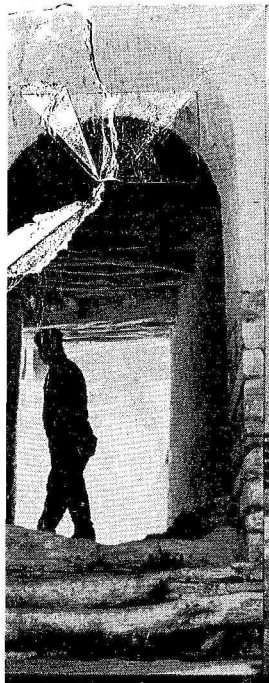
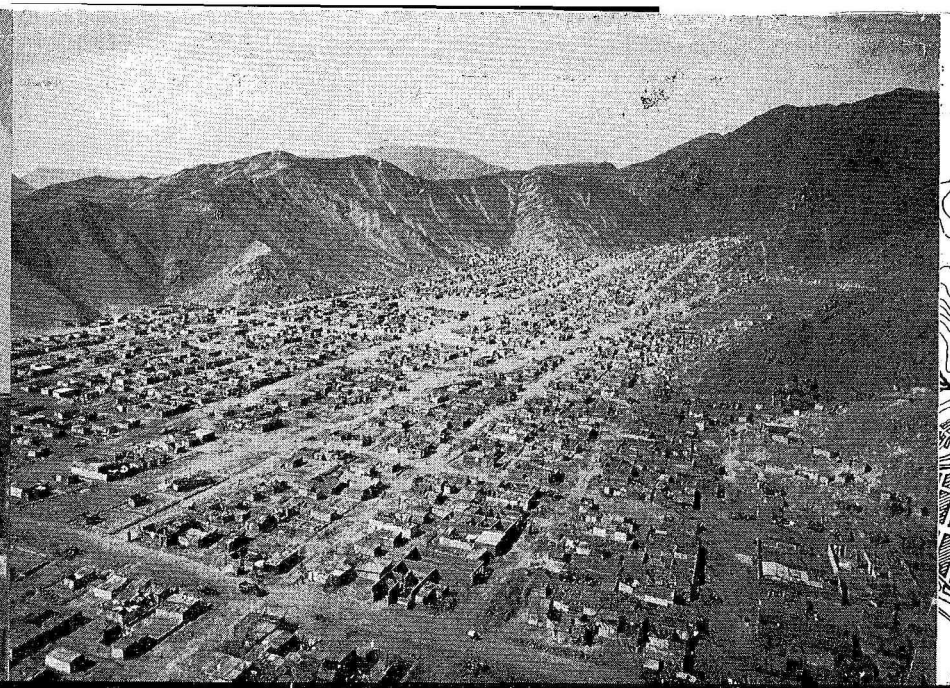
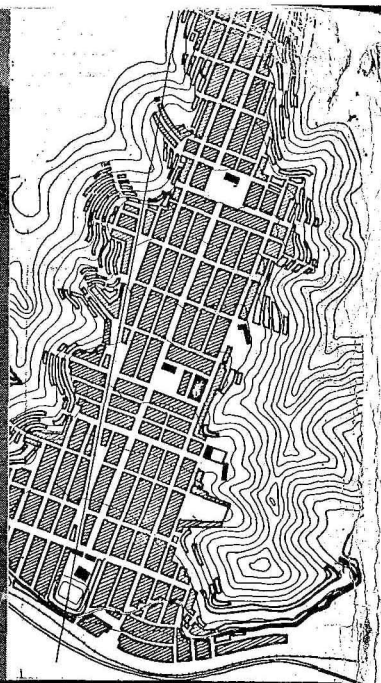
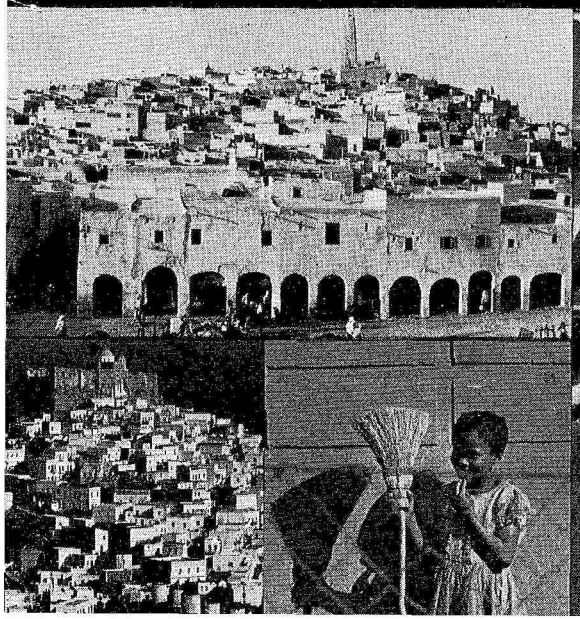
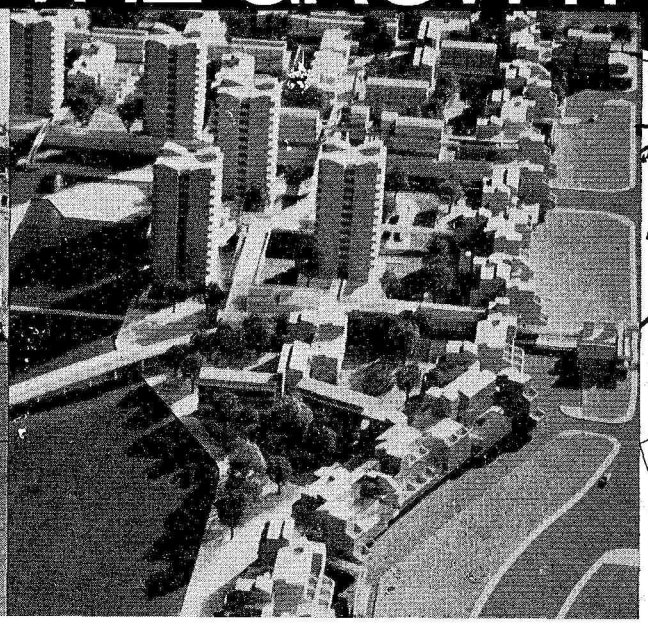


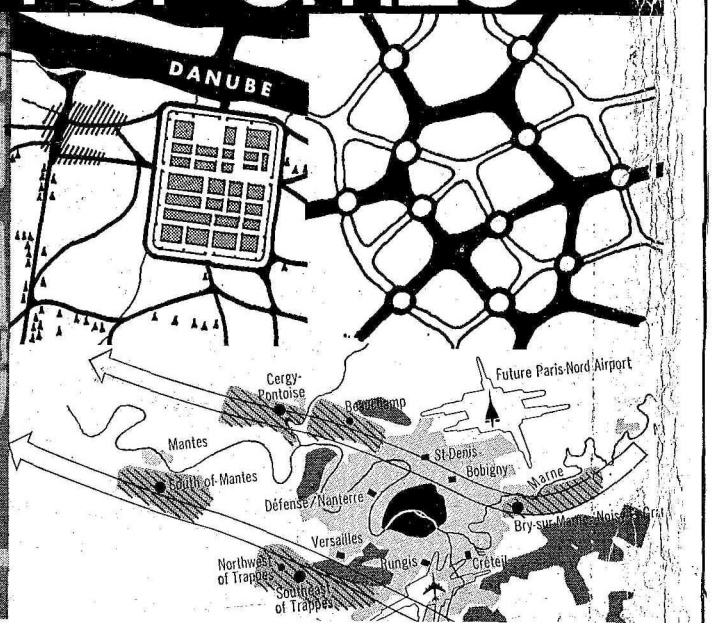




THE GROWTH OF CITIES







Architects' Year Book XIII

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The Growth of Cities , edited by David Lewis

Elek Books London

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Acknowledgements

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Thamesmead Report by Alexander Pike appeared previously in *Architectural Design* (London), Vol. XXXIX, No. 11, November 1969; *The Role of Design* by Hans Blumenfeld appeared previously in the *Journal of the American Institute of Planners,* Vol. XXXIII, No.5, September 1967; *On Pop Art, Permissiveness and Planning* by Denise Scott Brown appeared previously in the *Journal of the American Institute of Planners,* Vol. XXXV, No. 3, May 1969; and *Barriers and Channels for Housing Development in Modernizing Countries* by John C.Turner appeared previously in the *Journal of the American Institute of Planners,* Vol. XXXIII, No. 3, May 1967. A previous and shorter version of *The Valley of the Mzab* appeared in the *Journal of the Royal Institute of British Architects,* November 1969; and a previous and shorter version of *The French Z.U.P. Technique of Urban Planning* appeared in the *Journal of the American Institute of Planners,* Vol. XXV, No. 6, November 1969. The editor and publishers of this book wish to thank the editors of these journals and the respective authors for their kind permission to reprint these contributions.

Houses Generated by Patterns by Christopher Alexander, Shlomo Angel, Christie Coffin, Sanford Hirshen and Sara Ishikawa is excerpted from the report of the submission of the Center of Environmental Structure to the Proyecto Experimental de Vivienda competition for housing, and prepared for this book by Barbara Schreiner Alexander. *A New View of the Housing Deficit* by John C. Turner was a paper delivered at the Developing Economy Conference at the University of Puerto Rico in 1967 and was subsequently distributed in the report of that conference, *The Economics of Housing Policy for a Developing Economy,* a Study of the Social Science Research Center, edited by Charles A. Frankenhoff.

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DL

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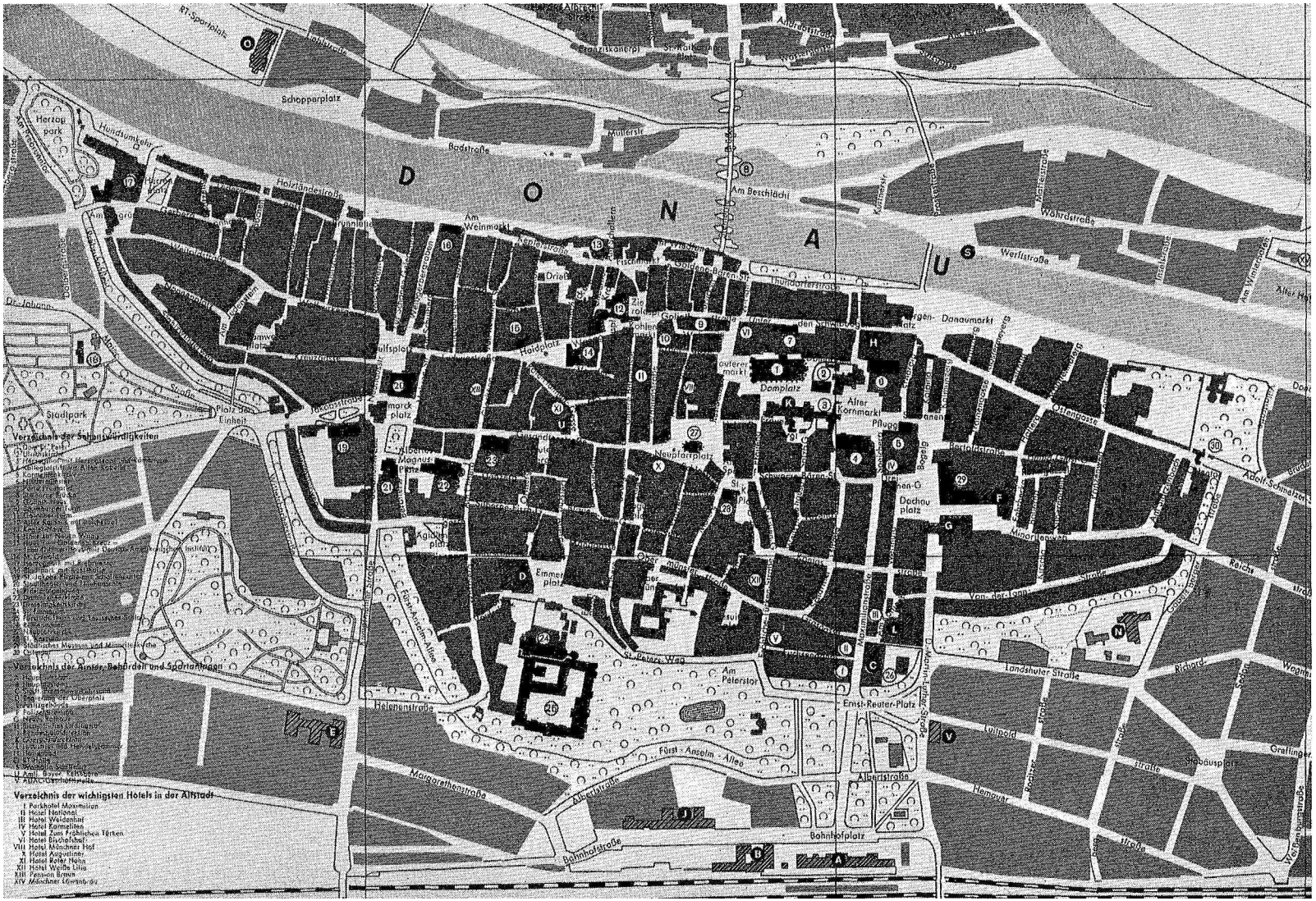

D O N A U
Schopperplatz
Herzog park
Hundsumkehr
Badstraße
Müllerstr.
Am Beschlächt
Am Weinmarkt
Wehrdstraße
Werftstraße
Danaumarkt
Domplatz
Alter Kornmarkt
Neupfarrplatz
Dachau platz
Stadtpark
Verzeichnis der Sehenswürdigkeiten
Verzeichnis der Ämter, Behörden und Sportanlagen
Verzeichnis der wichtigsten Hotels in der Altstadt
I Parkhotel Maximilian
II Hotel National
III Hotel Weidenhof
IV Hotel Karmeliten
V Hotel Zum Fröhlichen Türken
VI Hotel Bischofshof
VIII Hotel Münchner Hof
X Hotel Augustiner
XI Hotel Roter Hahn
XII Hotel Weiße Lilie
XIII Pension Braun
XIV Münchner Löwenbräu
Helenenstraße
Margarethenstraße
Albertstraße
Bahnhofstraße
Bahnhofplatz
Fürst-Anselm-Allee
St. Peters-Weg
Am Peterstor
Emst-Reuter-Platz
Landshuter Straße
Luitpold
Hemauer
Stabausplatz
Adolf-Schmetzer
Minoritenweg
Ostenstraße
Bertoldstraße
Von der Tonne
Richard-Wagner
Graflinger
Wasserburgerstraße

THE REGENERATION OF REGENSBURG

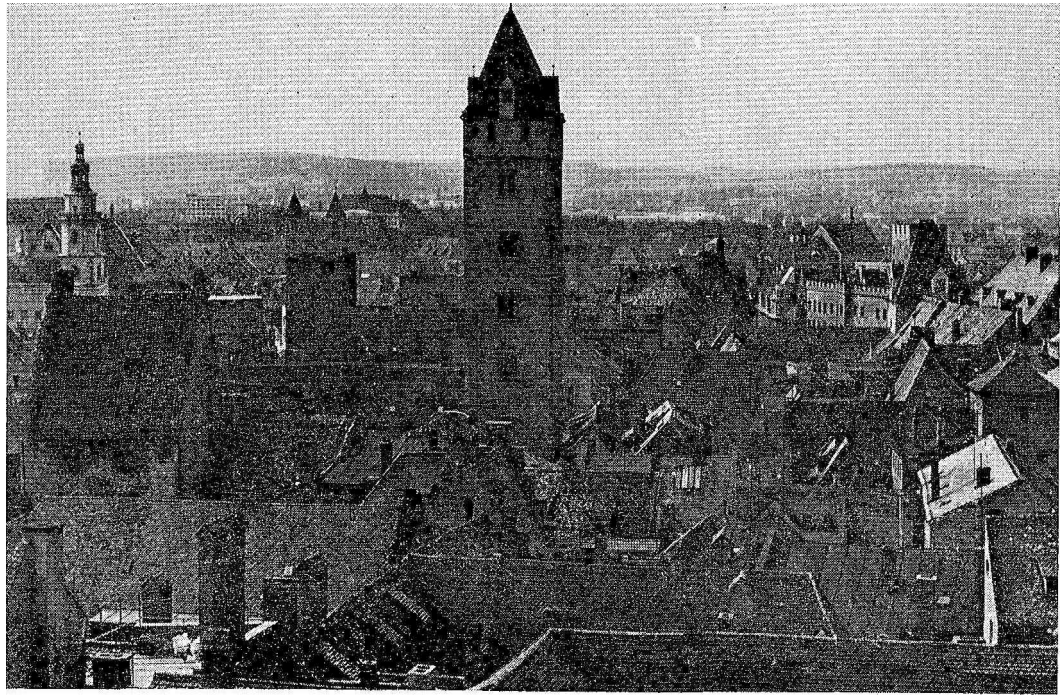
MARGRIT AND DECLAN KENNEDY

In 1964, the attention of the Cultural Circle of the Federation of German Industry was drawn to a series of crises facing Regensburg, the only surviving medieval German city. In addition to the decay of its 800-year-old buildings and the growing pressures of commercial and suburban expansion, Regensburg was threatened by a traffic proposal which showed two six-lane highways cutting through its central core. The interested industrialists set up a research foundation to establish a seminar of planners, lawyers, economists, engineers, historians, and architects to look into the problem: 'What will happen to our historic towns and cities?' Regensburg was chosen to be the example.

The fundamental breakthrough in this study was that it was not concerned with the preservation of single buildings, but with the whole urban organism. For in Regensburg, quite apart from their importance as historic buildings and landmarks, the value of even the most impressive of the medieval houses or churches exists in their being part of a still almost intact and continuous urban structure. This structure is evidence of a time when every activity in a town had its proper place and proportionate size. The Cathedral 1 occupies the central position in the old city. It is one of the masterpieces of the thirteenth century. Adjoining it, are the palace of the bishops 7 and another church for the worldly governing body 2. On a square of its own, the town hall 12 was the seat of the 'Eternal Parliament' (the first 'House of Lords' in Germany, which met here until 1812). Numerous patrician houses 9, 10, 11, 13, 14, with beautiful interior courtyards and dominating house-towers demonstrate the power and wealth of Regensburg's medieval merchant families. Next to them the splendid houses and inns 15, 25, for the nobility (or later their representatives) attending the 'Eternal Parliament' provide an unparalleled high density of regal living.

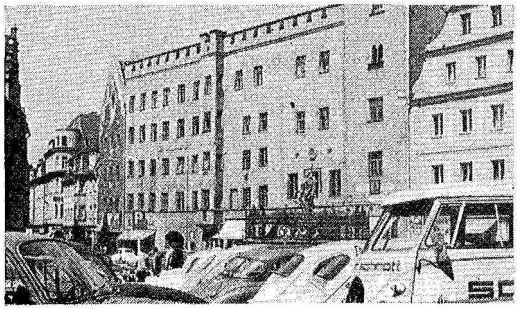
Several monasteries 5, 6, 19, 22 and quarters for smaller merchants and craftsmen occupy the east and west extensions of the originally rectangular medieval town. All these are interconnected by a tight network of narrow lanes and streets which widen out into the 'corn' market near 6, the 'fish' market near 13, the 'coal' market near 10, and the 'herb' market near 1. The 'Stone Bridge' 8, which spans the Danube with sixteen arches and is more than 1,000 ft long was finished in 1135 and took ten years to build. Inside the town walls of Regensburg only one part of the city, in the south-eastern quarter, has been rebuilt in the nineteenth century, and very few houses are new.

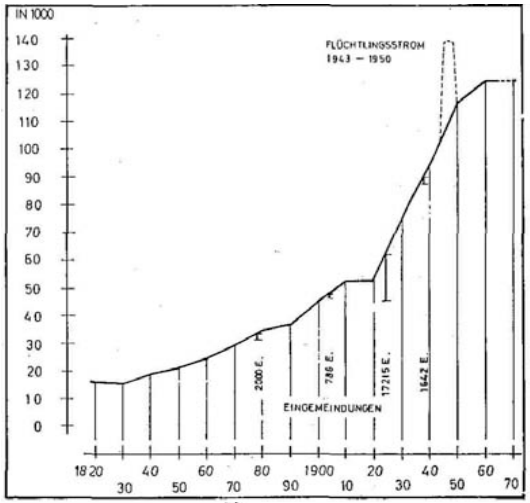
Regensburg is situated on the northernmost point of the Danube, where the rivers Regen and Laaber meet. In the middle ages it was one of the richest and most powerful cities in Europe, and was *'Urbs Germaniae Populissima'* with 70,000 inhabitants. At the junction of merchant routes from France to the Balkans and from Italy to Russia it was, to use a modern term, an international trade centre in the thirteenth and fourteenth centuries. Personal connections with the powerful Italian trade centres were so close that merchant delegates from Regensburg regularly attended the Venice town council; and the existence of these relationships is reflected in the numerous patrician towers found in no other city north of the Alps. By the middle of the fifteenth century Regensburg began gradually but irretrievably to lose its central political and mercantile position. Today it is relegated to the periphery of western Europe, approximately fifty miles from the Czechoslovakian border, where it serves as the centre of only a small region. In looking at the demographic development of Regensburg over the last 130 years the real threat becomes obvious. In 1830 the number of inhabitants was 16,300. In 1900 it had risen to 45,000 and by 1965 it had grown to 125,000.

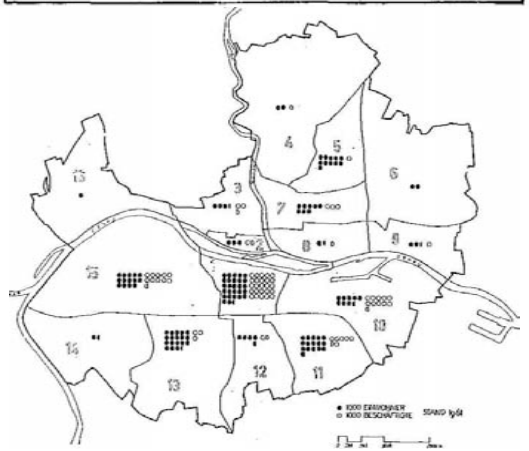


Many urban structures in Germany were razed to the ground by the bombs of World War II. Now the population growth of surviving urban centres, the need for commercial expansion, and especially traffic demands, are destroying what was spared. Is there any middle ground between radical 'bulldozer renewal' and an 'open air museum'? Can we recreate a livable environment for coming generations in what has been viable for eight hundred years? These are the questions to which the town planning seminar addressed itself. If the renewal proposals which the seminar produced are realistic in this extremely problematic case, they may well be applicable in modified forms to other old cities. In trying to answer these questions for survival, it soon became clear that a renewal of the old town would affect not only the adjoining new parts of Regensburg, but also the region for which it is the cultural and economic centre. This meant a greatly enlarged physical study area, with comprehensive interrelationships in several fields, such as sociology, economics, law, and traffic planning. Over four years, the time which the seminar required to finish the study, a completely new approach to solve the problems of a historic city was developed. The seminar worked on different scales of planning simultaneously. That meant constant interaction between sociological, economic and legal findings. The order of this summary of the study is therefore no indication of its methodology.

A The Old City
B The Core Extension
C The Urbanized Area
D The Region
E The Future of Regensburg







A THE OLD CITY

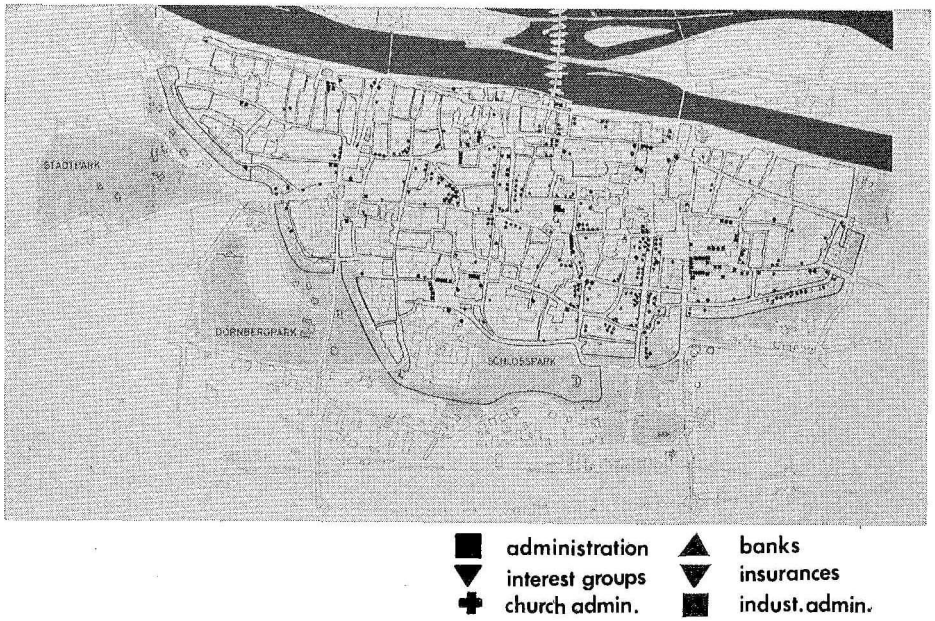
Renewal categories

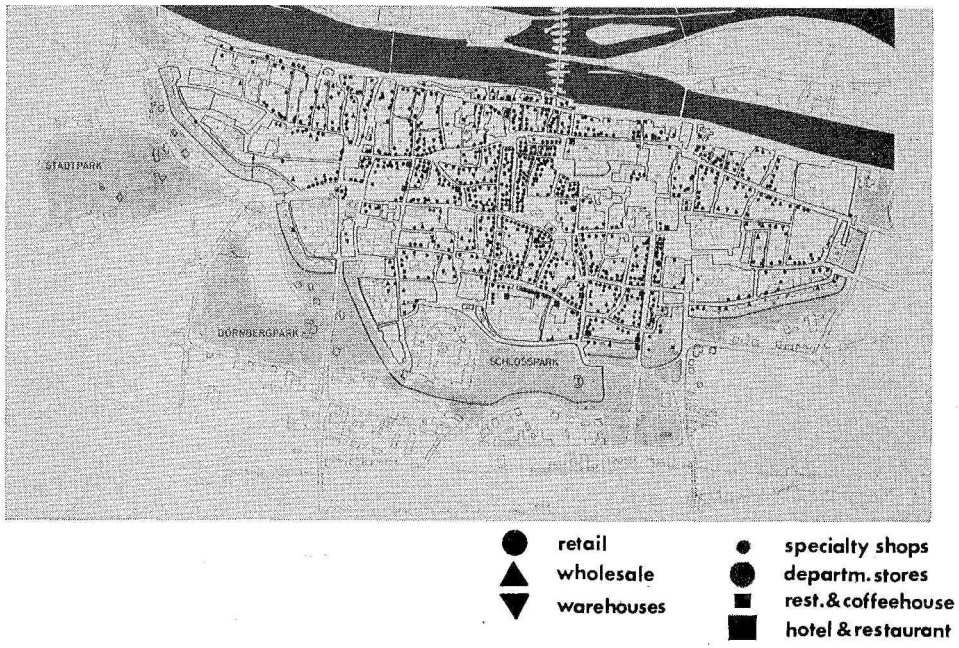
The usual objective criteria —density and use of buildings, day and sun lighting, sanitation, accessibility, tax base and market value, and so forth — are not sufficient in assessing the qualifications of buildings for rehabilitation in old cities. Historic, cultural and aesthetic values which a building possesses as part of a conservation area are critical. These are difficult to define objectively. Their assessment requires a high degree of technical and artistic understanding. In some cases we must renew, even if objective criteria point to demolition. In others, where important parts of buildings should be preserved, particularly to retain historic-environmental continuity, sympathetically scaled infill will be required. In yet others, conflicts between modern use patterns and old buildings will need careful resolution. In exceptional cases, whole blocks will need a completely new structure. But just as aesthetics or scholarship should not be exclusively decisive, neither should monetary economics settle the issue. The first survey of the old city, an area over one mile long and half a mile wide, was carried out in 1964. Maps were drawn up showing:

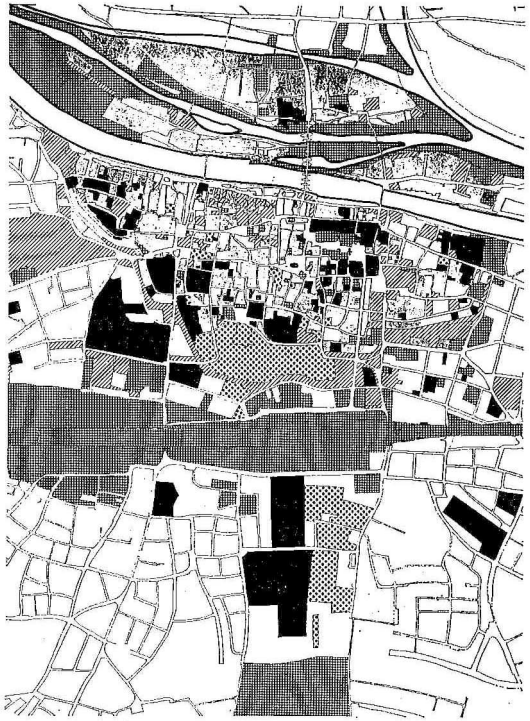
— conditions and uses of buildings
— heights of buildings
— open spaces
— land ownerships
— trends in shopping habits
— population fluctuation
— traffic
— social conditions etc.

Far left Three examples of traffic congestion on the narrow streets and open spaces. *Above left* Increase in population 1820-1970 (peak shows number of refugees after World War II)

Below left Black dot = 1000 inhab. White dot = 1000 employees demonstrating the strong concentration in the central old town area.

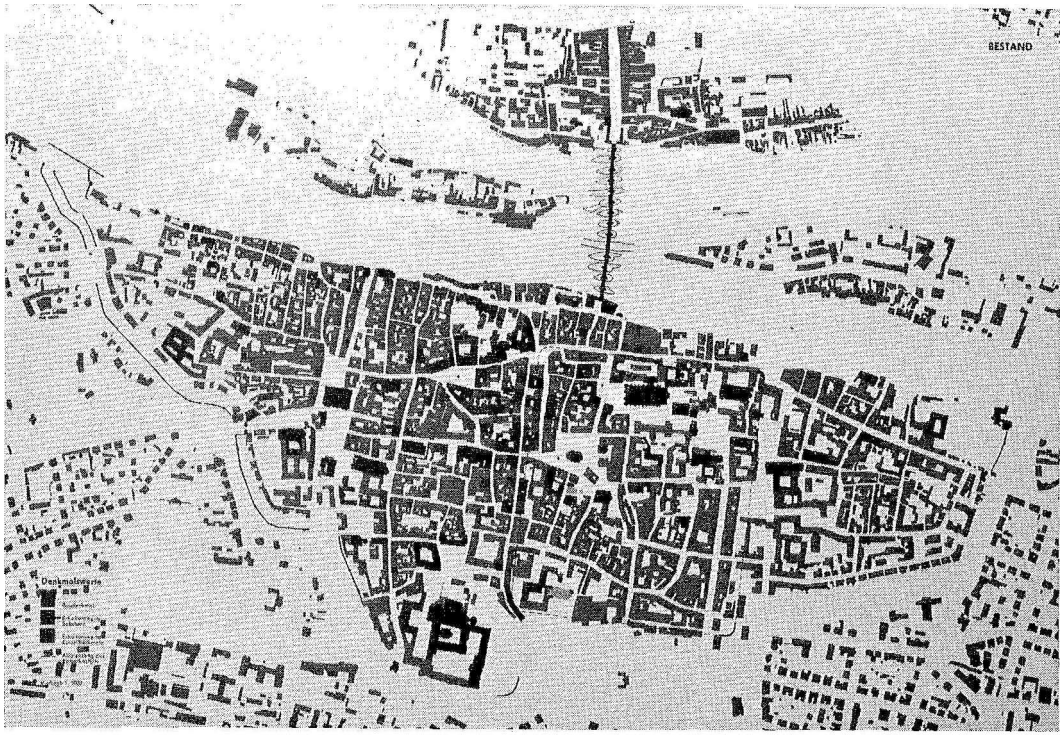






Above and below left Commercial uses 1 and 2 another indication of the importance and central function of the old town.

Above Land ownership pattern indicating barriers (Prince's park and railway tracks) between the old town and the southern parts of the city where the new university is located.



Above Regensburg building monuments are tightly knitted into the overall urban structure (black—building monuments, dark grey—important buildings, grey—important details).

The mapping of historic buildings showed how historic building monuments are knitted in the overall urban structure. It also demonstrated the extent of the task confronting the citizens of Regensburg, These maps showed how the old city retained its traditional character through the variety of its land uses. The close physical interrelationships of living shopping and workshops, and administration, have hardly changed over the past decades. However, this does not mean that they are still functioning in the same way. Transformation is due to two main trends:

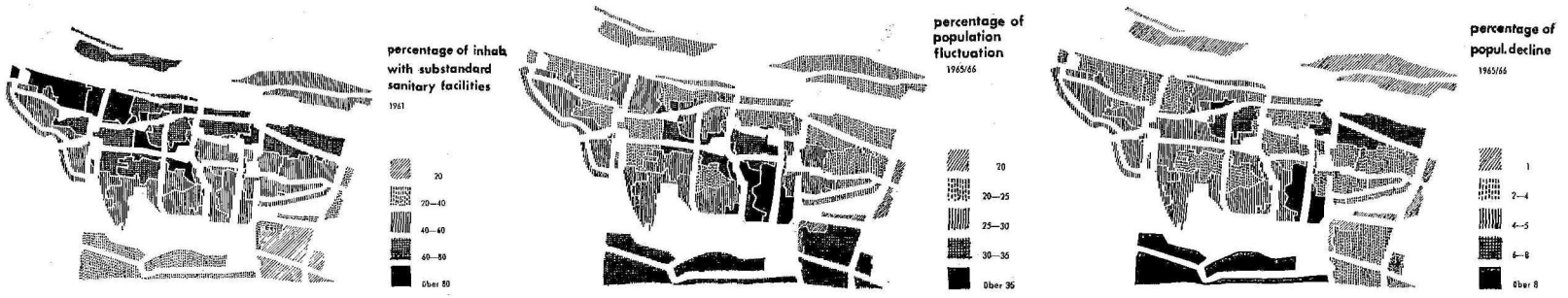
1 An ever-increasing proportion of the traditional population, especially the economically stronger sec tions, have left the old city to settle in 'high quality' decentralized housing districts. In their place have come poorer immigrants, mainly old age pensioners (now approximately 40% of the inhabitants of the old town), independent craftsmen and retailers (approximately 15%) and sub-tenants, i.e. apprentices, young employees, restaurant and hotel personnel (approximately 15-20%).

In 1961, 80% of the buildings were declared to be in need of renewal: 75% had no bathrooms or toilets within dwellings.

2 Through the exodus of middle and higher income inhabitants small retailers continually lose customers, and many have been or shortly will be forced to close. Meanwhile productive businesses which have to expand are forced to move out to satisfy their need for space.

Many of the developing administrative offices have remained in the old city in spite of space difficulties, but several are now located in the south-eastern part of the old city where a number of sizeable villas were built in the nineteenth century and have become available.

Below These maps demonstrate the desperate need for improvement and the results of years of neglect.



A recommended land use plan

The seminar worked out a new land use proposal for the old city to counteract these trends and provide a stimulus for new development. Some of the more important recommendations are summarized below.

Housing in the old city is to be upgraded to retain and increase population and to attract economically stronger groups.

The main shopping area in the old city remains as existing but will be extended to the north towards the Stone Bridge and to the south towards the railway terminal expansion area.

Mixed uses of buildings are encouraged — housing on upper floors, commercial uses and some non-noxious workshops on ground floors.

Traffic-and-noise generating industry and workshops are located on the easterly Danube islands.

New office and administrative buildings are sited mainly within the central expansion area at the railway station.

Three schools are expanded to double their present size; one is to be demolished.

Student hostels and suitable institutes are accommodated in rehabilitated old buildings to increase mixes of use and density for the old city's benefit. Other present educational institutes remain. New complexes are sited between the new university and the core extension to form a further educational precinct.

Cultural activities: a new theatre, museums, and a new congress hall are recommended.

Churches remain substantially unaltered.

Parking is almost exclusively multi-storied, and that which is shown on the land uses recommendation map is public.

Private garages within buildings are mandatory in the housing areas.

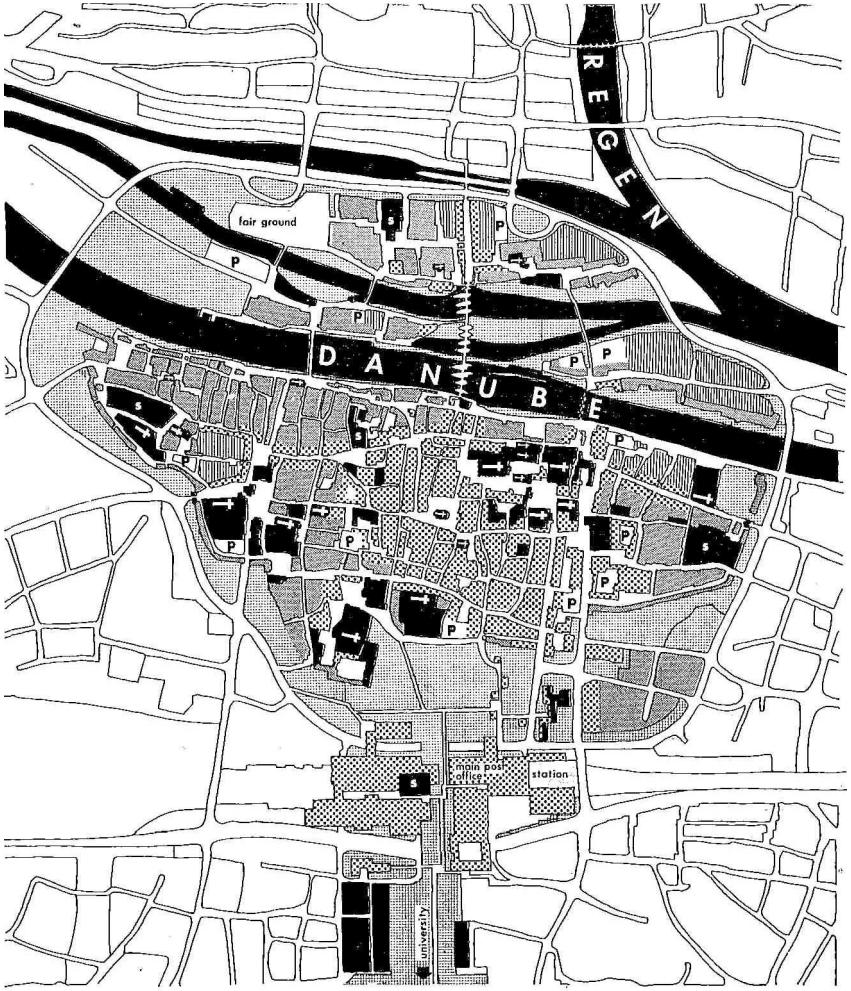
New large hotels, one at the easterly Danube footbridge and one next to the 'deck' alongside the park can supplement the smaller, restored hotels in the historic areas.

Open spaces: the existing park around the old city is connected over the railway to the university green belt on the hill.

Sports and other recreation facilities on the islands are to be extended and water sports located on the river banks which are no longer commercially used because of the Rhein-Main-Danube canal by-pass.

Market gardens: the banks of the Regen and Danube, where the two rivers meet, will remain gardens for the famous Regensburg radishes.

The central expansion area is ensured almost limitless east-west growth by use of the air-rights over the railway.



PROPOSED LAND USE

- residential
- commercial, administrative & multi-use
- industrial
- cultural & institutional (s→school, t→church)
- open space (p→parking)

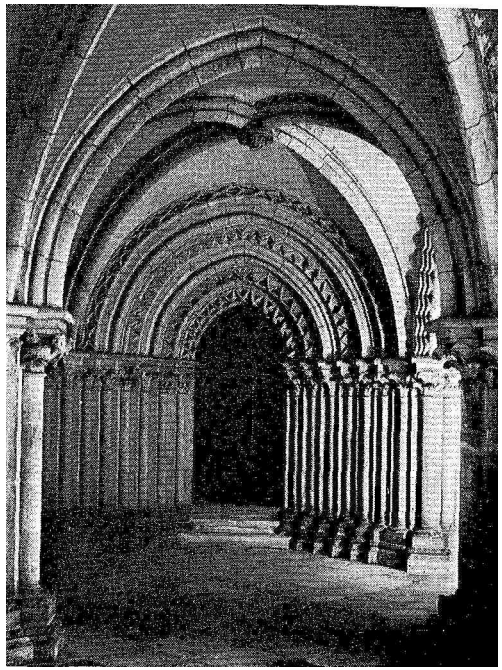
Historic buildings

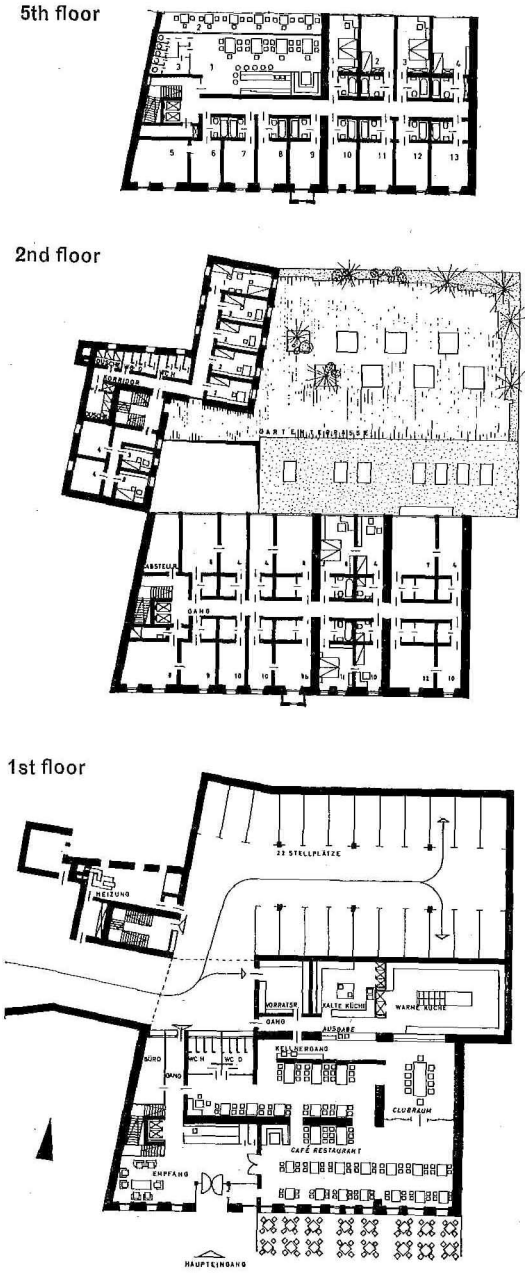
To supplement the block survey, to check initial design proposals, and to provide detailed historic and structural information, a second assessment was made of all 1,200 buildings individually in the old city in December 1966. As the information came in, it was categorized and transferred to maps and overlays. A series of five renewal or restoration categories were suggested in the seminar's report, *Regensburg zur Erneuerung einer alten Stadt* The authors have somewhat more rigorously redefined the five categories to explain the type of action needed for each particular block or building.

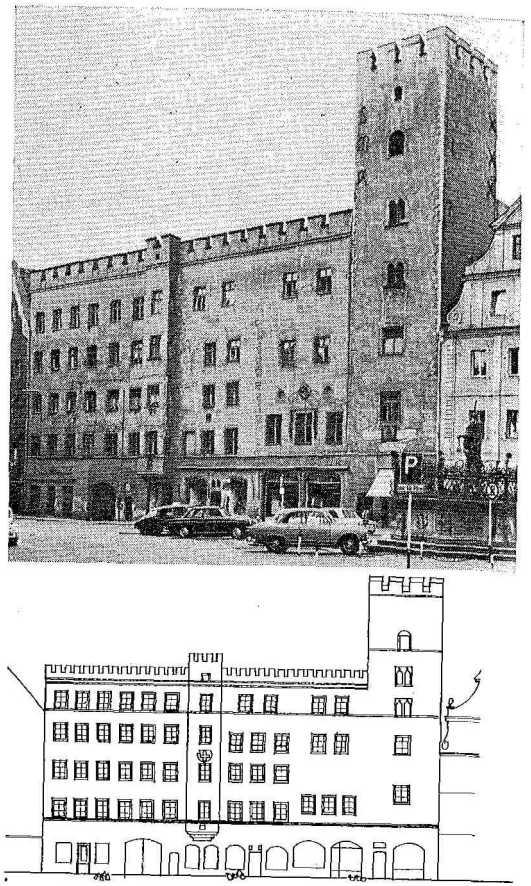
1 *Maintenance.* This category refers to buildings which, whether of historic value or not, need no radical repair or renewal but must be retained as components in important environmental sequences and therefore must be kept in good condition. An example is the St. Emmeran Monastery.

Below Part of the cloisters of St Emmeran's Monastery.

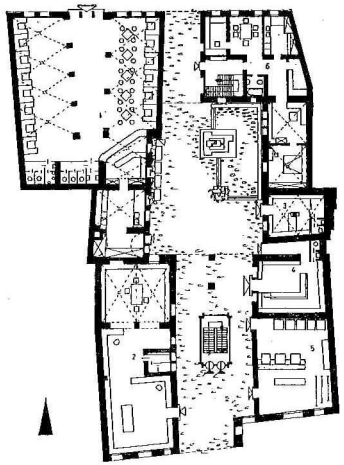
Right Plans for the restoration of the old city inn.



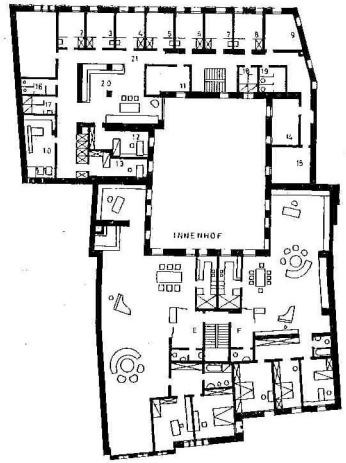




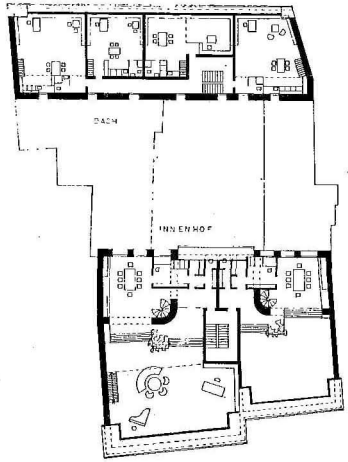
2 *Restoration.* This is by far the largest category. A number of historic buildings need extensive repair and restoration if they are to be preserved. An example is the old city inn, which was operated as a hostelry from the sixteenth to the end of the nineteenth century. In 1898 its use was radically altered to house small tenements. The seminar survey demonstrated however that, with little structural change to the original building, fifty-three hotel rooms with bath could be installed in four upper floors, over spacious ground floor reception and restaurant areas. On its south side the hotel would open on to the Haid Square, a pedestrian area which would become the centre of the university students' town facilities. Rear delivery access is provided from the alley bordering the west side of the building.



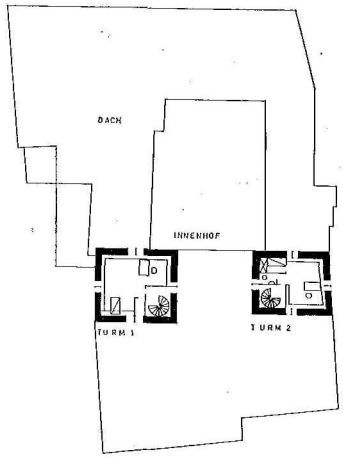
1st floor



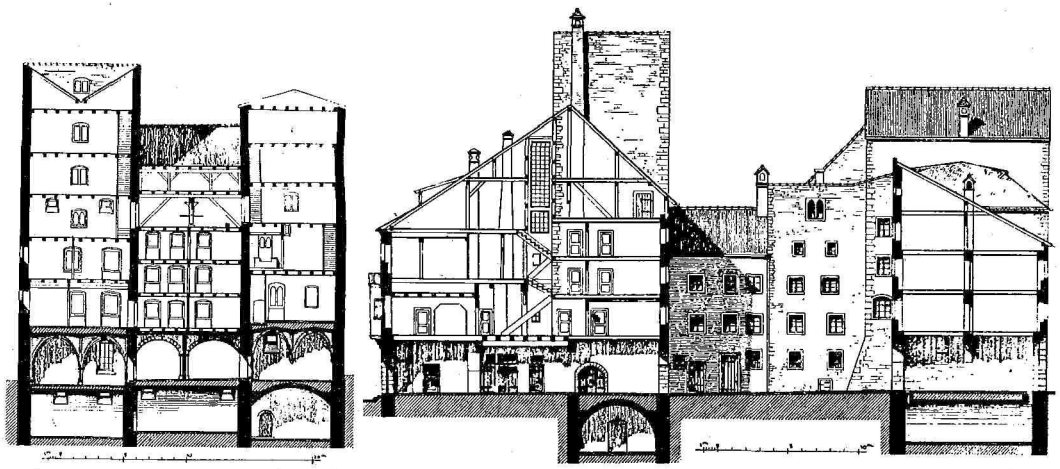
2nd floor



4th floor



towers



sections

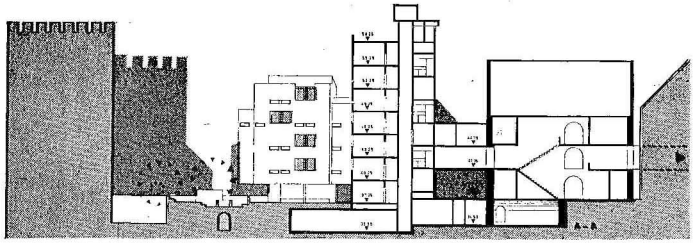
3 *Renovation.* Some historic buildings require extensive internal renovation and restoration of facades; others require major, and extremely careful, conversion for modern use if they are to be preserved with economic reality and yet retain their important historic characteristics. A good example is the Gravenreuther house, one of the old town's most interesting patrician houses, with an interior court and two towers. The seminar recommended:

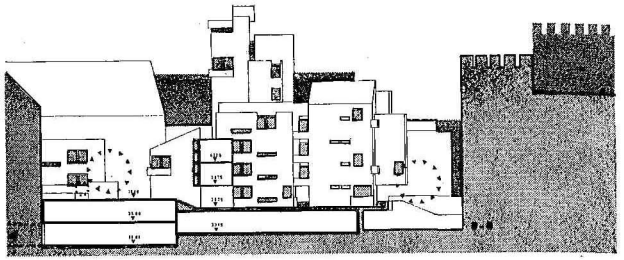
Ground floor. Small shops and a cafe-restaurant; small library with ancillary rooms, and a bookshop for the university.

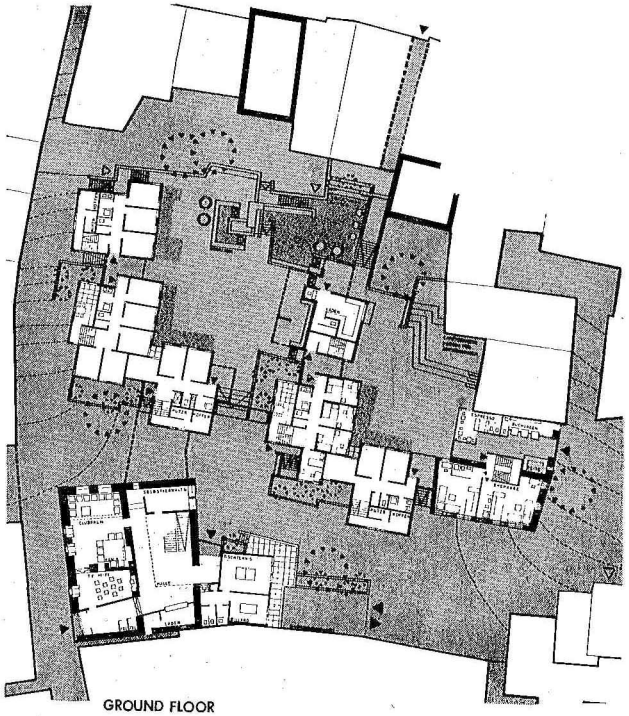
First to third floors. Apartments for lecturers and students.

The very strong facades of the courtyard and lane elevations would not be altered by the new arrangement of the interior.

4 *Infill.* This category refers to the replacement of a single building within a historic sequence. In making each recommendation for this category, the seminar attempted to define square footage, use(s), access,







GROUND FLOOR

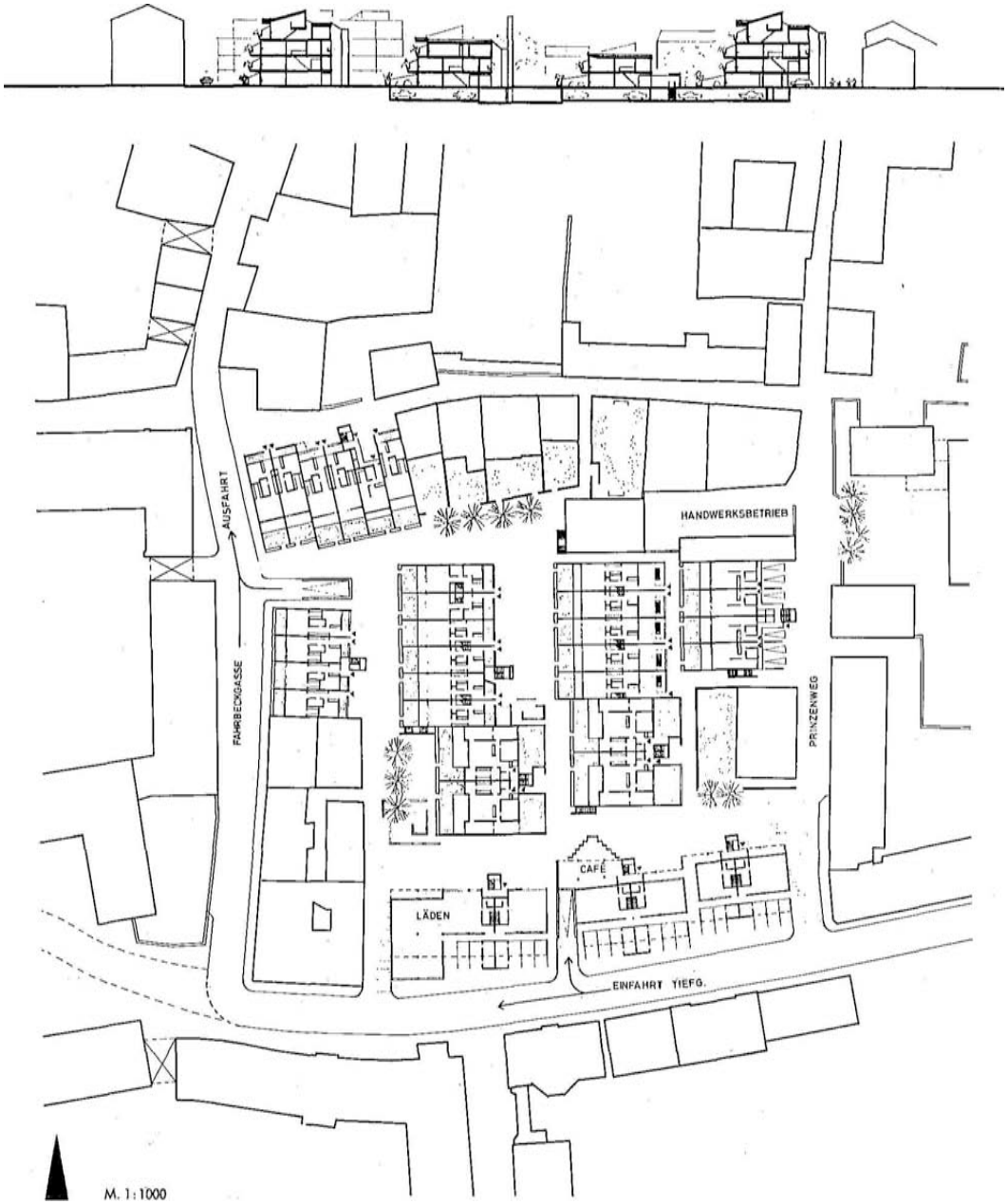
2ND FLOOR

urban context and scale. For example, with the foundation of the Fourth Bavarian State University at Regensburg, the construction of student living accommodation has become necessary. Some hostels are being built in suburban districts. But in the opinion of the seminar, living quarters should also be provided in-town, to allow students to have close contact with urban life and to contribute to the activity of the old city.

To attract alternative solutions for the reconstruction of free or derelict sites within the historic core of Regensburg, a competition was initiated for students and young architects. To give one example: the derelict site chosen for the largest hostel (120 student rooms) was about 2,500 square metres in size, irregular in shape, and allowed a fairly free arrangement of building masses and open spaces within certain givens in scale.

The prizewinning schemes, of which that awarded the first prize is shown here, had these points in common:

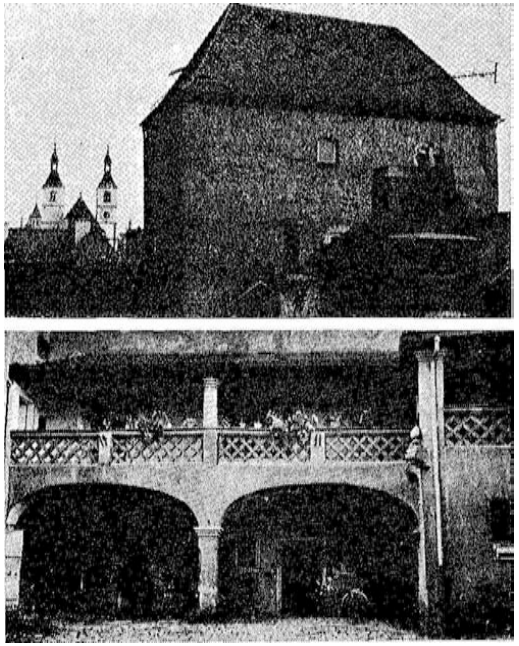
- —differentiation of building masses in plan and height;
- —ingenuity of spatial arrangements to enable connection to surrounding buildings;
- —retention of the stone character and scale of the historic urban setting.



5 *Restructuring.* This category refers to those sequences of buildings which can be entirely or in some major way restructured, either through the dereliction of historic sequences beyond recall or where sequences of buildings are in poor condition and are of little or no historic or economic importance. One example is a site occupied at present by haphazard and valueless buildings whose structural condition is poor and with sanitation well below standard. The site is, however, very favourable for a central housing precinct, somewhat detached from the main shopping area but near the green belt and the banks of the Danube.
The seminar's recommendation for the site is a row of stepped-back apartment buildings, arranged in such a way as not to exceed four storeys, with some small service-type shops and boutiques, a cafe, basement parking and a workshop court at ground floor level.

Left Plans for restructuring the main parts of a block in the south-eastern parts of the old town.

Below Photographs of the model block described on the next page.



A renewal action plan

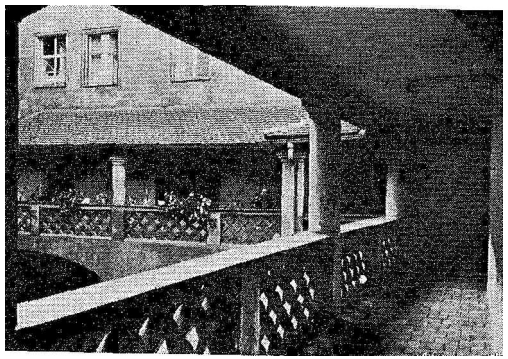
To test the applicability of these five renewal and restoration categories, the seminar selected a centrally-situated and, as far as possible, representative block in the most densely built-up part of the old city; and replanned it in detail in physical terms, and in terms of the political, legal and economic means for historic urban renewal. The following measurements were applied:

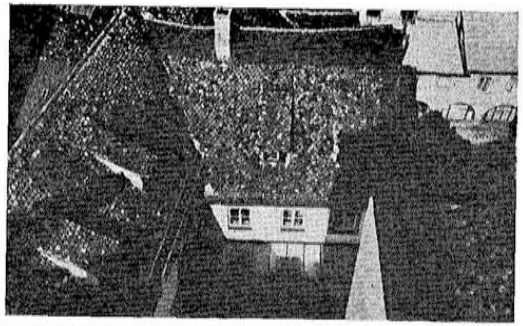
floor/plot ratio 3.5;

living space for 146 persons totalling approximately 77,000 sq ft;

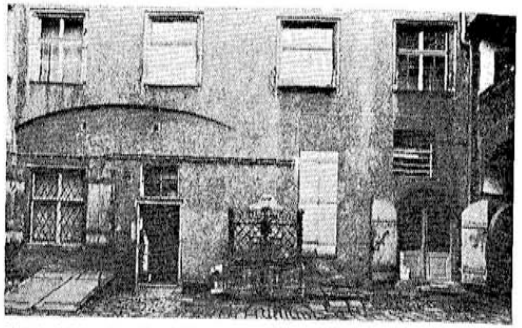
commercial space approximately 90,000 sq ft. The photographs show both the beauty and decay of restored and neglected courtyards. It becomes immediately apparent how the five renewal and restoration categories can be independently implemented once programmes for them have been established. At the same time they will provide in total a right and meaningful solution within the overall renewal proposals for the city.

Instead of the pedestrian being forced to move about the block on the present narrow and dangerous sidewalks beside narrow streets with heavy traffic, the seminar's proposal recommends a radical change. Shops are oriented towards the inside of the block. Entrances to the interior square are created through the beautiful existing doorways, halls and courtyards. Within the block a rich sequence of spaces can be developed revealing the old city's variety and capacity to surprise. In this way historic spaces may be opened to the pedestrian public and used to intensify commercial activity. The surrounding streets may be turned over to delivery and access for residents' cars as part of the overall traffic system for the old city, while the narrow Gesandtenstrasse becomes part of a subsidiary loop.





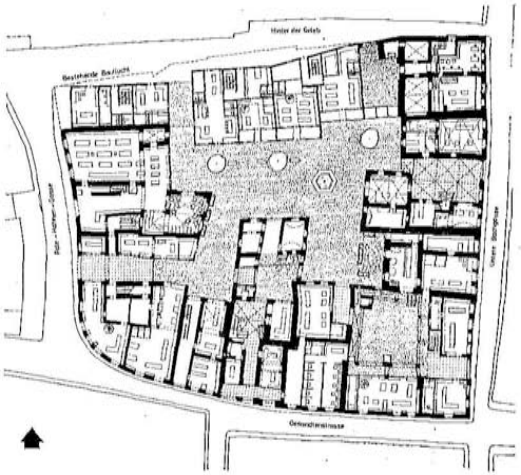
Model block 1st floor existing

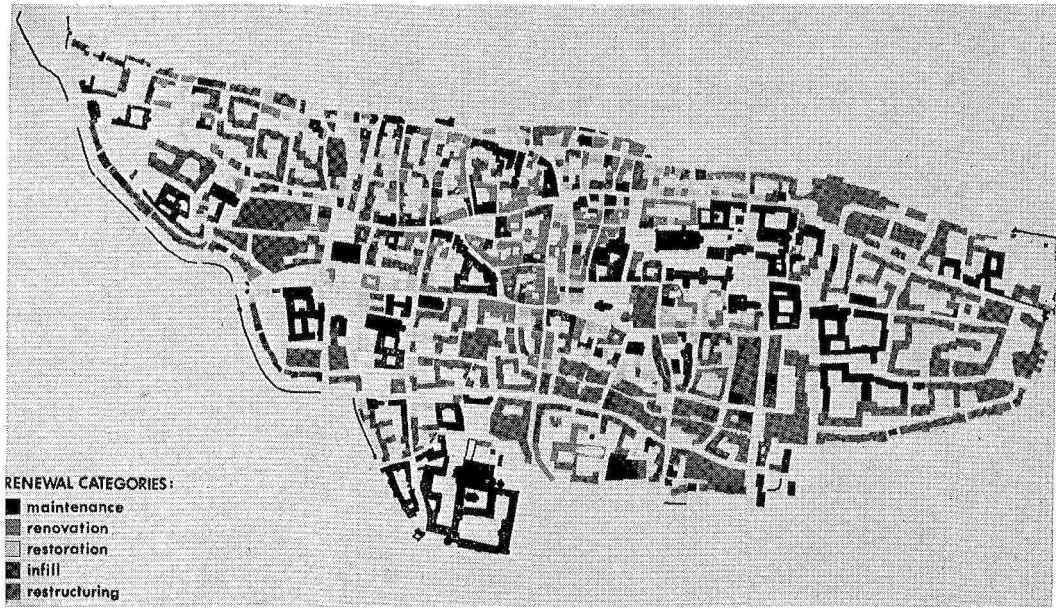


Model block 2nd floor existing

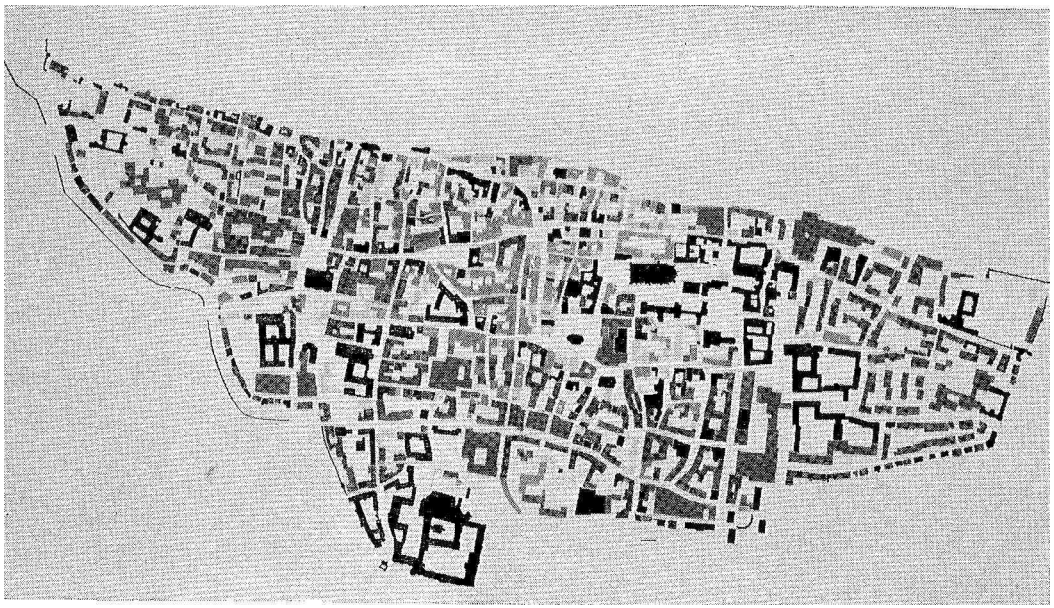
Model block 1st floor planned

Model block 2nd floor planned



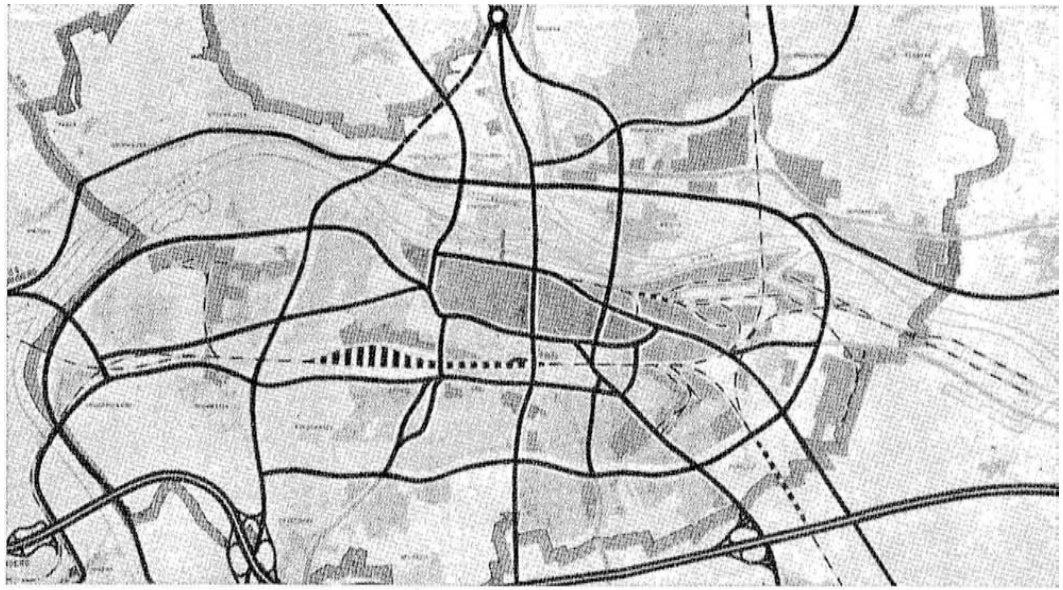


main proposal



variant

Main proposals
The seminar set the five renewal and restoration categories in two master plans for action, so that the necessary information showing what may be altered and what is to be conserved is at hand at all times. These were the main proposal and the variant. In the first, conservation of all types of historic buildings is emphasized as far as practically possible. In the second, only the more important monuments and the general medieval urban structure are preserved. Between the two extremes the actual renewal process finds its place, allowing the overall plan to remain flexible and responsive to important changes and decisions On a building-by-building basis and ensuring the incorporation, through time, of the most up-to-date economic, social and legal requirements.



Traffic

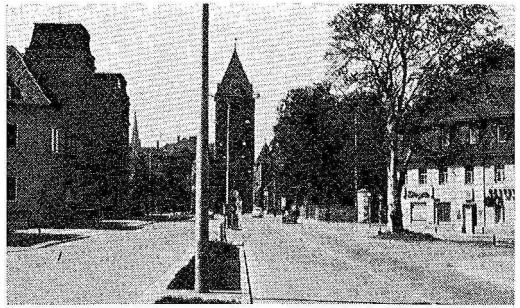
In 1952 a traffic plan by Regensburg's municipal authorities was made and passed. Although it cuts the historic city into three pieces by four- or six-lane highways and separates it from the riverside recreational area, this plan is being executed day by day. When it is completed it will bring local and through traffic of all types indiscriminately into the middle of the old city, with junctions too closely spaced and too small to cope with the volumes and their destinational complexity. The inadequacy of the municipal plan is increased by the fact that in 1952 the decision to add a new university for 4,000 to 10,000 students had not been made (a catalyst now so critically important for the renewal area) nor was pressure for the new city extension so acute. To counteract the inadequacies of the municipal plan, and to avoid more demolition of the historic urban structure of Regensburg, the seminar proposed:

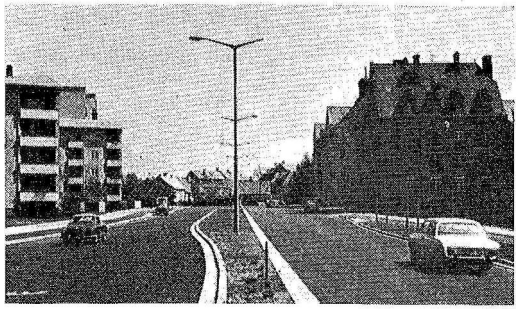
1 to increase the proportion of public transport by
   — a regional rapid-transit system
   — an improvement of local short-distance public transport through the use of smaller units (minibus) with high frequency schedules;
2 to by-pass the old city, the Danube islands, and the bridge-head town by means of a ring road which would connect with the regional pattern by tangential roads, and to the core by main and subsidiary loops;
3 to effect thereby a separation of local and through traffic before the old city is reached, and to achieve, within the old city, the highest possible degree of pedestrian and vehicular segregation.

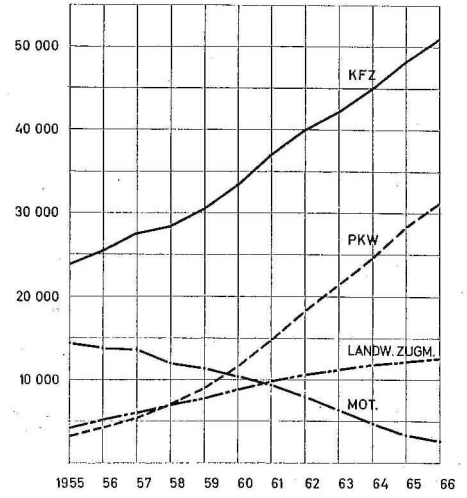
Thus within old Regensburg all main loops are one-way streets in the seminar's traffic plan, with public multi-storeyed parking. The system uses narrow lanes and alleys, which run parallel to pedestrian streets, for delivery and access. Concentrated small units of garages are adjacent to housing. Minibuses are the only form of through traffic in the old city. They are permitted to use pedestrian areas and will stop by request for tired, old, or walk-shy people. Pedestrian connections to areas outside the dense old city environment are important and these are either by bridge or underpass where traffic volumes demand it.

Above left Municipal traffic plan.

Below left The seminar's proposal.



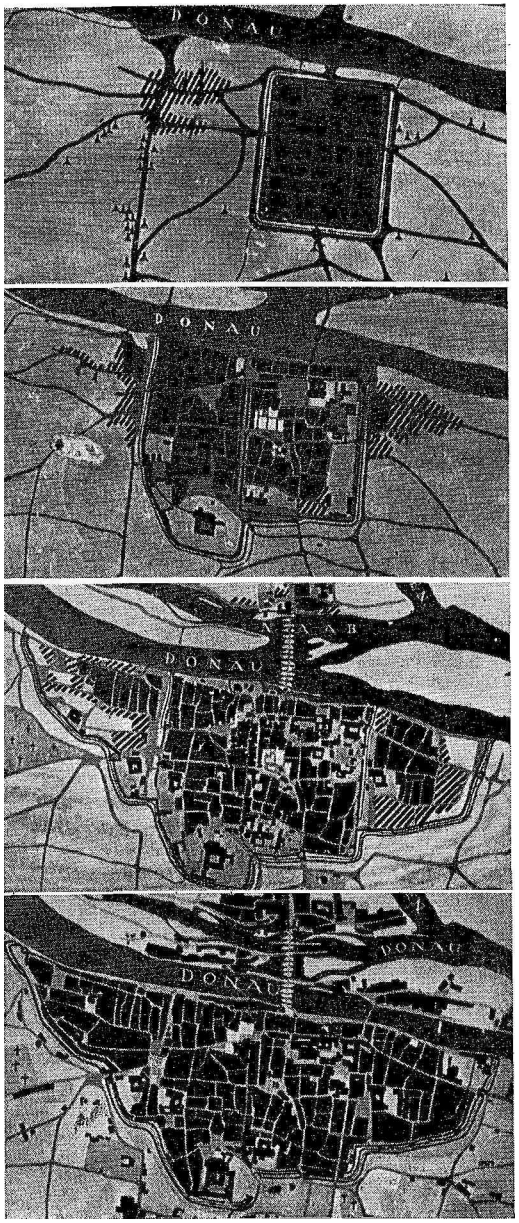




Above Increase in traffic in Regensburg and vicinity.

Right The seminar's proposal showing ring road around the old town and pedestrian access (dotted).

B THE CORE EXTENSION



The growth of the old city

City extension has always been a means of coping with new demands or with incompatible uses. The four historic maps of Regensburg show:

Map 1—the Roman Camp, Castra Regina, which was completed in AD 179, a rectangle 1,780 x 1,485 ft with walls 23 ft high and four *portae* which are partly preserved to the present day.

Map 2—by about AD 930 the extended camp, Ratisbona, had become the most important Carlovingian fort in southern Germany.

Map 3—by 1300 the free Imperial city of Regensburg was in its most glorious days. Yet to the west and east new town extensions parallel to the Danube were necessary to accommodate increases in population.

Map 4—by 1860 Regensburg had become a Bavarian provincial town, an intellectual and economic 'sleeping beauty'.

Had Regensburg continued the original pattern of its physical and political growth it would have become a very important metropolis. Since 1930, after a long lull, the city has once again been on the move. Already the old core is running the risk of having to absorb metropolitan functions which are spatially incompatible with its scale.

The seminar studied in depth the following options for the growth of the city:

A In the old city the main shopping district forms a NW-SE axis. The seminar studied the continuation of this axis to the south-east, outside the old town walls; but this proved difficult due to fragmented land ownership.

B As an alternative the seminar studied the siting of the extension on a new island created north of the Danube by the by-pass Rhein-Main-Danube canal. This would provide Regensburg with two new activity poles, the new university and this new core-expansion area, with the old city between them. However foundation problems and the distance (2imiles) to the new university made this site unpractical.

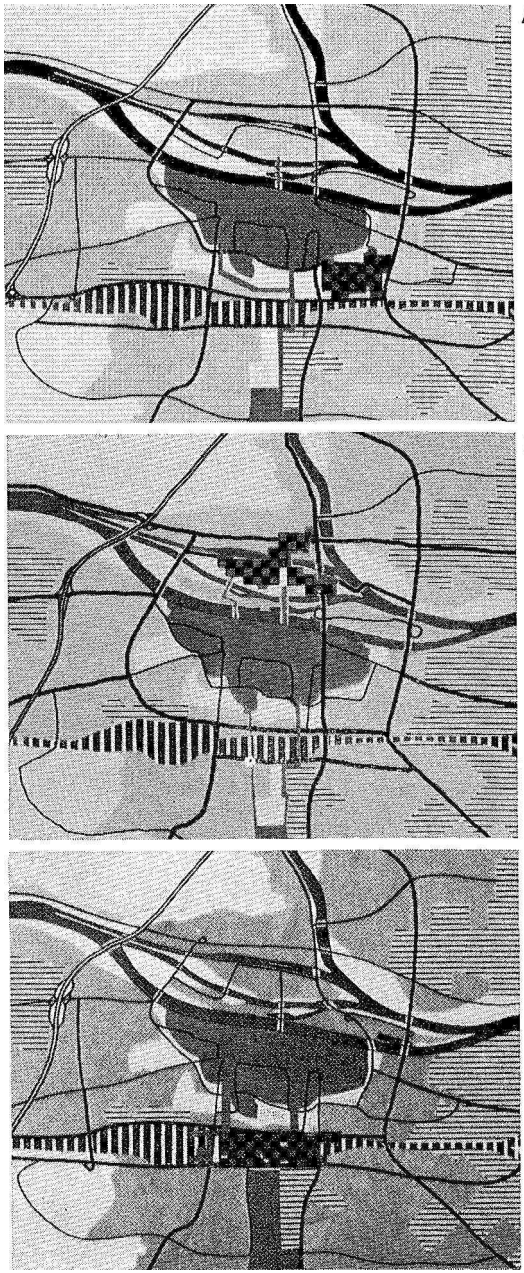
C Many considerations supported the third possibility which the seminar studied

—that of using air-rights over the railway.

—The land for air-rights development is in one ownership;

—the 300 yds wide railroad barrier between the old city and the new university would be bridged;

—projections based on recent escalations of land value in Regensburg demonstrate air-rights in such a central situation for high intensity usage to be feasible.

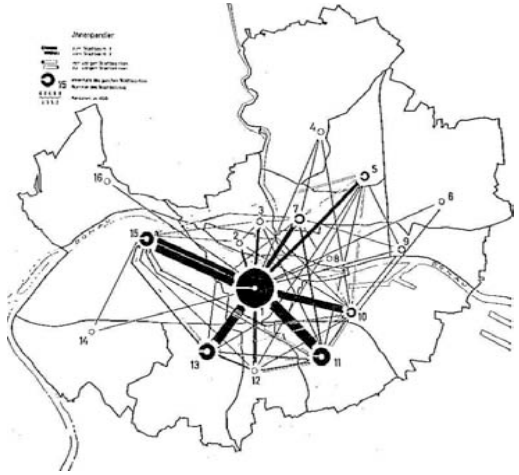


Core extension land uses

In major cities throughout the world, the rapid nineteenth-century growth of railroads has left as its legacy a wasteland of tracks in central areas where today sites are scarce, expensive, and extremely difficult to assemble. Thus decking over railroad tracks in large cities has become an increasingly common and attractive means of obtaining big undeveloped sites, offering opportunities for comprehensive development and high returns while retaining railroad movement unimpeded underneath. Although air-rights developments of this kind have been implemented mainly in larger cities, they can be equally realistic for smaller cities where land restrictions place a similar premium on sites for high density expansion. Regensburg is certainly a case in point. For quantitative purposes the seminar made a series of assumptions. One of these was that in comparable modern European cities, 40% of the places of employment are in downtown areas. For the old city, a desirable but not too high quota of 20,000 employees was assumed. This left 16,000 employees to be accommodated in the core extension. Working with Federal rail planning technicians an overall zoning was worked out to demonstrate the site's potentialities, and alternative land uses, vehicular access, and the economic and architectural feasibility of superstructures were tested in a model.

The seminar determined that the first phase of development would bridge the station, and that further phases would extend the new core east and west. The height of the buildings in this central portion of the deck is purposely kept low to enable a two-way view between the historic core and the new university. The deck connects at the south with the hill coming down from the university, and drops on the north side of the station slowly to the level of the main shopping street. The design of the first building phase was governed by the need for the uninterrupted use of the lines and the station during construction. Platforms, local bus stops, parking, and delivery, are at ground level. The main deck, with a regional bus terminus, department store, shops, and passenger concourse, is 32 ft above ground level.

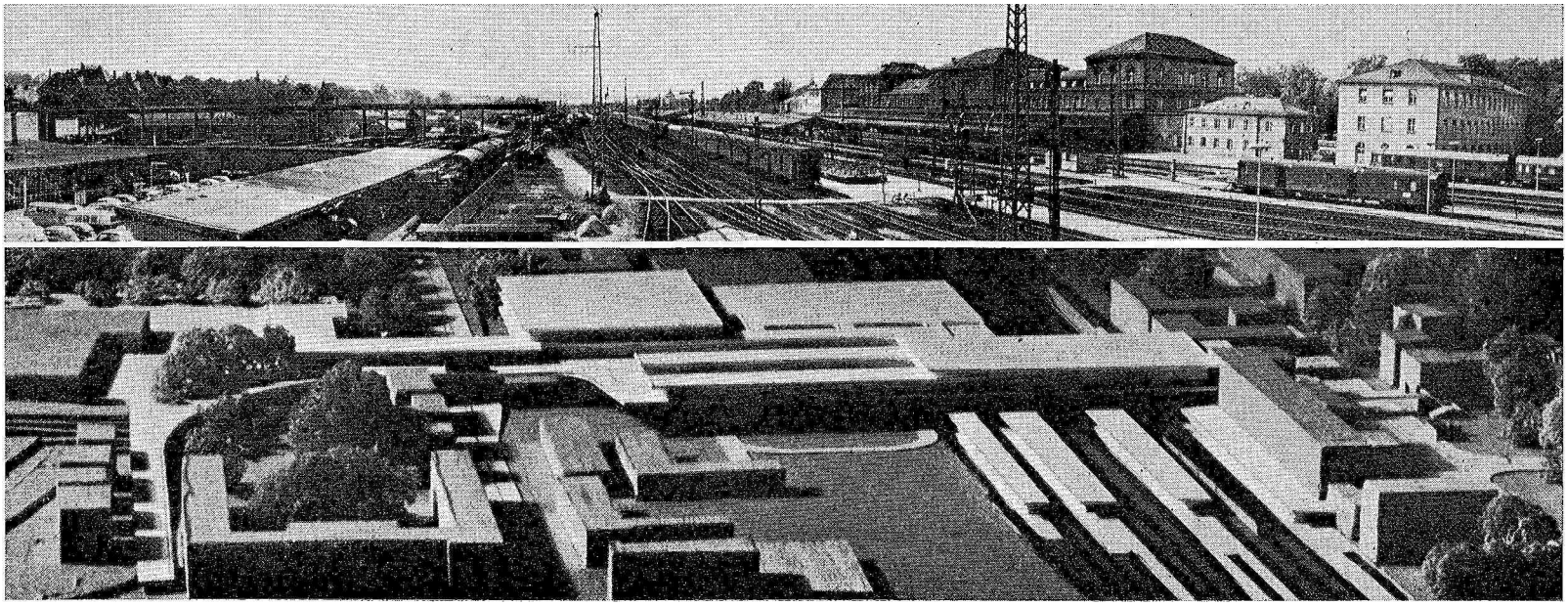
The seminar declined to endorse housing within such a centre, assuming the location to be too noisy because of the trains. However Place Bonaventure in Montreal and the Bern project in Switzerland have successfully overcome noise problems by keeping the main deck continuous and by treating noise-generation at its source. The authors believe that it would be a grave mistake to omit housing in the programme for the core expansion area.



Above Commuter movement in Regensburg.

Left A. City extension south-east of the old town.
B. City extension north of the Danube.
C. City extension using air-rights over railway.

Below View over railway tracks and model photo of city extension using air-rights over railway tracks.



C THE URBANIZED AREA

Town and region

Before the decision to locate the new city expansion area over the railway had been made, it became clear that the only way to solve the problem of growing traffic congestion in the old city would be to improve public transport for the whole of Regensburg and its region.

Rapid and mass transit

The most direct way to do this would be to increase the effective capacity of existing railway lines through introducing a rapid transit system. This could be done in small stages. At first there would be a higher frequency of services on short distances. The second stage would be an improvement of the quality of service. Finally regional coverage would be accompanied by zoning policies leading to settlement concentration around stopping points. In this system, the main regional station becomes the point of interchange between rapid transit, national rail, and municipal and regional bus services. It serves as shopping centre, administrative centre (with multi-storey office space), recreation centre (for indoor sports), and parking centre for the old city. In due course similar subcentres would be developed at regional stopping points, as catalysts for the concentrated growth of new or existing settlements along the rapid transit line.

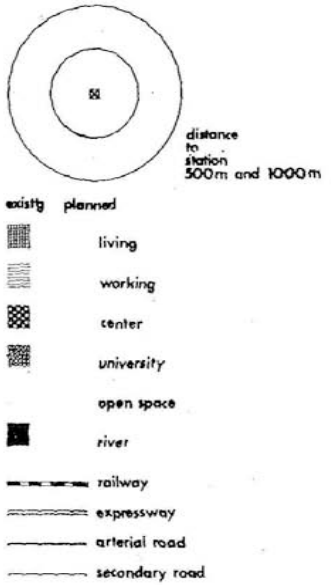
New settlements

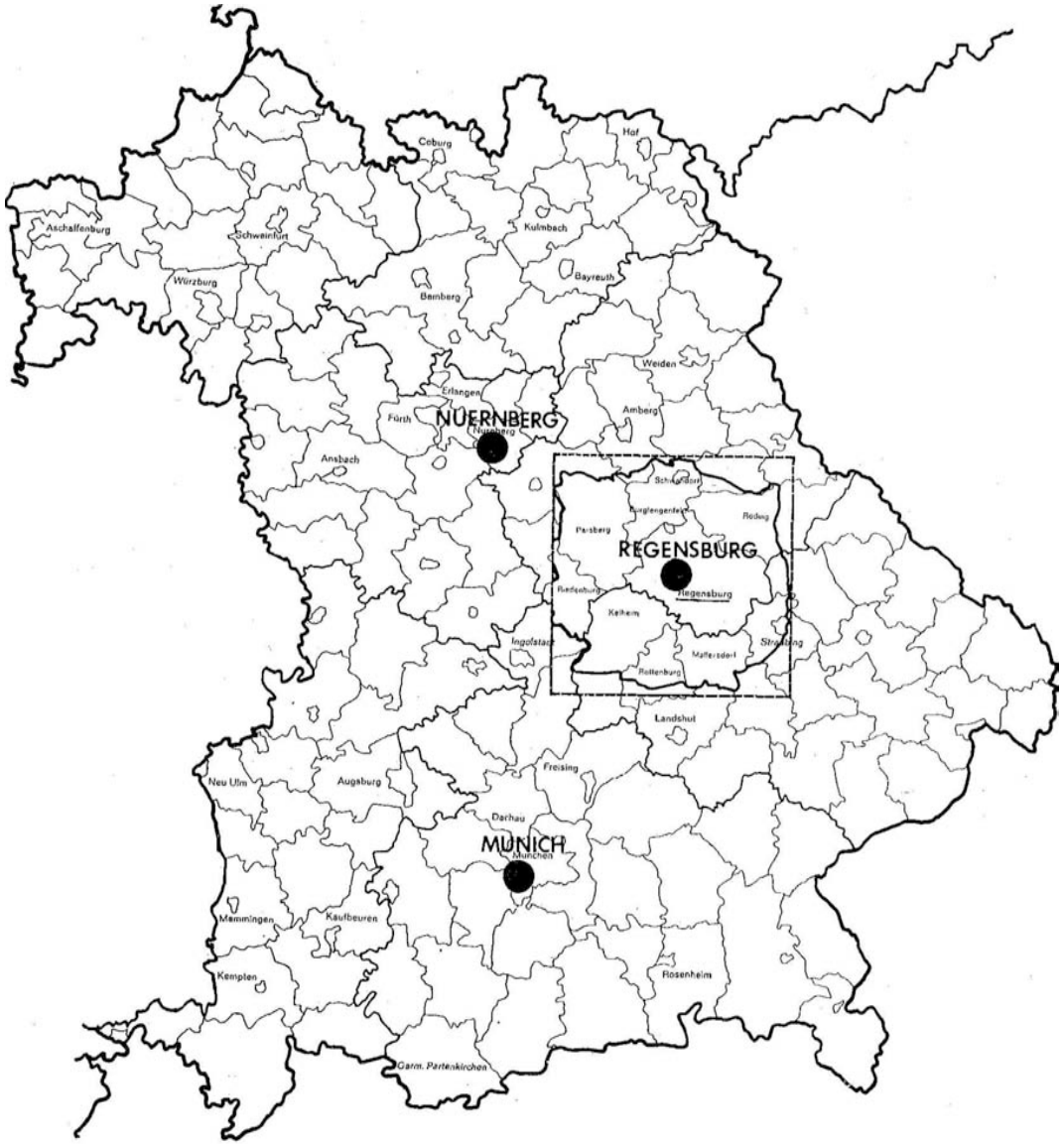
This is not as difficult as it may seem at first sight. The seminar established that the turnover from old to new housing during the last thirty years was 35%, and could be expected to rise above 50% in the next generation. The seminar developed a relocation and settlement strategy for the urbanized area of Regensburg which assumed a minimum of 33% and a maximum of 66% of existing housing. In addition to this, surveys of the agricultural districts of the region and of other towns nearby showed population increases of 1% per annum or 33% per generation.

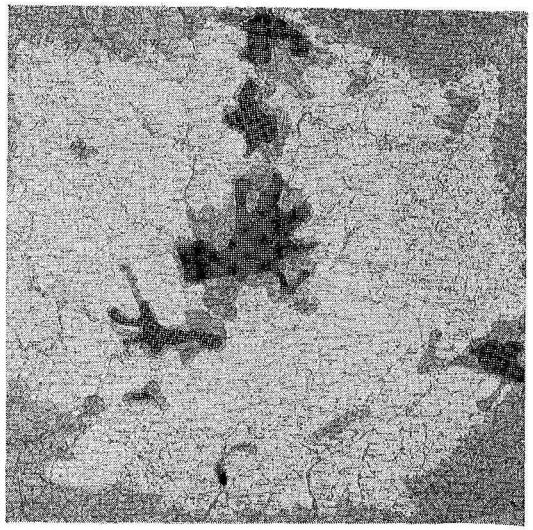
At present in the Regensburg area a decentralized pattern of housing is accentuated through a government subsidy of one-family houses. This policy results not only in wastage of agricultural land, but also in tenuous and uneconomic public transport services, leading inevitably to steady increases in private car ownership. The assumption that everyone enjoys driving a car overlooks the fact that people in the first instance simply want to be conveyed from one place to another quickly, cheaply, and in a dignified way.

The seminar therefore recommended changes in subsidy polices which would encourage new settlements to cluster rather than to disperse, resulting in a series of concentrated settlements in the Regensburg region, linked by transportation system and economic interdependence.

Variant II



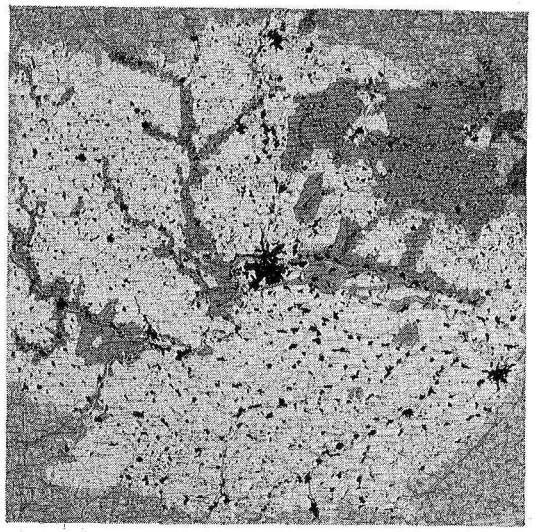




catchment areas

Schwandorf
Burglengenfeld
Regensburg
Kelheim
Straubing
Abensberg
Neustadt
Rottenburg
Mallersdorf
Roding
Bodenwöhr
Parsberg

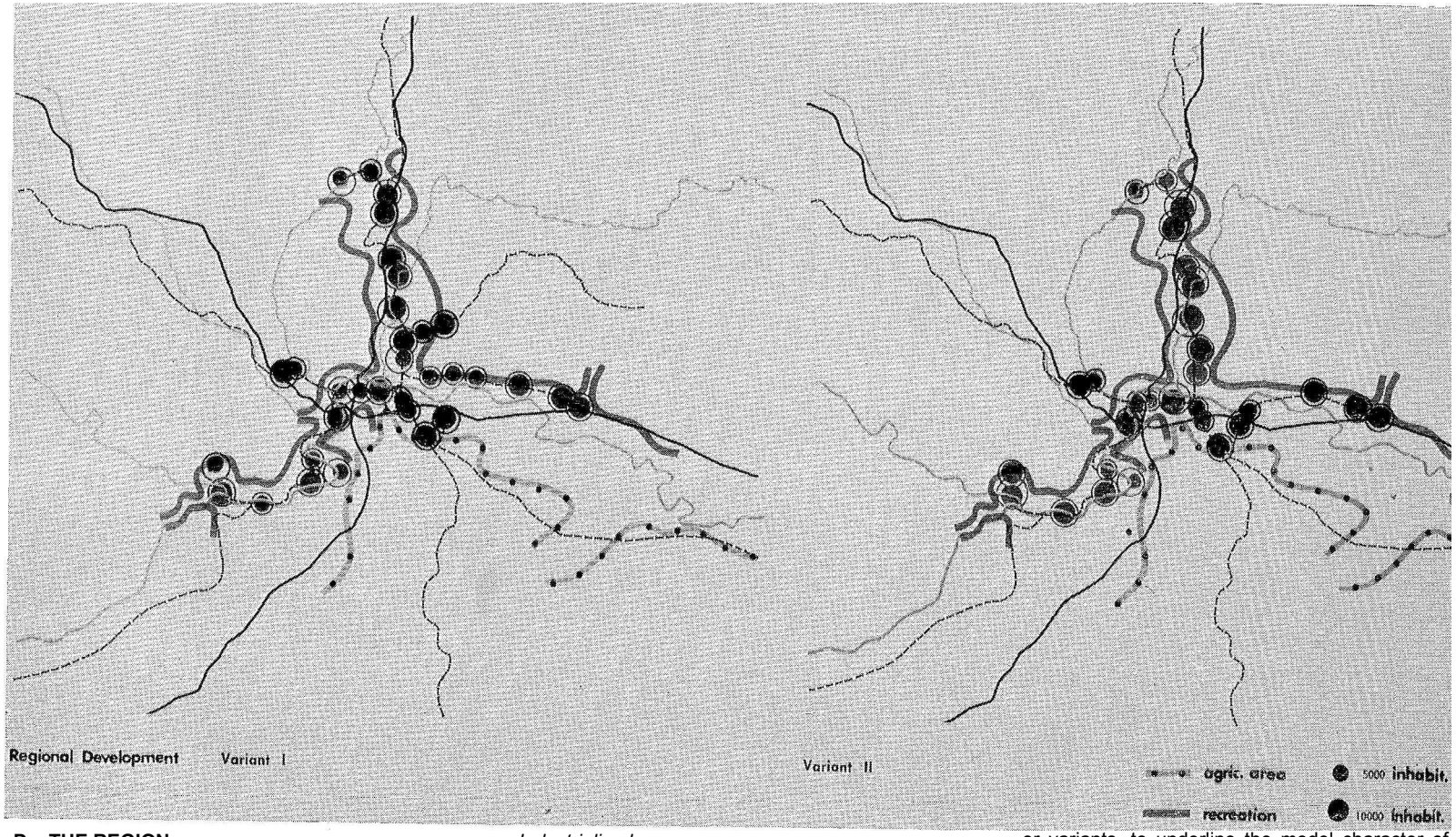
1950
1961



settlement pattern

settlements
conservation areas
rivers

Situation of regional survey area in Bavaria.



D THE REGION

A regional plan for Regensburg

There is at present no regional plan for Regensburg. Yet obviously the development of regional economic and transportation policies call, for a regional planning unit alongside the municipal planning authority. The seminar defined a regional survey area as a zone which could be reached from the centre of Regensburg in approximately forty-five minutes by car or rail. The resultant zone covers an area of some 48 x 48 miles and includes all or part of eleven counties.

Industrialized zones

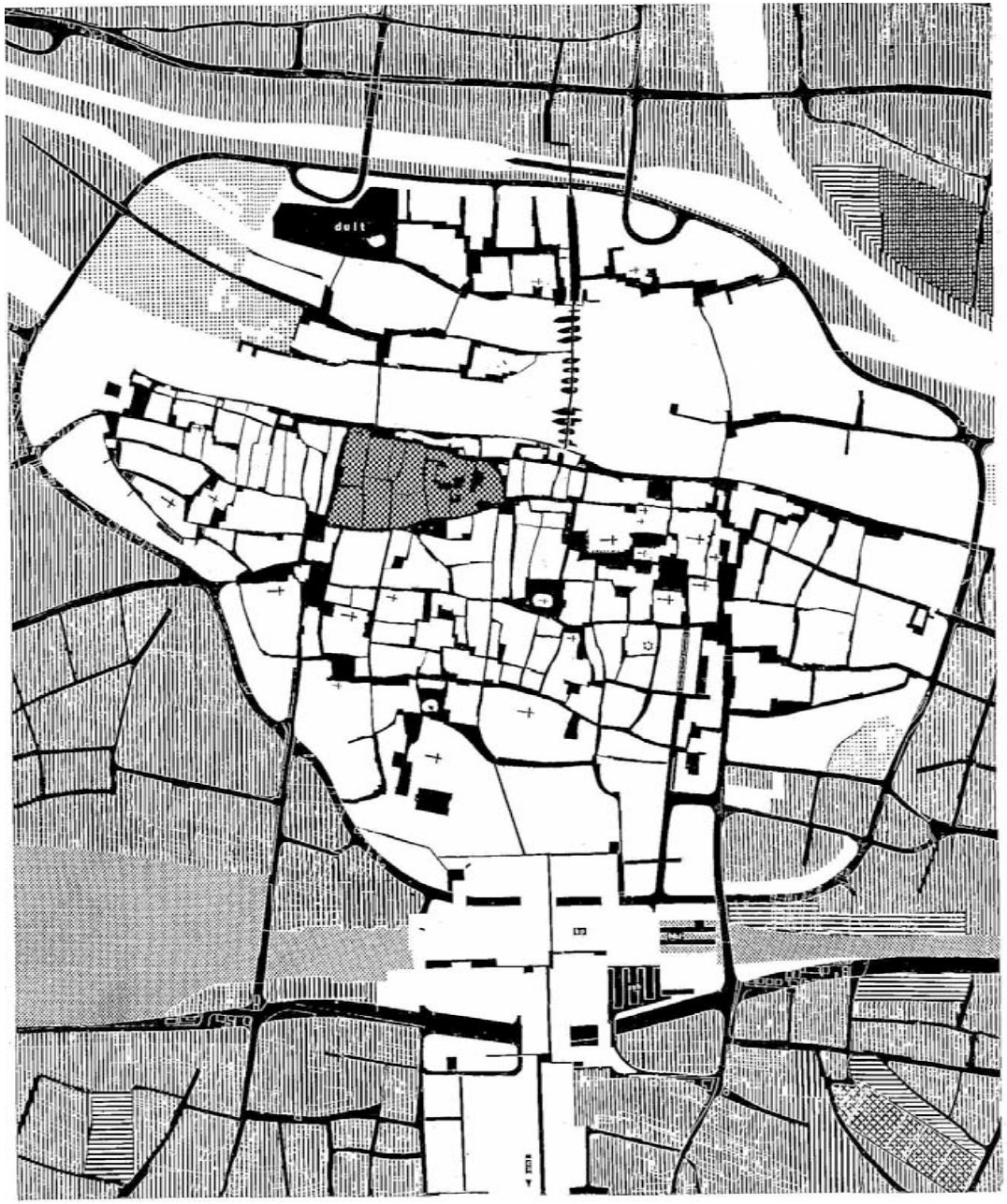
Within this region industrialized zones were defined as follows:

1 the non-agricultural population is more than 60% of the inhabitants;
2 more than 50% of the earners are commuters to the catchment area's centre;
3 the maximum distance to the centre is less than fifteen minutes.

Through insisting that all three criteria had to be met, the seminar established five zones in a coherent pattern of linear development mainly along the existing railway. The seminar then worked out two strategies, or variants, to underline the model character of their regional proposals:

Variant 1. This variant has two major phases. In the first phase, settlements are concentrated on the three-arm existing railway (rapid transit) lines; and in the second phase, the growth of these settlements is encouraged as linear infill.

Variant 2, This variant calls for a ribbon development on the north to south-west axis during the same period as the first and second phases of Variant 1; and in phase three the third arm would be developed, with an additional six miles of track to serve the harbour areas.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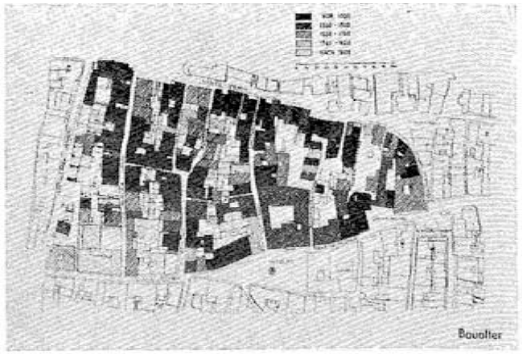
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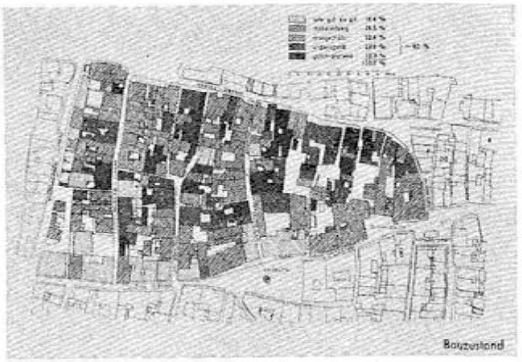
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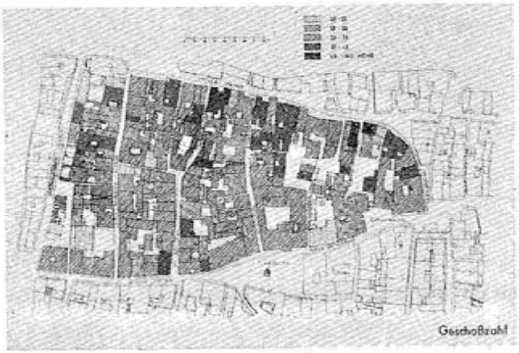

Geschoßzahl

COST OF RENOVATION AND RESTORATION IN REGENSBURG'S PRESERVATION AREA I	
1958	280 000 DM
1959	671 000 DM
1960	350 000 DM
1961	310 000 DM
1962	375 000 DM
1963	1 225 000 DM
1964	1 326 000 DM
1965	2 010 000 DM
1966	1 568 000 DM
Total	8 115 000 DM

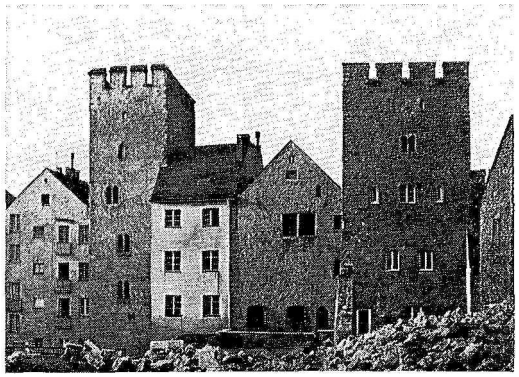
Far left Map of Regensburg indicating preservation area I.

Left top Age of buildings in preservation area I.

Left middle Building conditions.

Left bottom Height of buildings.

Below Renovated houses and towers in area !.



E THE FUTURE OF REGENSBURG

Sociological, economic and legal aspects

As in all European countries, the greater portion of the people of Federal Germany will have more time at their disposal at the end of this century than today, and more purchasing power to make use of it. A considerable amount of this time and purchasing power will be used in educational and artistic pursuits. Although the suburban areas of Regensburg have grown since the war, the old city has not been recognized as having an economic potential. Even today its renewal appears to its own citizens as an almost intolerable burden. Yet it is clear that this great urban work of art can support itself economically in the immediate future if only we can conserve it now, and in doing so, prepare it intelligently for its future role. It would be of great advantage to Regensburg's economic development if an organization could be formed to perform full and detailed planning, without simply leaning on existing regulations. Such an organization would face a complex task, and would need to work like modern business management. Even the seminar was unable to determine precisely how many hundreds of million D-Marks would have to be continuously available to thoroughly renew an old city such as Regensburg. But one thing is certain: the overall sum must include a high proportion of non-returnable investment.

From a legal point of view it may be argued that the task is one for a national preservation authority. At present, in Germany, there is no such national authority; and the protection of historic urban areas can be guaranteed only if the town council issues the necessary local regulations and backs them with its own funds. Regensburg certainly has no such funding base. For this reason, a ruling similar to the French *loi Malraux* would be very important for the German Federal Republic. According to this law, conservation areas in cities are seen as part of national cultural history rather than as local preservation. Conservation areas in old cities are both protected and designed in detail for renewal, backed by national funds. In content, the *loi Malraux* is comparable with the British development-plan law, but here private initiative is encouraged in the execution of the renewal (similar to the proposed German Urban Furtherance Law) and local authorities and public bodies are included with wide legal powers and control over the distribution of large amounts of public expenditure.

The on-going planning process

It is important to see the work of the seminar, not as a final plan, but as a clear demonstration of the possible.

1 Much of the information on which the Regensburg study was made was out of date before the study was completed. This needs not imply a halt to action; but confident long-term programmes should not be launched without the continuous up-dating of base-line information.

2 The rapid transit strategy is only one element of a comprehensive development plan. It must be interlocked with other elements before action at the regional scale can be taken.

3 The central expansion area proposals for siting and general land use, though correct in theory, require comprehensive study regarding costs and detailed design.

4 The renewal proposals must be accompanied by detailed studies of squares, streets, and buildings in continuous urban environment, and with cost-benefit analyses, before specific action is taken.

5 The seminar's process of survey and analysis was forced to use many sets of information and to make assumptions which were untested. These must be progressively improved if decisions based on the study are to remain valid and become more accurate over the years. Programmes must be drawn up for further detailed studies, and these need to be pro-rated for content and urgency. New proposals must then be made to answer the requirements of these studies, within a continual planning process.

6 Over and above official action of this kind, there must be new opportunities for individuals and local groups to play a decisive role in the planning process. Independent bodies can focus attention on major issues in town planning and architecture through meetings, conferences, projects, citizen task forces, and reports. In this way the interested citizen of an historic city can have an important and creative say in the bureaucratic —but not always democratic — renewal of his urban heritage.

Conclusions

If, as architects, planners and citizens, we feel the need to evaluate the aims and achievements of our own time, it is salutary for us to understand the aims and achievements of other ages. But keeping in touch with the past, which is so powerful a means of renewing the present, becomes more and more difficult as material evidence disappears.

Regensburg, like so many old cities which we destroy every day bit by bit, expresses the ability of the human being to give form, beauty and meaning to his social structure. Since we seem to be in danger of losing this ability, perhaps we should conserve our heritage in order to relearn.

1 Econ-Verlag (publisher), Dusseldorf/Vienna, 1967.

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