes illustrate two ways in which housing design addresses American cultures. The Changs' home, designed to meet a particular life-style, supports a limited range of choices; the Changs both impose their way of living on the house and modify their way of living to it. By contrast, Leo Lopez's home, typical of many older San Francisco houses, supports a wider range of choices for ways of living. The stories show how contemporary functional approaches to housing American culture may limit choice-making by residents because they assume that ways of living are specific and static. For the Changs, this does not necessarily mean that they must live as prescribed, but it does limit — and sometimes frustrate — how they want to live. In order to better accommodate stories of dwelling like that of Leo Lopez, designers need to embed the potential, or the capacity, for residents to make more choices about the ways in which they live.

OBSERVING CHOICE

This research began with the observation that San Francisco is home to many diverse life-styles spread relatively heterogeneously throughout the city. While there are districts that are associated with a particular ethnicity or culture, the distinctions are not so settled as to exclude other groups, and associations have changed over time. Outside the city, the planning of

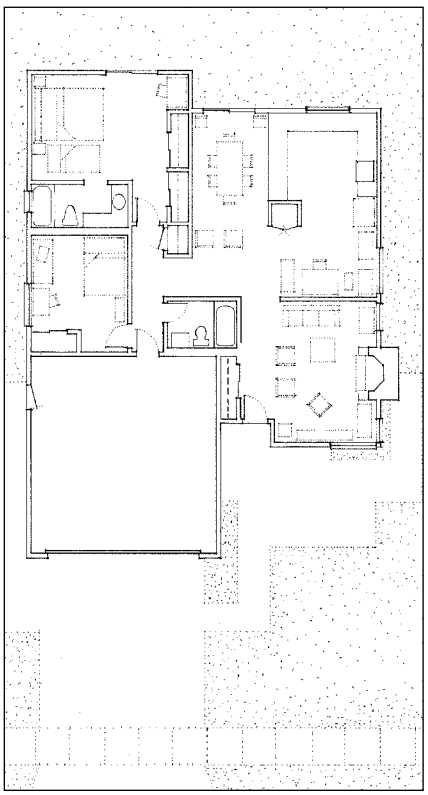


FIGURE 4. *The Chang residence: many rooms hold similar uses. Note the television set in front of the fireplace.*

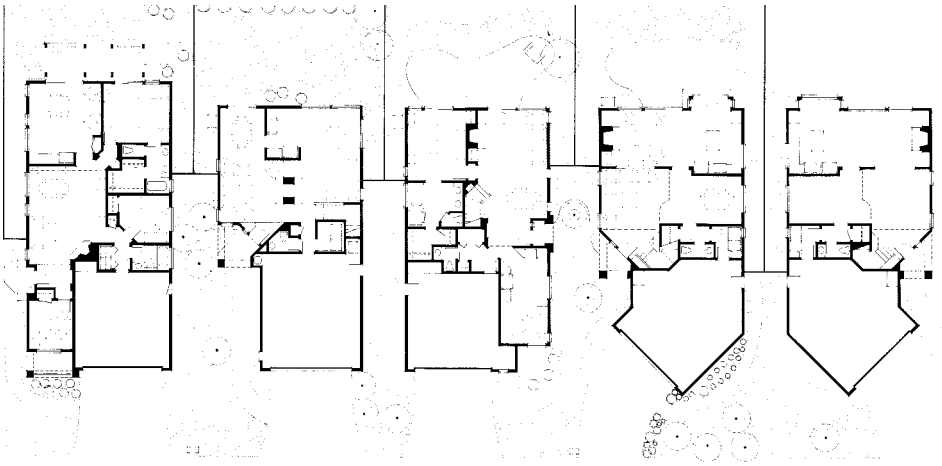


FIGURE 5. *Clayton: as built and as inhabited. The lots in Clayton are subdivided in equal segments along the length of the street which winds through the knolls of a development. The public areas of the house are arranged in an open plan, with smaller, private bedrooms located either to the side of the public areas or on the second floor.*

Clayton shares many of the characteristics of San Francisco, yet the ways in which its residents choose to live seem more homogeneous. This research questions the uniformity of ways of living in Clayton and the rich diversity supported in San Francisco as more than just a circumstance of history or urbanity.

Houses in both communities are built on rectangular lots, with the narrow ends facing the street. One house is centered on each lot, with a yard and parking in front and a private, outdoor yard at the rear. In Clayton, lots are 40 by 120 feet, with a 25-foot front-yard setback and 5-foot side-yard setbacks (**FIG.5**). Parking is at grade. The predominant orientation of spaces inside each house is toward the private, rear yard, with side yard-facing windows being used for light and ventilation. In San Francisco, blocks are subdivided into lots that are typically 25-27.5 feet wide by 140 feet deep (**FIG.6**). A single house is generally located on each lot, with a front-yard setback of about 12 feet and side-yard setbacks of about 3.5 feet. Parking, if available on site, is located half a level below the street. Interior spaces are oriented for light and ventilation either toward the street or toward the private space at the rear of the lot.

Houses in both communities are representative of many processes affecting residential development: land acquisition through subdivision, building traditions and degree of industrialization, market forces, technology, and life-style expectations. The San Francisco Victorians typified American housing of the early twentieth century: they included a parlor or double-parlor with alcoves for the display of family possessions; they offered "commodious" work spaces for the kitchen, with large pantries, which could be shared by several women; and they contained bedrooms that were large enough to serve as sitting rooms where friends and family could visit.[8]

As the century progressed, however, household sizes decreased, as families became smaller and servants were replaced with technological conveniences. The formality and separation of some activities were replaced by open living areas. As many of them moved into the workplace, women also no longer viewed the house as their only domain. In general, an overall concern for functionalism and efficiency emerged, in which the design of the house could be approached more scientifically by defining appropriate activities and their required spaces and equipment.[9]

The Clayton houses, built within the last decade, typify contemporary housing. Here household activities are separated from public view by a garage; entertaining, cooking and dining spaces are open and interconnected; and sleeping areas are conceived as rooms separate from other household areas (one is larger with an attached bathroom, and two are smaller and share a bath). The living room is typically two stories tall, configured so that upper-level activities look down on lower-level spaces. Each activity of a life-style has an appropriate space, and each space of the house is designed for a specific activity.

These two case studies exemplify design paradigms

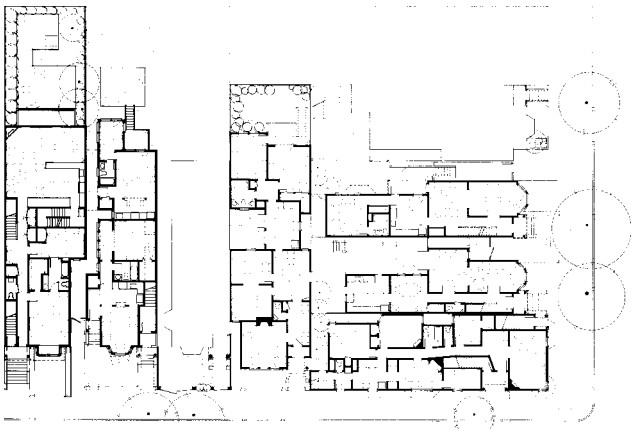


FIGURE 6. *San Francisco: as built and as inhabited. San Francisco is a gridded, platted city with a block orientation that is longer in the east-west direction. This orientation gives more homes a north-south orientation to the sun within a hierarchy of residential and commercial streets. Although San Francisco is an urban context, the documented setting is comprised of both detached and attached houses.*

regarding culture: in San Francisco, an embedding of capacity to house multiple and changing ways of living; and in Clayton, a functional programming of life-styles that fixes a way of living. While the houses in each setting were developed to accommodate ways of living representative of their times, the San Francisco houses have absorbed many new ways of living that functionally efficient, post-World War II houses have not.

In order to explore the link between house form and choice, this study uses plans documenting household artifacts, photographs of interior and exterior spaces, and interviews with the residents to observe how people use household space. This method combines place-based, morphological studies of housing with cultural-use and spatial-pattern studies. In particular, this research draws upon the work of H. Caminos,[10] S. Muratori,[11] S. Anderson,[12] and S. Kent.[13] These methods of observing places share two premises regarding people and the environment: that the relationship of people and the built environment over time can be analyzed through the study of physical form; and that form, while not deterministic, is influential to behavior and use. The latter point, the interpretation of house form for use, is critical for this research. The form of a house — its configuration, size, position, and assemblage of materials — suggests a range of possible uses. Decisions on how to use the spatial form of the house are made by each household in relation with their cultural background. While the methodologies in the works of Caminos, Muratori and Anderson describe the experiential form of places, the documentation of use is either omitted or generalized at an urban scale. Kent studies the use of the house, comparing a particular household's patterns with those of similar cultures. Her work is descriptive, but limited to single houses, without studying the larger setting. The method in this research combines Kent's descriptions of use with the experiential description of the forms of dwellings as places. Because this research is directed toward the design of residential settings, the observations of inhabitation and descriptions of house form and choice lead to propositions for attributes of design that enable a variety of ways of dwelling.

CAPACITY FOR CHOICE

In the Clayton setting, the general choice, location and layout of the activities within each house can be anticipated before entering. Typically, the only variation in ways of living between the houses is in the kind and arrangement of furniture selected by each household. Despite the fact that each of the houses in San Francisco shares a similar plan, the choices of inhabitation made by residents are less predictable.

In comparing the inhabitation choices of households with a range of spatial attributes, one can observe the capacity of housing to enable choice. The capacity of a house should not be confused with its program, or the specification of the activities of a life-style. A program is static; it states that a "breakfast nook" is required of certain area or dimension to hold a certain number of people. Capacity is the ability of the spatial form of the house — through its configuration, dimension and position — to contain or suggest a variety of uses without having to undergo architectural changes. It extends the functional requirements of a program by holding multiple configurations of inhabitation and receiving multiple associations. For example, a bay window at the edge of a living area defines a territory for individual activities within the larger room of the household. It can hold a seat, a table, a work area, or a "breakfast nook," as selected by the resident.

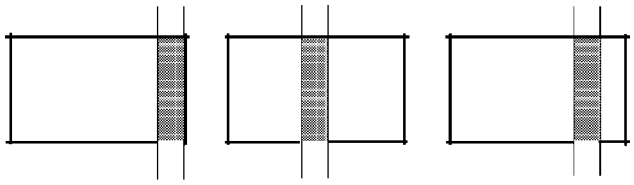


FIGURE 7. *The position of access influences the reading of a space for use.*

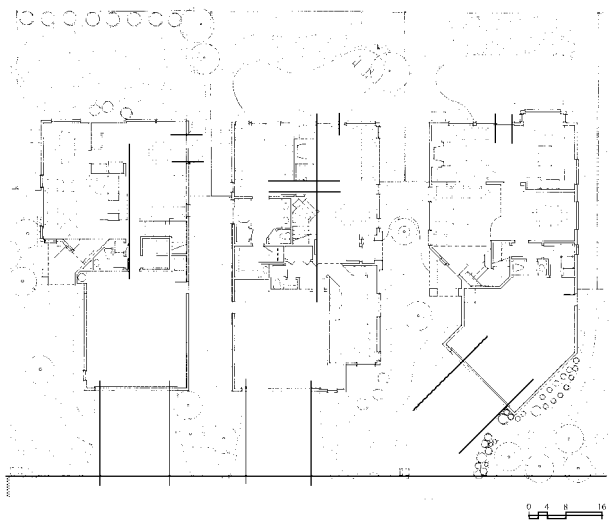
The concept of capacity,[14] while broadly used and understood, needs to be further defined to be useful for design. In this research, several attributes of house form were analyzed by mapping these factors over the observations of places and their inhabitation.[15] Three attributes proved more influential in enabling choice: access — how people move through a house; dimension — the structure of the sizes of activity spaces; and claim — how people establish control over a space.

CAPACITY OF ACCESS

Access provides ways of moving between, into and through spaces; it is the connection between activities.[16] As such, access organizes space for use. For example, if a space is accessed at its edge, the entire area available for use is most commonly read as one unit (FIG.7). If a space is accessed at its center, the area can be read as one single space or two equal spaces, separated by the access. If the space is accessed at another increment — for instance, two feet from an edge — again the area can be read as a single space or as two unequal spaces: one for a primary use, and the two-foot zone that holds personal choices for use. The position and dimension of the access changes the capacity of a room or house.

The overall patterns of access in these two case studies are similar. To reach the house, one turns 90 degrees away from the public sidewalk and street, moves through a front yard and then into the house. Proceeding through the house, one moves through the interior areas, eventually reaching a private, outdoor space at the rear of the lot. Beyond this general progression from a public front to a private back, the presentation of choice to the residents is quite different.

To enter the house in the Clayton setting, one first must walk on the driveway and then onto a path that leads around



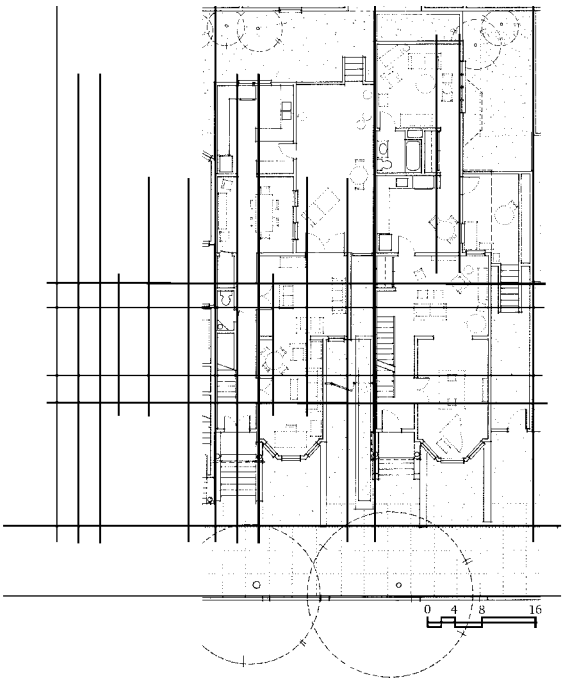


FIGURE 8. *Clayton accessed. The access, whether linear or circular, provides a way to all activities, but has minimal capacity for inhabitational choices. The two houses on the right were unique in the development in that the residents selected two houses whose entries faced each other, and they chose to share an entry path.*

FIGURE 9. *San Francisco accessed. The access has both the dimension to hold activities and the position to increase capacity at both the house and room levels.*

the garage to the entry (**FIG.8**). There is one public entry from the street with a resident option to enter through the garage. However, in the San Francisco setting there are many ways to enter the houses — front or side, ground or first level (**FIG.9**). The typical entry sequence is to move into a front yard and up half a story to an entry porch at one side of the front of the house. Other entry sequences provide access at grade, or half a story below grade to the level below a plinth, typically to commercial, parking, rental or office spaces. The house has the potential to operate as a single unit or as multiple units.[17]

After passing through an entry, the reading of choice again differs between the two settings. In Clayton, the access can be characterized as a single path, either linear or circular, that provides a way to all the activities. Despite an open plan without halls, the path of circulation through spaces is clearly implied as a route to and from activity areas. The access itself has minimal form and dimension; it is located at the edge of most of the activity spaces, maximizing the area for a specified activity and minimizing the potential for other activities or choices.

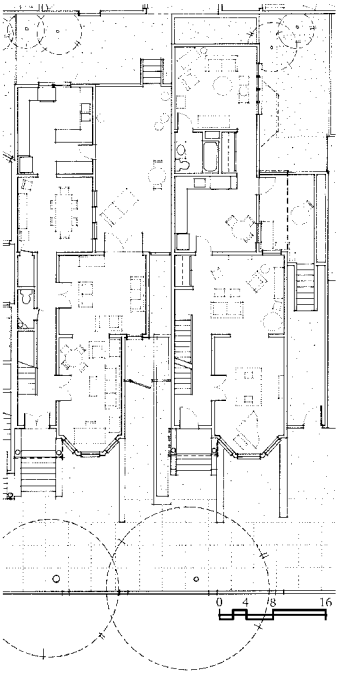
In San Francisco, the access is both dimensioned and positioned to increase interpretations for use. The primary access within the house is clearly delineated in the form of a hallway, especially in the front half of the house, providing access to rooms along its length as well as activity areas that are parts of the movement sequence. This hallway is typically located 3.5 – 4 feet away from the exterior wall that runs the depth of the lot. As in the example of the room, this position of the hall organizes the primary activities on one side of the house with service and personal activities in the four-foot zone. Not only does this zone hold permanent changes such as half baths, closets and stairs, it also increases the capacity of the hall for personal choices (in some houses the passageway holds a sideboard and seats; in others it serves as an entry hall or even a dining area).

Unlike the singular path of the Clayton houses, some of the San Francisco houses have a parallel path that is independent of the hallway access system. For instance, the front room is connected with an adjacent room — originally the "double parlor" — through a four- to six-foot wide opening. Since access to subsequent activities deeper in the lot is already accounted for with the hall, the choice to move between these rooms is made by residents, depending on their reading of the spaces and their life-style needs (**FIGS.10,11**).

The lesson here is not that hallways provide choice. There are many examples of hallways whose dimensional and formal meagerness make them dreary, offering little choice but to move through them as quickly as possible. The lesson is in the need for a capacity to be embedded in the organization, dimension and form of access that allows it to be inhabited by residents to suit their changing needs.

DIMENSIONAL CAPACITY

Dimension refers to the sizes of activity spaces and the structuring of those sizes.[18] As in the earlier example of the room with the bay window, the room's dimension can be read in two ways. The room can be used for one activity, or it can



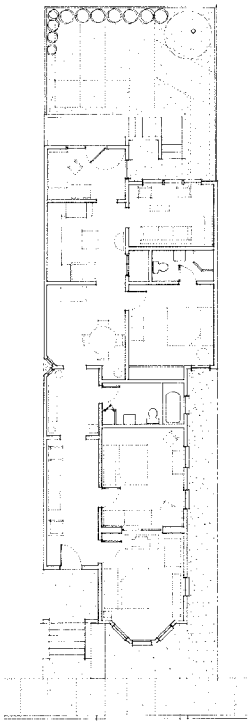


FIGURE 10. *Though their furniture arrangement the residents in the house on the left chose to block access between the front and second rooms; the residents in the house on the right chose to connect the two rooms.*

FIGURE 11. *In this house in another San Francisco neighborhood the household is comprised of three unrelated people. In this case they chose to make the three front rooms individual — closing the doors between the two front parlors and arranging the furniture as if there were no opening.*

be read as having two areas: a large zone that holds a primary activity of dwelling such as entertaining, dining, or sleeping; and a smaller zone configured by the bay window that provides capacity for personal activities such as writing, reading, informal dining, or working.[19] In this way, each room holds the potential for one or several activities to take place simultaneously.

In the Clayton houses, dimensions are laid out according to a program (**FIG.12**). For each specified activity, dimensions are selected from a standard range of spatial and furniture configurations. When "efficiency" through minimal sizes is the objective, the number of possible configurations is intentionally limited. These activity dimensions are then structured, or ordered, according to adjacency requirements of the program. The size and organization as well as fenestration and construction of a house reinforce a room's specificity of use as master bedroom, child's room, formal living room, and so on. Since the form of the house in Clayton is generated from a program of activities, unprogrammed interior space is eliminated by intention.[20] One activity determines the size of each room or space. When dimension is tied solely to a program, a resident's choices are limited, at best, to furniture and its arrangements.

In San Francisco the dimensional analysis reveals bands of six-foot zones arrayed through the depth of the site and three-foot zones parallel to the access of the house (**FIG.13**). Rather than structuring sizes solely according to function and adjacency, these dimensions are also arrayed to increase a house's capacity. These dimensional zones can be read in at least two ways: each zone supports one activity, or combinations of zones may hold an activity. It is also important to note the sizes of the dimensions of the house: three feet, six feet, and then ten to twelve feet. These sizes, alone and in combination, are compatible with particular activities. The reading of the dimensions for use is left to the residents.

Dimensional capacity is concerned with how a form is used in a cultural practice, not in specifying a way of living. In Clayton, the dimensions are generated to fulfill a house's program; in San Francisco, the sizes and structure order the setting as a dwelling fabric[21] into which programs can be read and re-read, increasing the capacity and range of choices for residents.

CAPACITY IN CLAIM

Claim is the control over habitation and access that can be exerted by an individual or a group over a territory. The ways in which people both claim territories and read claims are cultural, informed by experiences.[22] As a guest in a house, a person may be able to enter an area, yet something about the form of the access — an open or closed door, the nature of the threshold of a passageway, the quality of light at the end of the hall — is read as an indication whether to go further. Likewise, if residents want to indicate their claim over a space, they will accentuate their control — by opening or

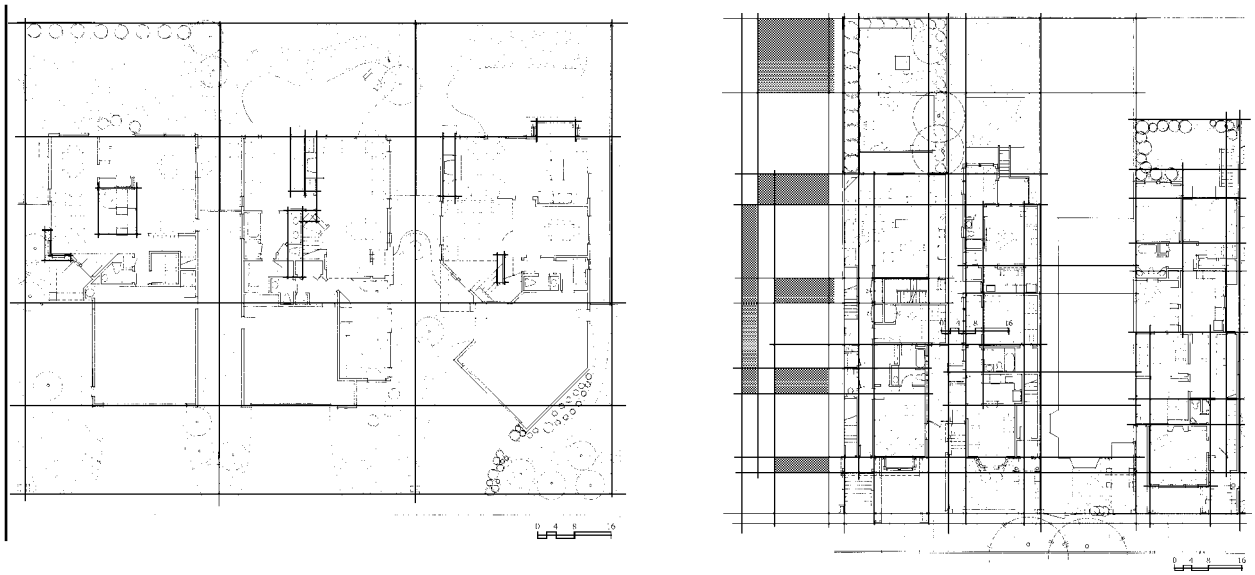


FIGURE 12. *Clayton dimensioned. In the dimensional overlays, the unshaded territories are the areas required for primary activities and their variation as inhabitational choices using normative 1996 dimensional standards. The shaded areas are the territories with the potential for personal choices. The Clayton houses only provide dimensional capacity in the areas better known as entertainment walls.*

FIGURE 13. *San Francisco dimensioned. Dimensional capacity is arrayed in six-foot bands through the depth of the site and three-foot bands parallel to the access of the house. These bands provide opportunities for both inhabitational as well as adaptational choices.*

closing curtains, doors or gates, by turning on a light, or by the positioning certain activities next to each other to exclude or welcome. As before, the question is how house form influences interpretations of claim.

In Clayton the pattern of claim is the same from household to household occupying the same model homes (**FIG.14**). The open plan of the living, dining and cooking areas excludes private activities from that part of the house. Likewise, individual spaces are smaller, cellular, and separated from the rest of the house to provide privacy, excluding shared household activities from this part of the house. When coupled with the functional specificity of the rooms — for example, as a bedroom (by dimension, by access to bathroom and closets, and by light and view) — the form of the house suggests that sleeping is a private, individual and isolated activity. Yet, for some people sleeping areas are shared spaces for family members and guests and do not require isolation from the rest of the house, as in the first story of Leo Lopez.

In the San Francisco houses, there is a public-to-private gradient based on the position of a space either toward the street or rear yard. The rooms have similar sizes, shapes and orientations, eliminating function as the only reading of a room. While these rooms were built to accommodate particular activities and claims of the early twentieth century, current residents can also interpret the forms of the rooms to suit their particular requirements and claims (**FIG.15**). Thus, while one resident may claim the front room as a living area overlooking the street, another household may elect to place the living area at the back of the house, overlooking the yard. The overall pattern of claim varies from house to house based upon choices of what activity is private and what is public for each household.

The front exterior zone of the houses can also be assessed regarding choices of claim. In both settings the garage occupies a majority of the front width of the lot, leaving only enough dimension for access to an entry. By positioning the garage at grade in the Clayton development, dwelling activities are separated from the front yard. By default, not choice, the household is isolated from the street. In San Francisco, the garage is located half a level below the main level of the house,

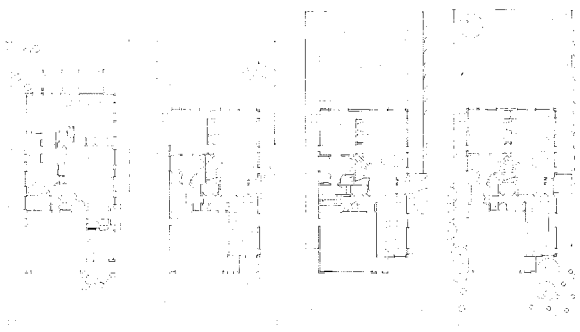


FIGURE 14. *Clayton claimed. Four houses of the same or similar model home, two from figure 5 and two from across the street from the documented setting, are compared. The darkest tone indicates areas claimed by individuals; the dark gray by households; the light gray by neighbors; and the untoned areas are public. In this example the claims are identical from house to house.*

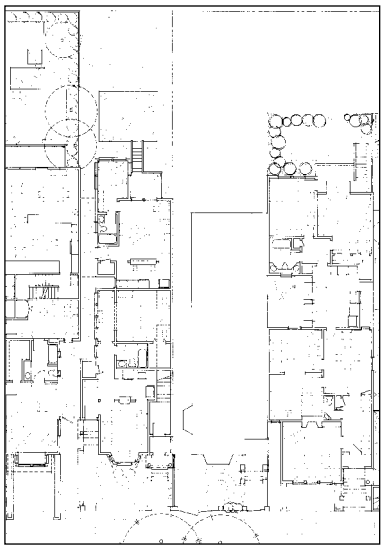


FIGURE 15. *San Francisco claimed. Within a public-to-private gradient from the front to the rear of the house, residents choose the location of activities and their relation to the gradient. The house on the left places individual space in front; the house on the right in back; and the house in the middle, which is subdivided into two apartments, places individual spaces in the middle and the rear. The house form does not predetermine the claim.*

allowing a person above the garage to look upon the street, with privacy ensured by the change in level. A household can choose the degree of connection or separation to be made with the street through their inhabitation of both the bay window and the front yard.

In this San Francisco neighborhood there is a common way of inhabiting front yards: low curbs and shrubs demarcate areas of each household's claim while still inviting visitors through open visual and physical access between the street and house. This is a choice, shared by several residents, that is made apparent by the contrast of the middle household's decision to exclude with a four-foot-high fence around the perimeter of their yard.

Again, the lesson for design is not to mimic San Francisco Victorians by making all rooms the same size and configuration, but to avoid the over-segmentation and over-specialization of spaces for use or claim. Whether on a room-by-room basis, or through a range of claims throughout the house, the form of a house can enable the choice of claim to be made and remade by residents.

PROVIDING CHOICE

There is broad consensus that personal choice in housing is fundamental. Contemporary approaches to providing choice include prototypical homes, flexible homes, and custom homes. While all these strategies provide options, they assume selection and adaptation as the modes for accommodating differences and change in culture. An argument for the form of dwelling that enables use and association over time is still a necessary complement to all the above approaches.

While selecting a model home is a kind of choice, it is a consumer-based selection that reflects one's immediate projection of life-style. Each space has a functional designation; each activity for a way of living is fulfilled on a space-by-space basis. In this way, the form of the house is said to be efficient. But increasing choice — through the formal structuring of capacity of access, claim, and dimensions — is hardly an inefficient alternative. A house designed with the capacity to accommodate choice still fulfills a given program, but it also holds the potential to extend, change and hold alternative programs as well. Moreover, increasing capacity does not inherently increase the size of a dwelling. If one designs dwellings on a programmatic basis, adding capacity on a room-by-room basis does add area to each activity. But the design of capacity is not programmatic, it is formal and spatial. In the long run, embedding capacity in housing is more efficient and more sustainable.

The flexible home provides an overall framework for subsequent personal decisions to be made by the resident. An argument for flexibility, defined as an unimpeded set of spaces that are sized to accommodate many changing activities, is not an argument for choice. A flexible space allows for a loose or ambiguous fit between the form of the house and its potential activities by minimizing design features.[23] Too often, the design of flexible spaces removes character and intensity from the form of a house, leaving neutral, empty shells. While many activities may fit, none seem to fit well. Residents no longer make choices in concert with the environment. Choice requires more than flexibility — it requires that the form of a space be able to evoke different meanings, associations and actions for residents over time or for different households.

A third way of tailoring choices into housing is through user participation and custom house-design methods, in which the projected or the actual users participate in the design process, making choices before the completion of construction. While participatory approaches support choice-making during the design stage, the danger again exists in limiting subsequent and everyday choices if capacity is not embedded in the house form. In any participatory process, decisions about form still need to be made.

While San Francisco is representative of both a Victorian building style and typology, and Clayton is representative of contemporary development, this comparison does not make a case for urban or suburban dwelling, for typological or prototypical design. Instead, it argues for the need to embed a capacity into the design of houses that absorbs diversity, not specificity, in ways of living. There is nothing in contemporary residential development and design that precludes supporting culture as diverse and temporal except to require capacity in the performance of our housing.

The analysis of the case studies shows that while the formal attributes of housing are not deterministic, they are material in enabling choice in everyday living. The form of the house has the potential to convey and receive impressions, to inspire a dialogue between place and inhabitant that is rich with a range of interpretations over time. While there is no single design formula, method or pattern to achieve this dialogue, it begins with a disciplined way of seeing choice in form, of understanding form and use, and of structuring choice in a way that is experiential rather than programmatic.

REFERENCE NOTES

A version of this paper was presented as "Cultures and Settings: Supporting Variations in Residential Design" at the 1996 IASTE Conference, "Identity, Tradition and Built Form: The Role of Culture in Development and Planning." I would like to thank the residents who kindly opened their doors and shared their stories. In addition, my gratitude goes to L. Bracamontes, G. Urban, C. Wardell, and the students of Arch 118AC and 209A at U.C. Berkeley. All resident names are fictitious.

1. P. Bourdieu, *The Logic of Practice* (Stanford: Stanford University Press, 1990).
2. A. Busch, "Suburbia and Suspense," *Metropolis* (October 1994), p.116.
3. M.C. Waters, *Ethnic Options: Choosing Identities in America* (Berkeley: University of California Press, 1990).
4. A. Rapoport, in "Forward," in S. Low and E. Chambers, eds., *Housing, Culture and Design: A Comparative Perspective* (Philadelphia: University of Pennsylvania Press, 1989), talks of "congruence" between life-style and the environment. E. Pader, in "Spatiality and Social Change: Domestic Space Use in Mexico and the United States," *American Ethnologist,* Vol.20 No.1 (1993), p.114, writes "that the ways in which people use and organize their spaces are dynamically implicated in the enculturation process, in the creation, maintenance, and transformation of one's 'intelligible universe'."
5. This story is based upon an interview conducted by the author in the Spring of 1995. The family name is changed.
6. This "central" reading of a predominantly linear house form occurs frequently in San Francisco houses. Further examples can be found in Figure 6.
7. This story is based on interviews conducted by the author in the Spring of 1996. The family name has been changed.
8. G. Wright, *Building the Dreams: A Social History of Housing in America* (Cambridge, MA: MIT Press, 1981).
9. G. Wright covers the social, technological and economic events surrounding the transformation of the house from the Victorian period through the World Wars. C. Wilson, in "When a Room is the Hall," *Mass: Journal of the School of Architecture and Planning, UNM,* Vol.2 (Summer 1984), formally describes the transformation of Hispanic houses of the Southwest as a result of functional specialization.
10. H. Caminos with J. Turner and J. Steffian, in *Urban Dwelling Environments: An Elementary Survey of Settlements for the Study of Design Determinants* (Cambridge, MA: MIT Press, 1969), describe the physical characteristics of places at several levels, of which the documentation at the "dwelling group" and "dwelling" levels reveals the relationship between occupant and house form.
11. S. Muratori, in *Studi per una Operante Storia Urbana di Venezia* (Roma: Istituto Poligrafico dello Stato P.V., 1959), documented Venice as a fabric and reconstructed its changes over time.
12. S. Anderson, in "People in the Physical Environment: The Urban Ecology of Streets," in S. Anderson, ed., *On Streets* (Cambridge, MA: MIT Press, 1977), describes a portion of Paris through several systemic layers.
13. S. Kent, in *Analyzing Activity Areas: An Ethnoarchaelogical Study of the Use of Space* (Albuquerque: University of New Mexico Press, 1982), describes the use of space as "subliminal and conscious decisions we make every day concerning locations at which a diverse range of activities will be performed. Such decisions are based on the spatial patterning that is learned in childhood through socialization." Kent's method includes mapping the artifacts of a household and their location within the house for analysis.
14. The concept of capacity and the phenomena of form to take on multiple uses is discussed by many architects. N.J. Habraken, in "Control of Complexity," *Places,* Vol.4 No.2 (1987), pp.3-15, discusses the concept of capacity at many environmental levels; Anderson, in "People in the Physical Environment," describes environmental latency; H. Hertzberger, in *Lessons for Students in Architecture* (Rotterdam: Uitgeverif, 1991), describes the polyvalent nature of form to be "read" or used in a variety of ways, depending upon what the individual brings as an association; and R. Venturi, in "Contradictory Levels Continued: The Double-Functioning Element," *Complexity and Contradiction in Architecture* (New York: Museum of Modern Art, 1977), questions multifunctioning flexibility — a "both-and" problem — and advocates the double-functioning element.
15. In this broader study of sixteen settings, conventional design attributes of housing — dimension, containment, construction, light, access, and claim — are studied systemically over several houses to discern the contribution of a particular attribute to the whole. For this paper on the capacity in housing for choice, three attributes emerged from the broader study as being most relevant — dimension, access and claim — and are discussed later in the text. Some attributes, such as construction (the position of load-bearing and non-load-bearing walls), have more influence over capacity for adaptation, but less influence on choices of inhabitation.
16. E. Pader, in "Spatiality and Social Change: Domestic Space Use in Mexico and the United States," *American Ethnologist,* Vol.20 No.1 (1993), pp.115-37, describes the circulation and organization of rooms as key in establishing familism in Mexican society, and contrasts forms of circulation in Mexican houses to those in U.S homes. B. Hillier, in "Natural Movement: Or, Configuration and Attraction in Urban Pedestrian Movement," *Environment and Planning B: Planning and Design,* Vol.20 (1993), pp.29-66, makes the case against hierarchic forms of access that emphasize "to and from" attraction theories, and advocates more multiple forms of urban movement that allow greater degrees of choice. This argument can be extended to the house.
17. A.V. Moudon, in *Built for Change: Neighborhood Architecture in San Francisco* (Cambridge, MA: MIT Press, 1986), gives a thorough description of the housing fabric in San Francisco as a typological structure that supports variation and change.
18. In this study, the capacity of a house to hold a variety of activities is identified by comparing two sources of dimensions. The first is a set of dimensional standards for activities derived from American standards books. The second source is identified from the field documentation. In each setting the area of primary activities for a household is identified and compared to the normative standards. Other arrangements for the same activity are compared to the highlighted area. Areas of additional activities selected by residents are then identified, if there are any. These territories are toned and their dimensions also compared to normative standards. Other places of personalization, as seen through personal effects, are also toned. Finally, the resulting map is analyzed as to the structuring of primary and optional activities.
19. These zones of dimensional capacity are also

interesting to study in terms of the adaptational choices that have been made in them by residents. In many cases, kitchens, baths, closets and stairs have been added in these zones. An analysis of dimensions of activities, completed for a variety of individuals and cultures, reveals that certain dimensions for zones of capacity are more useful than others. This argues against a random generosity of size, but for a more formal way of embedding capacity.

20. One model home in Clayton has a front room which has intentionally been left ambiguous for resident choice. It is programmed to be "unprogrammed" — or for the use to be designated by the resident.

21. "Dwelling fabric" is a term used to describe the built environment as a continuously experienced structure of spaces in which the everyday activities of living take place. It describes relationships from room to house to street to neighborhood, as well as relationships from rooms to rooms and houses to houses. This concept of a dwelling fabric is discussed by the author in R. Chow, "Representing Dwelling," in *Architecture and the New Geographies of Power* (Proceedings of the ACSA West Regional Meeting, 1997); and "Phenomena and Practices of Dwelling: Suburban Alternatives," in *Proceedings of the 84th ACSA Annual Meeting and Technology Conference* (ACSA, 1996).

22. R. Lawrence, in *Housing, Dwellings and Homes: Design Theory, Research and Practice* (Chichester: John Wiley and Sons, 1987), describes research in housing choices in relation to privacy and territoriality. K. Herdeg, in *Formal Structure in Islamic Architecture of Iran and Turkistan* (New York: Rizzoli, 1990), graphically depicts the overlapping domains of a city fabric as experienced by people of various social and religious positions. Anderson, in "People in the Physical Environment," graphically maps a public-to-private gradient of claim over the fabric of Paris to study the potential reading of spaces. The term "territorial claim" is also used to describe the process of controlling a space. When increasing possibilities for choice, the terms need to be uncoupled, since claim over a territory should be part of choice, changing on a day-to-day basis or from resident to resident. Therefore, territory refers to the space, and claim refers to the control of activity. In this study, the parties that claim are grouped in various combinations of individuals: public (any visitor), community (nearby residents, daily visitors, and guests), neighbors (residents who live in contiguous arrangements), household (any combination of individuals who reside in one dwelling unit), and individual (any person/couple who share in exclusion of other household members).

23. S. Pikusa, "Designing for Functional Adaptability: A Lesson from History," *Architecture, Australia*, Vol.72 No.1 (1983), pp.62-67.

All drawings are by the author.

Field Report:

Twenty Years of Change in the Built Environment of Yemen

FERNANDO VARANDA

Until the 1970s the built environment of North Yemen conveyed a general image of homogeneity, consolidated through centuries of isolation. There were episodic partial occupations of envoys from the centers of Islamic rule, but the area was never controlled by any of the Western powers that dominated, politically or economically, the surrounding countries. The Republican Revolution of 1962, however, introduced many changes in a short period. This report examines a few aspects of the changes that took place in the built environment between 1970 and 1990. These years have local political significance and may be seen as milestones in the progression of the culture of North Yemen toward exposure to the world beyond long-established natural and political limits: 1970 was the year of the "Reconciliation" between the intervenients of the Civil War that followed the Revolution; and 1990 was the year of the "Unification" of North Yemen and South Yemen. The report attempts to describe some changes in the forms of buildings during this period and their contribution to the transformation of regional vocabularies. It also looks at a few aspects of the country's urbanization, understood not only in terms of physical expansion, but also as the diffusion to rural situations of values and attitudes from central areas.

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Yemen is the name given since antiquity to the southwestern corner of the Arabian Peninsula where the chains of mountains running between the desert of the Rub' al Kha'li (Empty Quarter) and the Red and Arabian Seas meet and rise to more than 3,700 meters.

Fringe areas of this region are now included within the political boundaries of Saudi Arabia and Oman, but its bulk, approximately 490,000 sq.km., comprises the Republic of Yemen, formed in 1990 through the unification of the Yemen Arab Republic (also known as "North Yemen") and the People's Democratic Republic of Yemen (or "South Yemen"). The Republic of Yemen's capital is Sana'a; its main port is Aden (FIG.1).

Broadly speaking, present-day Yemen incorporates three major natural regions: the coastal strip, the mountains, and the desert fringe. Steffen has presented a convenient classification of natural regions in the country based on the orientation and characteristics of its three main mountain escarpments[1]: the western escarpment slopes toward the Red Sea, the eastern toward the desert, and the southern toward the Indian Ocean. These mountain features condition climate and form specific drainage systems. The natural region defined by each is further subdivided, according to altitude and a climatic progression from hot and humid to temperate and dry, into lowlands (sea level to 500-1,000 m.), midlands (lowlands to 1,500-1,700 m.), and highlands (midlands to 3,760 m.). The central spine of the highlands is marked by a series of alluvium-filled valleys where some of the most important mountain towns, including the capital, Sana'a, are located. Of the country's other important areas, the western (and part of the southern) lowlands — the coastal strip — are known as the Tihama; the eastern midland and lowlands, encompassing part of the desert, comprise a region commonly known as Al Mashriq, or the Eastern Plateau; and the southern midlands, mostly located in what was formerly South Yemen, form another distinct region, the Hadhramawt.

FIGURE 1. *Yemen and its neighbors in 1990.*

Physiographic characteristics may explain many building differences, but other factors, such as social organization and territorial delimitation, have also contributed to the regional distribution of building techniques and styles. In particular, tribal affiliation has been important, its influence increasing as one progresses from the coast to the highlands and Eastern Plateau. In interior regions, the tribe has served as the core of social organization since pre-Islamic times.[2]

For more than a millennium before the arrival of Islam, Yemen's culture was based on control of the incense road. Impressive remains are still being uncovered of towns, temples, and irrigation works, of which the best known today may be the Marib Dam (500 BC to 500 AD).[3] However, after the arrival of Islam, Yemen became a mosaic of states with shifting borders, controlled in turn or simultaneously by local dynasties, the mountain tribes, or envoys of the dominant Islamic power. Such states often comprised territories which began at the coast, progressed inland, and stopped where they could no longer win over the highland tribes. This partly explains differences between the culture of the coastal areas and the southern mountain slopes, whose populations came to profess the Sha'fi school of Sunnism, and the culture of the northern highland tribes, who came under the influence of the Zaydi Shiites.[4]

Thus, the isolation of North Yemen until recently can largely be explained by two factors: the rugged nature of its mountainous core, and its inhabitation by close-knit tribal units with a high degree of autonomy who were able to rally under a general leader — the Zaydi Imam — in the face of strong common enemies. The latter trait was particularly evident in response to the Turkish invasions in the sixteenth and nineteenth centuries. Resistance to the Turks united different factions in common cause, and ultimately proved the motivating force allowing the Zaydi Imam to consolidate its rule over the country, making Yemen the first independent state of modern Arabia — a fact which, however, did not lead to any appreciable opening of the area to the outside world.

Paradoxically, the autocratic and isolationist rule of the Imam relied on a military force whose officers, trained abroad, became exposed to ideological principles established in Egypt in the 1950s under Nasser. Thus, in 1962 the "Republican Revolution," led by a group of army officers, brought an end to the Imamate, whose autonomous rule had prevailed for a millennium over some part or another of Yemen. The officers found support both among segments of the population eager for modernization and among conservatives who disagreed with the Imam's intention to continue rule through dynastic line instead of through the Zaydi principle of elections. A civil war followed which lasted until the end of the decade, pitting adepts of the Imamate against the government of the new "Yemen Arab Republic" — the former backed by Saudi Arabia, the latter by Egypt. At the

same time, the British, who had held Aden and its hinterland for more than a century, were faced in the South with the struggle for independence of what became, in 1970, the "People's Democratic Republic of Yemen."[5]

The changes brought about by the Republican Revolution in North Yemen have, since the early 1970s, clouded the image offered by the country's traditional built environment. At that time, buildings appeared to express a collective identity that often led expatriates to use statements like "all Yemenis are architects" when summing up local culture. Implicit in such a view was an association of tradition with harmony in the relationship between dwellers and environment, involving the direct relation of body with matter, and reflecting on social and individual values.[6]

In the ebullient twenty years that followed the Revolution, however, signs of idiomatic differentiation began to appear in the built environment which foretold an increasing social and spatial heterogeneity — notwithstanding the prevalence of local formal models, however subject to new interpretations and however cladding structures from exotic origins. The question today is whether and how the inspirational value of traditional construction and the intellectual concern for historical continuity can contribute to a representation of global identity in the lineage of the built environment for which the country became known.

AGRICULTURAL TERRITORY

Although not unique to Yemen, terraced agriculture has long been one of the country's most characteristic traits, particularly on the western and southern slopes of its highlands. However, the last quarter of a century has witnessed the decay of the terrace structures for a number of reasons, among which are a preference for tracts of land which support mechanized agriculture, the impact of low-priced imported foodstuffs, the tearing of terrace tissue to expand the country's road network, and a shortage of manpower for maintenance due to emigration and the progressive rejection of the hardship involved (**FIG.2**).

The rehabilitation of the terraces, a costly task and a much-debated question in 1990, has been considered a government responsibility, both to prevent the erosion of mountainsides and the disastrous flooding of valleys below and to maintain the terraces' emblematic value (Yemen without terraces, for many, is unimaginable). However, in the years since 1970 terrace maintenance has, for all practical purposes, been left to local initiative. Thus, the situation has remained much as before the Revolution, but without the level of necessity and collective responsibility once required by a society reliant on terrace agriculture for self-sufficiency.[7]

Water collection and distribution methods, one of the achievements of Yemen's antiquity, were by 1970 reduced to simple forms of spate irrigation along *wadis* and the collection of runoff water by open-air cisterns *(ma'jil)*. The variety and formal quality of *ma'jil* are an important part of Yemen's identifying patrimony, but the use of mechanical methods to extract water from deep aquifers has largely rendered them obsolete. *Ma'jil* today often serve as dumps, with garbage floating in filthy water (**FIG.3**).

It has now been recognized that "neglect of terrace maintenance, excessive ground water extraction and consequent salinization" are key factors behind the trend toward desertification in the country,[8] considered almost irreversible by the end

FIGURE 2. (LEFT) *Erosion of terraces at Hajja, 1990.*

FIGURE 3.(RIGHT) Ma'jil *in Hajja, 1990.*

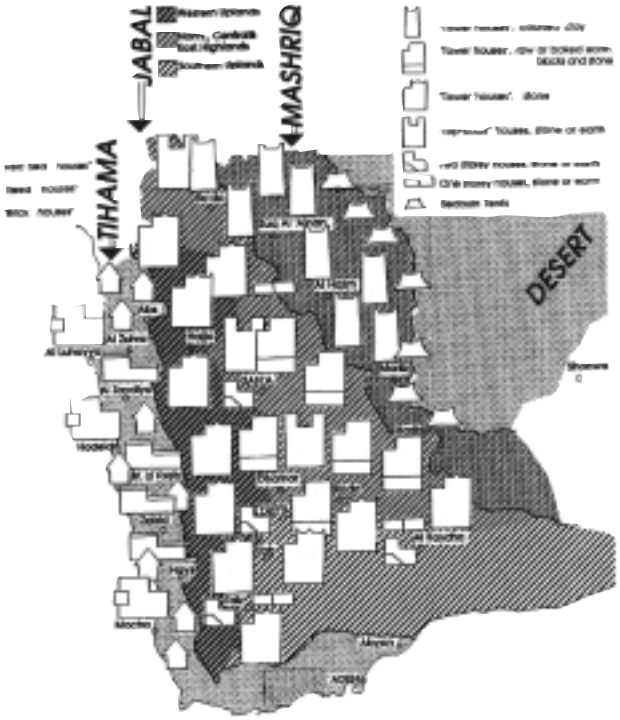

FIGURE 4. *Schematic map of house typologies in pre-Revolution North Yemen.*

of the 1980s. Other side-effects of development, such as organic and chemical pollution and the generation of waste, have become major concerns in a society which traditionally produced no waste in quantity or nature other than that which could be immediately recycled.

DWELLING TYPOLOGIES AND SETTLEMENT PATTERNS

Generally speaking, building and dwelling options in the country can be grouped according to its broad natural regions. Except in the desert, where, according to the traditions of Arabian desert dwellers, shelter was traditionally provided by tents, regional specificities developed to include particular typologies, materials, and formal treatments (FIG.4).[10]

The most elementary level of shelter was represented in the mountains by caves and ledges adapted for use by individuals and even small communities. Some of these were still occupied twenty years ago, and showed a preoccupation with the formal treatment of the interior. However, the clearest expression of entirely manmade basic shelter was the *saqif* (literally, "roof"). These one-room, earth-covered, stone structures, mainly used by shepherds, were either quadrangular, roofed by stone slabs on monolithic beams and arches, or round, roofed in the manner of a false dome by increasingly smaller rings of stones.[9] The quadrangular form, in particular, represents something of a constructive model for Yemen, its flat roof having been adopted for use in structures from simple houses to large mosques.

In the mountains the identification of house types depended more on structural complexity and consequent spatial organization than on the material out of which they were built. The most primitive forms were always made of stone, but earth and stone were used for all the three major types: single-story; two-story with an external stair (with living quarters located above ancillary spaces); and multistory with an internal stair,[12] a form commonly known as the "tower house."[13] The latter were the most widespread form of dwelling structure in the mountains. They were present from the smallest rural cluster to the largest town, and they have provided the publicized version of the "traditional Yemeni house."

Within a tower house, space was organized on levels along a continuous interior stair, from ancillary spaces on the ground floor, through reception rooms and household storage at the intermediate levels, to private quarters above. Roofs were fully accessible and used as terraces, often equipped with a kitchen, a bathroom, or a reception room called the *mafraj* or *mandhar* (FIG.5).[14] One variation of the tower house consisted of rooms around a courtyard on the top floor, with light wells offering illumination to the floors below. This form may have been derived from a form existing since pre-Islamic times, which

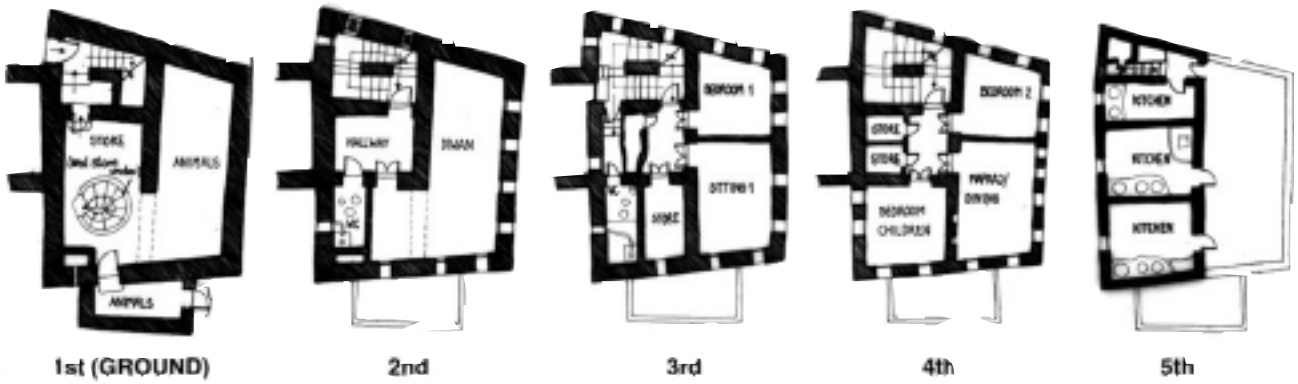

FIGURE 5. *Schematic plans of a characteristic rural house in Haraz, western highlands (1976).*

FIGURE 6. *Outskirts of Al Tawila, 1990.*

was transmitted by local Jews (the last Himyarite rulers had converted to Judaism), whose houses in Sana'a resembled scaled-down versions of this model.[15]

In the Tihama three major house types developed: reed houses, brick houses, and Red Sea houses. Both reed houses (made of various types of thatch, with round or quadrangular plans and conical or pitched roofs) and brick houses (made of baked-earth blocks, with quadrangular plans and flat roofs) were basically organized as compounds of single-story, single-room constructions around a courtyard. Yet, while their functional organization was similar, they were differentiated in terms of structure and decoration both by material and by kinship to dwelling forms in Africa and India, respectively. Red Sea houses, of which a few ruined examples still existed in 1990 in Moccha, Hodeida and Al Luhhayia, represent a distinct typological enclave.[11] They were part of a family of structures existing on both shores of the Red Sea from Ethiopia to Sudan and Saudi Arabia, characterized by, among other things, the variety and quality of woodwork in their wall openings. Red Sea houses were generally two or three stories high, with an internal stair and a spatial organization close to that of multistory mountain houses.

Settlement formation and siting follow a few basic patterns. Along the coast, besides fishing villages and harbor towns, settlements developed along the trade paths of the mid-plain. In the midlands and throughout the Eastern Plateau, farming villages and hamlets concentrated near *wadi* basins. In the highlands there was a characteristic preference for settlement locations on peaks and rock outcrops. This has been explained in a number of ways: by the need for defense and visual control of the territory; by the necessity to reserve all land fit for farming; and by such subjective reasons as a taste for disengaged views (**FIG.6**).

The exterior boundary of highland settlements was usually well defined. In smaller settlements the protective and delimiting role of natural features such as rock outcrops might be complemented by construction of a solid outer ring of houses, whose lower, windowless, floors were used for animals and storage and served the same function as a rampart. By contrast, upper-floor living quarters in such houses had sufficient windows and could be used as lookout positions (**FIG.7**). On flat ground, watch towers at some distance from the settlement would serve an additional protective purpose, but larger settlements relied on free-standing walls for confinement and defense.

The houses of community leaders might serve as elementary citadels, where community foodstuffs could be stored, and where in times of war villagers might seek refuge. Yet, although they may have been identifiable by their location or relative size, such houses did not usually present exceptional external signs of distinction.

Even the smallest settlement had a mosque, if in no other form than as a small structure adjoining the headman's house. Mosques inside a settlement were frequently paired with mosques outside its boundaries. A congressional mosque meant a settlement of a certain importance; in large towns neighborhoods normally had their own mosques.

The association of places of prayer with sources of water has been a pervasive part of the mountain scene. Elementary forms, consisting of a paved area with a raised stone marking the direction of Mecca, could be found adjoining *ma'jil.* The small mosques dotting the countryside also often displayed large ablution pools, whose size may be explained more by the need for irrigation water than for ablution.

Markets provided regular intersettlement contact.[16] They received physical expression either as open spaces where tents and awnings could periodically be set up, or as clusters of simple stalls made of stone or mud (in the mountains), or of reed (in the Tihama). These would normally be deserted except for one day a week, although occasionally they might have a small permanent population of caretakers with no tribal status. Such marketplaces could appear as nodes within a trade network established outside and at a distance from the settlements they served. Or they might appear as an integral part of the space within the walls of a town. In the latter case, the structure of market areas might take the form of an itinerary, beginning at one of the town's main gates where an open space would be informally defined as the location of a periodic market, proceeding into the settlement by means of a market-stall-lined street, and culminating at the town's great mosque, where the associa-

FIGURE 7. *Dhu Awlayin (Dhamar), 1976 (destroyed by the 1982 earthquake).*

tion of great mosque and market would define the town core.

Places of polity were not necessarily located in this core, and by themselves they defined no special instance of public space. Nevertheless, the ruler's quarters were often sited near the marketplace, this being the natural place for mass concentrations and for public acts, including the carrying out of punishment.

The coming together of places for prayer, trade, and the exercise of leadership may functionally characterize an urban space (**FIG.8**). But the peculiar urban atmosphere of Yemen's mountain settlements, independent of their size, owed much to the homogeneous texture of streets lined by tall buildings, whose treatment always revealed attention exterior appearance (**FIG.9**). The relationship between buildings and their environment resulted in a formal mimetic component which is particularly suggestive in the highland skylines of tower-house clusters and rocky peaks. It is also possible to see a mimetic component in the relation between the spatial organization of houses and the uses of land in the surrounding environment.[17] Both can be understood as vertical structures of ascending horizontal layers with corresponding functions. Thus, spaces to grow food — *wadis*, terraces — correspond to spaces to store it on the lower floors of the house. Spaces for transient populations on the mid-slopes — markets and road-side mosques — correlate with reception rooms for general guests *(diwan)* on the floor above. Higher up, access is restricted for outsiders to the spaces of the village or hamlet, just as access is restricted for outsiders to family rooms on the upper floors of the house. Finally, at the highest point of the settlement, the *shaykh's* quarters find a correspondence with the *mafraj,* the isolated top room of the house, the realm of the eldest man where only selected guests are received.

FIGURE 8. *Aerial photo of Sa'da, ca. 1973.*
1) fort;
2) market;
3) great mosque;
S) square;
G) gates.
(Source: Physical Planning Division, Ministry of the Municipalities, Sana'a.)

FIGURE 9. *Suq al 'Ainan, Barat, 1976.*

TRADITIONAL MATERIALS AND STYLES

Traditional materials and building techniques were related to the natural regions described above. Thus, thatch construction only existed in the Tihama, while stone construction *(hajjar)* prevailed over the central massif, alternating with construction in raw-earth blocks *(libn)*. Raw-earth-block construction appeared wherever the material was available, but the best examples may be found on the peneplains from north of Sana'a to the southeast of the country. Another type of raw-earth construction — by layers, known as *zabur* — was characteristic of the north and the northeast. Use of baked bricks *('ajur)* appeared in the Tihama and in the major towns of the highlands: Sana'a, Dhamar, Rada'a, and, to a lesser extent, Ta'iz. Floors and roofs were made everywhere according to the same principle: joists or tree trunks were disposed at regular intervals, covered across with branches and a thick layer of sifted earth. In the interior, walls were subsurfaced in mud and rendered with lime or gypsum plaster, while roofs might be left with the earth exposed or waterproofed with lime plaster. Stone shafts and slabs might be used in the most primitive constructions instead of wood joists and branches.

Regional distinctions were affirmed through the choice of wall finishes, decorative options, and the treatment of openings. With the exception of brick houses in the Tihama which might have had their front elevations entirely plastered and carved, the decoration of brick and stone walls consisted basically of variations on diamond and zigzag reliefs (**FIG.10**). Otherwise, external decoration only appeared in two major forms: whitewashed geometric designs on stone walls in the western mountains, and bands of red and yellow ochre paint around the openings and roof lines of the *zabur* buildings of the Eastern Plateau.

Interiors, however, which were generally rendered in lime or gypsum plaster, could be considerably embellished with carvings, especially around windows and fanlights. Alabaster, the original material for fanlights, had largely been replaced even before the Revolution through much of the country by *takhrim* — a combination of stucco tracery and colored glass panels that afforded the opportunity for a great variety of designs.[18] Rooms also characteristically featured niches, built-in cupboards, and plaster shelves which were usually also the object of decoration.

NEW PROFESSIONS

At the end of Civil War the master mason *('usta)* still served as both designer and builder of three-dimensional space.

FIGURE 10. *Stone inlays, Rada'.*

His qualifications were guaranteed by a long process of apprenticeship and his subsequent acceptance into a professional league. For him, design of space was not predetermined by conventional drawings, but was developed in the act of building. Repetition of basic functional models was common and followed established stereotypes. The *'usta* might also have served as contractor *(muqqawal)* within the restricted practices of the time.

Since the 1970s, however, new building-related professions have emerged, and by 1990 the role of the master mason had considerably changed. For example, the *'usta* could not always meet the organizational challenges of new materials and programmatic demands. Consequently, many were relegated to working as concrete masons in buildings produced by contracting firms, affirming their skill and personality only in the final stages of construction, when finishes were carried out in stone or brick.

Contractors *(muqqawal)*, on the contrary, represented in 1990 a well-developed category. Their work depended on economic profit derived from the act of building, regardless of the intrinsic quality of the design or the origin of the project. Ideally, this would require the assembly of industrial components and basic prototypes with a minimum of formal variation and with quality demands set by the market.

The other group presently involved in construction are design professionals *(muhandis)*, either civil engineers or architects. They were originally associated with roles in public administration and family enterprises, working occasionally with contracting firms for large-scale ventures. Their necessity was first justified by the calculations required for concrete structures, and later by the bureaucratic procedures of building permits. It is, however, in their work that a deliberate search for new models or interpretations of the traditional heritage can be recognized, however filtered by drawing-board discipline.

NEW TYPOLOGIES

Concrete-frame and concrete-block construction first entered the towns of Yemen through the influence of the Egyptians who came during the Civil War.[19] With these new materials came two new dwelling types: the three- to four-story apartment building with shops on the ground floor, which first appeared in the main towns, but which was later adapted, with different textural treatments, to roadside development; and the single-story villa sited in the middle of a walled yard, which became favored by the new urban elite, and which has also appeared in impoverished versions in fringe areas around the country's main towns.

Of the two forms, villas have offered the most fertile ground for the introduction of exotic plans, volumes and textures. But the first villas actually offered a fairly standard spatial organization, not much different from that of an apartment, with a reception zone separated by a door from the central hall or corridor onto which family rooms opened. In villas, a stair to the roof did offer the potential of expansion, and by 1990 many villas in Sana'a had expanded upward and assumed the bulk of pre-Revolution suburban houses. These had been set in the middle of orchards, and which offered two or three stories, with living quarters on the ground floor (FIG. 11).

In rural mountain areas, expansion in height also followed an initial proliferation of single-story structures. The main difference between these and earlier mountain houses, once they have grown to the volumes of their predecessors, has been functional: the ground floor is now used as living quarters, not for storage or quartering of animals.

Meanwhile, in the Tihama new houses have tended to adopt the volumes of the traditional brick houses, with baked-clay brick being substituted for concrete block. Such struc-

FIGURE 11. *Villa in Sana'a, completed in 1990, with stone for the building and concrete blocks for the yard walls.*

tures have infiltrated former zones of homogeneous reed construction. Variations of the provincial mountain type just described have also appeared in the foothills, built mostly in concrete block with characteristic painted decoration.

MATERIALS AND FORMAL COMPONENTS

In the early 1970s the poor quality of reinforced-concrete construction in the country initially worried both national leaders and foreign advisors. They recommended a reversion to construction in local materials, inspired by local forms, as exemplified by public buildings erected at the time. However, the scarcity and spiraling cost of timber eventually gave the pretext for the generalized adoption of concrete for floor and roof slabs and for window and door lintels. This occasionally allowed for the translation of traditional wooden features into elements of a new formal idiom. The combination of concrete frames with infill stone walls has now become generalized, especially in the main towns.

The countrywide acceptance of stone, now the predominant material for infill wall construction, may have in part been due to its identification with permanence and status. In corporate and institutional buildings the trend soon emerged to explore the possibilities of stone, following formal conventions more or less related to the "established tradition," or to models current in the Middle East. "International Architecture" was scantily, although emblematically, represented. Religious buildings did for a time reveal the conventions of the country subsidizing their construction, causing concrete domes to become features of large new mosques. But by 1990 stone walls, and especially stone or brick minarets, were regarded as more in keeping with the formal standards of the local past, notwithstanding the acceptance of a wider range of textural variations.

In the north a standard of stone architecture had been set at the time of the last Imams, especially in Sana'a, and its effects were still being felt in 1990. It was characterized by a smooth finish and hairline joints, with a preference for black lava stone in quoins, friezes, and around openings. After the Revolution a northward migration of southern masons brought coarser but faster and more showy techniques to the north's main towns. This contributed to the formation of composite styles, in which unusual cuts and treatment of joints were further enriched by the variety of colored stone available. Black basalt, white sandstone, and gray, green, orange, yellow, brown and pink lavas increased the possibilities for inlaid designs, juxtaposed courses, or random patterns of different colors on the same wall. Mechanically cut stone further facilitated this process, so that some new buildings became saturated with different techniques (**FIG.12**).

Machine-cut stone appeared around 1984 in the major towns and contributed to a revolution in construction methods and in the appearance of buildings. Thus, infill walls for concrete frames could now be made in concrete blocks instead of solid stone, with the whole covered with stone facing to maintain the "stone building" look (**FIG.13**). Decoration now borrowed both from traditional stonework and from themes that used to be specific to brick decoration. The effect was often closer to marquetry than to the woven patterns traditional

FIGURE 12. *Concrete frame and stone facing in construction, Sana'a, 1990.*

FIGURE 13. *Stone and concrete frame walls, Ibb, 1990.*

stone or brick reliefs brought to mind. Stylization of the traditional vocabulary also tended to simplify the designs, both as a method of production and as an expression of taste, sometimes leading to the invention of new forms. And, with the new prevalence of machine-cut stone, hand-hewing (which in the main towns had for a time been considered too rustic) returned as a symbol of good workmanship affordable only by the rich. Thus, by 1990 it had become a sign of distinction to hand-finish the visible face of machine-cut blocks.

Of all techniques, earth construction was the most affected by the arrival of new materials, procedures and fashions. Although by 1990 construction in *zabur* was still common in the northern and northeastern highlands, the result was often debased by the concurrent appearance of concrete and stone. The cost of *zabur* construction, if entrusted to a professional builder, was now as high or higher than that of construction in stone. The effect was even more severe on construction with earth blocks, *libn.* This has now been replaced by concrete blocks in all but the most remote areas, although in more costly buildings it has been replaced by stone and baked brick. Baked brick from traditional kilns has also returned to a limited extent in its traditional areas — alone and in combination with stone or concrete and often associated with a certain revivalist taste (**FIG.14**). And the use of industrialized brick was beginning to appear by 1990.

Changes in the building idiom were also well expressed by modifications in the proportions, dimensions and rhythms of wall openings. Windows became larger and more uniform, giving a more regular disposition to elevations. It was also part of the exuberance of some new buildings to display a variety of windows, glass surfaces, and plaster screens. However, lately, the treatment of openings has manifested a more deliberate concern with sober composition.

Colored glass and stucco tracery fanlights *(takhrim)* have also contributed much to the role played by windows in the appearance of new buildings. The simplicity of this technique and the low cost and availability of the raw materials, together with the possibility for easy embellishment, have caused *takhrim* to become an expanding business, appearing to many as an exemplary adaptation of a traditional technique. A great diversity of shapes has been created to satisfy new decorative needs, with attempts at naturalistic representation, usually characteristic of provincial situations, being added to conventional patterns. Yet, at the end of the 1980s, possibly because of the fascination with new technology, the fashion had arisen of using aluminum for the tracery (**FIG.15**). The area of Ibb, in the southern highlands, is particularly representative of this trend, but Sana'a, reputedly a city with a more conservative taste, had already acquired its share of examples by 1990.

The carpentry of windows and doors, which left a few remarkable examples,[20] was in decadence well before the Civil War, especially because of the 1948 exodus of Jewish craftsmen to Israel. Instead, by the 1970s painted metal doors were appearing all over the country, offering a fertile new ground for individual creations. Mechanized carpentry was then almost exclusively applied to new types of window frames. Throughout the 1980s aluminum frames were becoming common, at the same time that imported wood doors were becoming a sign of wealth. A traditional carpentry center was created in 1990 as part of the rehabilitation of Sana'a Old Town.

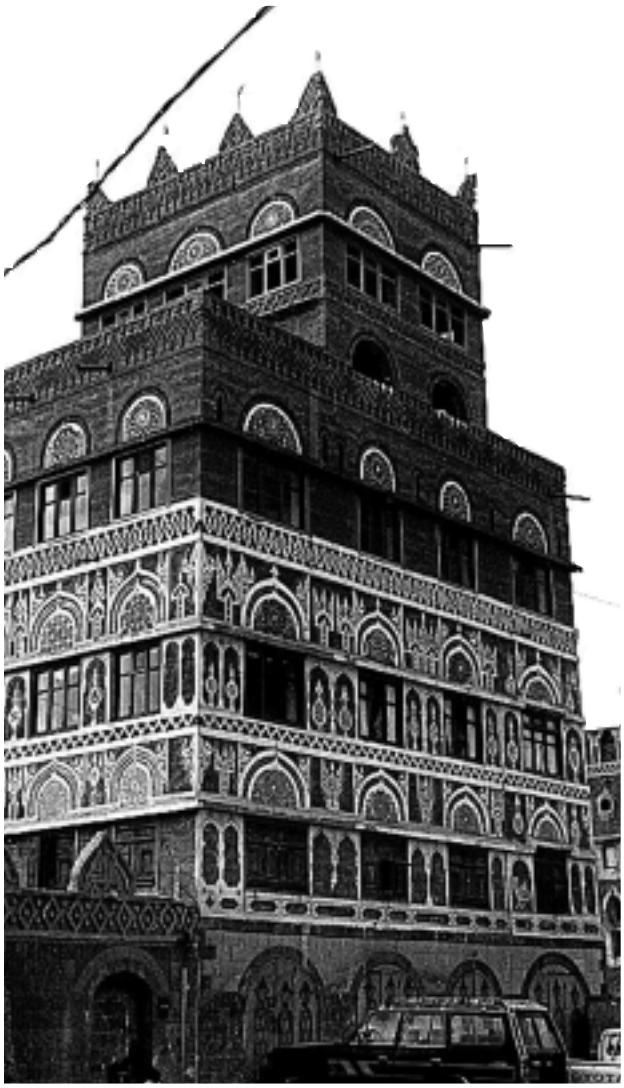

FIGURE 14. (LEFT) *New building in traditional baked-brick style, Al Rhawdha, 1990*
FIGURE 15. (ABOVE) *Colored stone and aluminum frames and tracery, Ibb, 1990.*

In terms of interiors, the greatest differences have concerned the proportion of rooms (which have tended to become wider and less elongated), and in the passage from exposed-joist to flat ceilings. Thinner interior walls have also meant the suppression of niches and built-in cupboards. Rendering in cement and paint has to a certain extent replaced gypsum plastering; the older technique is still used in better-quality buildings, but only after adopting modern standards of surface regularity and smoothness. And, although carvings are still fashionable, they are now costly to produce and tend to be intricate in an effort to affirm the owner's status.

By 1990 new trends in the various areas of the country were not sufficiently well defined to allow definitive statements about the development of new regional styles, but some formal conventions had become clear enough to place a building in its regional context. The exploitation of new materials and forms has widely expanded the possibilities of personalizing a building. This has meant, at a certain point, the assemblage of a variety of shapes and textures, with a conspicuous tendency to value polished, even glossy surfaces. Alternatively, as if in a reaction to this tendency, distinction has come to be associated with sobriety, quality being evinced by features requiring particular skill or cost of execution.

In the countryside, whimsical contributions of personal intervention have become important. Quite often marks of distinction have been introduced by the mason or by the owner. Most commonly these include the name of the builder or owner, or the date of construction. But they might also include the usual post-Revolution imagery (weapons, cars, planes) and simple calligraphic inscriptions. The use of color has also become a common feature in the decoration of buildings, both as the formal exploits rendered over metal doors and concrete surfaces and as the combinations of different stone inlays. Some new formal patterns have appeared, with a rules of design and execution, but in most cases decoration is the result of personalized attempts at a new figurative imagery. Thus, unaffected signs of distinction have come to punctuate the rural building scene, using the available materials and skill and unconcerned with formal stereotypes (FIG.16).

DECONFINEMENT AND URBANIZATION

The 1962 Civil War dramatically proved that strategies for the defense of settlements based on impregnability by land were futile in the face of air raids. The progressive control by the Republican government over the local conflicts which had once justified confinement of settlements within secure sites and walls also meant that safe living was possible without such protective measures. Development of the country's road network in proximity to small settlements also carried the expan-

FIGURE 16. *Popular imagery painted on new concrete block wall shop (1990), Dahi, Tihama.*

sion of settlement alongside the new roads, usually initiated by the construction of shops.

Sana'a typifies the urban coexistence of new typologies and street spaces. Generally, new development has been heralded by the construction of single-story commercial buildings. To these, upper floors may be added later, their aesthetic treatment ranging from complete indifference to determined formal expression. In the new villa neighborhoods a more uniform image is provided by the lining of wide streets with high yard walls. Since flat land in central Sana'a is most costly, low-income quarters have developed spontaneously on the slopes of surrounding hills. Such areas have grown by the process of filling in all available space, leaving only the most essential channels as streets.

The problems that afflict Yemeni towns are similar to those experienced in other developing countries. Characteristic impacts from the post-Revolution period have included great increases in cost of land, number of motor vehicles, water consumption, and generation of refuse (with the concomitant problem of its disposal). As the result of a general movement of population from countryside to town, in Sana'a, for example, the resident population increased tenfold between 1962 and 1990, and land coverage increased 25 times.[21] Such problems have also taken a toll on the more vulnerable fabric of rural settlements.

PLANNING

Following the Revolution, physical planning was initiated by the Ministry of Public Works with the assistance of Egyptian advisors. The first document approaching a contemporary city plan was the "Egyptian Plan" for the country's three largest towns. This still provided the basis used in Sana'a by surveyors in 1973. In 1970 a formal Physical Planning division at the Ministry of Public Works became operational with the assistance of the United Nations Development Program, having the responsibility to prepare, first of all, a Master Plan for Sana'a and development plans for various provincial capitals.[22] But, given the conditions of the time, the planning process for several years was largely based on securing a ring-road system and creating subdivision plans in the form of neighborhood units that could be provided with essential services and connected to a collector-street system. Such a basis for land development was still being applied in 1990 (FIG. 17).

By 1990 the basic planning documents for Yemen's largest towns were still the master plans commissioned in 1978 from a foreign consulting firm.[23] In Sana'a these envisioned sectoral development extending from the densely built-up core, with each sector equipped with a central commercial zone and government offices designed according to a recognizable Western "plaza" model. Peripheral sites were designated for institutional use, industry, refuse disposal, and restricted development; historical-protection districts were established in the Old City and the former Jewish quarter of Al Qa'a. The charge of implementing these plans fell to the Main Cities Planning Department of the Ministry of Municipalities and Housing, and there were reportedly many difficulties in the enforcement process.

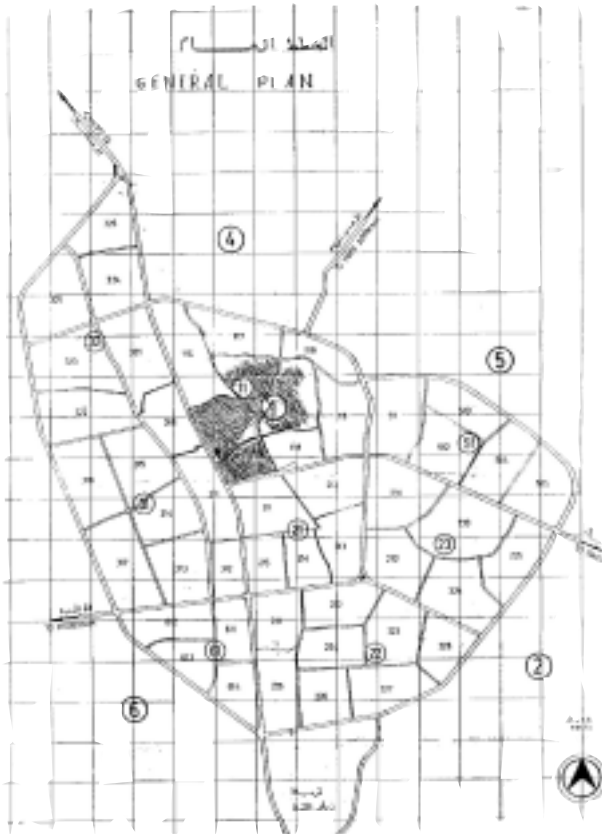

FIGURE 17. *General plan of Dhamar, 1990. The shaded area corresponds to the area occupied by the town in 1973. (Source: Main Cities Planning Office, Ministry of the Municipalities and Housing, Sana'a.)*

The next step in countrywide municipal planning was the creation in 1981 of a "Secondary City Section," concentrating on the preparation of master plans for secondary cities.[24] The aim of this program was local development through decentralization and the training of local planning officers. Municipal engagement with the development process also increased during this period to include such additional responsibilities as laying down street and infrastructural networks, collection and disposal of refuse, and administration of new building-permit requirements.

In the traditional model, streets spaces had not seemed to be the object of much special concern; their aesthetic quality was generally the result of the combined effect of buildings that fronted on them. In a small community maintenance and care of public areas would be undertaken as needed in a shared manner, and in the larger towns a skeletal municipal administration took care of basic aspects of public sanitation. The process appeared efficacious within a traditional context, but proved vulnerable to the impact of post-Revolution development. Nevertheless, as the most convulsive aspects of new construction settled down, pleasant results of new urban design notions could be seen in the expanded areas of both the capital and the provincial towns (FIG.18).

Part of the work of new municipal governments was aimed at beautifying public spaces. These efforts have ranged from such activities as sidewalk tree-planting and the creation of town parks to the ornamentation of streets for a variety of public activities. Street sculptures, seen at their best in the capital, where they first appeared during the 1980s, reflect various tendencies, from free-form, Western-originated monumental place-markers to enlarged stone versions of objects in common use, such as the *janbyia*, which echoes the cast-concrete coffeepots seen in road roundabouts of Gulf states. Examples of such public artwork in Yemen place a strong emphasis on the display of skill in fashioning stone (FIG.19).

FIGURE 18. (LEFT) *New street in Hajja, 1990.*
FIGURE 19. (ABOVE) *Multicolored stone monument, Sana'a, 1990.*

BUILDING PERMITS

At the end of the Civil War all that was needed to build a house was possession of land and compliance with a few basic rules concerned more with local sociability than with centralized land control. The first step toward centralized land control was the institution of a building permit procedure within urban areas in 1968. At the time the granting of a permit was concentrated at the Planning Division of the Head Office (later Ministry) of the Municipalities, and both the procedure and the enforcement of it were rather loose, mostly a question

of obtaining the signatures of various bureaucrats on a sheet of ruled paper — a process which normally took a week at most. No building plans were required, and no special rules or regulations existed concerning the design of buildings.

Later on, building permits became obtainable only at municipal offices, and the procedure became more rigorous, with building plans mandatory for all projects except smaller buildings on minor streets. The tendency, however, has been to generalize the requirement for a project. This was particularly true after the earthquakes of 1982. Small municipalities have not rigorously enforced the permit requirement, especially when traditional construction procedures were followed in which a master mason also served as designer.

STANDARDIZED HOUSING

The first public housing programs in the country appeared in the early 1970s. Based on plans prepared by a U.N. expert at the Ministry of Public Works,[25] they included schemes for several thousand units at Hodeida and in Sana'a which were to optimize floor-area ratios and be built in raw-earth blocks. However, these projects were either never built or were built only in a highly distorted manner, and in the years that followed governmental housing never amounted to much within the overall scope of housing construction. A few peripheral projects were designed, adopting fairly conventional notions of the single-family detached unit or of apartment buildings. A greater priority for government expenditure has been to provide utilities to the spontaneous development growing at the urban fringes.

There was, however, one significant event of mass housing, which was originated as the result of the 1982 earthquake in Dhamar province. The extent of the loss following this disaster justified intervention by various foreign-aid donors, which led, ultimately, to the construction of 15,000 housing units by contractors, all with minimal areas (36-48 sq.m.) and the same elementary design. These units were built using cement blocks and the simplest types of windows and doors, and they were sited according to rudimentary grids on flat ground, often at quite a distance from the original settlement (FIG.20).

Supported by their *shaykhs*, villagers responded both by refusing to live in these units and by initiating their own developments, often on the slopes between destroyed settlements and the new government-built houses (which were left empty or given over to nonresidential uses). In the proximity of the larger population centers, such as Dhamar and Dhawran, where the cost of housing was more critical and where tribal ties were more tenuous, need did lead people to adapt what was available. In these instances, the standard model was often modified through the addition of walls to enclose several units for a single family, or by the infilling of street space with ancillary constructions.

On the positive side, earthquake relief funds paid for more-or-less extensive repairs to some 27,000 damaged structures. humanitarian agencies also provided professional training to local masons on earthquake-resistant techniques.[26]

FIGURE 20. *"Earthquake housing," Al Wasta, Ma'bar, 1990.*

REFLECTIONS

The image of wholeness given by the building traditions of Yemen always incorporated sedimented ingredients from other cultures with which the country had contact. Yet assimilations were generally only textural: since pre-Islamic times, the options for built structure in Yemen remained based on bearing walls with monolithic shafts or tree trunks to span the spaces between. The technology of arches was only mastered in Yemen to a limited extent, while vaults were fairly rare and domes were only built by local masons to cover the small spans, for example, of mosque bath stalls. Large domes were considered the responsibility of specialized craft workers under foreign supervision.

The underlying character of Yemen's traditional built environment is structural. Its originality lies mainly in the way deceptively simple techniques of wall building, at the service of such elementary needs as human shelter, resulted in volumes with the scale of a grandiose landscape. Concrete is, on the other hand, a technique of voids rather than volumes. In this way, the introduction of concrete structures after the Revolution has represented a change more radical than the mere substitution of materials.

Concrete structures respond to the preference in the country for construction in height, which the last 25 years has confirmed. Yet, if mud or stone buildings five or more stories high once represented a distinct structural achievement, this claim cannot be made for the same heights in concrete. The crucial question may now concern whether techniques of concrete construction will attain equivalent levels of audacity.

Pre- and post-Revolution attitudes may be presented in the form of dichotomies, as, for example, rough/polished, dull/glossy, monochrome/polychrome, and stereotyped/personalized. These represent milestones in the progression toward individualization of the house, with distinguishing marks made possible by the access to new products and technologies. By contrast, the tendency toward uniformity in dwelling construction has been represented by government or private efforts, in which inhabitants

are grouped into categories expressed in terms of project cost and tenant income. Overall, the twenty years spanned by this study have appeared to illustrate a tendency to evolve from a built environment that betrayed no class distinction to one in which status is demonstrated through architecture.

The urban/rural polarity has also undergone a change of contours. In this regard, urbanization can be seen not only to result from the physical displacements of country to town, but also from the dissemination of urban values and methods to the country. This is now possible in less time than that needed to solve the infrastructural problems created. Part of the process of urbanization is now the proliferation of intermediaries, whose number multiplies as building becomes increasingly governed by paperwork within a complex bureaucracy.

It is not possible to predict at this point the degree to which changes underway in the culture of Yemen will allow a continuity with the country's building traditions. By 1990, conservation and adaptive reuse were part of an effort to retain the inspirational value of traditional structures. At the same time, "cultural tourism" had gained weight in the country's economy, contributing to the maintenance of outward appearances. Conservation and rehabilitation campaigns lay stress on the importance of creating the conditions that will keep the populations in their historical quarters; but concessions must also be made to repay the financial effort involved. In consequence, situations may occur with names like "suqification," the term used in the early 1990s to describe the transformation of the ground floors of Old Town Sana'a buildings into shops catering to tourists. The word implies the subversion of the traditional system of neighborhood codes, which may undermine the way of life that once formed the very spaces meant to be preserved.

Concern has also been voiced as to whether the skill to build traditional structures will be lost once the education of master builders ceases to be authenticated by a rigorous process of apprenticeship and strict admission into a professional league. Schools of building crafts have today been prescribed as part of rehabilitation efforts, but their materialization was, in 1990, at almost utopian levels. The fact remains that traditional structural solutions, in spite of their virtues, have not been able to compete economically with industrialized methods. Thus, by 1990 the use of traditional materials for structures had tended to become limited to rich urban or remote rural populations. The continuity of tradition is recognized in formal affectations, but different types of building initiatives — entrepreneurial, architect-designed and "popular" — are developing identities of their own.

At the same time, there may be reason now to speak of the emergence of a new type of "vernacular" architecture, one represented by manifestations marginal to mainstream building which reproduce structural options in continuity with pre-Revolutionary days, or which develop decorative treatments of a more personalized nature.

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All illustrations are by author unless otherwise noted.

Book Reviews

Athens, Ohio: The Village Years. Robert L. Daniel. Ohio University Press, Athens, 1997. 432 pp., illus.

In 1800 the Ohio Territory legislature directed three men to plat a town in the vicinity of Athens Township in southeastern Ohio. The town was to include house and garden lots and a square for a college. One hundred and twenty years later what had once been an isolated community had grown into a town of more than 5,000 residents with paved streets, numerous churches, a state hospital, and a growing state university. Athens, Ohio, had linked itself to the wider world.

The development of Athens through 1920 is chronicled in a comprehensive and well-researched book by Robert L. Daniel. Daniel has relied on primary documents to paint a realistic portrait of this midwestern "village" as it emerged from its early isolation. Yet the evidence Daniel culls from newspapers, oral history, and other accounts also takes issue with the very notion of isolation, the principal theme of the book. The evidence indicates that, isolated as they may have been, residents of Athens also participated in and concerned themselves intimately with the major happenings of nineteenth-century America, particularly the Civil War and the growth of industry.

Daniel's handsomely illustrated book is divided into twelve chapters, the bulk of which focus on the nineteenth century. The text follows a chronological format, each chapter being subdivided into subjects or sections (such as "transportation" or "organized religion"), which, depending upon their scope, are sometimes further subdivided. For the most part, Daniel avoids being polemical. With such a long span of time and so much material to cover, his text is far more descriptive than analytical.

Daniel casts a considerably wider historical net than readers may have come to expect from nineteenth-century histories of American towns. In addition to the major industries and "great white men" who helped shape Athens in its early days, he includes description of the experiences of blacks, women, youths, laborers, and members of marginal religious groups. The accounts of the activities of such groups are also far from gratuitous; in fact, Daniel writes more about women's organizations than he does about men's. Thus, the reader is presented with a broadly inclusive picture of a conservative and patriotic town, many of whose residents were vehemently opposed to the consumption of alcohol, and all of whom seemed to have enjoyed gathering in celebration at the slightest word of overseas military success.

Daniel also provides interesting (albeit brief) snippets describing Athens' built environment. His account of the town's physical development during the late nineteenth century makes it clear that the extension of street-level floors and the inclusion of French-glass windows in the reconstruction of existing houses and the erection of new buildings along Athens' principal artery did not result from slavish adherence by local architects to popular styles. Rather, with the influx of imported goods, the changes reflected increased commercial competition and the desire to appeal to a growing local consumer economy.

Perhaps Daniel's most valuable contribution to historical scholarship is the information he provides on the early difficulties and subsequent growth of Ohio University, one of the town's oldest institutions and largest employers. The growth of the university is one of the few stories that distinguishes what might otherwise be an unremarkable nineteenth-century history. Daniel is also at his best when he weaves together disparate accounts from newspapers, diaries, and other sources to offer an engaging picture of Athens' wartime experience, both through the eyes of Athens-born soldiers and the community back home.

The book's sweeping scope (which formally spans the period from 1800 to 1920, but which actually begins with the earliest documented human occupation of the area) is not, however, without problems. Daniel makes this extended chronology digestible by slicing it into specific segments. But his method also tends to sever the narrative in places to make it fit the sequence of chapters. For example, in chapter five (which focuses on the 1850s) the reader learns that a new railroad is being planned from Columbus to Athens to provide access to the coal fields in the nearby Hocking Valley. However, it is not until chapter eight — more than ninety pages and twenty years later — that the reader discovers this line was completed and put into operation.

The progressive physical, cultural, intellectual, political and economic growth of Athens through the nineteenth century suggests that the town was consistently working to break down its isolation. But, according to Daniel, regardless of increases in its population, Athens did not truly become a city until the twentieth century. One might wonder why, then, if Daniel is so intent upon documenting Athens' "Village Years" (as indicated by the book's subtitle), nearly one-third of the book describes life in Athens between 1900 and 1920, a period during which Daniel claims Athens finally became a city — and an "urbane" one at that. But this is a minor point. The book's only real flaw has to do with how Daniel has chosen to organize the massive amount information he has compiled. Overall, this is a highly readable account of the nineteenth- and early-twentieth-century history of a midwestern university town. ■

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The Home: Words, Interpretations, Meanings and Environments. David N. Benjamin, ed., assisted by David Stea. Avebury Publishing House, Aldershot, 1995. 310 pp.

The first scholarly article on the topic of the home was published in 1678; but, even now, at the end of the twentieth century, use of the term is still ambiguous. So claims David Benjamin, editor of *The Home: Words, Interpretations, Meanings and Environments.* The fifteen chapters in this collection do nothing if not confirm Benjamin's claim.

With the exception of one, all the contributions to this book were drawn from a three-day symposium entitled "The Ancient Home and the Modern Industrialized Home," convened in 1992 at the University of Trondheim, Norway. The organizers of this symposium endeavored to see the topic covered according to as many disciplinary traditions, conceptual approaches, and methods as possible; and conference presenters included archeologists, sociologists, architects, psychologists, linguists, anthropologists, geographers and urbanists. The contributions chosen for this book display a similar variety in terms of their approach. They are arranged by sub-sections treating the subject by definition, as a tool for cultural interpretation, as a reflection of social change, and as a model for the future.

The book opens with an attempt at linguistic definition — or perhaps demonstration of the futility of such an attempt. Stephen Brink's "Home: The Term and the Concept from a Linguistic and Settlement-Historical Viewpoint" was specially commissioned for this purpose. Brink traces the word home and its variants — *ham, heima, hem,* and *heimr* — as they appeared in Germanic languages as long as 2,000 years ago. Though it is impossible to pin the meaning of these ancient terms down exactly, they all relate to ideas about place: among them farm, hearth, village, settlement and dwelling. Though not stated explicitly, the problem of definition obviously has much to do with the subjective use of the word by both individuals and groups.

Of the chapters that follow, that by Amos Rapoport is particularly pivotal, because it problematizes the spill-over of the term home into the realm of popular culture. Rapoport claims that the understanding of the term by researchers has been conditioned by its popular usage. Phrases such as "there's no place like home" or "you can't go home again" imply a

mental state. Others such as "home is where, when you go there, they have to let you in" suggest ownership and control. The term can also carry intimations of physical and emotional comfort, family and relationships, security and possession. Rapoport then radically suggests the term is not needed in scholarly research at all. He argues that the concept of "dwelling," defined as a system of settings, is less laden, and consequently much more useful as point of departure for the study of relationships of culture, life-style, and social structure.

Another noteworthy contribution to the book is that by Ruth Tringham. She takes readers back through the prehistory of Southeastern European settlements in search of the micro-history of home. Archeologists, Tringham claims, have not written much about homes or home, although they have written considerably about architecture, spatial patterns, buildings, dwellings, shelter and houses. Her aim is to expand the archeological record both quantitatively and qualitatively by asking different questions. By viewing material culture as an active component of social action, she argues that questions can be asked and narratives constructed about individual actors and their everyday lives. Such efforts at constructing micro-histories of home hold great promise in terms of documenting the role of women and other actors long excluded from the prehistorical picture.

In the final section, Tomas Wilkstrom's chapter, "The Home and Housing Modernization," looks at ways in which the concept and reality of home have been constructed by users of dwellings. In the late 1980s Wilkstrom interviewed the inhabitants of several apartment buildings scheduled for renewal or "modernization" in Sweden. Drawing on the theoretical framework provided by German phenomenologist Otto Friedrich Bollnow in his *Mensch und Raum* (*Man and Space*), Wilkstrom provides vivid oral histories that document the ways people create spaces for living; stated otherwise, how they create homes out of housing.

Conspicuously absent from this collection is more material specifically investigating issues of home and gender. This topic has been at the center of ongoing debates in a number of disciplines over the past three decades, and its omission weakens what would otherwise be a comprehensive survey. Several of the contributions to this volume, among them Rapoport's and Tringham's, are outstanding in their invigorating scholarly approaches to a concept and subject already well covered but by no means exhausted. Yet, despite such contributions, the extent to which this volume accomplishes more than substantiating the complexity of the subject and introducing a variety of approaches is unclear. This volume will be of most value for those embarking on the study of home from within a particular disciplinary or methodological framework. The chapters themselves indicate that scholars and professionals already engaged with the subject have little doubt as to its complexity. ■

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Cities from the Arabian Desert: The Building of Jubail and Yanbu in Saudi Arabia. Andrea H. Pampanini. Praegers Publishers, Westport, 1997. 209 pp., illus.

After two decades a book has finally appeared describing Arabian cities and the process of their modernization. *Cities from the Arabian Desert* recounts major theoretical debates surrounding the relationship between cities and development, and illustrates them using two fine case studies: Jubail on the Persian Gulf, and Yanbu on the Red Sea. The book's author, Andrea Pampanini, was a senior consultant who worked closely with the Saudi royal family. This position afforded him an opportunity to describe the actual planning and construction of these two industrial cities. The result is an accessible book that is largely free of academic jargon, and which reads almost like a novel.

As the subtitle indicates, the book is about the creation of two industrial cities. It covers the period from their inception, according to "the vision of King Faisal," to their later planning and construction, according to "the political and managerial skills of his successors, King Khaled and King Fahd" (p.xv). In the process, the book allows readers to reflect on the process involved in transforming what were essentially small fishing ports into important industrial zones, producing "10% of global petrochemical production" (p.xvi). But it also identifies the tools needed to create the modern state. Pampanini's account focuses on key ingredients of this accomplishment, including the creation of the Royal Commission and its alliance since 1975 in building Jubail and Yanbu with the Bechtel Corporation and the Parsons Co.

The book is organized into two almost equal parts: the actual text, and the appendices. The first part is divided into twelve chapters which cover a range of theoretical issues such as how the vision of a modern industrialized nation can emerge without excessive reference to such models as the British New Town Program or Brasilia. In this case the vision of two cities was shaped largely by one person: a king. Pampanini emphasizes the important influence of Saudi Arabia's peculiar form of government in the construction of the cities.

The second part of the book, in offering a detailed description of Jubail and Yanbu, covers a range of technical issues, using such tools as location and land-use maps and tables of figures that describe such topics as infrastructure, industries, people and environment. A section here is devoted exclusively to a list of primary and secondary industries located in Jubail and Yanbu. Clearly, the intent is not only to show the scale of present investment, but also to point out future possibilities (p.162). Phrases such as "the broad spectrum of business opportunities still available to farsighted investors willing to participate in the growth of these young and vibrant industrial cities" (p.125) indicate the book is not only intended to present the achievements of the Saudis but to stimulate further investment.

Though the author does a good job describing how one might design and implement a highly efficient urban program on a massive scale, he views the cities only as successful construction projects. He does very little to enlighten the reader concerning other important issues, from the history of cities to the potential long-term social and political effects of such huge construction projects on the relationship between a state and its institutions. More importantly, the author does not deal with how global political change and the development of an international economy shaped the city-building effort. Readers searching for a scholarly book dealing with these issues might turn instead to Kiren Chaudry's *The Price of Wealth: Economies and Institutions in the Middle East.* This latter volume not only presents a fine case study of the development of Saudi Arabia and Yemen during the same period, but it makes valuable theoretical contributions on a range of themes. ■

Sofia Shwayri
University of California, Berkeley

Conferences and Events

UPCOMING CONFERENCES

"Bridges," Annual Conference of the American Institute of Architects, San Francisco, California, U.S.A.: May 14-17, 1998. For more information, contact: AIA, Convention Department, 1735 New York Avenue NW, Washington, D.C., 20006. Tel.: 202 626 7395; Fax: 202 626 7399.

"Environmentalism in Landscape Architecture," Washington, D.C., U.S.A.: May 15-16, 1998. A Dumbarton Oaks Symposium in Landscape Studies. For more information, contact: Studies in Landscape Architecture, Dumbarton Oaks, 1703 32nd St. NW, Washington, D.C., 20007.

"Mediterranean Crossroads: Tunisia": May 18-June 3, 1998. On-site program of study sponsored by the American School of Classical Studies at Athens. For more information, contact ASCA, 6-8 Charlton St., Princeton, NJ, 08540-5232. Tel.: 609 683 0800; Fax: 609 924 0578.

"The City as a Catalyst for Growth," Taipei and Kaohsiung, Taiwan: May 24-29, 1998. 22nd Annual Congress of the International Development Association; co-sponsored by the Construction and Planning Administration, Ministry of the Interior, Republic of China. For more information, contact: INTA International Secretariat, Nassau Dillenburgstraat 44, NL-2596, The Hague, The Netherlands. Tel.: +31 70 324 45 26; Fax: +31 70 328 07 27; E-mail: intainfo@inta-aivn.org.

"J.B. Jackson and American Landscape,"Albuquerque, NM: Oct. 2-4, 1998. Conference on Cultural Landscape Studies, sponsored by the University of New Mexico School of Architecture and Planning. For more information, contact: Stephen Schreiber, Director of Architecture, School of Architecture and Planning, University of New Mexico, Albuquerque, NM, 87131. Tel.: 505 277 2053; Fax 505 277 0076; E–mail: schreib@unm.edu.

23rd Conference of the Society for Utopian Studies, Montreal, Quebec, Canada: October 15-18, 1998. Deadline for paper proposals is May 30. For more information, contact: Naomi Jacobs, English Department, University of Maine, Orono, ME, 04469-0122. Tel.: 207 581 3809; Fax: 207 581 1604; E-mail: njacobs@maine.maine.edu.

"Multiple Views, Multiple Meanings: A Critical Look at Integrity," Towson, Maryland, U.S.A.: March 12-13, 1999. The Second National Forum on Historic Preservation Practice, sponsored by the National Council for Preservation Education, the National Park Service, and Goucher College. For more information, contact: Michael A. Tomlan, Project Director, National Council for Preservation Education, 210 West Sibley Hall, Cornell University, Ithaca, New York, 14853. Tel.: 607 255 7261; Fax: 607 255 1971; E-mail: mat4@cornell.edu

RECENT CONFERENCES

"Identities," the Annual Conference of the Association of Art Historians, Exeter, U.K.: April 3-5, 1998. Organized by the Faculty of Arts and Education, University of Plymouth. For more information, contact: Sam Smiles or Stephanie Pratt, History of Art, Faculty of Arts and Education, University of Plymouth, Earl Richard's Road North, Exeter, EX26AS, U.K. Tel.: 0139 247 5022; Fax: 0139 247 5012; E-mail: s.pratt@plymouth.ac.uk; World Wide Web: http://www.gold.ac.uk/aah.

"Visualizing History for the Public," Washington, D.C., U.S.A.: March 5-7, 1998. Landmarks Conference on American History at the National Museum of American History and the American University. For more information, contact: Landmarks Conference, Department of History, American University, 4400 Massachusetts Ave. NW, Washington, D.C., 20016. Fax: 202 885 6166; E-mail: visualhist@aol.com.

NEWS AND ANNOUNCEMENTS

Fellowships. Applications for 1998 fellowships in a variety of categories are invited from scholars, writers, artists, and urban professionals from the United States and abroad whose projects relate to the theme "Cities and Nations." Sponsored by The Project on Cities and Urban Knowledges, International Center for Advanced Studies, New York University. The 1999 theme will be "Political Obligation"; the theme in the year 2000 will be "The Metropolis and Contemporary Culture." For more information, contact: Selection Committee, The Project on Cities and Urban Knowledges, International Center for Advanced Studies, New York University, 53 Washington Square South, Room 401, New York City, N.Y., 10012. Tel.: 212 998 3770; Fax: 212 995 4546; E-mail: icas.cities@nyu.edu.

Connections Project — Building Global Architectural Communities. The New Graduate School of Architecture has introduced the Connections Project to facilitate cross-cultural partnerships between design education institutions. The project supports the design studio teaching methodology utilizing the World Wide Web as a forum for the teaching of architectural design in the context of diversity, global interaction, and analytical thinking. For more information, contact the Connections section at www.newgrad.org.

The Peoples' Library. The Peoples' Library is a documentation center run by the Society for Threatened Peoples — Italian branch. It collects magazines and other printed matter dealing with minorities and indigenous peoples worldwide. The material is freely accessible to scholars, journalists, researchers, and NGO activists. For more information, contact: The Peoples' Library, Associazione per i Popoli Minacciati, P.O. Box 6282, I-50127 Florence, Italy. E-mail: apm-gfbv@ines.gn.apc.org; World Wide Web: http://www.fol.it/apm-gfbv.

Guide for Preparation of Manuscripts

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2 LENGTH AND FORMAT

Manuscripts should not exceed 25 standard 8½ by 11 inch (A4) double-spaced typewritten pages (about 7500 words). Leave generous margins.

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Please divide the main body of the paper with a single progression of subheadings. There need be no more than four or five of these, but they should describe the paper's main sections and reinforce the reader's sense of progress through the text.

Sample Progression: The Role of the Longhouse in Iban Culture. The Longhouse as a Building Form. Transformation of the Longhouse at the New Year. The Impact of Modern Technology. Conclusion: Endangered Form or Form in Transition?

Do not use any numbering system in subheadings. Use secondary subheadings only when absolutely essential for format or clarity.

6. REFERENCES

Do not use a general bibliography format. Use a system of numbered reference notes as indicated below.

A condensed section of text might read as follows:

> In his study of vernacular dwellings in Egypt, Edgar Regis asserted that climate was a major factor in the shaping of roof forms. Henri Lacompte, on the other hand, has argued that in the case of Upper Egypt this deterministic view is irrelevant.[1]
>
> An eminent architectural historian once wrote, "The roof form in general is the most indicative feature of the housing styles of North Africa."[2] Clearly, however, the matter of how these forms have evolved is a complex subject. A thorough analysis is beyond the scope of this paper.[3]
>
> In my research I discovered that local people have differing notions about the origins of the roof forms on the dwellings they inhabit.[4]

The reference notes, collected at the end of the text (not at the bottom of each page), would read as follows:

1. E. Regis, *Egyptian Dwellings* (Cairo: University Press, 1979), p. 179; H. Lacompte, "New Study Stirs Old Debate," *Smithsonian* 11 (December 1983), pp. 24—34.
2. B. Smithson, "Characteristic Roof Forms," in H. Jones, ed., *Architecture of North Africa* (New York: Harper and Row, 1980), p. 123.
3. For a detailed discussion of this issue, see J. Idris, *Roofs and Man* (Cambridge, MA: MIT Press, 1984).
4. In my interviews I found that the local people understood the full meaning of my question only when I used a more formal Egyptian word for "roof" than that in common usage.

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