

The Nature of European Urbanism

Das Wesen der europäischen Stadt

La nature de l'urbanisme européen

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Abstract: The paper attempts to characterize the special features of European urbanism based upon the following three aspects: (1) A model of socio-economic stages offers the background for a set of historical city types: the medieval burgher-city of the feudal territorial state, the aristocratic city of Absolutism, the industrial city of Liberalism, the New Town of the social welfare state, (2) Single phenomena are set off against this historical background. They either constitute the spiritual concepts of the European city, as the political system and the presentation principle in urban design, or form essential parts of the physical structure, as tenement houses, public recreation facilities and public transit. (3) The models of the CHICAGO school serve as the point of departure for a discussion of social and economic forces, determining the ecological pattern, in particular of the big continental city.

Zusammenfassung: Die Eigenart des europäischen Städtewesens wird von drei Aspekten aus gekennzeichnet: (1) Ein sozialwirtschaftliches Stufenmodell bildet die Bezugsebene für eine historische Typenserie von Städten: die Bürgerstadt des feudalen Mittelalters, die Adelsstadt des Absolutismus, die Industriestadt des liberalen Zeitalters und die Neue Stadt des sozialen Wohlfahrtsstaates. (2) Von diesem historischen Hintergrund werden wichtige Einzelphänomene abgehoben, die einerseits zur geistigen Substanz der europäischen Stadt gehören, wie die politischen Organisationsformen städtischer Existenz und das Repräsentationsprinzip im Städtebau, bzw. zu ihrer physischen Erscheinung zählen, wie das Miethaus, die öffentlichen Erholungsanlagen und Massenverkehrsmittel. (3) Die von der Chicagoer Sozialökologie entwickelten Stadtmodelle dienen als Ausgangsbasis für die Charakteristik sozialer und wirtschaftlicher Ordnungsprinzipien im innerstädtischen Gefüge vor allem am Beispiel kontinentaleuropäischer Großstädte.

Résumé: Cet article a pour but de définir les caractéristiques spécifiques de l'urbanisme européen. A cette fin, l'auteur suit trois niveaux d'analyse: (1) Un modèle chronologique des différents stades socio-économiques de la vie urbaine lui permet d'individualiser successivement: la cité bourgeoise médiévale de l'état féodal, la cité aristocratique de l'absolutisme, la cité industrielle du libéralisme et la Ville Nouvelle des politiques sociales. (2) Les phénomènes particuliers de l'urbanisme européen sont alors confrontés à cet arrière-plan historique d'ordre général, qu'il s'agisse des concepts fondamentaux ayant présidé à la configuration de la cité européenne, tels que ceux de l'organisation politique ou des principes de l'harmonie et de l'ornement dans l'architecture, ou qu'il s'agisse des éléments essentiels de la structure physique de la ville: les habitations, les transports publics. (3) Les modèles de l'école de Chicago servent alors de point de départ à une discussion du jeu des forces économiques et sociales qui modèlent la structure écologique urbaine, tout particulièrement celle de la grande cité continentale.

1. Introduction

"There is a need for increased emphasis upon cross-cultural comparative studies of cities and metropolitan areas, better to determine which characteristics and attributes of cities represent cultural variables and which are relatively independent of cultural differences" [1].

This article attempts to define, for Europe, some of these cultural variables, largely relic features dating back to earlier stages of the urban system, which still influence current processes, patterns and functions.

The attempt is rendered difficult by specialist fragmentation of the literature, reflecting in its variety of methods and concepts the historical and regional diversity of Europe. In defining the common features of European cities, two facts gave assistance:

- (1) Personal experience with the European scene, which helped to relate isolated facts and
- (2) some familiarity with North American cities, whose simplicity of structure afforded the background against which European diversity could be set off.

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The author follows O. BRUNNER, the famed German social historian, in defining European urbanism to exclude Russian, a point of view acceptable to most historians and, under present political circumstances, to most geographers as well.

For help with English style the author wishes to thank David ERSKINE of the University of Ottawa and Harvey SAALBERG of the University of Kent, Ohio.

2. The Image of the European city [2, 3]

The image of the European city is represented best in numerous illustrated brochures, printed mostly to appeal to the tourist trade. Here we are faced with the architecturally valuable elements of urban design, filtering out all the unpleasant ones such as ugly factories and dilapidated residential quarters. From this point of departure, admittedly a superficial approach, one may note the prominent visual features of European urbanism.

Accordingly a first rough distinction is made between cities with preindustrial traditions and industrial cities, which are indebted for their existence to the 19th century. The latter do not provide any attraction for an aesthetic documentation apart from advertisement for social welfare programs and supermodern industrial estates.

Only the first group, comprising the majority of towns and cities, however, can be considered truly representative of European urban culture with the whole depth and variety of historical background. Of course the industrial cities could not escape its influence either.

The following characteristics cover national, social, economic and partially historical differences.

- (1) To a large degree non-economic forces are responsible for skeletal elements. The landmarks can be considered either as manifestations of religious value systems, such as cathedrals, churches and monasteries; or of political organizations, such as the town halls of the autonomous medieval cities, the palaces of the ruler in the baroque period, the culture-palaces of the present socialist states. Sport stadiums are among the dominant features in Oslo and Helsinki. Economic institutions such as banks, insurance companies and headquarters of big corporations could not gain dominant positions until now, except for some unique examples.
- (2) By North American standards, the street pattern of most European cities appears as a complicated patchwork, comprehensible only upon laborious analysis through the eyes of a historian. In most cases, the radial long distance roads from the old gateways of the medieval town are the best aid for orientation. They offered the skeleton for the newer layout, in which the pattern of rural settlement and field bound-

aries is frequently reflected to this day. This reminds us that urban growth in Europe did not affect a geometrical rural landscape with single farmsteads as in North America, but rather village-communities with a tremendously fragmented mosaic of sometimes thousands of tiny blocks and strips. Planted avenues, which became popular in the baroque period, did not always make for a better organization of the ground plan. They were partly fitted into the older street pattern, partly oriented to monumental buildings and they ended sometimes as cul-de-sacs in the countryside. The boulevards which, since the 19th century, replaced the medieval fortifications present for most cities the only circular thoroughfares.

- (3) Plazas belong to the significant inventory of open space. Wherever they date back to medieval market places they still are nodes of urban activity. Amazingly enough, the city centers have preserved their attraction through many processes of change, always adapting to new economic circumstances.
- (4) The process of growth brought about the incorporation of suburbs, villages, and small towns since the 18th century. Melting into the densely built-up area, they maintained, for a long time, distinct socio-economic features, retaining their own landmarks and shopping streets. The local spirit was reflected in the identification of the inhabitants with their specific quarters. During the second half of the 19th century modern administration very often combined several such units into one district, taking into account the socio-economic peculiarities. City-like communities outside of the city boundaries were annexed and transformed into districts. Such districts possessed or gained not only a specific social image but also their own institutions and retail centers.

In a historical perspective, therefore, three levels of identification seem important for the big city: the quarter, the district and the city itself.

- (5) The most impressive visual distinctness of European cities is the quiet skyline. Skyscrapers make their appearance mostly in scar zones of urban development — such as former fortification belts and at the entrances to satellite towns — but only hesitantly in the old city. For a better understanding of this situation, we have to visualize the following factors:

The growth of the European cities in the industrial period was controlled by masterplans, going back to the fire regulations of the Middle Ages. In Paris the building height was fixed at 20 meters in 1795. During the 19th century this example was imitated by the other big European cities. Therefore, steel-cement technology could not demonstrate its efficiency by means of high-rise buildings as it did in

North America. Until now skyscraper construction is still subject to special permits from city councils. In this, Great Britain, differing in many other respects, agrees with the continent. The consequence of these restrictions should not be underestimated. The land value peak of the Central Business District is suppressed and cannot be reflected in office-towers and other high-rise buildings as in North America. The development of the core area had to take place in a different way.

- (6) The density of the walled in, packed nature of the medieval town was maintained by newer expansions. The vast closely built-up area of the big continental city counts among the most important and striking features. This heritage of the 19th century reflects the urban growth in a period of pedestrian traffic and the application of the building regulations of the old city to the suburbs, which brought about invasion by city houses.

The results of this process affected the whole urban system: the land use pattern, the social segregation, the intraurban commuting and transportation network. Finally, we have to mention the much greater inertia of the physical structure toward redevelopment as a consequence of the much higher installation of physical capital per hectare and the much smaller per capita income in most European states compared with North America.

In the shadow of the above principles the industrial cities came into existence. There was no planning concept in their birth place, Great Britain, nor very much of it in their later development on the continent. Attached first to half-rural and small town communities, industrial cities took on some of these half-rural features, only to destroy them later on. Their urban character, however, remained questionable. For a long time industrial cities could not get rid of the appearance of "in between" settlements, rejected by both, the old city and the country. If these industrial settlements attained city status, formal building regulations for height and street pattern were, however, unavoidable consequences. The economic forces to which they were indebted for their existence were late in finding their means of self presentation; North America made, in this respect, a departure much earlier.

3. Historical City-Types

3.1. The Concept [4]

European city development shows a time continuum with a marked constancy of locations. Fluctuations of political and economic history brought to many cities periods of decline. Nonetheless, even the immense destruction of World War II, in which hundreds of cities experienced a

complete change of population (as in some parts of East-Central Europe), could not convulse the stability of the urban network. This continuity covers several urban concepts, determined by a distinct political structure. Disregarding regional variety, the following historical city types can be distinguished:

- (1) The medieval burgher city of the feudal territorial state
- (2) The city of the nobility as a creation of the absolutist state
- (3) The industrial city of the Liberalism
- (4) The New Town of the social welfare state and socialist system.

From the ashes of provincial Roman urbanism the occidental city arose about 1000 A.D. in the northwest of the continent as a community of free burgesses. Trade and commerce became its important functions. A social order, based on guild-organization, wealth and property, determined the physical structure, expressed in a social gradient from the center to the periphery. The market place formed the node of economic, social and political activity. In the struggle among the feudal powers, some of the bigger cities, forming Leagues, could rise to independence. Bremen and Hamburg are remnants of this status, ranking as "land" in the legislation of the West German Federal Republic.

France created the model for the new political organization of the absolutist state (16th through 18th centuries). Nobility and cities were bent under the domination of the ruling dynasty, whose court became the architectural and social center of the city. Consequently new social groups appeared. Civil servants and officers rose as new elements in the population of bigger cities, but the most important fact was the urbanization of the nobility. This increased the number of service people and brought into existence a group of artisans outside the guild-system, which could supply all needs of the court, the nobility and the high bureaucracy. In the shadow of these brilliant cities, however, a huge number of mostly unmarried people existed, looking out for a job from one day to the next, without overnight accommodation, who were, therefore, pushed out of the city by the police each evening.

Great Britain took the leadership in the liberalist period and created the prototype of the industrial settlement. Organized lodging of blue collar people was carried on only in some company settlements. By and large land speculation set the rules, the location of the factory destined the site, and within walking distance the workers' settlements mushroomed. All organizational problems of the new burgeoning communities — like water supply, sewage, school systems etc. — had to be amended afterwards, as they had by no means been solved satisfactorily.

In the seventies, legislation started to cope with the worst excrescences. In Great Britain the Public Health Act of

1875, for example, cut down the residential density of the ill-reputed back-to-back houses from 150 flats to 50–75 flats per hectare, – not, indeed, for social reasons but for hygienic considerations following the shock of a cholera epidemic. At the same time, continental Europe also attempted to master these problems by such measures as building regulations originally written for the old cities, but adapted for industrial settlements now. Setting limits for height, alignment and frontage, they forced haphazard housing developments into a preindustrial formalized dress. As remedies for the outrageous abuses of industrial urbanization, political and socio-economic ideas have been struggling for publicity ever since the mid-19th century. Again Great Britain set the rules.

The New Town idea [5], made popular by Ebenezer HOWARD in 1902, combined several aspects:

- (1) Rearrangement of the formless inhuman mass of the big industrialized city, on a human scale with a strictly limited size of the New Town, divided into parts with different functions;
- (2) Balance between the quantity of housing (population) and the number of jobs should be attained;
- (3) Social ideas were implicitly integrated into this concept;
- (4) Ownership of the land by the town should paralyse speculation and control development.

Social welfare states and socialist governments both developed quite different types:

- (1) A realization of the New Town as a self-contained unit with a balance between living and working population could not be managed unless it was supported by decentralization of industrial estates. Only Great Britain offers such examples.
- (2) From the very beginning this concept was changed in the North European countries. Here the satellite-towns became a tool to control the growth of the metropolitan regions.
- (3) As a last offshoot of the colonization tendencies in the period of enlightened absolutism New Towns were founded as local market centers in countries with agricultural improvement programs, i.e. Italy (Latina in the Pontine Marshes), and the Netherlands (Emmelord).
- (4) Insofar as there exists an important difference between West and East of the Iron Curtain as the planning programs in the western countries are based upon residential developments, with the number of people and households serving as the basic figure for all further calculations. The planning of a new socialist industrial city, on the other hand, considers first the capacity of the plant and the number of jobs available, (e.g.

Eisenhüttenstadt in the German Democratic Republic, Dunaújváros in Hungary, Nova-Huta in Poland, Dimitrovgrad in Bulgaria).

3.2. The Family-Tree of European Cities

As early as in the Middle Ages a dense network of cities had been created. Little space was left for newcomers unless they could gain additional, virtual "Lebensraum" through new activities. Therefore, younger urban concepts were appearing mainly as additional developments or redevelopments of existing structures. The theoretical possibilities for repeated superimposition are shown in Fig. 1. They were realized in quite different amounts.

The small towns of the Middle Ages and the fortresses of the Renaissance and Baroque periods belong to the simplest cases of the "one period" city. Mostly unconnected with modern transportation systems, they are heavily affected by the problems of the small town in the mass society, especially in backward rural areas with strong rural emigration (France, Italy, etc.). There are, however, only a few industrial cities in this group. They represent declining industrial areas (e.g. South Wales).

Capitals, either of states or provinces, form the counterpart of these simply structured cities. They have been promoters and reflectors of all political, economic and architectural impulses of their nations. Their physical structures are very complicated and have been remodeled and extended again and again. The capitals are the exponents of the European nation states, the centers of European culture, the places, where European urbanism is focused, offering its magnificent aspects and its biggest problems.

Most of the small and medium sized cities missed impulses during the absolutist period, which generated the predominance of the primate city, and stagnated for centuries up to the industrial period.

Only one city type challenges the capitals at least in size, passing the one million mark – the industrial agglomeration typical of Great Britain. Cities like Birmingham and Manchester, however, come closer in their ecological pattern to American cities such as Pittsburgh and Chicago than to London.

4. Some Characteristics of European Cities and Their Historical Background

4.1. Urban – rural Interrelationship

The relation between city and countryside has undergone considerable change during history (Fig. 2.). The city of the Middle Ages was a member in the threefold settlement structure of the feudal society, developed above all in France and Germany. The holders of feudal power, the nobility, resided in castles. Under their manorial power

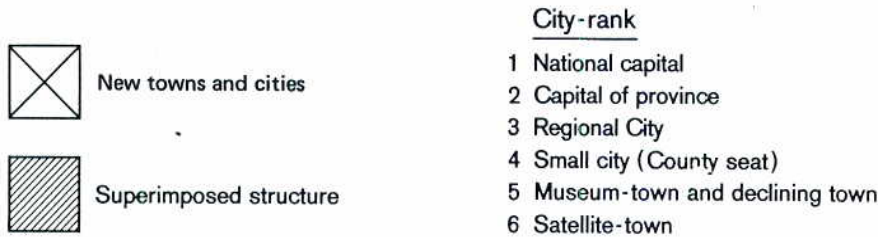
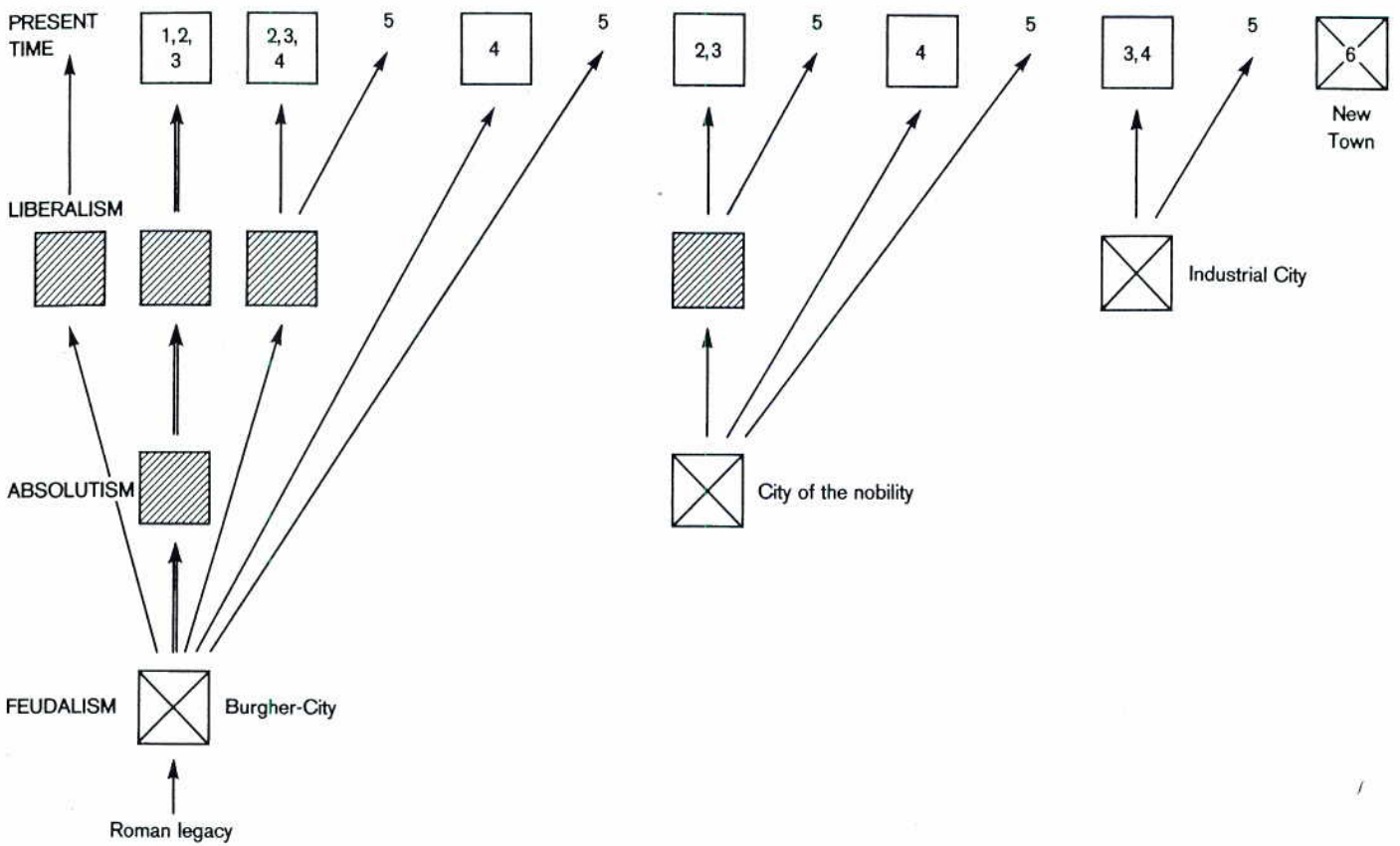


Fig. 1

- The family-tree of European cities
- Der Stammbaum des europäischen Städtewesens
- L'arbre généalogique des villes européennes

stood the rural village community, which itself was inter-related as to production and service functions with the city. City and country were not only two different worlds in regard to their juridical, political, social and economic conditions, but also two different cultural spheres, expressed by different architectural design. Absolutism (16th through 18th centuries) subordinated nobility and cities to the centralized power of the state-dynasty. On the continent – not in Great Britain – the aristocracy moved into the city. Many castles were abandoned, some of them were transformed into summer residences.

Early industrialization during the period of enlightened absolutism in Central Europe (1750–1840) delegated part of the industrial production to rural settlements. The putting-out system stretched a network of relations over large areas. A modern bureaucracy was set up, which not only assigned the cities a distinct rank, but gave them a defined administrative hinterland, too.

Liberalism in the 19th century accentuated these administrative functions not only through the abolition of the manorial system, but also by creating new schools, welfare

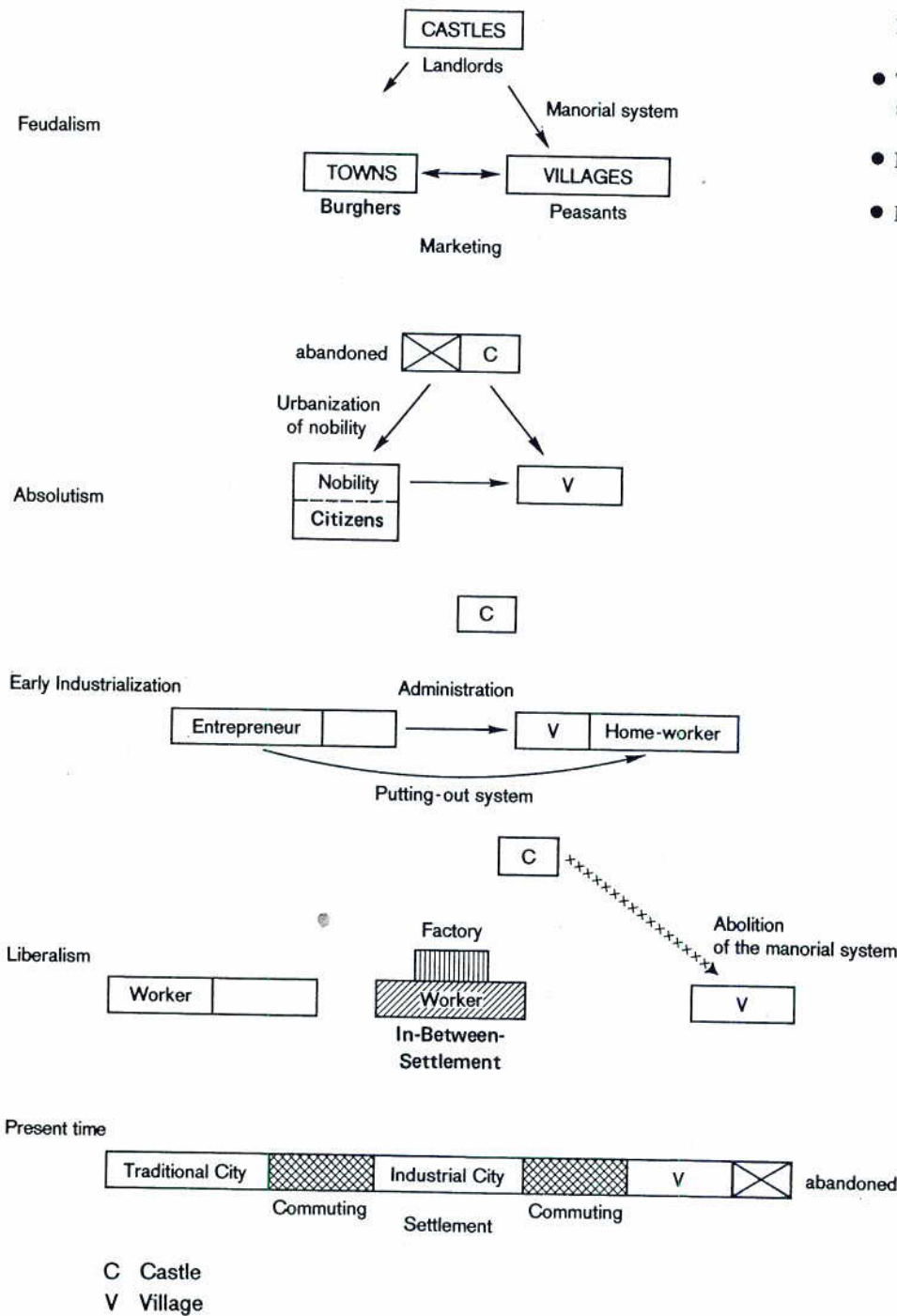


Fig. 2

- The change of the urban-rural interrelationship
- Der Wandel der Stadt-Land Beziehungen
- Les changements des relations villes-campagne

and jurisdiction tracts. Most important factors for urban-rural relations were the development of a real estate market and the mobility of people. As with their economic areas, the cities demarcated their hinterland of immigration according to their rank in the central place hierarchy. Superimposed upon the pattern of migration to regional and local centers, long distance migration built up industrial agglomerations. The capitals gained most by this upward mobility from the small to the large city. They not only obtained the mass of unskilled laborers from overpopulated agricultural regions, but also the skilled and educated pro-

fessional young generation of small and medium-sized urban settlements. Up to now this vertical mobility, according to the rank-system, has had absolute priority over the horizontal one among cities of similar size. This appears to differ remarkably from the North American situation.

Liberalism had already weakened rural structure in the city-umland. The conversion of villages into commuter settlements occurred after World War II. In West and Central Europe commuter colonies of single family houses intruded into most of the easily accessible agricultural

landscapes. This fragmented and haphazard urban sprawl counts among today's major problems especially in West Germany. In remote areas with poor accessibility depopulation caused abandonment of many single farmsteads and even villages.

4.2. The Government's Role in Urban Planning

The medieval city community performed a wide range of functions, as the great number of public buildings demonstrates. In Flanders and northern Italy, where its interior organization reached maturity first, it anticipated the principles adopted by state government later on. The architecture of the town hall, normally occupying the central plaza, was an outward sign for the importance of the city. In many cases the City Council possessed powers to decide matters of life and death. It controlled the housing development and the economic activity of the burghers, and also collected taxes. On the other hand it had the responsibility of providing food supply in case of emergency, as is evidenced by public storage buildings such as the salt towers, flour houses and bread houses. Religious orders participated in the social services and schooling.

The absolutist state superimposed its administration on that of the city. The rights of the city board were reduced, and part of its functions taken over by the state bureaucracy. These interferences, of course, most afflicted the capitals, where municipal authority sank to the role of handmaiden to the state government. Above all the cultural institutions — universities, museums, theaters — became an obligation of the ruler.

Liberalism created an autonomous community legislation. Step by step the City Council regained its old rights and duties and increased its range of functions. Old, half-forgotten ideas of responsibility for housing, schooling, welfare, etc. gave rise to municipal socialism, in which Vienna's lead was soon imitated by other cities. The idea of municipal self-administration early brought control over utilities such as gas, electricity, and the public transportation system. The municipality became the biggest entrepreneur in town. These concepts should, indeed, not be considered isolated, because they represent tendencies advocated by the Welfare State after World War I as well.

The "non-profit" policy of many services forms one cornerstone in the social city concept, welfare programs a second. They comprise school and hospital constructions, recreation facilities and huge housing developments. The number of programs, loudly advertised in election campaigns, cannot always be covered in regular budgets. It is necessary for cities to raise loans. The possibility of practicing truly "integral city planning" however stands upon the land policy. Extensive urban planning demands power to dispose of the land freely. The Prussian kings already realized this, when trying to remodel Berlin in the 18th cen-

ture. Purchasing one lot after another they surprisingly succeeded in acquiring 40 per cent of the city area. Now social democratic city governments are imitating this example. As early as 1910 Stockholm started to acquire lots and forest areas inside and outside of the former city boundaries. The municipal board being able to decide about real estate property in the planning districts contributes to both the success of downtown-redevelopment and the construction of new suburbs. The Vienna City Council seized upon the same idea after World War I.

Much greater opportunities exist east of the Iron Curtain. Nationalization of tenement houses and urban land has been exercised in all of them, including Yugoslavia. The former land owner maintains the use of his land unless it is needed for construction purposes. Then he receives a fixed minimum compensation. The obstacle presented to city planning by private property is, therefore, eliminated. On the other hand, the municipal authorities are burdened with the ownership of old houses, which do not return any profit because of "social" rents.

4.3. Representation in Architectural Design

The representation principle is an integral part of European urbanism. Drawings of the 16th and 17th centuries show how architectural design reflected spiritual values, religious ideas and political order. The strict rules of social organization of the burgher community are manifest in the way their individually built residences formed a continuous united facade. Even the fortifications combined military expediency with representation.

Especially the baroque court city strengthened this principle in a monumental manner. Imposing avenues, leading to palaces and public buildings, became an instrument of architectural design. The integration of parks into the urban landscape laid the foundation for an important tradition. As large avenues of trees demonstrate, the dimensions of this baroque city were no longer adjusted to pedestrians, but to riders and carriages. The house of the citizen played a subordinate role in this concept. Everywhere in West and Central Europe, palatial architecture was imitated by the middle-class. The bourgeoisie built in the way the nobility did.

This development was leading to the much criticized "façade culture" of the founder period (1850–1914). In this era not only the tenement houses of the middle class but even those of blue collar people were ornamented with elements taken from a wide range of historical styles. This tendency, indeed, remained restricted to continental West and Central Europe. At the same time, the idea of state representation crested in the capitals of the large countries. The remodelling of Paris by HAUSSMANN taught a lesson above all to Belgian and Spanish urban architecture.

This period of the late 19th century, interfering with the older physical pattern as no earlier era had done, activated conservative forces too. In the decades of the worst land speculation a preservation campaign started. As early as in 1907 a law against the disfigurement of settlements had been passed in Prussia. Ever since the preservation idea has been an important factor in city planning programs. Where municipal socialism first started large-scale housing programs, namely in Vienna in the early twenties, the castle-like character of the building masses reflected the strong opposition faced by this new political concept but helped it to gain world wide interest. Imitated by other municipal boards not only in Europe, the impressive design was lost and only the huge building size retained as, for example, in Glasgow and New York. After 1945 Stockholm could lead progress from social housing programs to "social city planning", in urban design adding architectural attractiveness to economic efficiency.

It is no surprise that the totalitarian regimes east of the Iron Curtain fall back upon concepts of baroque (= absolutist) urban design, as realized for example in the pompous North Avenue into Bucharest, along which the Open-Air Museum of Folklore and the Academy of Sciences greet visitors. The models of absolutist urbanism also glimmer on the horizon of new industrial cities. The showpieces of baroque alleys are, of course, changed into the "Magistrale", the main axis of the city with stores and public utilities, which is dominated not by the palace but by the extensive industrial estate.

Likewise, as a unique demonstration of national self-confidence, the reconstruction of Old-Warsaw was undertaken. With great care, observing the smallest details, the late medieval city was reconstructed. It was given museum and residential functions only, while the restored baroque palace quarter attached houses offices for government departments. Distinctly separate the new Central Business District arose. Its skyscraper composition combines functional and representative ideas and is dominated by the "culture palace".

4.4. From Baroque Parks to Green Belt Programs

Landscape architecture was an integrated element of the absolutist urban concept. Originally reserved for the privileged upper class, mainly the nobility, many parks were opened to the public during the Age of Enlightenment. Green area planning started. In Vienna, in 1782 the Emperor Josef II gave orders to convert the vacant dusty area of the "glacis" into a recreation zone for the people living in the densely built up old city.

In many cities the demolition of fortifications created a green belt around the old town. Its design and upkeep became the duty of the municipal board. During the period of Liberalism the common land concept of the

medieval community coalesced with the aesthetic principle of the baroque garden-culture. The masterplans of the late 19th century already fitted some public parks into the closely built up areas. Private gardens were purchased and made accessible for the public. Municipal housing programs initiated the idea of the "social green" with a playground for children and other recreational facilities. The model created was imitated by cooperative and freehold housing development all over Europe after World War II.

In this context, the continental green-belt-concept, formulated first in Vienna in 1904, can be understood. It was thought of as a recreation area for people living in the densely built up city. Applied to American suburbs with single family houses and gardens this significance is lost. The green belt also is an instrument for controlling urban growth and subdividing the urban pattern into neighborhoods, as Ottawa adopted it. Green belts can be found in the masterplans of many European cities. Their preservation depends on the opportunities for controlling land speculation, which are not the same throughout Europe.

4.5. Former Fortifications in the Present Urban Pattern

Wall and moat were expression of urban existence from the classical period to the modern era. The gateways functioned as control posts both for the traffic of people and goods, and served as tax stations as well. Fortifications did not possess military importance only. They rather formed an essential social and economic barrier between the city and the suburbs. Higher social prestige as well as different economic activities separated the burghers of the city from the inhabitants of the suburbs. The gradient of social status and wealth from the center to the periphery formed a hurdle against incorporation in many continental cities, which even the liberalist period had difficulties to overcome. Both the suburbs and the city did not fully approve of an extension of the city area. The former feared higher taxes and an increase of living costs, the latter was not too pleased to gain less wealthy citizens.

Two concepts of urban design were adjusted to "city-expansion" during the 19th century:

- (1) The radial or tangential boulevard as the axis of planned suburbs (Berlin, Budapest, Munich, Marseille, Madrid). In many big cities several such axes were added to the old town.
- (2) The boulevard-ring in the middle of the glacis.

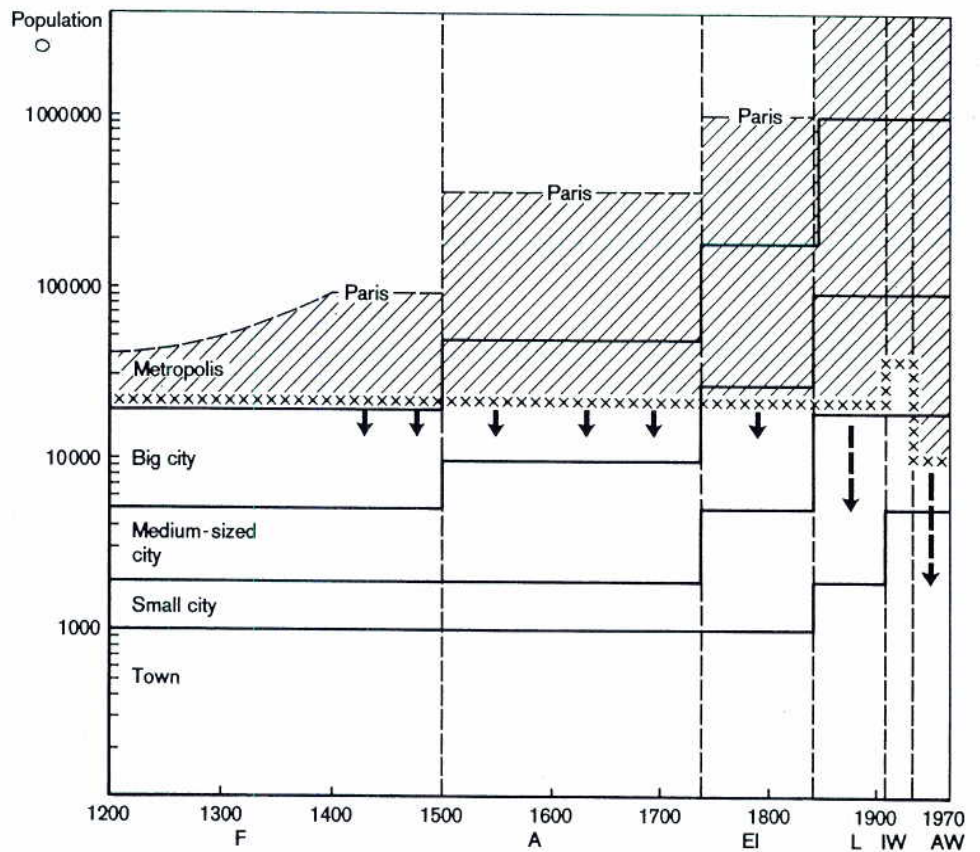
Both ideas originated in France.

From medium sized to million-cities we find the following elements pertinent to former fortification areas:

- (1) Peripheral land uses such as industrial estates, public utilities (gas and electricity plants) and

Fig. 3

- The advance of the tenement-house in the rank-system of continental European cities
- Das Vordringen des Mietshauses in der Rangordnung kontinentaleuropäischer Großstädte
- L'avancement de grandes immeubles dans la hiérarchie des villes en Europe continentale



F Feudalism
 A Absolutism
 EI Early Industrialization
 L Liberalism
 IW Inter-War Period
 AW After-War Period

The advance of the tenementhouse in the rank-system of continental European cities

▨ Tenementhouse
 ↓ Outposts

storehouses filled this area and terminals were erected if the suburbs were small and separated by much open space.

- (2) An integration of parks and promenades was acclaimed if the old town was densely populated and the suburbs quite large. These public parks stimulated the settlement of the well-to-do.
- (3) An extension of CBD functions took place where space was short in the old town. Headquarters of big corporations preferred the location along the boulevard.
- (4) The capitals of states or provinces appear as special cases. There the area was used for the construction of public buildings. Vienna offers an outstanding example of this type, imitated by some other European cities (Copenhagen, Geneva, Brno).

4.6. Apartment House versus Single Family House

The history of European domestic architecture is characterized by the opposition of single family house and apartment house. Looking for the regional power fields of both of them, we find England on the one side and Italy on the other. On the continent the front line was advancing northward in favor of the apartment house, especially during the 19th century. Fig. 3 points out how the tenement house gradually extended to lower levels in the rank-system of continental European cities according to increasing urbanization. The size of about 20,000 inhabitants seems to be an important threshold, above which tenement-structures tended to appear.

In this very process, the form of organization, the social structure of tenants and the building-types of the apartment house have undergone many changes. North of the Alps the apartment house appeared in the Renaissance period (16th century). New residential properties for the

well-to-do were designed as multistorey apartment houses with arcaded patios. This style can be traced from Italy to Vienna and Krakow, Warsaw and Lublin in Poland. Another line of development is to be observed from Italy and Spain to South France and reached Paris.

Standardized large scale tenement blocks became a profitable investment for bankers, entrepreneurs and wholesalers during the late 18th century. Naples stands as a prototype. At this time it was, with about 350,000 inhabitants, the second largest city of the continent after Paris. To this day these huge tenement houses characterize Naples' urban core. The same social class of wealthy bourgeoisie residing in spacious apartments on the second floors of their tenement houses in big continental cities showed a completely different residential pattern in England. London's Westend designed it (Bloomsbury, Mayfair, Belgravia, Regent Park). Here, large scale developers had leased tracts of land from the Crown and some of the old aristocratic families and had built attractive single family mansions, available on long term leases. Thus, two different residential images of the upper middle class were initiated which determined further urban development.

During the second half of the 18th century the tenement house appeared in the medium sized city too. Here it was an offshoot of the craftsmen townhouse. The long wings, originally used as workshops or storages were converted into tiny flats. The winged town house can be traced from France to the Austrian-Hungarian Monarchy. It characterized the suburbs of capitals like Vienna, Budapest, Munich, Paris and appeared in industrialized rural villages.

These older tenement houses at first supplied the demand of the middle income group. The barracks for tenants from the bottom of the social strata were the offsprings of Liberalism. Standardized and socially differentiated apartment house types were adopted by the capitalistic housing market. Construction companies carried out the parceling of the lots. Agents and real estate offices handled the transactions; mortgage banks took over credit arrangements. Tenement house property became an attractive capital investment for wealthy people. The contrasting pair: landlord and tenant found a literary echo.

Capitals such as Paris, Berlin and Vienna created distinct prototypes to be imitated by smaller provincial cities. The English terrace house and its variant, the narrow multi-storey house with only one apartment on each floor, took hold only along the coast of the North Sea from Northern France (Rouen, Lille) to Belgium, the Netherlands and into North Germany (Bremen, Hamburg).

Just as industrialization could gain only single outposts in East Central European agricultural landscapes the tenement house was not approved at all outside the capitals and some industrial cities like Lodz in Poland, the textile metropolis. Otherwise the cities and towns kept

their half rural appearance with the traditional one storey row-house structure.

Both World Wars brought vast changes in the whole urban system. The freezing of rents by Tenement Protection Laws and inflation in old properties, the "social rent" of the welfare housing program, later on the "non-profit" rent of cooperatives, companies, etc. and the mortgage rent of the freehold apartment completely changed the dwelling market and contributed to its complicated mechanism. The mobility of the population and the segregation of low and middle income groups were lessened.

During the inter-war period the apartment house was adopted for social welfare programs, without becoming an object of discrimination as it did in North American slum clearance projects. City council and cooperatives both propagated the English garden city, which helped to introduce the terrace house to continental Europe. It met with another family house type, sprawling in chaotic fashion in the city outskirts of East Central and South East Europe, not truly divorced from its rural origin. This comeback of the family house in the 1920's and 1930's may be interpreted as a self-help action of the working class, which was too poorly housed during the liberalist period.

In Europe there never was a powerful organization of huge construction companies, real estate offices and supporting mortgage banks as in North America, where the marketing of the family house, often prefabricated in standardized variety according to income levels, is responsible for the urban sprawl. The situation is completely different in Europe. There prevails a spontaneous development: Construction of a house over many years by its owner with neighborhood help makes it possible for the small taxpayer to acquire his own house in spite of his lack of capital. As a result of increasing land values, high down-payments, high interests for mortgages and lack of city highway systems, however, the peak of development seems to be past.

At present the apartment house, subsidized and financed in various ways by public funds, is on the advance again. Above all in such densely settled areas of Western Europe as the Netherlands, it had to be adopted by the regional planning committees, because lack of space does not permit further urban sprawl.

In socialist countries the apartment house acquired a two-fold function. On the one hand it helped coping with war damages and the housing shortage, on the other hand, it became an instrument for eliminating disparities in the way of living between city and countryside. For the first time in this part of the world apartment houses made their appearance in medium sized and even in small towns. The socialist governments neglected, to some extent, the economic law of supply and demand in their

housing programs. Intending to match the western countries they sometimes raised the housing standards too fast. Dilapidation therefore menaces the dwellings providing too much comfort for people used to rural living behavior.

4.7. The Interdependence of Social Stratification and Dwelling Structure

Apartment houses are not discriminated on the European continent. For a long time they have been built for all income strata. Especially in the interior parts of the cities they brought about confrontation of social groups, as can be seen in the vertical and horizontal differentiation of the dwellings' size in older buildings. Before the elevator was invented, the best apartments always occupied the second and third floors. There also is a contrast between the large front apartments and the small flats looking out to the back yards. The literature of the 19th century reflects the social stress in such tenement houses very well. A further restriction of segregation processes on the low and medium levels of the social strata results from the fact that the different housing classes are controlled not by profit-seeking landlords or large construction companies only as in North America. By no means groups with housing privileges are identical with social groups, as, for instance, the tenants of apartments with frozen rents, the members of cooperatives, the tenants of state or city owned houses.

The self-employed have to be considered separately, because they practiced only partial separation of living and working. This is true of tradespeople and small-scale entrepreneurs especially if they own the property housing their enterprise, but it is also true of medical doctors, lawyers, architects etc. who prefer to live close to their clients. This may be interpreted as a stronger traditional self-identification with ones profession, which has little or no room in the American way of life.

By and large the European dwelling structure developed on a line different from that of North America since the 19th century. The mass production of tenement houses during the founder period created the problem of tiny flats-poorly equipped, but durably constructed. The social housing programs moved into the same line, oriented toward the demands of the small taxpayers, and tried to build, at lowest costs, as many dwellings as possible to cope with the housing shortage. Even after World War II the average dwelling size was increasing very slowly. The housing development is still lagging behind the rising demand for better equipped dwellings of larger size.

The situation seems to be reversed in North America, where not enough small, cheap apartments are available. There, a continuous process of deterioration of houses originally built for the well-to-do is going on. The speed of this process, concomitant with cheap construction of most

houses and the rapid amortization of the invested capital, is breath-taking. In the United States, the formation of Negro ghettos is accentuating it. Apart from slum clearance programs of the government, there is only little public interest in meeting the housing demands of those people who cannot afford to pay the mortgage on a single family house.

Other psychological differences seem worth mentioning. The breakdown of the capitalist housing market in most European countries and less mobility of the people have created the feeling of a pseudo-ownership of apartments. Consequently many people are willing to take care of improvements inside the dwelling. Thus discrepancies between shabby façades and well kept apartments may surprise the foreign visitor in many big cities.

4.8. Public Transit versus Private Traffic

"We don't want to sacrifice our cities to private traffic." This slogan clearly expresses the basic principles in most transportation programs of the bigger European cities. They have many problems in common, including transportation: Their central core areas are full of monuments worth preservation. The spiderwebs of narrow streets and closely packed buildings are perfectly inappropriate for modern traffic demands. The pattern of radial roads, mainly oriented by former gateways, cannot carry the rapidly increasing car traffic to the downtown area. Motorization overtook Europe later than North America, but more abruptly and violently. Nowadays, rush hours in Paris or Rome seem worse than in Chicago or New York.

The city budgets are, by and large, so much smaller and so much more burdened by social programs that the most brilliant ideas cannot be carried out. Stoppgap solutions substitute comprehensive city plans.

Since the early sixties, however, at least in most of the big cities, long-range traffic programs are integrated parts of the masterplans controlling growth patterns. They comprise the following principles:

Relief of pressure on the central city area can be obtained only through decentralization of people and economic activities as well as creation of outposts of the CBD. Construction of Civic Centers in Rome, Hamburg, Paris and Belgrade is leading the way. Great circular highways beyond the fringe zone of dense population are intended to connect new satellite cities. Former fortification belts are used for expressway construction (Cologne, Vienna, Paris: Boulevard Périphérique). Riversides attract tangential auto routes (Paris, Vienna). Without these guidelines it seems too costly to cut highways through the multi-storey row-house structure.

However, higher density of population in the cosely built-up areas (Barcelona: up to 2000 per ha, Naples: 1500 per

ha, Vienna: 750 per ha) as compared with North American cities (25–65 per ha) provides a unique opportunity for solving problems by means of rapid transportation systems. Finally, in the sixties, throughout Europe the City Councils of big cities started subway construction (Rome, Milan, Vienna, Munich, Frankfurt, Cologne, Hamburg, Stockholm, Madrid, Barcelona) and extensions (Paris). Fares must be kept lower than cost if about 70 per cent of the continental European employees are to continue traveling to work by public transportation.

A new urban system appears on the horizon of city-planning: satellite towns with differentiated house types and dwelling sizes, medium density of population, connected by highways and attached to the city center by subways. The contrast with the U.S. scene seems obvious.

5. The Differentiation of the City-Area

5.1. Social Models [6, 7]

European cities cannot be reduced to the simple concentric zone model which works so well in North America, where social status increases stepwise with distance from the center. An equivalent can be found in Great Britain only. On the European continent the variety of social patterns can be arranged in the following groups:

- (1) Wherever traditional features are very striking, the social gradient is directed from the city center toward the periphery. However, a model reversing North American conditions, applicable to most Latin American cities, is satisfactory only for a few cities in Europe outside the Mediterranean world where it is preserved best.
- (2) A certain deterioration of the dwellings in the "old city" started at the end of the 19th century in some West European cities, as wealthy people moved to the new suburbs, giving way to lower income groups. Many French cities fit into this stage of half-finished "proletarianization" of historical centers.
- (3) A break of the social gradient along the fringe of the workers' tenement quarters resulted in the big cities where the outskirts are improving and attract people of higher social rank. Copenhagen affords a good example.
- (4) Sectorial phenomena caused by site preferences played an important role since the formation of suburbs in the Middle Ages. London and Paris offer outstanding examples for strong west end-east end contrasts, although, in these cases, less wealthy suburbs surround the noble Westend of the inner city.

- (5) Metropolitan development in Europe rarely means suburbanization, but rather an agglomeration of cities, towns and commuter villages around the central city. A social mosaic corresponds with the historical topographical multiplicity of the city-region.
- (6) Leveling out of the social gradient under the housing policy of social democratic city governments can be observed in many cities. The trend toward greater social homogeneity is much stronger in the satellite states. There no longer is a free housing market, and subsidized rent amounts to only 5 per cent of the income. In the housing policy the group of the privileged consists of young families with children, families living under unhealthy and bad conditions, and employees of "key economic branches". In Prague the steep social gradient from the center to the periphery existing before World War I has been leveled almost completely in the interior districts. Only the former fringe zone of workers is still indicated by a higher percentage of blue collar people. In the sixties the socialist countries cut back housing subsidies and encouraged cooperatives for housing developments. It is too soon to ascertain the effect of this new tendency on the interior differentiation of the socialist cities.

5.2. Slums in European Cities [8]

One cannot usefully apply the American definition of slum to European cities as American authors like to do. They overlook two facts: first, that in Europe, housing development – except to some extent in North Europe, the Netherlands, Belgium and partly Germany – could not keep up with the American standards of conveniences. Secondly, that in European society substandard housing areas are not inevitably associated with crime, vice and unemployment. To understand the European situation we had better distinguish between the following categories of "potential slum dwelling":

- (1) under-equipped dwellings in good care,
- (2) well constructed, but dilapidated dwellings, which could be renovated,
- (3) worn-out dwellings,
- (4) unhealthy dwellings.

Only the last two types are "real slum dwellings". They can be found as islands of worn-out houses, 150 and more years old in the urban core and the nuclei of suburbs. We might add the "backyard slums" of older districts, which originally housed the service people or apprentices, but are divided into very tiny flats now, devoid of light and deficient in ventilation. Basement and street levels, attics and top floors range in the same line. These slums do not necessarily coincide with working class sections. The

central and backyard slums may house prostitutes or unsuccessful intellectuals and artists as well as seasonal or foreign workers who want to save money. The group of rural immigrants may appear at the outskirts, too. "Bidonvilles" features characterized some big cities in Central and Southeast Europe during the interwar period. Since then spontaneous remodeling eliminated them in many cases. Similar features, however, with much higher density, appeared after World War II in the Mediterranean world. Most of them could be cleared away through enormous efforts of social housing programs.

The group of well constructed but dilapidated dwellings consists of remnants of different historical periods. Depending upon city size and location, they may, in part, come under the control of preservation laws, be renovated by amateurs or demolished. A special problem is posed by the tiny flats of the founder period. Thanks to rigid building codes, many of the solidly constructed tenement houses, 50 to 120 years old, are still not obsolete.

Summing up, except for the last type, which occupies large interconnected areas, slum dwellings are scattered all over the city. The slum pattern of continental European cities is by no means identical with the blighted areas around the American downtown.

5.3. Central Business District [9]

In the continental city the downtown shows several distinct features:

- (1) The substitution of vertical structure by lateral expansion implies, firstly that the CBD covers a relatively large area and, secondly that separation of functions by quarters starts at a smaller city size than in North America.
- (2) Decentralization of establishment in some cases began two centuries ago in the inner part of the city, accompanying the formation of suburbs, as for example in Vienna. The centrifugal movements of manufacturing, retailing, wholesaling and headquarters were the subsequent stages of the historical process still going on. Decentralization of economic functions most profoundly affected the big city with historical traditions. The smaller the city the less developed this process. Frankfurt, the German economic metropolis with about 700,000 inhabitants, for example, still could keep about 40 per cent of its retailing employment and 25 per cent of services in its urban core. In Vienna both groups are of minor quantitative importance – less than 13 per cent. Further decentralization however, is under way. In most medium-sized cities of about 50,000 inhabitants the CBD is more or less identical with the "old city". Decentralization of tertiary functions occurs only to the extent of some convenience

stores following the new housing development into the suburbs.

- (3) The "alienation" of space from residential to economic use in the tenement structure forms another historical peculiarity. Backyards are used for small industrial establishments, the street level for stores, the second and third floors for offices. Fifty per cent – sometimes more – of the properties still serve residential purposes. The small scale of most enterprises, with a few employees only, favored this intermingling of uses. Under these circumstances, especially in the Mediterranean cities, manufacturing remains more or less invisible for the observer of street fronts in the tenement-structure.
- (4) Further characteristics are based upon the traditional role of many European city centers as foci of social and cultural activities. Most universities, museums and theaters are tied to the downtown areas. The universities, however, are not encircled by a blighted zone as are many of their North American equivalents (Chicago, Detroit). In some cases other elements of former city outskirts, like hospitals, were not relocated but kept their places close to the urban core as in Vienna and Munich. The attraction of the city nucleus as the social center is reflected best in its recreation and entertainment function.
- (5) In the railroad era the urban core of many cities grew asymmetrically towards the railroad station, situated at a former long distance road, which then became the main shopping street and attracted further activities. The railroad did not lose its function in passenger transport, therefore, the terminals still are centers of urban traffic and life.

5.4. Location Principles and Pattern of Retailing

Business organization, living standard and consumption behavior determine retail structure throughout the world. Department stores and chain stores appeared on the European continent in the seventies of the 19th century, at about the same time as in North America, but without attaining so much importance. Department stores could invade the highest levels of the urban system only, while specialized small chain stores (food, shoes, clothes) extended down to smaller places. Like industrialization, they could not succeed in East and South Europe. The depression during the interwar period combined with a policy of protecting the small store keeper adopted by most governments restricted both throughout Europe. Now, after World War II, large business organization started expanding again, favored by several factors:

- (1) In the war-damaged West German cities, department stores took the initiative in very rapidly setting up new retail structures.

- (2) Investment of American money brought Great Britain a progressing development of supermarkets, mainly, however, as a feature of the downtown area.
- (3) New Town development and social housing programs favor the chain store and the supermarket, as can be seen in Great Britain and North Europe.
- (4) Nationalization of retail trade in the satellite states hit most the small towns and medium sized cities where many small stores went out of business, without being replaced by government-owned department stores as in the big cities.

In this very diversified scene the small shop, still popular, is represented among convenience stores as well as among highly specialized stores. To understand the persistence of the small shop, four facts have to be taken into account:

- (1) The much smaller salaries of European employees with which the income of a storekeeper has to compete.
- (2) The social prestige still attached to self-employment.
- (3) The system of "frozen rents", which in many European countries has preserved the existence of small, traditional stores and hindered the rise of bigger ones due to the high cost of lease redemption.
- (4) The deliberate protection policy of conservative parties, depending on the votes of this group of the self-employed.

Furthermore there are differences in consumption behavior as compared with North America. The less wealthy European is a much more careful purchaser, still impressed by the quality image of products, established first in the guild tradition of the Middle Ages and upgraded to perfection by the demand for luxury goods by court and nobility. This demand for top quality was imitated by the middle class in the industrial period. Liberal economic laws encouraged the new opening of a tremendous number of small stores, in part highly specialized and forming a strong counterbalance against large scale organizations.

The quality image has remained important in the period of mass consumption. Therefore, the increasing living standard, which has promoted an unbelievably fast turnover of goods in North America, accentuated the demand for better quality in Europe. Cheap discount stores, common features of North American shopping centers, rarely gain a footing on the European continent.

The shopping pattern of European cities emerged by and large in the founder period and has undergone, surprisingly enough, little change since World War I. This means that the majority of the stores is still situated inside the housing area existing at that time. In the small city, retailing has remained more or less completely a business of the "old core"; only some clusters of convenience stores for a local clientele were delegated to newer parts of the city. Even in

the medium-sized city the old core is still the focus of shopping activities, though some streets in 19th century residential areas emerged spontaneously as neighborhood centers. In the big city, with more than 200,000 inhabitants, the principle business thoroughfare, oriented toward the railway terminal, as mentioned above, in many cases bypassed the downtown, which then started to specialize in exclusive supply.

A very complicated network of shopping streets characterizes the million-city, reflecting growth periods, historical-topographical units and former and actual traffic patterns.

Height zones of the master plans influence the retail pattern, as Fig. 4 should demonstrate. The land value gradient, crossing the height zones, divides each one into two parts, whose interior one with higher land values seems more appropriate for business activities than the outer part, which seems to be preferred for residential purposes. Therefore, the foci of retailing in every radial shopping street are situated on the centerward edge of a height zone. Fig. 5 points out this centripetally oriented retail pattern of a big city in a schematic way. More or less opposite location principles can be observed in the newly planned American shopping centers centrifugally situated at the furthest edges of new suburbs.

The European city outskirts are more or less undersupplied areas. We miss the planned hierarchy of shopping centers with huge parking lots, apart from some few experimental designs as in the outskirts of London, Frankfurt or Stockholm, but we also miss the miles of traffic oriented ribbon development with car showrooms, gasoline stations, motels, hot-dog restaurants, barber shops, etc. We are bound to realize that while North American retail trade increasingly follows a car-determined location pattern, the European shopping network remains oriented mainly toward walking and bus riding customers.

5.5. The Ecological Structure: Vienna as a Case Study

The Vienna example depicts some features common to many old continental cities (Fig. 6). Compared with American urban pattern the following differences seem worth mentioning.

- (1) Social status is still highest in the urban core and declines toward the periphery. Depending on site preferences single sectors deviate from the traditional rule. This is especially true of the outskirts and the "Linear City" in the south west.
- (2) The old town has maintained the residential function and is not surrounded by a blighted belt but by middle and upper class residential quarters.
- (3) The greater part of the closely built-up area is characterized by an intermingling of economic activities with residential functions. The degree of mixture is

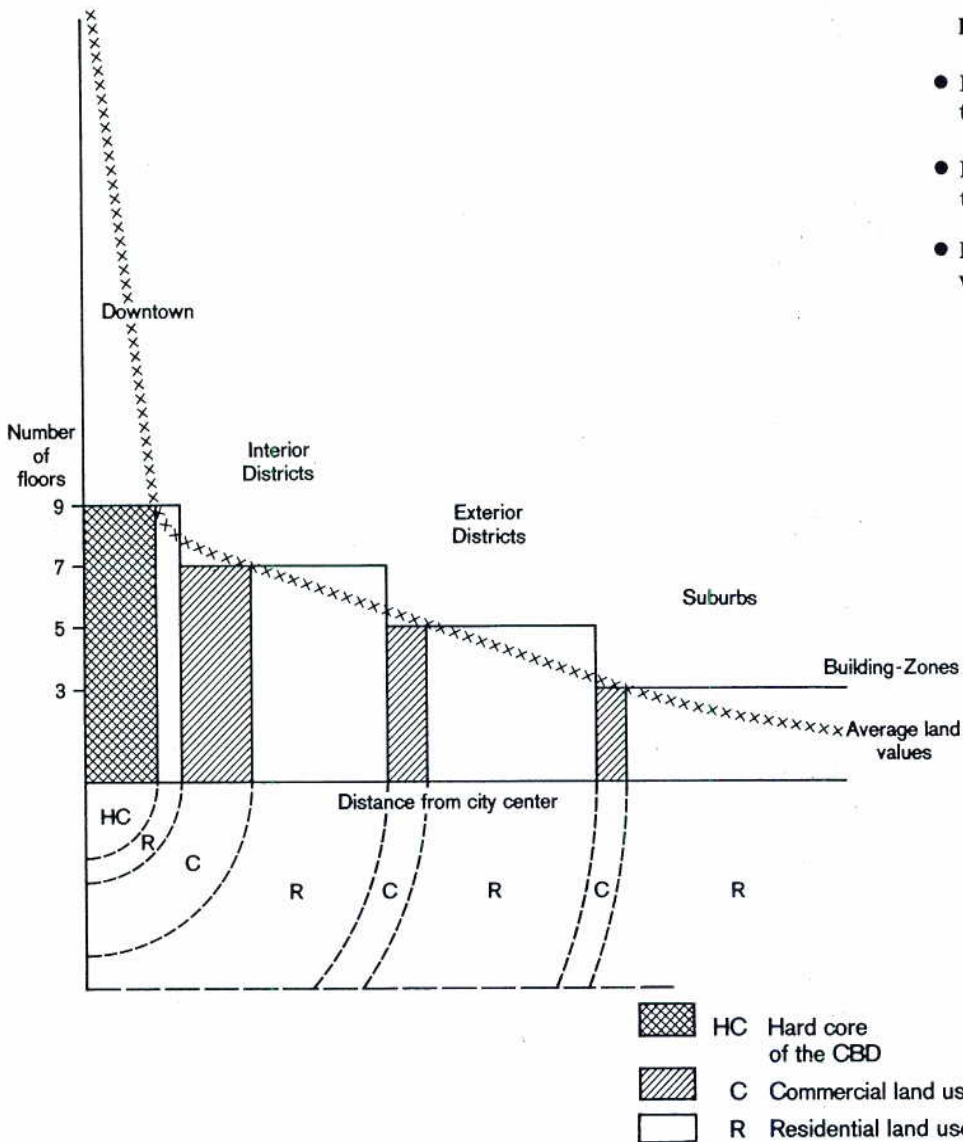


Fig. 4

- Land values and zoning in a big continental European city
- Bodenpreise und Bauklassen einer kontinentaleuropäischen Großstadt
- Prix de terrain et zonage dans une grande ville de l'Europe continentale

defined best by giving the ratio of resident employees to working employees. It varies from 1 : 4 in the downtown through 1 : 2 and 1 : 1 in the interior districts to 1 : 1 and 2 : 1 in the exterior districts.

- (4) A marginal belt of old industry separates tenement structures from open built up areas.
- (5) The fringe zone is not defined by an extensive speculation area as in North America, but by sectors of intensive agricultural land use such as truck farming, viticulture or dairy industry as well as by allotment gardens and weekend houses.
- (6) Due to the decentralization of establishments the journey to work forms a complicated system of centripetal, centrifugal, tangential and circular movements, as a whole comparable to a spiral inwardly oriented: only 20 per cent of these movements are directed toward the urban core.

6. Actual Problems of City-planning [10]

Trying to find common features in the regional multiplicity, comparison with North America provides a guideline. There the planner's work is concerned predominantly with the urban core, where renewal programs and complex problems of traffic congestion and parking receive most attention. In Europe emphasis is laid on the development of the fringe zone of the cities. This is true of the countries east and west of the Iron Curtain.

Continental city planning seems to be out of its depth, when facing the problem of remodeling the closely built up area. This dilemma can hardly be solved by exhibitions featuring phrases such as "breaking up the now houses structure", "cutting down population density", "filling in the green areas", "separation of economic and residential functions" etc. Clearing away slightly built two-storey back-to-back houses in Great Britain is much easier than removing extremely solidly constructed 5 to 6-storey build-

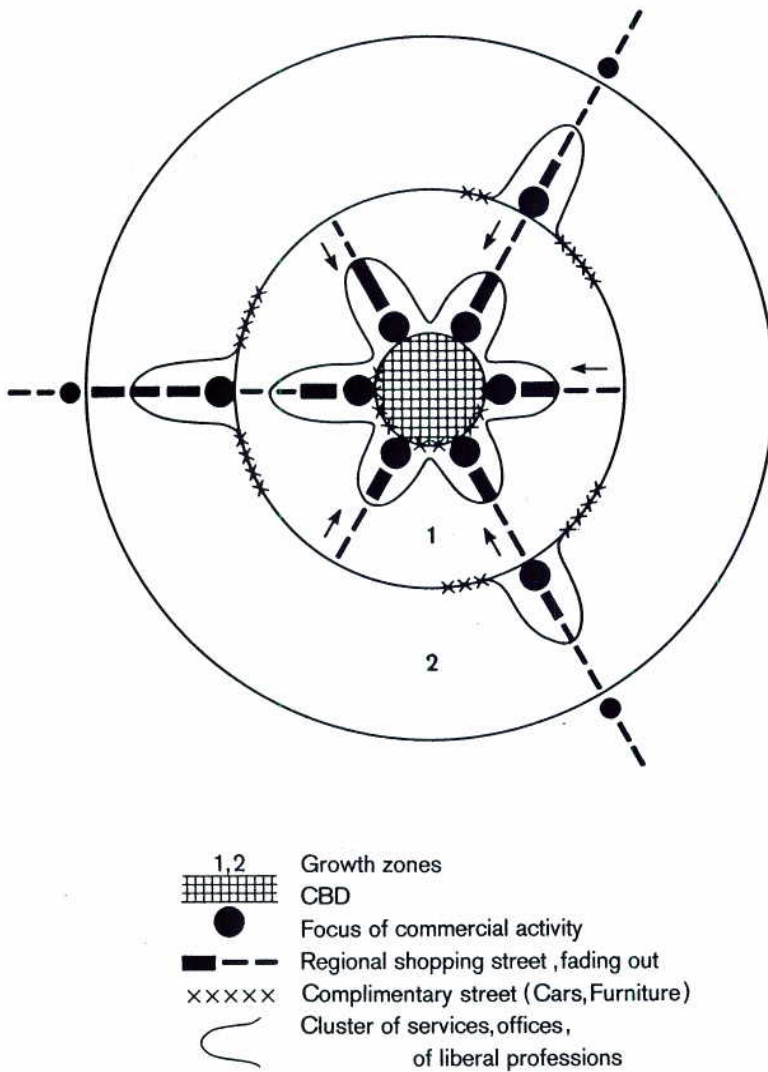


Fig. 5

- Scheme of the centripetally oriented retail pattern in a big continental European city
- Zentripetale Standorttendenzen im Geschäftsleben einer kontinentaleuropäischen Großstadt
- Localisation centripétale de la vie commerciale d'une grande ville de l'Europe continentale

ings. Besides, Great Britain has the advantage of a legal differentiation between building and lot, whereby the property owner leases his land under a 99-year leasehold to developers. This land right, which helped to build single family units for the lower social strata in the last century, now helps to make slum clearance easier.

The fringe zones of the city present a completely different set of problems. Little room is left for the layout of New Towns. Vast areas are occupied by fragmented field pattern, village properties and haphazard older suburbs. Even the English, very proud of their New Towns, could house only about one million people in them, although their program has been running for more than twenty years. Against the background of fast-rising land values, the city fringe zone has become a battlefield not only of the family house and the apartment house, but also of different parties concerned: Council housing, cooperatives and freehold apartment construction. The heterogeneity ranges from the booming northern industrial suburbs of Paris with their miles of multi-storey structure – the "termita-

rium" as the French named it – through the attractive suburbs of Frankfurt (Nordweststadt) or Bremen (Beilefeld) to the flood of single-family houses and the urban sprawl in the medium-sized city of the German speaking countries and to large parts of South-east Europe, where, as in Yugoslavia, people moving in from the countryside transferred part of their rural way of life to the cities.

Current urban development in Europe cannot be defined as easily as that of North America, in whose suburbs single family housing is joined by supermarkets and superhighways in an expensive package, paid by the urban core through deterioration. In Europe the breakdown of the capitalist tenement system during both wars did not generate its replacement by another dominant system, except east of the Iron Curtain.

Many divergent forces are working on the urban scene. The attempt to comprise private and public interest is faced with difficulties. It resulted, up to now, in building activity scattered all over the city area and in the out-

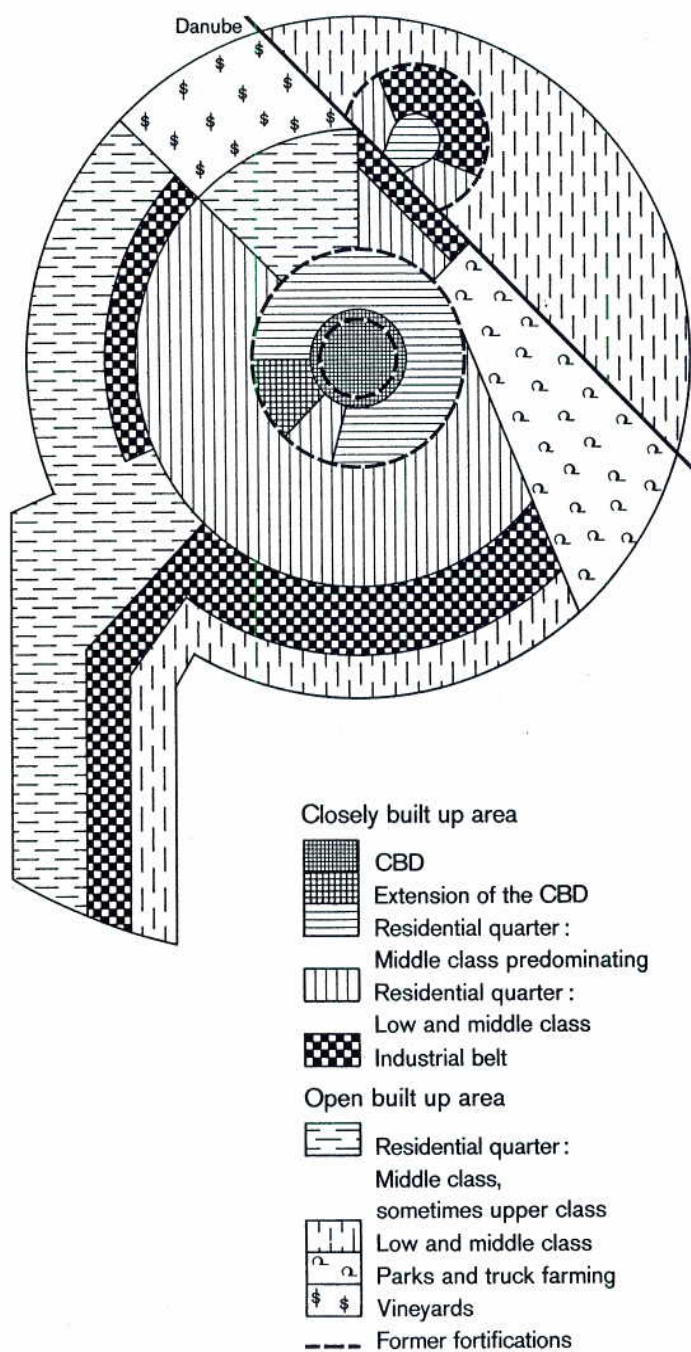


Fig. 6

- The ecological structure of Vienna
- Stadtmodell von Wien
- Structure écologique de Vienne

skirts, piecemeal projects of different size and design, normally integrated into the urban complex in a formal way only.

Contrasts between the countries on either side of the Iron Curtain have been suggested several times. There can be no doubt that projects for cities of the same size are on a larger scale in the East than in the West. It would

not be fair to measure the dwelling size in these states by West European standards. It seems noteworthy however, that the East-West ratio in housing conditions is better than that between living standards. This might be a good omen for the future. The encouragement of cooperatives and freehold apartments in the socialist countries indicates some convergence between East and West. City planning starts to realize that subsidized rent and nationalized housing are too heavy a burden for any governmental budget to be born forever. Public planning concepts cannot do without private investments.

References

- [1] MAYER, H. M. (1965): The Study of Urbanization; in: *A Survey of Urban Geography*, ed. by Ph. M. HAUSER and L. F. SCHNORE, pp. 81-113. New York.
- [2] BRUNNER, O. (1956): Stadt und Bürgertum in der europäischen Geschichte; in: *Neue Wege der Sozialgeschichte*, pp. 80-96. Göttingen.
- LYNCH, K. (1960): *The Image of the City*. Cambridge / Mass.
- [3] BEAUJEU-GARNIER, J. and G. CHABOT (1963): Les Villes d'Europe; in: *Traité de Géographie Urbaine*, pp. 45-62. Paris.
- DICKINSON, R. E. (1951): *The West European City*. London.
- DICKINSON, R. E. (1967): *The City Region in Western Europe*. London.
- [4] BOBEK, H. (1962): The Main Stages in Socio-Economic Evolution from a Geographical Point of View; in: *Readings in Cultural Geography*, pp. 218-247.
- GUTKIND, E. A. (1964): *Urban Development in Central Europe*. International History of City Development, Vol. 1, New York.
- GUTKIND, E. A. (1965): *Urban Development in the Alpine and Scandinavian Countries*. International History of City Development, Vol. II, New York.
- GUTKIND, E. A. (1967): *Urban Development in Southern Europe: Spain and Portugal*, International History of City Development, Vol. III, New York.
- GUTKIND, E. A. (1969): *Urban Development in Southern Europe: Italy and Greece*, International History of City Development, Vol. IV, New York.
- [5] GUTHEIM, F. (1967): Continental Europe offers New Town Builders Experience. In: *Taming Megalopolis*, ed. by H. WENTWORTH ELDRIDGE, pp. 828-837. New York
- HOWARD, Ebenezer (1902): *Garden Cities of Tomorrow*; new edition with foreword by F. J. OSBORN and introduction by MUMFORD, 1946. London.
- OSBORN, F. and A. WHITTICK (1963): *The New Towns. The Answer to Megalopolis*. New York, Toronto, London.
- VIET, J. (1960): *Les villes nouvelles. Eléments d'une bibliographie*. Rapports et documents des sciences sociales. Paris: Unesco.

- [6] ARCHIBUGI, F. (1966): *La città-regione in Italia*. Torino.
- CARRIERE, Fr. and Ph. PINCHEMEL (1963): Le fait urbain en France; *Et. e. Mem.* 57 (Ecole Pratique des Hautes Etudes). Paris.
- FISHER, J. C. (1966): *City and Regional Planning in Poland* (Cornell publications in comparative planning of the Division of Urban Studies of the Centre for Housing and Environmental Studies). Ithaca.
- FREEMAN, T. W. (1966): *The Conurbations of Great Britain* (2nd ed.). With a chapter on the Scottish conurbations by Catherine P. SNODGRAN. Manchester.
- JÜRGENS, O. (1926): Spanische Städte. Ihre bauliche Entwicklung und Ausgestaltung; in: *Abh. Geb. Auslandsk.*, Reihe B, Bd. B. Hamburg.
- LAVEDAN, P. (1960): *Les villes françaises*. Paris.
- MOINDROT, C. (1967): *Villes et Campagnes Britanniques*. Etudes angloaméricaines. Paris.
- SCHÖLLER, P. (1967): Die deutschen Städte, Beiheft 17 der *Geogr. Z.* Wiesbaden.
- WESTERGAARD, J. H. (1965): Scandinavian Urbanism. A Survey of Trends and Themes in Urban Research in Sweden, Norway and Denmark; in: *Acta Sociologica* No. 8, pp. 304–323.
- [7] BEAUJEU-GARNIER, J. and J. BASTIE (Ed.) (1967): *Atlas de Paris et de la région parisienne*. Paris.
- BOBEK, H. (1928): Innsbruck, eine Gebirgsstadt, ihr Lebensraum und ihre Erscheinung; in: *Forschn. dt. Landes- u. Volksw.* XXV. Stuttgart.
- BOBEK, H. and E. LICHTENBERGER (1966): *Wien, Bauliche Gestalt und Entwicklung seit der Mitte des 19. Jahrhunderts*. Wien-Köln.
- CHOMBART de LAUWE, P. H. (1952): *Paris et l'agglomération parisienne*. Paris.
- HALL, P. (1966): *The World Cities*. London. See: London, pp. 30–58; Paris, pp. 59–94; Randstad Holland, pp. 95–121; Rhine-Ruhr, pp. 122–167.
- JONES, E. (1968): *Atlas of London and the London Region*. Oxford, New York.
- SCHINZ, A. (1964): *Berlin Stadtschicksal und Städtebau*. Braunschweig.
- WILLIAM-OLSSON, W. F. (1960): *Stockholm: Structure and Development*. Stockholm.
- [8] BEYNON, E. D. (1943): Budapest, An Ecological Study; *Geogr. Rev.*, 33, pp. 256–275.
- BRAUN, P. (1968): *Die sozialräumliche Gliederung Hamburgs*. Hamburg.
- CHOMBART de LAUWE, P. H. (1965): *Paris: essai de sociologie, 1952–1964*. Paris.
- GANSER, K. (1966): Sozialgeographische Gliederung der Stadt München aufgrund der Verhaltensweisen der Bevölkerung bei politischen Wahlen; *Münchn. geogr. Hft.*, No. 28.
- GLASS, R. (1955): Urban Sociology in Great Britain: A Trend Report; *Current Sociology*, Vol. IV, No. 4, pp. 4–76.
- HERBERT, D. T. (1967): Social Area Analysis: A British Study; *Urban Studies*, Vol. IV, pp. 41–60.
- JONES, Emrys (1960): *A Social Geography of Belfast*. London.
- MACKENSEN, R., J. C. PAPALESKAS a.o. (1959): *Daseinsformen der Großstadt, typische Formen sozialer Existenz in Stadtmitte, Vorstadt und Gürtel der industriellen Großstadt*. Tübingen.
- MOSCHELES, J. (1937): The Demographic, Social and Economic Regions of Greater Prague; *Geogr. Rev.*, 27, pp. 414–429.
- MUSIL, J. (1968): The Development of Prague's Ecological Structure. In: *Readings in Urban Sociology*, ed. by R. E. PAHL, pp. 232–259. Oxford, London.
- NIELSEN, N. (1960): Greater Copenhagen. An Urbanized Area and Its Geographical Environment; *Geogr. Tidsskr.*, Vol. 59, pp. 184–203.
- ROBSON, B. T. (1969): An Ecological Analysis of the Evolution of Residential Areas in Sunderland (Great Britain); *Urban Studies*, Vol. VI, pp. 120–142.
- [9] GREBLER, L. (1962): National Programs for Urban Renewal in Western Europe; *Land Economics* Vol. 38, pp. 293–304.
- [10] AARIO, L. (1951): The Inner Differentiation of the Large Cities in Finland; *Fennia*, 73, No. 2.
- AHLMANN, H. W., J. C. EKSTEDT, a.o. (1934): *Stockholms inre differentiering*. Stockholm.
- CAROL, H. (1960): The Hierarchy of Central Functions within the City; *Ann. Ass. Am. Geogr.*, Vol. 50, pp. 419–438.
- LICHTENBERGER, E. (1964): Die Geschäftsstraßen Wiens. Ein statistisch-physiognomischer Vergleich. *Mitt. geogr. Ges. Wien*, pp. 405–446.
- LICHTENBERGER, E. (1967): Die Differenzierung des Geschäftslebens im zentralörtlichen System am Beispiel der österreichischen Städte. *Tagungsber. wiss. Abh. Dtsch. Geographentag Bad Godesberg*, pp. 231–242.
- LICHTENBERGER, E. (1970): *Wirtschaftsfunktion und Sozialstruktur der Wiener Ringstraße*. Wien-Köln.
- Urban Core and Inner City*. Proceedings of the International Study Week, Amsterdam, 11–17 Sept. 1966. Leiden, 1967. Proceedings of the IGU Symposium in Urban Geography, Lund, 1960; *Lund Stud. Geogr.*, Ser. B., No. 24 (1964), Part II/IV, pp. 321–600.
- [11] ASHWORTH, W. (1954): *The Genesis of Modern British Town Planning*. London.
- DONNISON, V. D. (1964): Housing Research: Some European Impressions; *Urban Studies*, Vol. I, No. 1, pp. 26–33.
- GREBLER, L. (1962): City Planning in Europe. *Journal of the American Institute of Planners*, Vol. 28, No. 4, pp. 229–38.