City models in theory and practice: a cross-cultural perspective

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Abstract. *A range of models of urban form are examined in a cross-cultural perspective. Without claiming comprehensiveness and based largely on the findings of German-speaking researchers, it is argued that there are a number of models of urban form that serve as useful descriptive representations of particular cultural and historical conditions. However, such models are for the most part applicable to the historical urban fabric of a pre-globalized world and are of limited value outside the historical cores of traditional towns and cities.*

Key Words: urban models, cultural distinctions, urban typologies, historical cores, German geographers
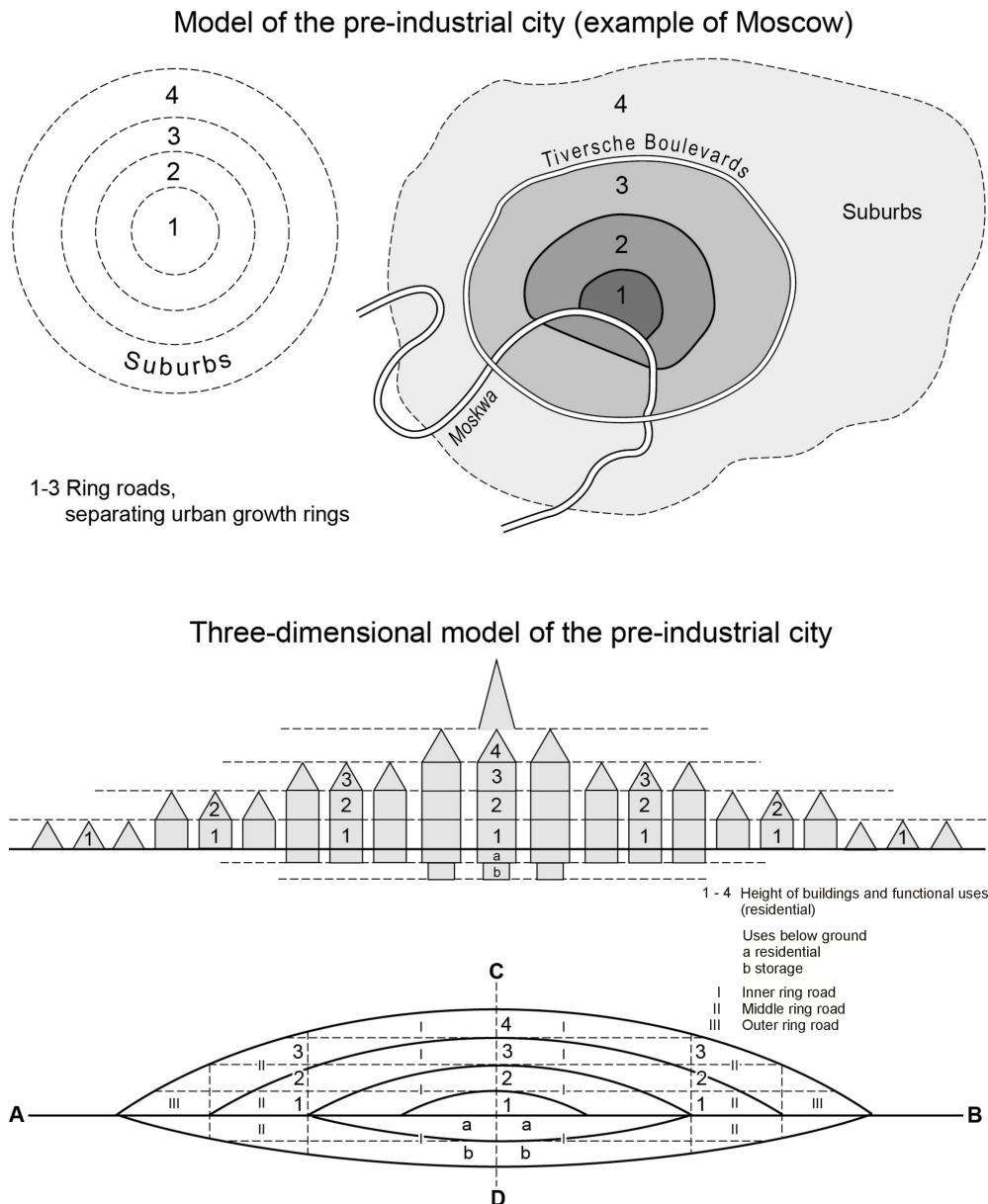
Modelling cities, especially on the basis of formal criteria, has long been an aspect of urban studies among German geographers, going back deeply into academic history. As early as 1841, the German geographer Johann Georg Kohl developed remarkable, theoretically-based and largely forgotten urban models of pre-industrial and feudally-organized central European cities (Figure 1). In 1899, Otto Schlüter published a seminal paper, 'Über den Grundriß der Städte', one of the first typological approaches to urban forms and their historical roots. Whitehand (1997, p. 1) has highlighted Otto Schlüter and his French contemporary H. J. Fleure as early 'luminaries' in the field of geographical urban morphology. In spite of these early beginnings, the development of urban morphology and its role as a source for both historical reconstructions and geographical typologies seems to have gained momentum only in the second half of the twentieth century (Gauthiez, 2004). Gauthiez's comprehensive review and Whitehand's theoretical considerations and background studies on urban morphology and morphogenetics (Whitehand, 1977, 2001) are basic readings for the following deliberations.

It should be noted, however, that modelling cities is neither a German nor a geographical prerogative. Reviewing existing city models, Korcelli (1975) has differentiated six categories and attached them to particular disciplines:
1. Social-ecology and social-space models (sociology)
2. Transportation-cost, real-estate and land-use models (economics)
3. Population-density models (demography)
4. Intra-urban interaction models (urban planning)
5. Central-place analyses and differentiations (geography), and
6. Intra-urban diffusion models (geography)
However, this typology focuses specifically on applied and thematically-defined approaches

Model of the pre-industrial city (example of Moscow)

1-3 Ring roads,
   separating urban growth rings

Three-dimensional model of the pre-industrial city

1 - 4 Height of buildings and functional uses
       (residential)

       Uses below ground
       a residential
       b storage
I   Inner ring road
II   Middle ring road
III   Outer ring road

**Figure 1. One- and three-dimensional models of the pre-industrial city: the
example of Moscow (Kohl, 1841, redrawn from Böhm, 1986).**

to urban research. Apparently none of the six proposed categories refers to the historical specifics of urban forms and functions developed over centuries or even millennia in particular cultural environments. Seemingly, models of cultural-genetic city structures are less challenging and of academic more than practical interest. However, globalization and its consequences, especially the tendency for lifestyles to lose their distinctiveness, are being counterbalanced by regional revivals of historical traditions and distinctive forms of material culture. Nevertheless, the sameness of cityscapes, the ubiquity of architectural landmarks created by a few internationally renowned architects and the global dynamics of economic and social segregations within rapidly growing urban settlements, especially in megacities, are contributing to widespread uniformity of urban forms, functions and

structures on a worldwide scale (Levy, 1999). This is a challenge to the protection, restoration and revival of distinctive urban forms and structures.

It is against this background that the contents of this article should be viewed. Attempts to identify and discuss historically- and culturally-differentiated urban forms have ideally to consider the whole spectrum of urban development from its very beginnings and in its regional diversity. This is neither possible nor intended in the framework of this article. Instead, it is grounded in two assumptions: first, that present-day urban forms are tending to develop towards global uniformity; and secondly, that historical and regional characteristics of cities and towns and their uniqueness in time and space are preserved – if at all – in the centres of cities, that is their historical cores. Though these cores are only a very small part of the total urban fabric, they are critical for the cultural identity of regions and people.

This is of course a very general statement. It is intended to serve as a starting point for a discussion of a number of aspects of city models in a cross-cultural perspective – for a general survey, see Ehlers, 1992a. This article seeks to promote discussion of the following aspects of city models: first, the value and explanatory potential of geographical city models; secondly, ideals and realities of 'models'; and thirdly, the problems of hybrids, cross-cultural transfers and generalizations.

Value and explanatory potential of geographical city models

Attempts by German geographers to condense the great variety and diversity of townscapes and urban designs into simple, mostly rather descriptive typologies or 'models' have been reviewed by Bähr and Jürgens (2005), Borsdorf and Bender (2010), Heineberg (2007) and Hofmeister (2004, 1980). Such attempts, legitimate and academically understandable, culminated in the 1970s and 1980s in a series of historically- and regionally-diversified 'city models'. Developed mostly on the basis of predominantly formal criteria, they became popular illustrative material for generations of students both at high school and university levels. Their emphasis on the historical and cultural characteristics of the townscapes and cityscapes of particular regions led to them being accepted as examples of cultural diversity in a globalizing world. The following categorization – a comparatively recent diversified one – was compiled by Heineberg (2007):

The European city

The socialist/post-socialist city

The Anglo-American city

The Latin American city

The city of the Islamic Near East and Middle East, and North Africa

The tropical African city

The Indian-Pakistani city

The South-East Asian city

The Chinese city

The Japanese city

The Australian city

Much emphasis has been placed on these kinds of typologies. Heineberg (2007, pp. 11-12) has called them appropriately 'cultural-genetic city types at continental and sub-continental scales'. The importance that this approach has gained in urban geography in Germany is underlined by the establishment of a handbook series 'Urbanization of the Earth', so far extending to eleven volumes – for discussion of the first seven volumes, see Ehlers, 2003, pp. 114-15.

What do these so-called models look like? What do they describe and/or explain? And what is their academic and practical value? The following examples are almost entirely taken from German research. They are abstractions and interpretations of traditional urban fabrics and therefore rather static; in some cases they provide starting points for dynamic models of urban growth patterns.

North American city models

One might argue that in many respects the classical North American city models mark the beginning of cultural-genetic research. The
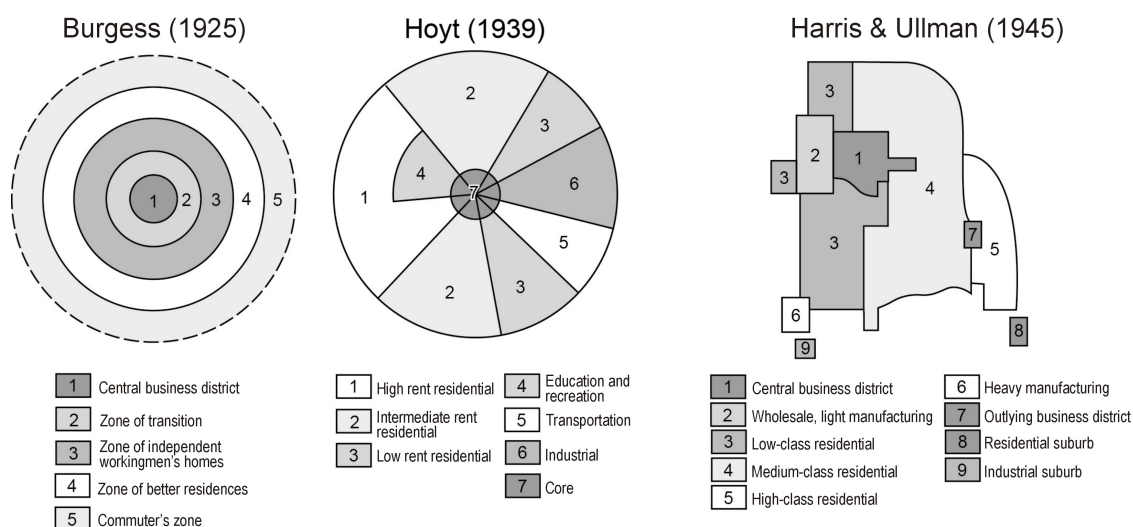
Figure 2. **Classical models of the North American city: a) concentric zone model (redrawn from Burgess, 1925); b) sector model (redrawn from Hoyt, 1939); c) cellular model (redrawn from Harris and Ullman, 1945).**

focus of the early American attempts differs considerably from the description of *Nordamerikanische Stadtlandschaften* by the German geographer Dietrich (1930). They are not focused on the 'ideology' of urban forms and their morphogenesis. They reflect the social, economic and political driving forces and their impacts on urban forms and structures. The model of concentric zones (Burgess, 1925), the sector model (Hoyt, 1939) and the multiple-nuclei model (Harris and Ullman, 1945) are both descriptive and theory-based attempts to cover the character-istics of the North American urbanization processes and structures, and they still have some validity. They receive attention even today, albeit changed to cover new develop-ments in North American urban landscapes and even being transferred into other cultural contexts. These three interpretations can surely be considered as 'classics' (Figure 2). However, do they still cover today's developments, especially the almost uncontrolled suburbia of North American cities?

In contrast to these models developed by sociologists, economists and geographers, more recent models try to capture, for example, tendencies of 'quarterization' in

North American cities, the dynamics of urban sprawl, the opposing forces of urban blight and gentrification, and the role of new towns and so called 'edge cities'. They culminate in the hypothesis of some geographers that the decay and disintegration of historical urban landscapes, the processes of suburbanization, and the more or less 'fluid' transition from urban to rural environments are expressions of a specific 'American way of life' (Short, 2007). 'The new metropolis' is characterized by mixtures of employment and residential settings, with a fusion of suburban, exurban and central-city characteristics and what Knox (2008) calls metroburbia (urban core realms, maturing suburban realms, favoured quarter realms, and emerging exurban realms). Two examples may serve to demonstrate, from a German perspective, the perception of the American city through models (see also Hofmeister, 1992). Schneider-Sliwa (2005) presents a rather static view of what she calls 'Anglo-American conurbations' (*Ballungs-raum*). Holzner (1996), however, takes a cultural approach. He not only characterizes the United States as an 'urban country' (*Stadtland*), but he also interprets its structure, dynamisms and conversion of rural areas to suburbanized residential districts as an expres-
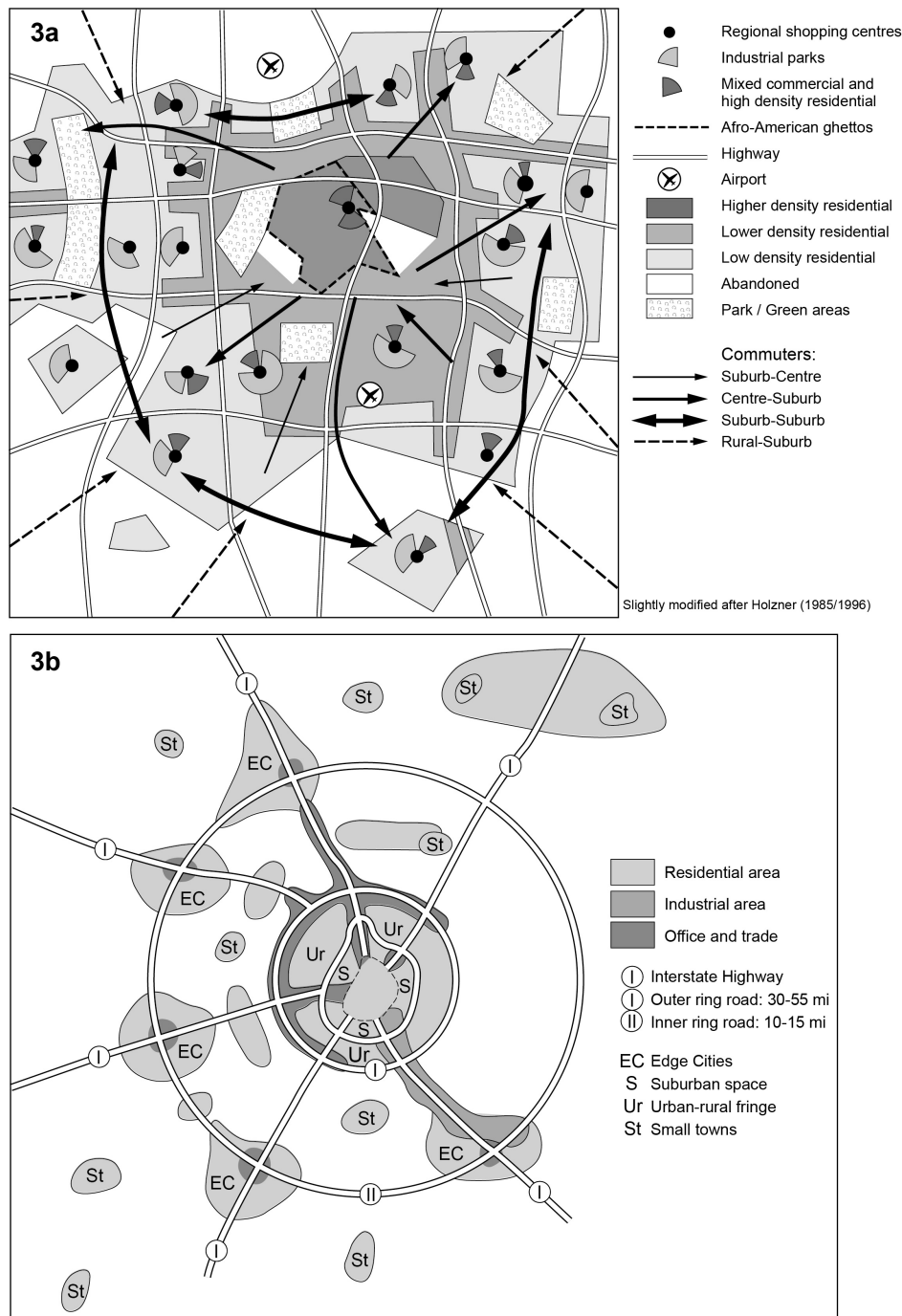
Figure 3. Models of 'Stadtland USA' (redrawn from Holzner, 1996) and the 'Anglo-American agglomeration' (Schneider-Sliwa, 2005).

sion of the American way of life and its manifestation in the cultural landscape (Figure 3). Some may well argue that such an interpretation in historical, philosophical and political terms is a 'typical German' approach – whatever this characterization may mean.

The fact that M. P. Conzen (2001) in his review of 'The study of urban form in the United States' does not include Holzner's work in his list of references may be seen as an additional indication of this fact.

General urban form	Centre of a Spanish colonial city	Division of one manzana

1 Cuadra   1 solar
A-D Chacras   I-IV Quintas
(Terminology dependent on size
of the property and function)
Pl = Plaza (1 cuadra)

I-IV Quintas and their plots (a-d)
Pl = Plaza   G = Government
S = School   C = Cathedral
P = Police   M = Municipality
Co = Convent   T = Tribunal

1 manzana = 4 solares (a, b, c, d)
1 solar = 9 building plots
          of different sizes

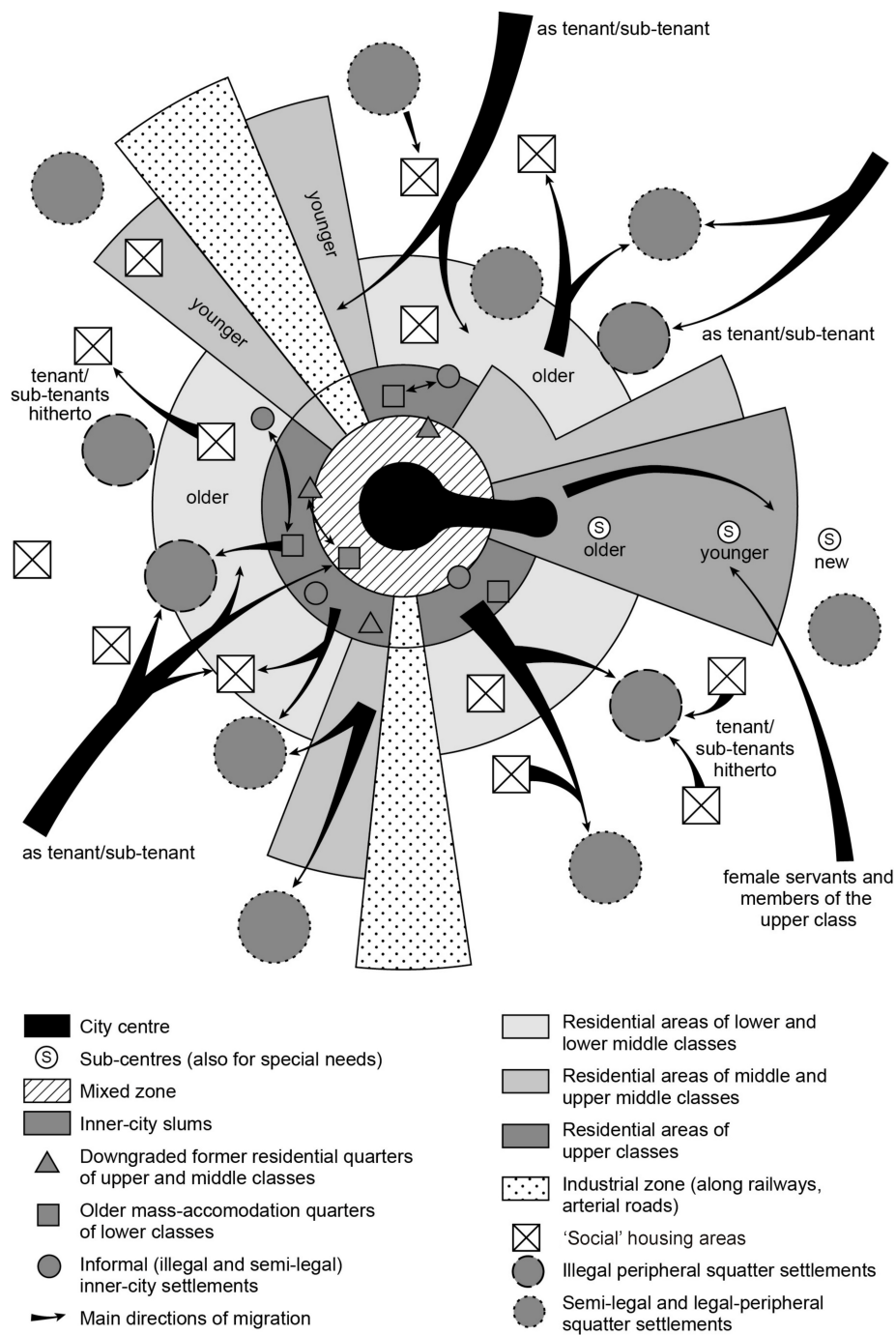**Figure 4. Ideal plan of the Spanish colonial town in Latin America (adapted from Wilhelmy, 1952).**

Examples of Latin American cities

Probably models of Latin American cities have become even more popular than those of North American cities. They have become increasingly complex.

Arguably one of the oldest models of town planning and urban design is of the Latin American city. The Spanish colonization of Central and South America coincided with the establishment of urban centres around 1600. Only a century after their 'discovery', the Spanish colonies were covered by a network of more than 200 urban centres. Almost all of them were designed in a well-organized, functionally-differentiated and socially-segregated form. Some authors (especially Wilhelmy, 1952) have pointed to the fact that the 227 urban foundations between 1521 and 1573 were based on the instructions of the Spanish Emperor Philip, whose translation of Vitruvius's *De architectura* is considered to be the official and legally binding basis of Spanish colonial urbanism – and thus of the prototype model of Latin American cities. If this assumption is correct (and quite a few arguments seem to support such a hypothesis), then one could argue that there is surprising continuity in the origin and spread of the grid-pattern town from Hippodamus of Miletus via Vitruvius and the Roman grid to the colonial realm of Spain (Figure 4).
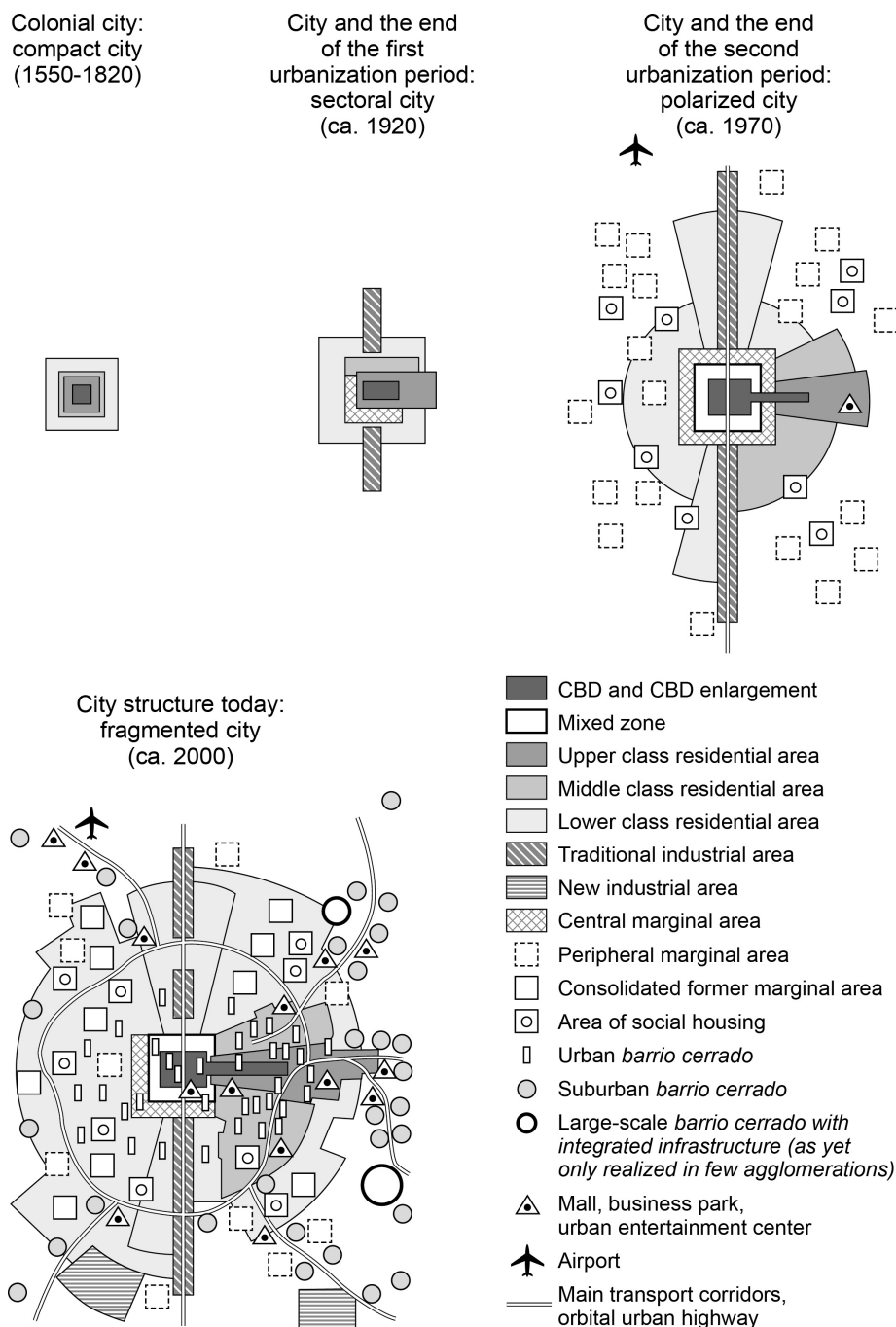
While the 'ideal plan' is surely not a model in the proper sense of the word, it nevertheless represents the original 'idea' of the Spanish colonial town. As a descriptive representation of the historical origins of colonial cities in Latin America it is still valid today: these historical roots can be found from Santa Fé in the north to Santiago de Chile and beyond in the south. However, the recent dynamism and almost uncontrolled growth patterns of the emerging Latin American city reflect other processes. Latin American cities have been and are subject to dramatic changes, probably more profound than their counterparts in the northern hemisphere: unprecedented population growth, rural-urban migration, rapid development of residential areas, and the growth of transport and industries have not only engulfed historical centres, but have created sectors and poles, and finally resulted in fragmentation – as recent models of Latin American urban development suggest. From a social-ecological perspective, fragmentation means a mixture of residential and commercial areas, sometimes gated communities and *favelas*, as well as social housing areas, industrial quarters and inner-city slums close to the historical centres. One of the very popular models of the modern Latin American city is that of Bähr and Mertins (1981, 1992),

as tenant/sub-tenant

younger

younger

tenant/
sub-tenants
hitherto

older

older

older

as tenant/sub-tenant

Ⓢ older Ⓢ younger Ⓢ new

as tenant/sub-tenant

tenant/
sub-tenants
hitherto

female servants and
members of the
upper class

▬	City centre	▢	Residential areas of lower and lower middle classes
Ⓢ	Sub-centres (also for special needs)	▨	Residential areas of middle and upper middle classes
▨	Mixed zone	▨	Residential areas of upper classes
▨	Inner-city slums	⋯	Industrial zone (along railways, arterial roads)
▲	Downgraded former residential quarters of upper and middle classes	⊠	'Social' housing areas
■	Older mass-accomodation quarters of lower classes	●	Illegal peripheral squatter settlements
●	Informal (illegal and semi-legal) inner-city settlements	●	Semi-legal and legal-peripheral squatter settlements
➤	Main directions of migration		

Figure 5. Model of the Latin American city (source: Bähr and Mertins, 1981).

which over the years has undergone several additions and adjustments by the authors (Figure 5). It is regarded by its originators 'as a dynamic model of development over space and time' including intra-urban migrations. They speak of 'three different, partly overlapping patterns': 'an older pattern of concentric rings in the city centre, often dating back to the colonial period' (what they call the 'reverse Burgess type'), 'a pattern character-ized more strongly by wedge-like sectors in the Hoytian sense', and finally 'a cellular,

Colonial city:
compact city
(1550-1820)

City and the end
of the first
urbanization period:
sectoral city
(ca. 1920)

City and the end
of the second
urbanization period:
polarized city
(ca. 1970)

City structure today:
fragmented city
(ca. 2000)

	CBD and CBD enlargement
	Mixed zone
	Upper class residential area
	Middle class residential area
	Lower class residential area
	Traditional industrial area
	New industrial area
	Central marginal area
	Peripheral marginal area
	Consolidated former marginal area
	Area of social housing
	Urban *barrio cerrado*
	Suburban *barrio cerrado*
	Large-scale *barrio cerrado* with integrated infrastructure (as yet only realized in few agglomerations)
	Mall, business park, urban entertainment center
	Airport
	Main transport corridors, orbital urban highway

Figure 6. Model of Latin American urban development (source: Borsdorf and Coy, 2009).

discontinuous settlement structure at or ahead of the current periphery …, extremely characteristic of the rapid, often unrestrained areal growth … since the 1960s' (Bähr and Mertins, 1992, p. 66).

Among the great number of additional attempts to come to grips with the dynamism

and rapidly changing urban landscapes of Latin American cities, the most recent one is particularly noteworthy. Designed by Borsdorf *et al*. (2002) and republished by Borsdorf and Coy (2009), it combines historical developments with recent processes in Latin American metropolises (Figure 6).
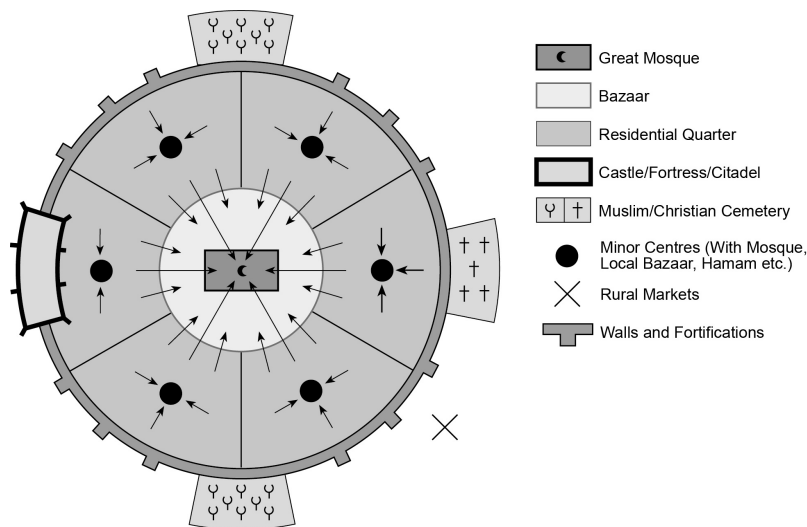
Figure 7. Model of the Islamic city (after Dettmann, 1969b).

The reconstructive approach covers not only the present-day complexity of Latin American cities, but also their growth from sectoral via polarized to highly fragmented structures today.
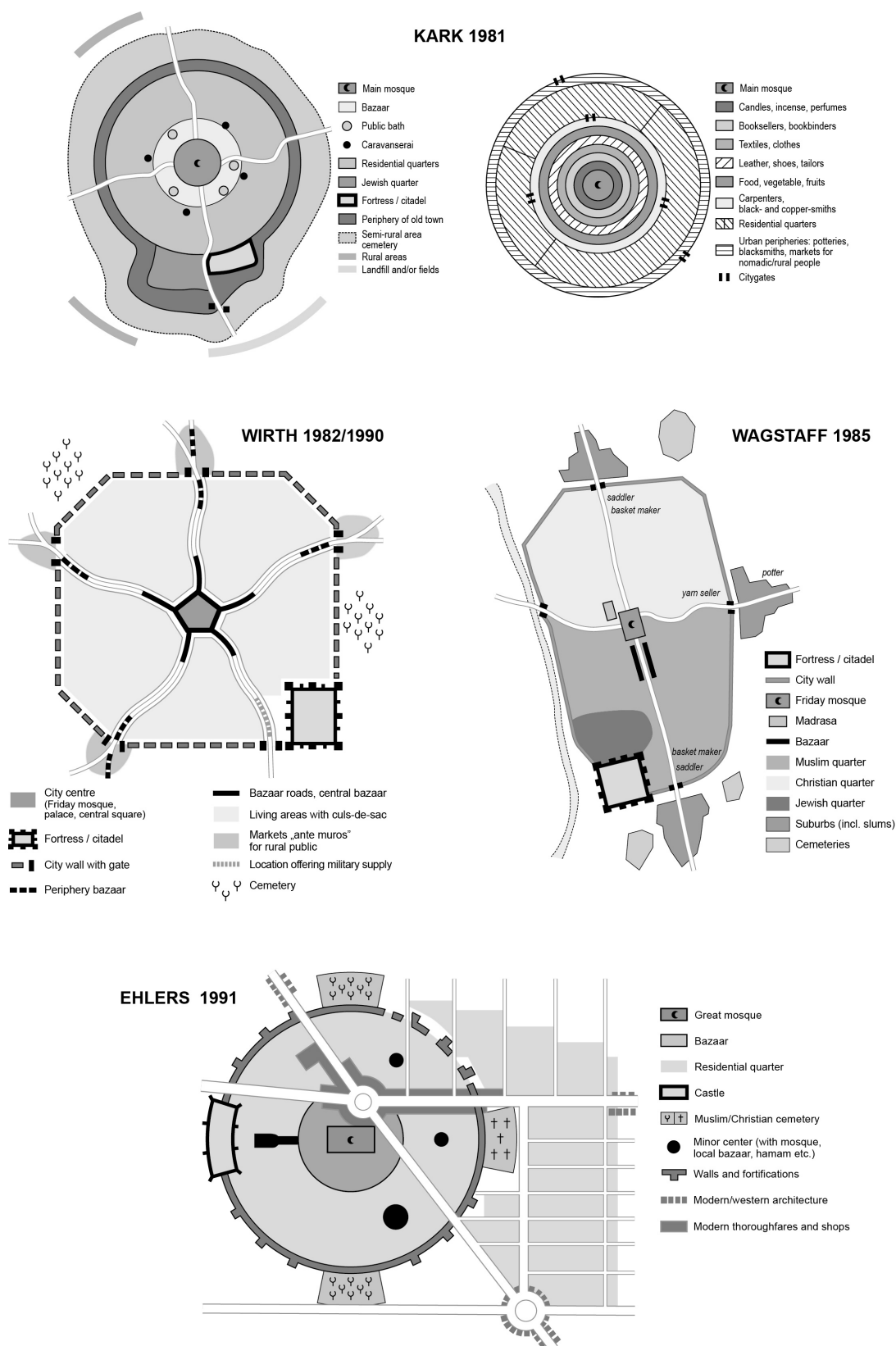
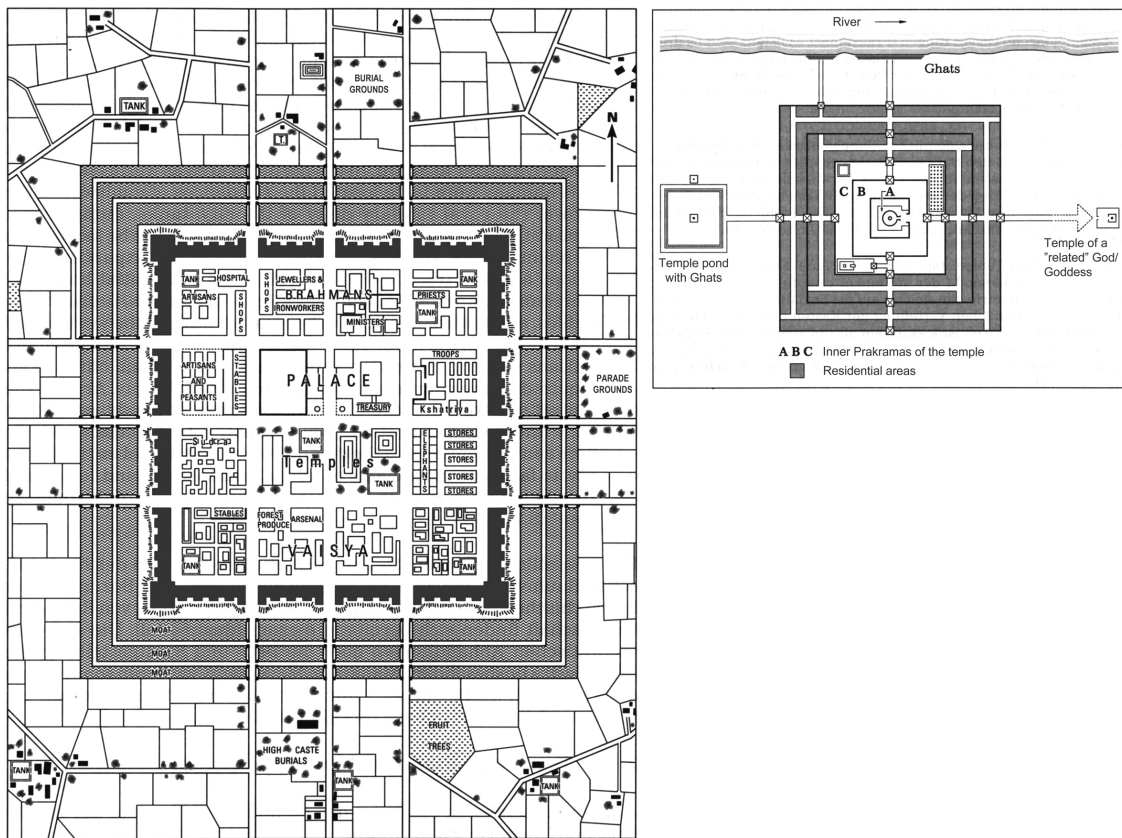**The city of the Islamic Near East and North Africa (MENA)**

Owing to the special interest of German geographers in the Near and Middle East (cf. Ehlers, 1985), urban issues there have been studied in great detail. Paramount expression of this interest is the impressive two-volume *Die orientalische Stadt im islamischen Vorderasien und Nordafrika* by Eugen Wirth (2000), reviewed in this journal (Ehlers, 2003). The history of city models, however, starts with Klaus Dettmann's model published in 1969 (Dettmann, 1969a) (Figure 7).

This first attempt has become a 'classic', quoted again and again. It has subsequently been modified only slightly. Dettmann's first approach as well as that of almost all following models is characterized by great homogeneity and uniformity of urban forms and functions of the traditional city in the MENA region. This concerns both the spatial structure and functional differentiation of the traditional cities of the Near and Middle East

and North Africa. The centrally located Great Mosque is surrounded by bazaars or *suqs*, urban quarters (*mahalleh*) and irregular street patterns. An additional feature is the all-embracing city walls, within which governmental and/or military fortifications (citadels or *arqs*) are incorporated. They provide protection for the urban population against outside attacks, but the citadels also protect their political and military occupants, the representatives of central power, from urban inhabitants and their potential protests. All these features are ubiquitous components of this city type. Comparison of the 'standard model' with other, independently developed, representations suggests the idea of a stereotype of urban form stretching from Morocco and the Maghreb in the west to the Indian sub-continent in the east (Figure 8). However, is it really representing the Islamic idea of a town as some authors suggest – see, for example, Hakim (1986). Or is it, at least partly, just a continuation of older, inherited urban forms. Quite a few examples exist in which Roman street patterns and functional differentiations have been identified as the starting point of later additions and changes by Muslim conquerors and cultures (Dettmann, 1969b; Marçais, 1945; Sauvaget, 1934, 1949; Wirth, 2000, pp. 15-58).

Reviews of comparable attempts to model

KARK 1981

🌙	Main mosque
▫	Bazaar
○	Public bath
●	Caravanserai
	Residential quarters
	Jewish quarter
	Fortress / citadel
	Periphery of old town
	Semi-rural area cemetery
	Rural areas
	Landfill and/or fields

🌙	Main mosque
	Candles, incense, perfumes
	Booksellers, bookbinders
	Textiles, clothes
	Leather, shoes, tailors
	Food, vegetable, fruits
	Carpenters, black- and copper-smiths
	Residential quarters
	Urban peripheries: potteries, blacksmiths, markets for nomadic/rural people
	Citygates

WIRTH 1982/1990

	City centre (Friday mosque, palace, central square)
	Fortress / citadel
	City wall with gate
	Periphery bazaar
	Bazaar roads, central bazaar
	Living areas with culs-de-sac
	Markets „ante muros" for rural public
	Location offering military supply
	Cemetery

WAGSTAFF 1985

saddler
basket maker
potter
yarn seller
basket maker
saddler

	Fortress / citadel
	City wall
🌙	Friday mosque
	Madrasa
	Bazaar
	Muslim quarter
	Christian quarter
	Jewish quarter
	Suburbs (incl. slums)
	Cemeteries

EHLERS 1991

🌙	Great mosque
	Bazaar
	Residential quarter
	Castle
ⵣ †	Muslim/Christian cemetery
●	Minor center (with mosque, local bazaar, hamam etc.)
	Walls and fortifications
	Modern/western architecture
	Modern thoroughfares and shops

Figure 8. Further models of Islamic cities: modifications of the Dettmann model by different authors (source: Ehlers, 1993).

Figure 9. Indian city model of the third century BC (after Kirk, 1978) and the ideal plan of a southern Indian temple city (after Pieper, 1977; see also Krafft, 1999).

the urban forms that characterize the cities of the Islamic Near and Middle East show a considerable similarity, irrespective of national research traditions (Figure 8). Again, however, urban forms and functions as expressed in various models of the traditional city of the MENA region are to be found only in preserved historical centres. Yet many cities of the Near and Middle East are of recent origin (for example, associated with the development of oilfields) or have experienced profound modernization and restructuring (Figure 8). Furthermore, this holds especially true for cities in Central Asia, where Russian colonialism and Soviet urban planning have led to considerable deterioration of the traditional urban fabric. Today restorations of old city centres are very common, for example in Uzbekistan and Kyrgyzstan, where they serve as part of the revival of national identities and as attractions for international tourists.

Models of Indian and Chinese cities

While it is impossible to achieve comprehensiveness in this concise attempt to present city models in a cross-cultural perspective, it is essential not to overlook models of Indian and Chinese cities. Leaving aside the comparisons of city forms in India and China by Dutt *et al*. (1994) and the models of Kirk (1978) and Smailes (1969), a closer look at German endeavours reveals a clear focus on the impacts of ritual spaces on urban forms in India. Architects such as Gutschow (1994) and Pieper (1977) interpret urban forms in India in relation to spaces, places and street patterns influenced by religious factors (Singh, 1993). To what extent these cultural traditions are really underlying factors remains to be considered in view of the fact that the historical spiritual centres of cities are only small parts of the total urban fabric and
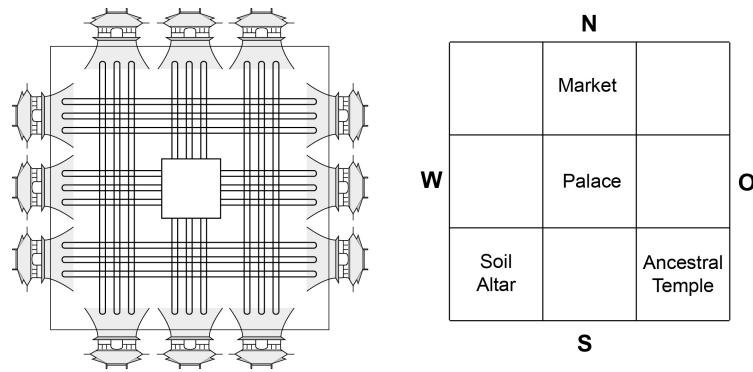
Figure 10. Model of the classical Chinese city: the Zhou-dynasty capital (after Taubmann, 1992).
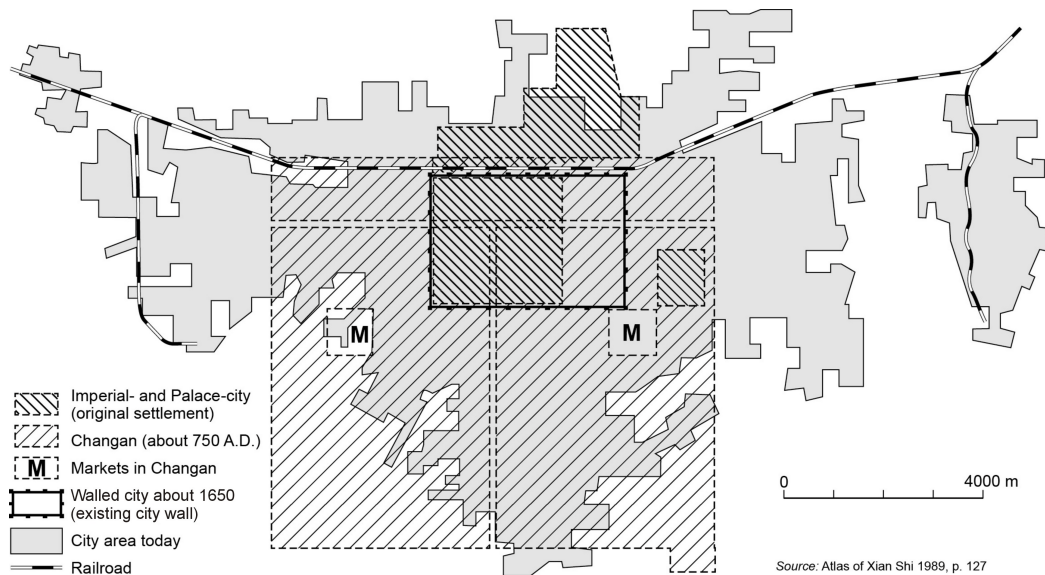

Figure 11. The urban development of Xian from its origins to the present (after Taubmann, 1992).

concentrated in the southern parts of the Indian subcontinent. In contrast to these 'Hindu cities', the northern parts of India and their cities have been characterized as expressions of 'Indo-Islamic' culture (Figure 9).

Like India, China has an urban history of more than 3500 years. Traditional layouts and planning principles are still present in many cities and they are expressions of a specific heritage. Often the layouts of traditional Chinese cities are reduced to geomancism as a leading principle of urban design. However, urban form in China has a much deeper cultural dimension. For those familiar with Chinese history, philosophy and cultural traditions, the traditional Chinese city is a cosmo-magical symbol (Wheatley, 1971), reflecting the cosmos, the heaven and the square-shaped earth. With the imperial palace in the centre of the city, the role of the emperor is – in line with the hierarchical order of Confucian society – symbolized as 'Son of Heaven'. All this is reflected in models of ancient Chinese capitals, but also in reconstructions of imperial county cities of much later periods (Figures 10 and 11).
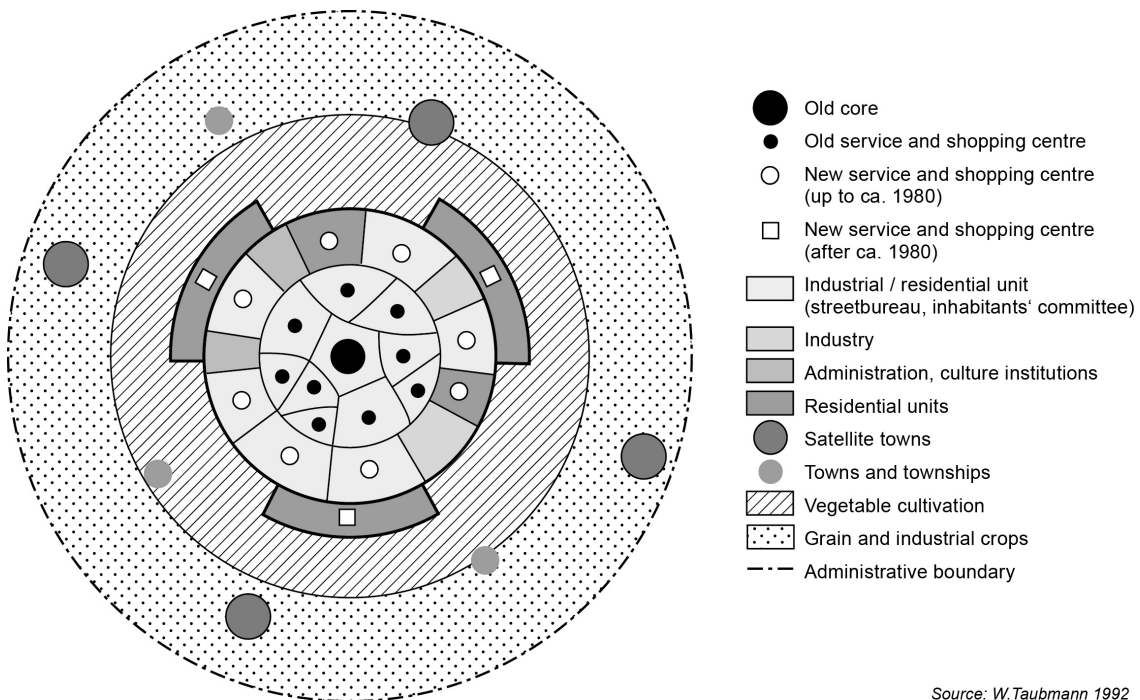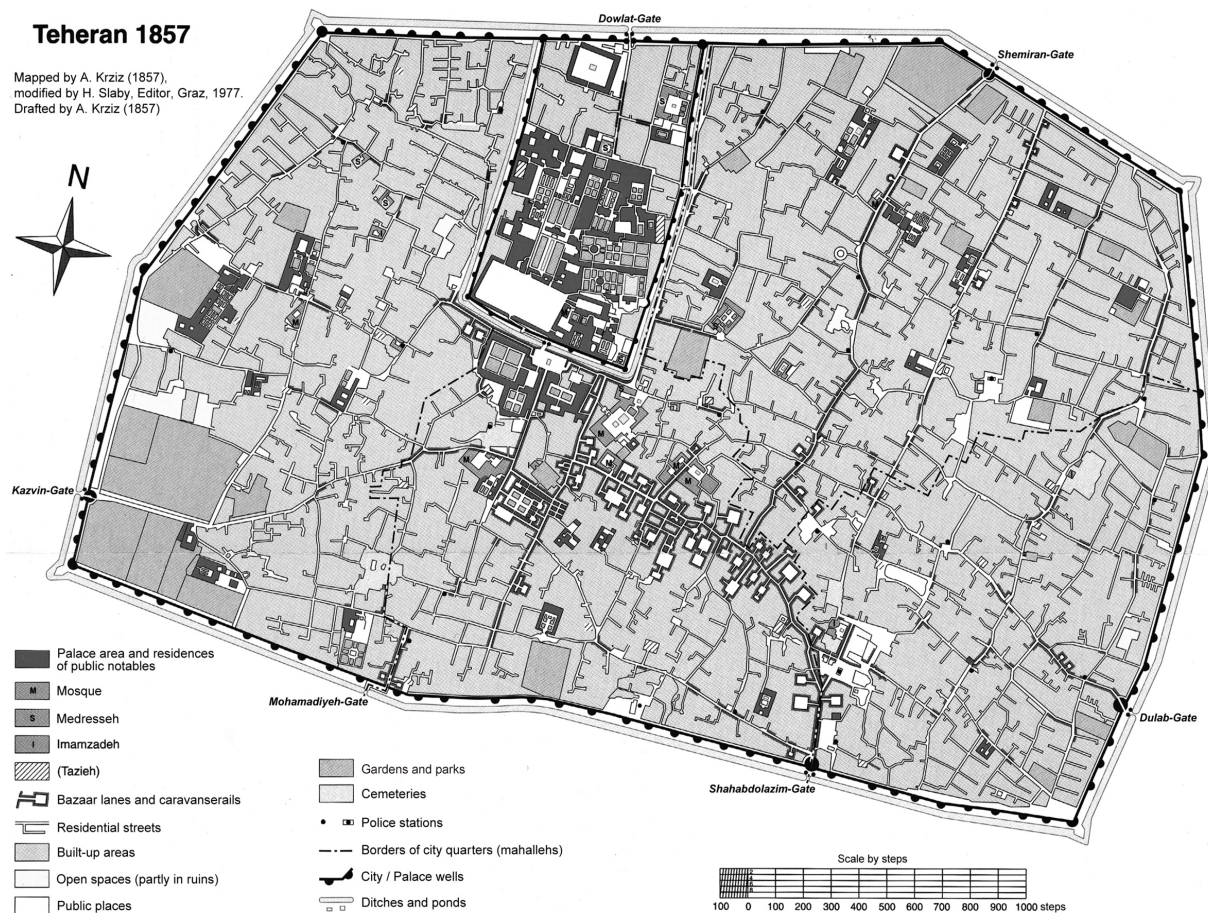
Figure 12. Model of the present-day Chinese city: form and land use (after Taubmann, 1992).

Based on both Chinese and 'classical' Western literature (Eberhard, 1955-56; Schinz, 1989; Skinner, 1977; Wheatley, 1971), Taubmann has presented a model of the modern Chinese city with a distinct centre-periphery gradient in terms of urban functions and land uses (Figure 12). Although this model lacks the representation of the typical form of Chinese city cores according to the four cardinal directions, it reflects the modern realities of Chinese urbanism. 'The inner areas around the old core are of mixed use combining living and working. They are subdivided into sections by a system of street offices or inhabitants' committees, often having their own supply and service centres. In the outer zone extended monofunctional units (for example, cultural and industrial) are located. The most recent extension is dominated by housing estates. The garden zone shows that most cities have their own vegetable supply' (Taubmann, 1992, p. 127). It remains to be seen, how and to what extent Chinese cities with their remarkable recent and current growth rates and irresistible pressures

for change will be able to preserve their urban heritage as part of a specific cultural identity and to develop this for future generations.

Theory and practice, or ideals and realities of models

There have been many attempts to present the spectrum of historically- and culturally-diversified urban forms, even attempting to go below what Heineberg (2007, p. 11) has called 'sub-continental' scales. For example, for Germany, Schöller (1967) has presented a typological diversity (historical, regional and functional) which surely has its equivalents in many other parts of the world. Thus, one should be cautious about the explanatory potential of those models presented here on continental scales. It is appropriate to question the academic value of such simplifications and what they convey to us. Models of cities in a cross-cultural perspective are mostly representations of spatial patterns within not only their own cultural histories and
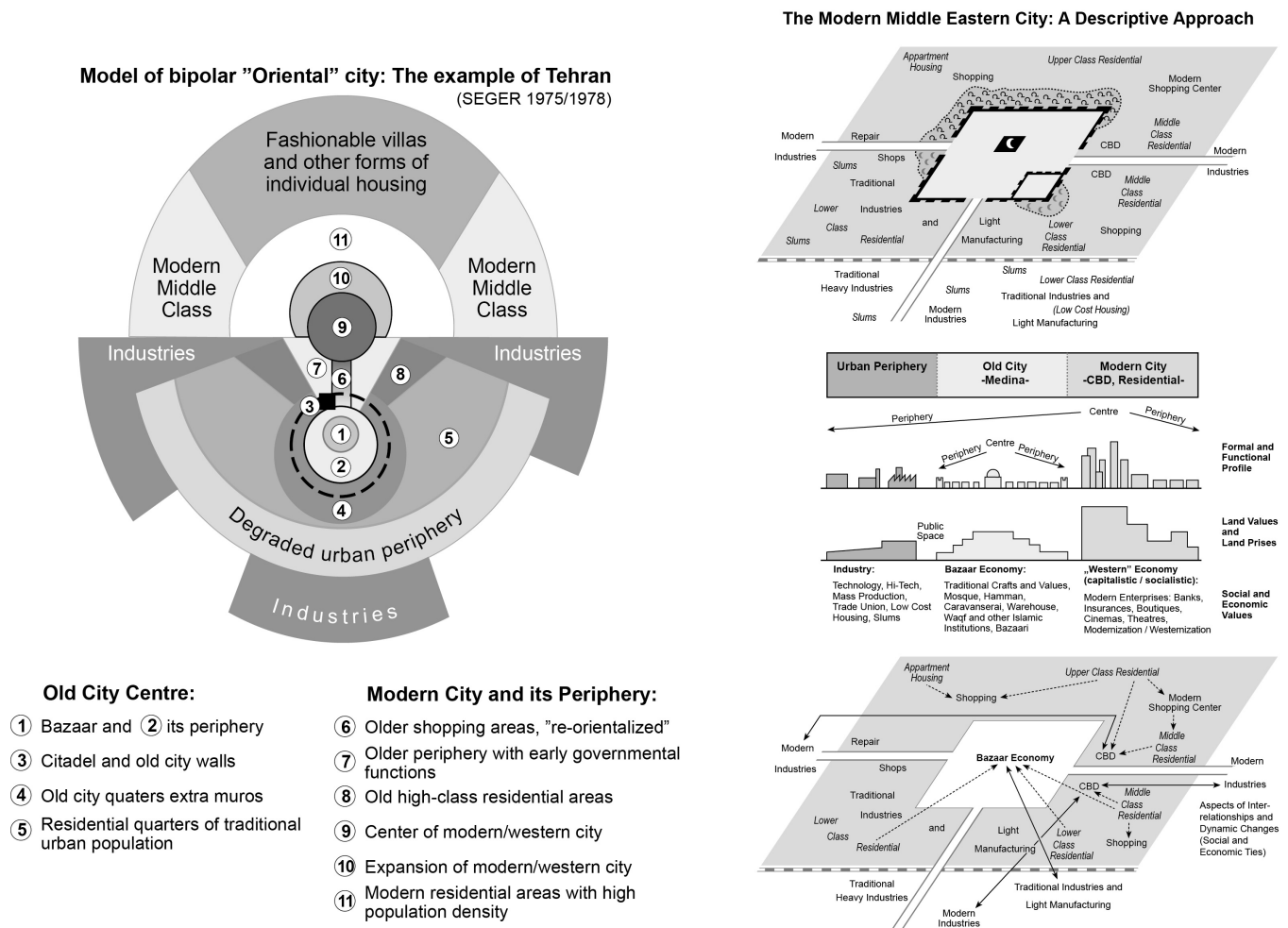
Teheran 1857

Mapped by A. Krziz (1857),
modified by H. Slaby, Editor, Graz, 1977.
Drafted by A. Krziz (1857)

Dowlat-Gate

Shemiran-Gate

N

Kazvin-Gate

Mohamadiyeh-Gate

Shahabdolazim-Gate

Dulab-Gate

	Palace area and residences of public notables
M	Mosque
S	Medresseh
I	Imamzadeh
	(Tazieh)
	Bazaar lanes and caravanserails
	Residential streets
	Built-up areas
	Open spaces (partly in ruins)
	Public places

	Gardens and parks
	Cemeteries
• ▭	Police stations
—·—	Borders of city quarters (mahallehs)
	City / Palace wells
	Ditches and ponds

Scale by steps

100   0   100 200 300 400 500 600 700 800 900 1000 steps

Figure 13. Plan of Teheran, Iran 1857, containing the principal feature of a traditional 'Islamic city' (redrawn from Krziz, 1857). Cf. Figures 7, 8 and 14.

ideologies, but also before their distortion through modern Western technologies and their expansion due to population growth and technological innovations. Thus, in a cross-cultural perspective they are expressions of uncontested identities. As soon as modern urban expansions occur, basic models lose their 'innocence' and develop into hybrids in which cosmopolitan social and economic factors assume importance: the ideal gives way to the realities of global urban developments.

Since many of the purely descriptive models of urban form have been modified, improved and, above all, adapted to reflect the dynamics of spatial growth, its causes and consequences, an important issue is the relationship between 'ideal' models of traditional cities and the realities of the modern urbanization process. Here just one example

will be considered: the case of Tehran, the Iranian capital city. This megacity of about 8 million inhabitants, with an urbanized surrounding of 12-15 million people, demonstrates a striking contrast between ideal and reality. Almost a prototype of the 'Islamic city' (Figures 7 and 8), Tehran showed in 1857 all the formal and functional attributes of a typical city in the Middle East (Figure 13), of which only small parts are recognizable today (cf. Figure 14).

While it is impossible to represent its present extent and size, two models of present-day Tehran may indicate the changes and the driving forces behind them. Thus Seger's (1975, 1978) attempt to represent Tehran as a bi-polarized city, with a small traditional centre and a large, ever expanding modern urban fabric with all its social and economic

The Modern Middle Eastern City: A Descriptive Approach

Model of bipolar "Oriental" city: The example of Tehran
(SEGER 1975/1978)

Old City Centre:

① Bazaar and ② its periphery

③ Citadel and old city walls

④ Old city quaters extra muros

⑤ Residential quarters of traditional urban population

Modern City and its Periphery:

⑥ Older shopping areas, "re-orientalized"

⑦ Older periphery with early governmental functions

⑧ Old high-class residential areas

⑨ Center of modern/western city

⑩ Expansion of modern/western city

⑪ Modern residential areas with high population density

Figure 14. Models of the bipolar 'Oriental' city (Tehran) (Seger, 1975) and the modern Middle Eastern city (Tehran) (reproduced from Ehlers, 1992b, 1993).

differentiations, is one form of reconciliation of ideal and reality. Another attempt to combine old and new, tradition and modernity, is an approach that I hesitate to call a 'model'. However, it is an attempt to cover the multi-faceted development aspects of a megacity in an Islamic cultural environment (Figure 14).

Instead of Tehran, one might consider Casablanca or Algiers, Tunis or Istanbul, Baghdad or Lahore: everywhere ideal and reality are in sharp contrast. The model of the Islamic city of the Near and Middle East is just a reminiscence, or what might have been 100 years or more ago. Is there in fact such a thing as an Islamic city that is a creation of modernity? What has Islamabad – the 'City of Islam' and new capital of Pakistan – to do with

the ideal concept of an Islamic city (Figure 15).

Designed by Western architects and planners, only a few, rarely convincing, 'lip services' are employed to justify the highly symbolic name of Islamabad. Doxiadis (1960, p. 428) argues that 'every large and important synthesis of Islamic culture is based on pure geometry'. This statement is surely at marked variance with the traditions of Islamic urban culture in which privacy and inward-looking oriental architecture are key aspects – and hardly any of these traditions are reflected in Doxiadis's planning. And the government of Pakistan wanted to see its new creation representing 'not only aspirations of Muslims but a system of moral, spiritual and social
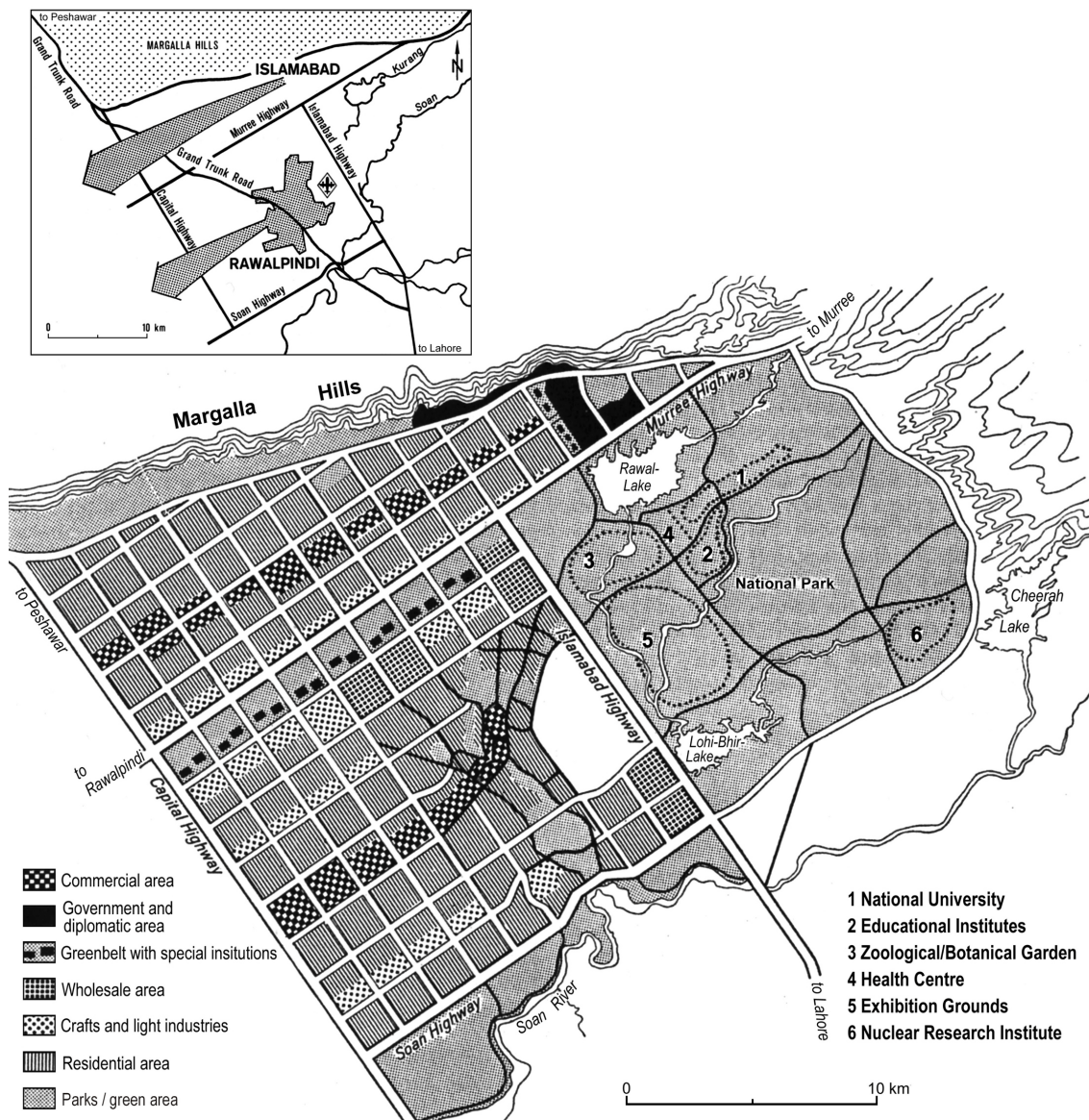
Figure 15. Islamabad – the 'City of Islam', development plan (*c*. 1965). The functional differentiation of Islamabad-Rawalpindi (after Krenn, 1968); and, inset, Doxiadis's dynapolis concept of Islamabad-Rawalpindi (after Kreutzmann 1992).

values of Islam' (Kreutzmann, 1992, p. 27). And a few years later, it was asserted that Islamabad's 'freshness and beauty symbolizes the hopes and aspirations of the people of Pakistan to revive in a modern context the glory and grandeur of the Muslim rule in South Asia' (Kreutzmann, 1992, p. 27). In reality, however, hardly anything of traditional Islamic urbanity is to be discovered in the Islamic city of Islamabad: neither ground plan nor vertical structures, neither bazaars nor

mosques (although there are many of them!), neither vernacular architecture nor traditional building materials remind us of the great tradition of Islamic urban culture (Dettmann 1974, 1980; Krenn, 1968).

The loss of innocence that urban cultural developments undergo when they are subject to Western influences is probably inevitable. But it is not only Western influence that shapes and characterizes modern cityscapes in a globally unifying way. There are also a
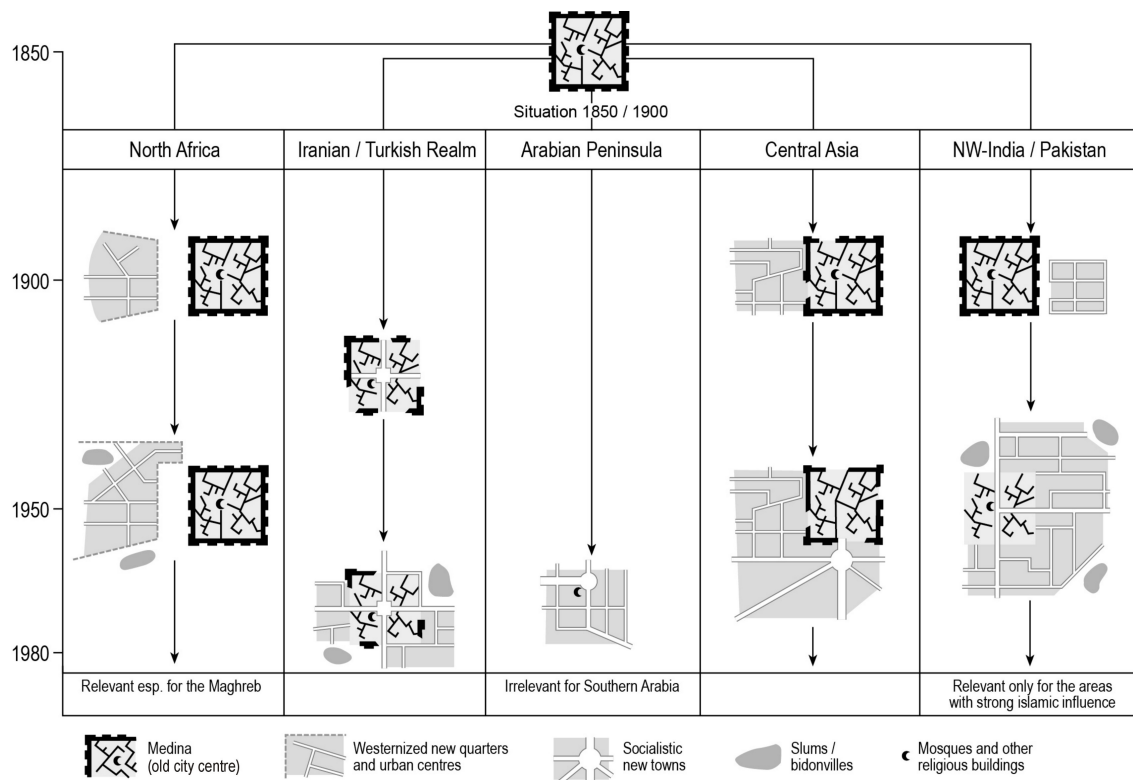
Figure 16. The development of the urban forms of Middle Eastern cities from 1850 to the present: a comparative approach (Ehlers, 1992b).

number of other factors that contribute to a certain ubiquity of urban forms: the role of colonial influences, the indigenous desire for modernization and sometimes even futuristic post-modernity in urban design and form. The cities in the MENA region reflect these different options.

Urban developments in these regions, seemingly almost homogeneous from the Maghreb to the Indian sub-continent, are in fact characterized by a wide variety of new urban forms and designs. French colonial rule left 'medinas' almost untouched, and British rule in the Indian-Pakistani part of its empire was characterized by a similar philosophy. However, the British administration surrounded and expanded inherited urban structures very closely with cantonments, railway colonies and the like (Dettmann, 1980). Russia planned similarly, although its Soviet successors were responsible for serious decay of the traditional urban fabric. Turkey and Iran followed an early 'modernization'

process, as a result of which historical urban forms and whole building complexes were demolished to give space for broad thoroughfares. On the Arabian peninsula traditional urban structures were comparatively unknown, except in Yemen. Arabian 'oil urbanization' underpins sometimes futuristic forms of urbanity and urbanism (Figure 16).

In summary, the theory and practice, and the ideal and reality of city models as representations of culture-specific urban forms are very obviously valid for the pre-industrial, pre-Westernized cities of the nineteenth and early-twentieth centuries. They are representative too of preserved, protected or restored old city centres. But these are exceptions to the rule. Many historical cores have either been destroyed, or are dilapidated or have been replaced by modern forms of planning and architecture. In general, an observation made in many culture areas of the world holds true also for the survival of old urban forms: the smaller the cities today, the higher the chances

of maintenance and preservation of inherited structures.

Hybrids, cross-cultural transfers and generalizations

Consideration of the cultural and scientific value of incorporating cross-cultural perspectives in urban models has scarcely begun. Most models are specific to a particular cultural region (*Kulturraum/Kulturerdteil*), and relate to historical city centres that are now just tiny parts of conurbations. Many have been superseded by modern influences under the impact of an increasingly globalizing world. Many urban landscapes have become coated with a veneer of uniformity of forms and functions that frequently obscures their relation to a particular cultural realm.

These developments are, however, not the subject of this article. Instead the central question is how to evaluate the historical traditions of culturally-differentiated urban forms for present and future societies. The fact that cities, or parts of them (mainly their historical centres) are among the most attractive locations of UNESCO's World Heritage sites speaks for itself. In many cases these sites are representative not of just one region or period: they are hybrids of different cultural influences that have entered into a new urban form.

Such an observation holds true wherever two civilizations or cultures came into contact and created new, hybrid forms. Of course, almost all colonial powers of the nineteenth century – British, French, Russian and others – have transformed existing urban forms in different ways and created new types of forms; for example, the colonial Indian city, the Russian-Soviet urban forms of Central Asia, or the juxtaposition of medina and *ville nouvelle* in the Maghreb (Figure 16).

Such cross-fertilizations have also taken place in other contexts. An impressive example is Old Delhi. Here, under Moghul rule, and after many previous Hindu capitals, Delhi finally developed into a hybrid, with the coexistence of an almost ideal 'Islamic' city (Old Delhi) and Shajahanabad as capital of the Moghul Empire. This juxtaposition of a preserved and almost ideal urban form of Islamic environment within a predominantly Hindu-Indian environment makes it inappropriate to identify the capital city of Moghul India as an expression of either Hindu or Islamic culture. The complexity is further added to if one includes the colonial forms of New Delhi and the growth of the agglomeration in the twentieth century to its present megacity structure containing more than 16 million inhabitants. These urban patterns and the juxtaposition of different urban forms and designs (Islamic, Hindu, colonial rule and modernity) are comprehensively documented by Ehlers and Krafft (1993), Krafft and Ehlers (1995) and Krafft (1999).

Probably the most impressive examples of hybridization of urban forms are those areas and regions that have been termed cultural 'crossroads'. The Mediterranean, a classical melting pot of antiquity on the one hand, and of Islam and the 'West' on the other, also reflects its crossroads culture in its urban structures. It is not only the persistence of Roman street patterns and urban design that is evident in the MENA region, but also the transformation of European cityscapes into 'Islamic' cities. Examples are manifold. There are numerous inheritances of urban forms and ground plans from Roman times all around the Mediterranean, from present-day Syria and Palestine to the Maghreb and Andalusia: some are documented in studies that can now be considered as classics (especially Sauvaget, 1934, 1949; Wirth, 2000). Cases in which Islamic conquerors have impressed their urban visions on existing European settlements are also numerous. Particularly good examples of medieval hybridizations exist in Spain (Kress, 1970), Italy and the Balkans. The juxtaposition of the ground plans of Lucca in Italy and Sfax in Tunisia (Ehlers, 1983) support the argument that the Mediterranean city should be recognized as a separate city type, a hybrid of Middle Eastern and Southern European urban
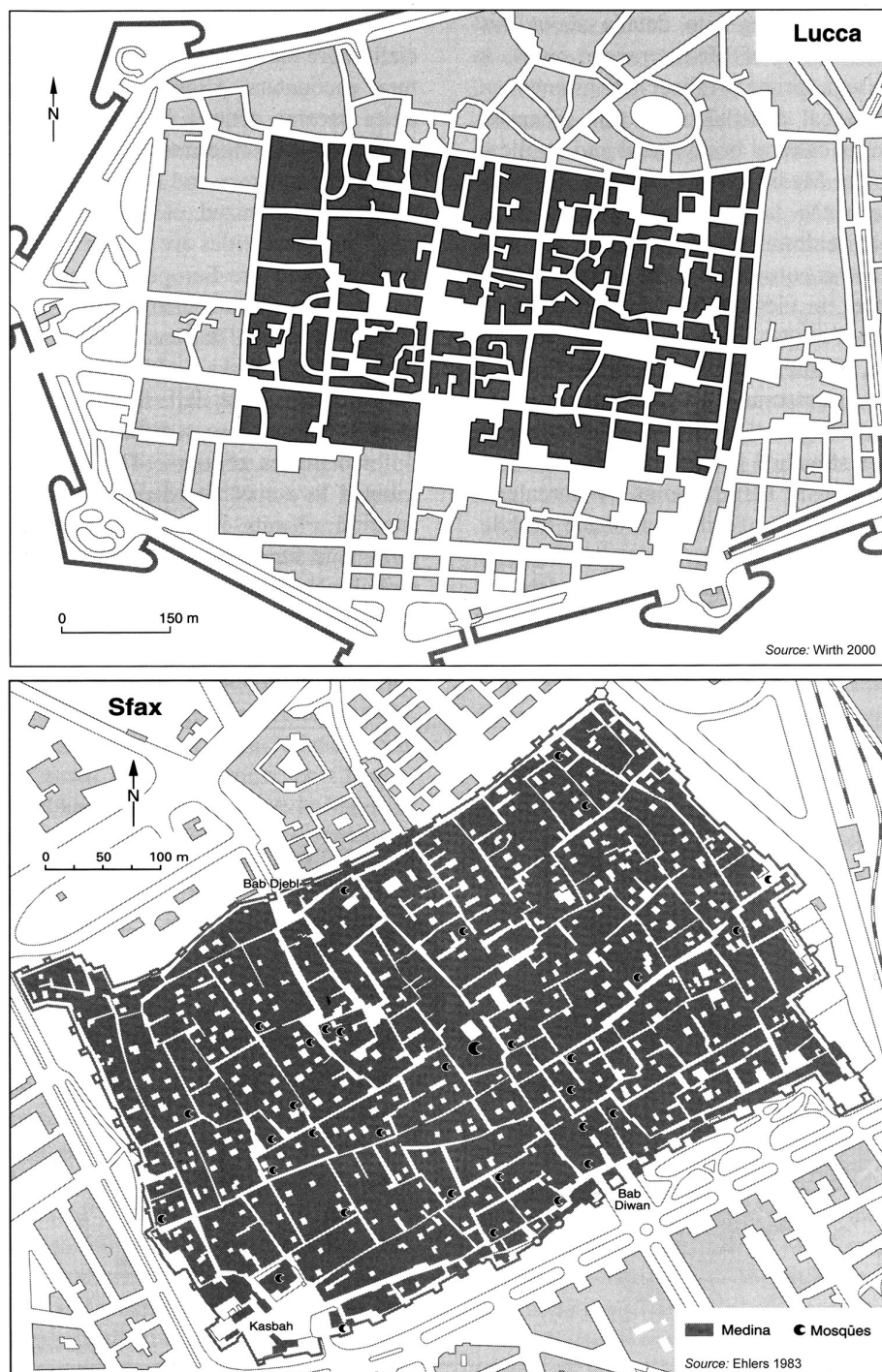
Figure 17. Mediterranean cities: Roman, Arab and modern European influences on urban growth, planning and design: a comparison of Lucca, Italy (redrawn from Wirth, 2000) and Sfax, Tunisia (Ehlers, 2001).

traditions (Ehlers, 2001). The cultural and architectural cross-fertilization is evident in both ground plans and the details of residential and public buildings (Figure 17).

Harris (1992) has argued that in urban developments there are more than just

differences in historical evolution over space and cultural differences over time. This makes any modelling exercise complex and its outcomes questionable. Even within homogeneous cultures, each city and town has its specific identity – a challenge to all researchers on urban form, irrespective of their academic or professional background.

Conclusion

A number of questions arise out of this consideration of urban models. By way of conclusion, three will be briefly referred to here. First, what do urban forms tell us about the essence or meaning of a city – its *Wesen* in German – and how relevant today is this way of considering cities? Secondly, how should models of new urban forms be designed? Lastly, to what extent and in what ways does the global urbanization process affect the formation and persistence of traditional and culturally-differentiated townscapes?

Models of the type discussed in this article provide insights into the territorial organization of place and space, of functional hierarchies and differentiations, of political and military power structures and, of course, of social stratifications. Such aspects as the central location of a mosque or church, the prominent position of a palace or citadel, and the spatial arrangement of public buildings are expressions of ideologies. However, it is questionable how far predominantly formal models can on their own give insight into the meaning of city cultures. The Turkish historian Inalçik (1990) is probably right when he states that 'anthropologists and geographers will discover 'meaning' only after the necessary fieldwork in the court record of Islamic cities has been done'. Such a caveat is understandable, because rules, values and norms are underpinnings of physical forms and preconditions of their formation. Many medieval central European cities are formal expressions of the coexistence of clerical and worldly power, and ancient cities of China and India and the colonial foundations of cities in Latin America reflect ideologies, as do

present-day urban forms. Further exploration of what lies behind physical forms remains a challenge for future research.

Traditional and culture-specific urban forms tend to be concentrated in the historical centres of present-day towns and cities. Their representation in the more or less 'ideal' model reflects only a small part of present-day reality. The larger-scale and more dynamic models, as considered here for North American, Latin American, and Islamic cities, are multi-faceted. Suburbs, edge cities, urbanized and incorporated villages, the takeover of rural areas by urban populations are one aspect. Slums, *favelas*, *bidonvilles* and other forms of peripheral and often uncontrolled urban growth are another. Urban sprawl has developed into a worldwide observable growth pattern for which new models have to be developed. Short (2007) entitled a recent American book *The liquid city*. Perhaps this term can serve as a characterization of the present worldwide urbanization process. The question remains as to how new models of urban form will be designed and what they will be able to tell us about culture-specific features in a globalizing world with increasingly uniform horizontal and vertical forms.

The term 'worldwide urbanization process' has been used in this article in relation to towns and cities of all sizes and in all culture areas. It is not the same as the final 'model' that I should like to mention: the global city. It has been argued with good reason that neither states nor national governments are the key players in the globalization process, but 'cities' in the sense of global cities. These cities coincide with remarkable, in some cases unprecedented, changes in urban forms and functions as a result not only of population growth, but also of megacity competition.

The dynamics of these developments are reflected in a number of urban trends worldwide. In *State of the World's Cities 2010/2011* (UN-HABITAT, 2010), urban sprawl is identified as a key problem. Urban corridors along roads, railways or rivers are another. Major problems exist in the manifold consequences of 'urban divides' and 'unequal

cities', in which segregation with regard to housing, infrastructure, access to health and education facilities and in a range of other respects needs to be overcome. 'Bridging the urban divide' and 'the right to the city' are matters that need to be considered in future research.

Consideration of models representing urban forms in a cross-cultural perspective reveals that some of these models bring together the effects of rural-urban migration, the juxtaposition of slums and gated communities and other socio-economic disparities. However, some models relate to historical centres and consider neither the further development of these centres nor their embedment in the overall urban fabric of today. Would it not be a worthwhile endeavour and an intellectually rewarding task to work towards a typology of comparable urban forms in time and space – a typology that takes into account origins and present-day structures in a cross-cultural perspective?

Acknowledgement

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