



Politecnico di Milano  
School of Architecture and Society

## URBAN PLANNING STUDIO – 095990

Second semester, first year

Prof. Marco Facchinetti

[marco.facchinetti@polimi.it](mailto:marco.facchinetti@polimi.it)

02 2399 5462

[www.marcofacchinetti.com](http://www.marcofacchinetti.com)


8

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## UNDERSTANDING THE CITY

## THE CITY AS A SYSTEM





## Four stances in European theories of urban planning in the twentieth century:

- Functionalist
- Humanist
- Systemic
- Formalist

These four stances in European urban planning are not in themselves precise and internally consistent theories, but inclinations, predispositions, directions



An aerial map of Central Milton Keynes, showing a grid-like urban layout with various colored zones (yellow, orange, purple, green) and street names like DANFORTH WAY, PORTWAY, and CHILD'S WAY. The text 'CENTRAL MILTON KEYNES' is overlaid in large, semi-transparent letters across the center of the map.

## THE FUNCTIONALISM

Of the four orientations, functionalism with the longest history, has been the most comprehensively outlined

Its origins are in the Bauhaus and the work of Le Corbusier

Its credo is the ATHENS CHARTER of the Congres Internationaux d'Architecture Moderne (CIAM) issued in 1933

Workability and competence are its goals

It is the equivalent, in urban planning, of the modern movement in architecture

It originated in the 1920s and dominated design theory into the 1950's, evolving in response to criticism and changing conditions





## THE FUNCTIONALISM

Functionalism envisions the city as a collection of uses to be accommodated: residence, work, leisure, and the traffic systems that serve them

In early functionalist thought the city was characterized as a machine, in later thought, as a complex organism and as a network or constellation of community centers linked to and directed to central core

A functionalist city is equitable. It does not favor or neglect social groups  
Everyone benefits from adequate sunlight, fresh air, and access to open space





## THE FUNCTIONALISM

Functionalist theory treats residence, work, and leisure as discrete elements

Activities should not mix

## ZONING IS A KEY ELEMENT OF THE FUNCTIONALIST CITY

Activities can proceed with little or no interference from other activities

In functionalist urban planning, organizing functional relations in a two dimensional plan usually takes precedence over organizing other relations





## THE FUNCTIONALISM

The graphic of functionalism is always based on SCHEMES and PLAN DRAWINGS

Though functionalist theory calls for the separation of activities, in one locale, the heart or core of the city, these must be commingled.

URBAN CENTER SHOULD ENABLE PEOPLE TO MEET ONE ANOTHER TO EXCHANGE IDEAS

URBAN CENTER SHOULD ENGENDER CIVIC CONSCIOUSNESS

Necessary to the success of the urban center is the absence of vehicular traffic, for the urban center is the domain of pedestrians



An aerial photograph of Milton Keynes, UK, illustrating its orthogonal urban planning. The map shows a grid-like street layout with various colored zones (purple, orange, green) and labels for streets like DANFORTH WAY, SLOAN STREET, PORTWAY, and CHILD'S WAY. The text 'MILTON KEYNES' is prominently displayed across the center of the map.

## THE FUNCTIONALISM

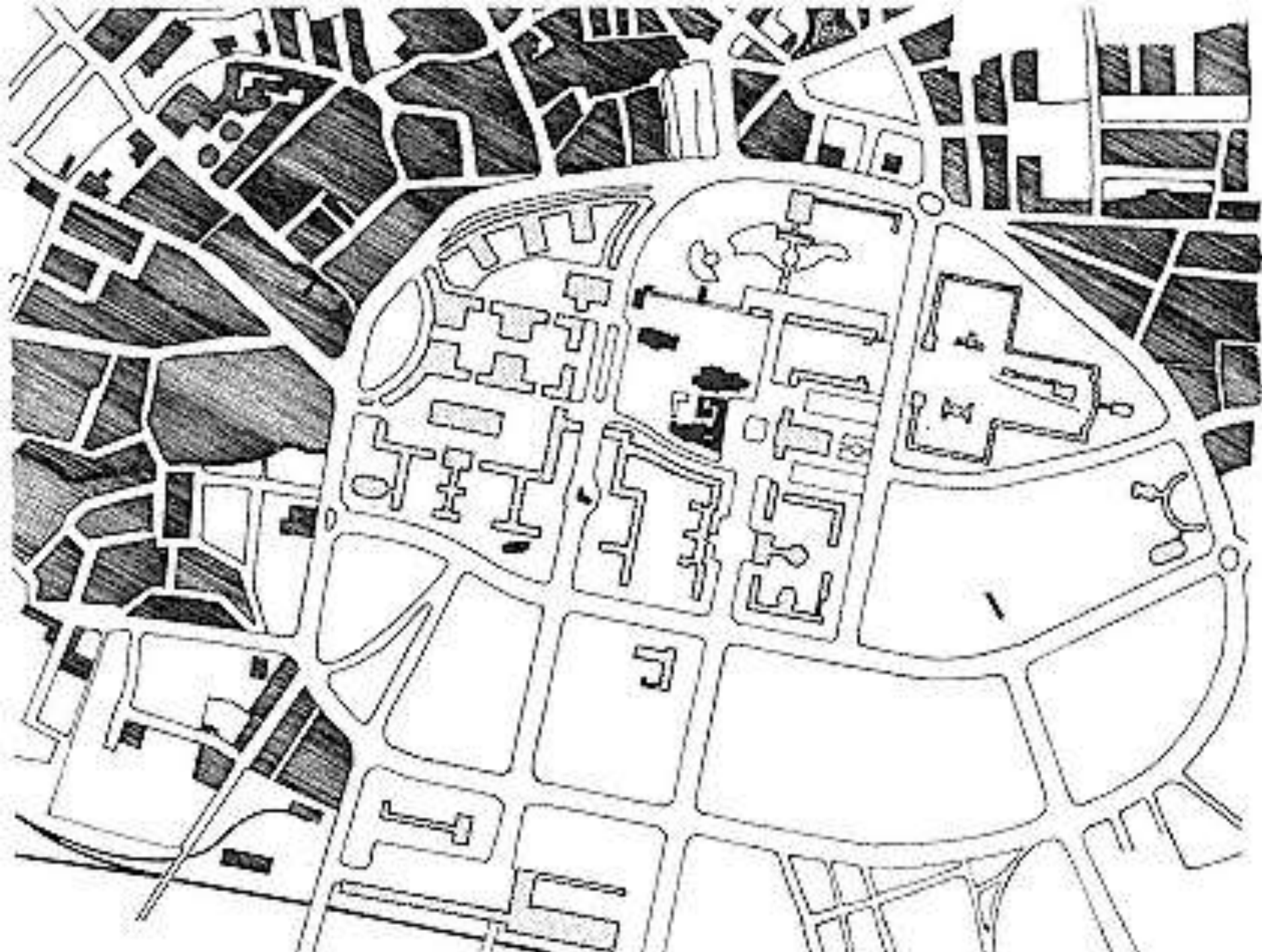
Orthogonal planning characterized most functionalist urban design

The quality of functionalist design depends on how competently it accommodates needs and activities and on how well it uses light, space and greenery, the ingredients of an urban plan that enhance daily experience.

Open space is highly valued

Historically significant buildings should be preserved for their educational value, but the layout of historic districts should not be the basis for planning contemporary towns





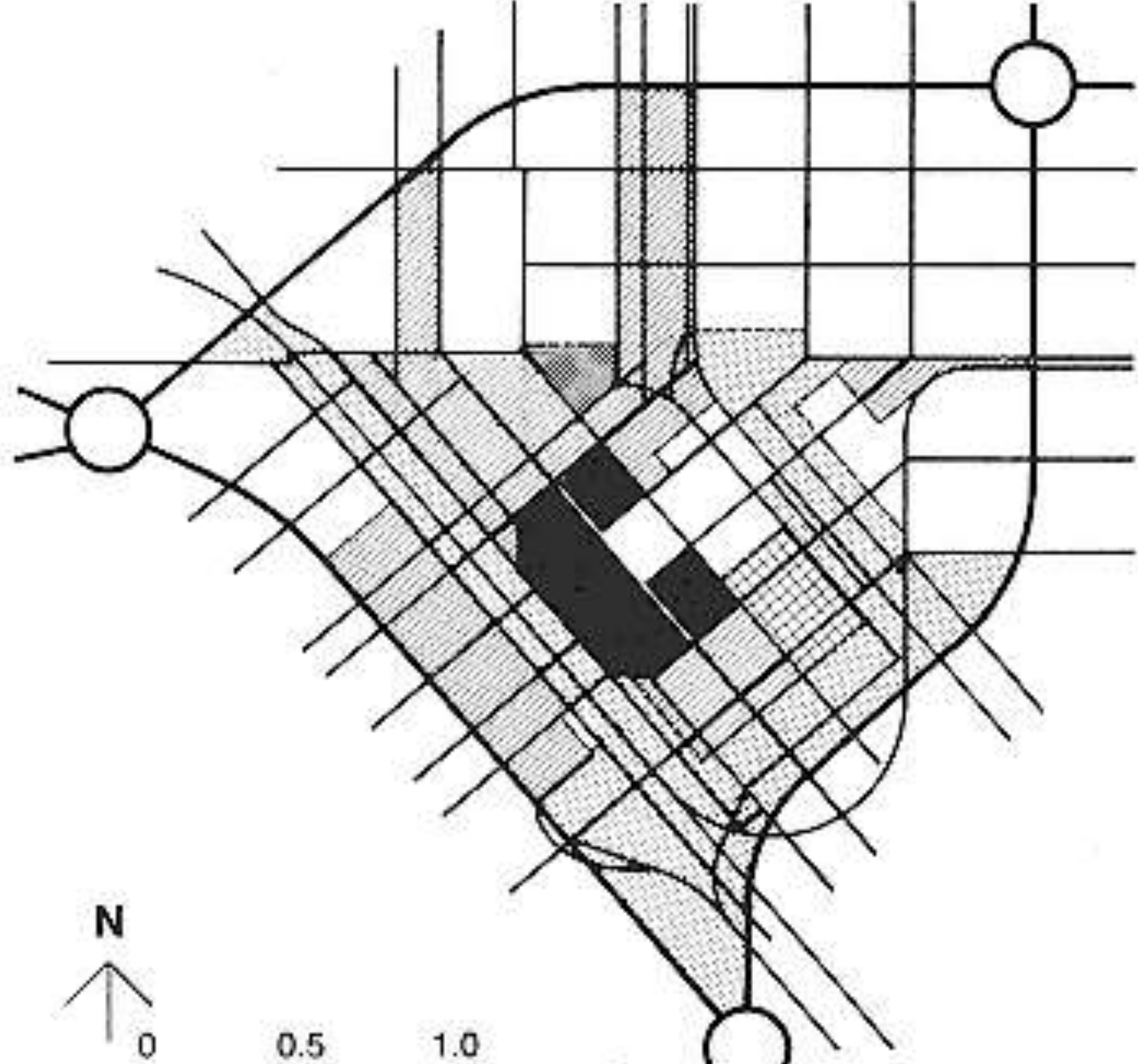


# Le Plan Voisin

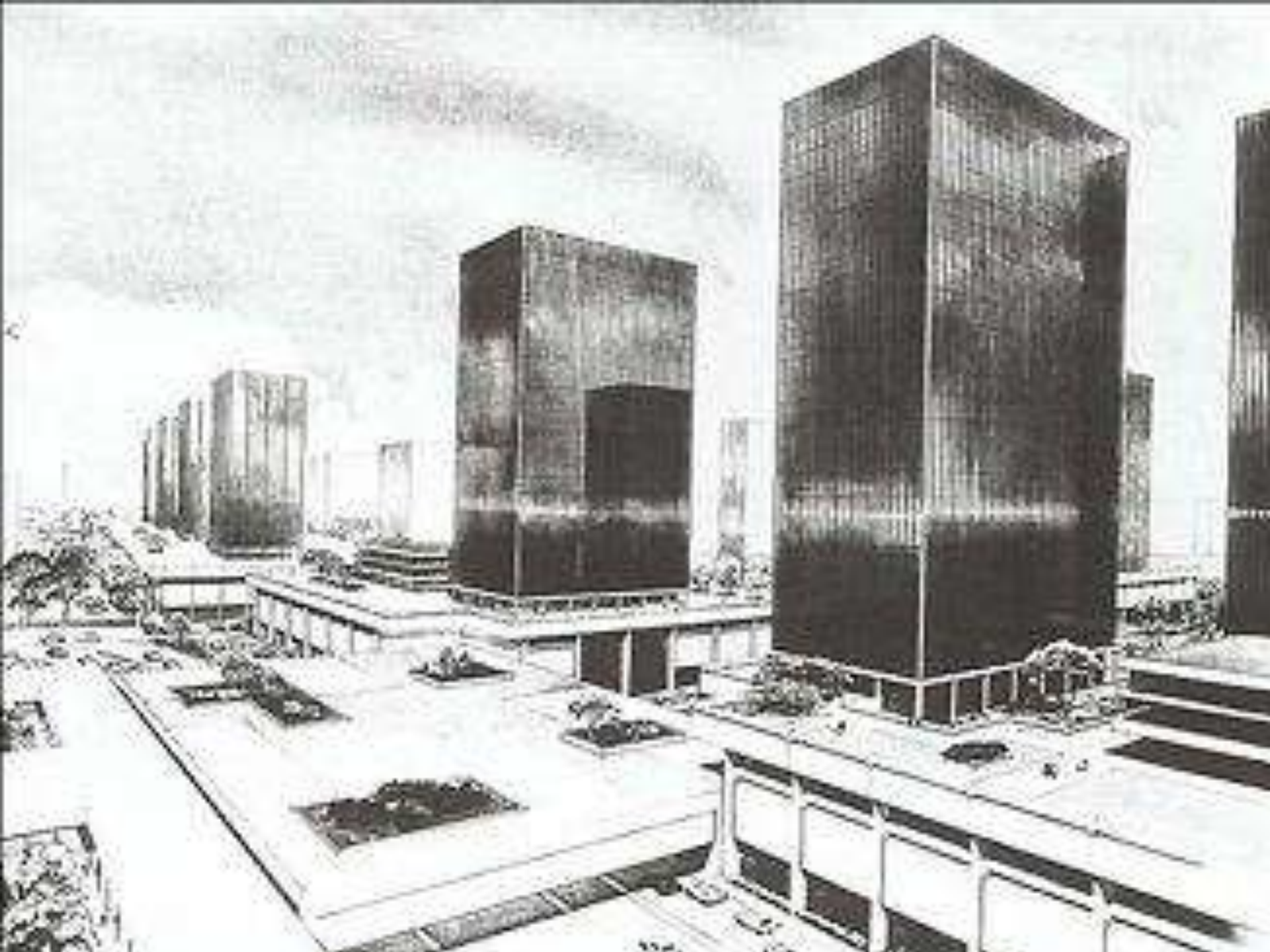


En 1925, avec le soutien du constructeur automobile Voisin, Le Corbusier propose le "Plan Voisin" pour Paris. À droite, on reconnaît l'île de la Cité.









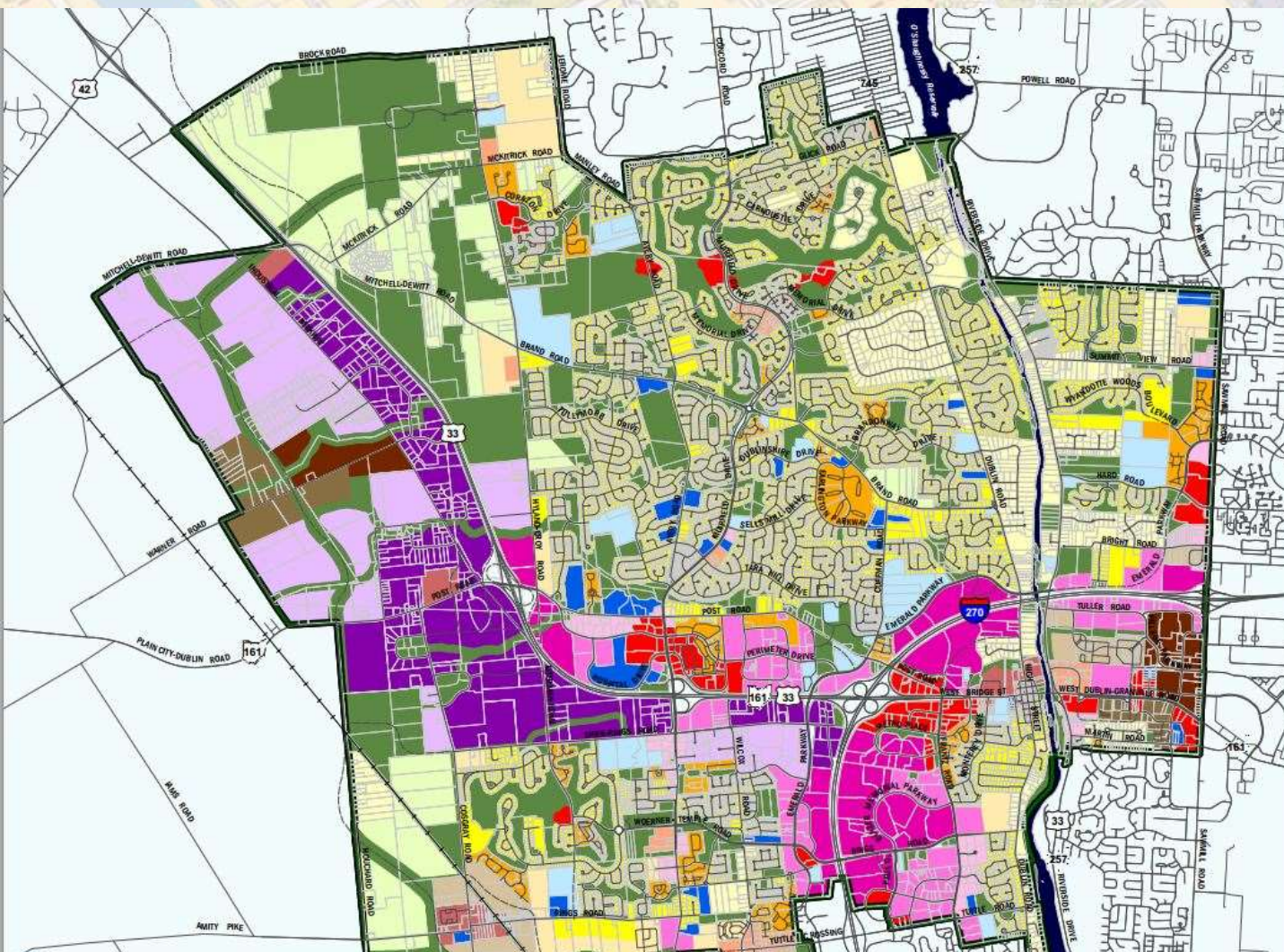


# From Theory to practice

## From Functionalism to International Style/Rationalist Urban Planning

# URBAN RENEWAL





# **FUTURE LAND USE CLASSIFICATION**

- Residential Low Density
- Residential Medium Density
- Residential High Density
- Mixed Residential Rural Density
- Mixed Residential Low Density
- Mixed Residential Medium Density
- Mixed Residential High Density
- Neighborhood Office
- Standard Office
- Premium Office
- High Density Office/Research & Development
- Low Density Office/Research & Development
- General Commercial
- Mixed Use Neighborhood Center
- Mixed Use Village Center
- Mixed Use Town Center
- Public Institutional/Civic
- Private Institutional
- Parks/Open Space
- River
- Planning Area Boundary
- Future Roadway
- Railroad













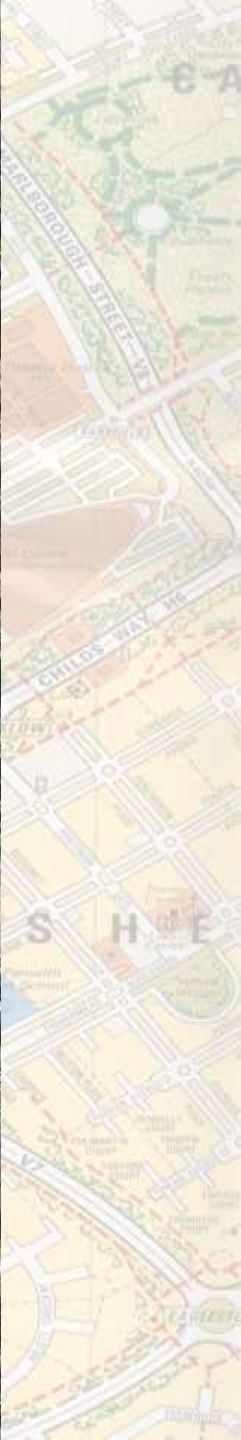


O L D B R O O K





















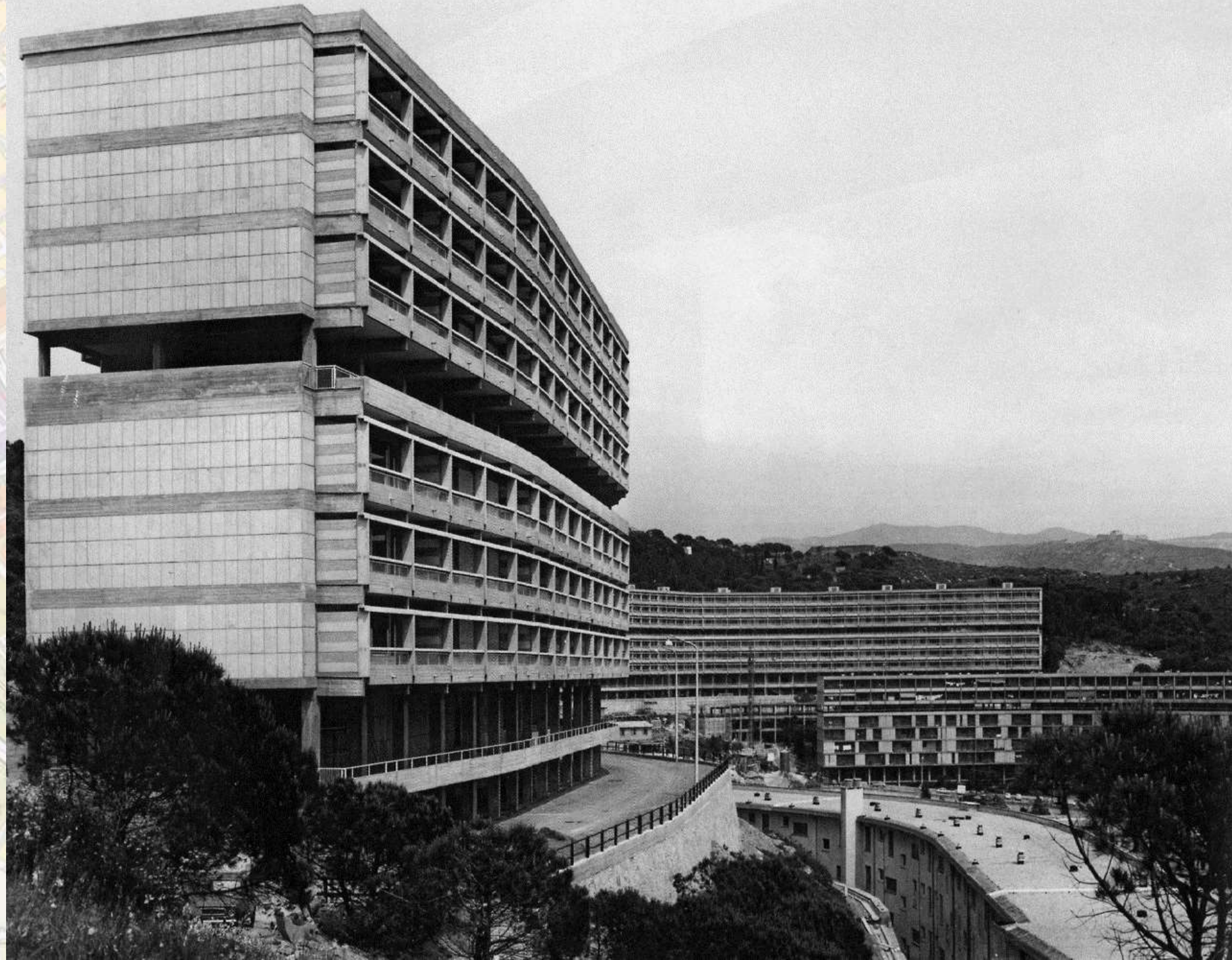




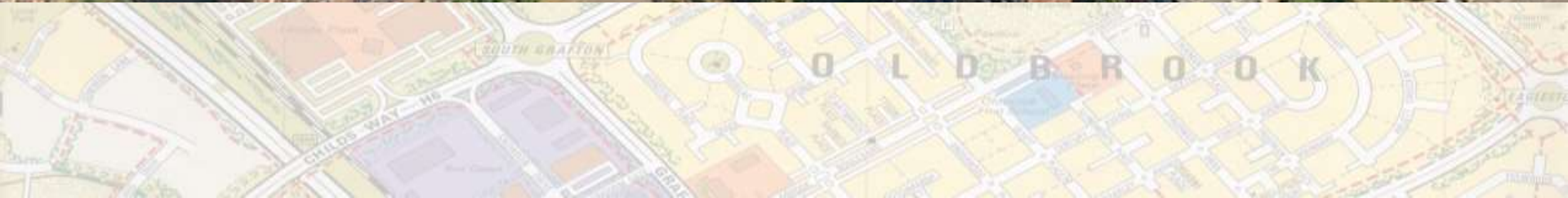




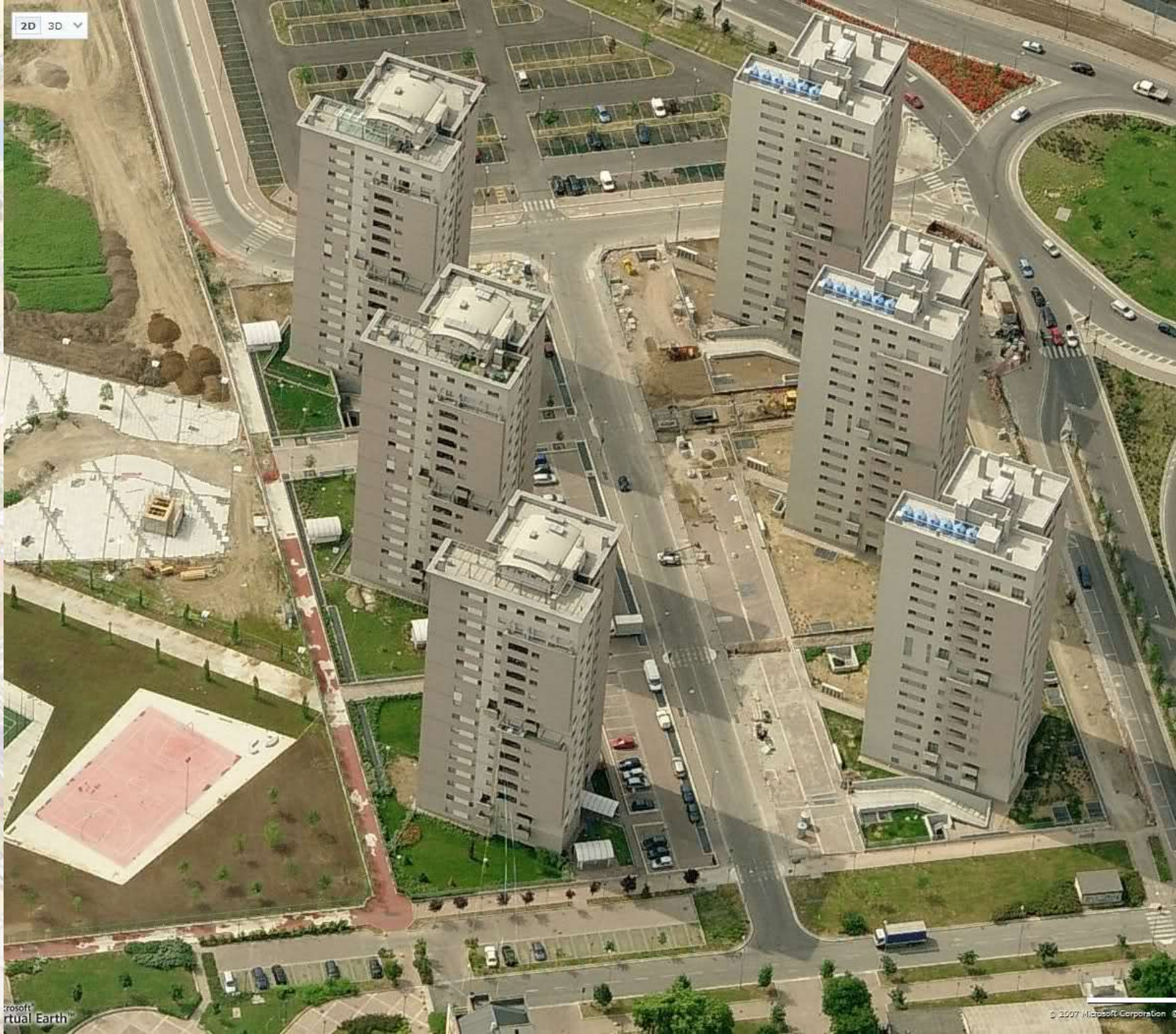




















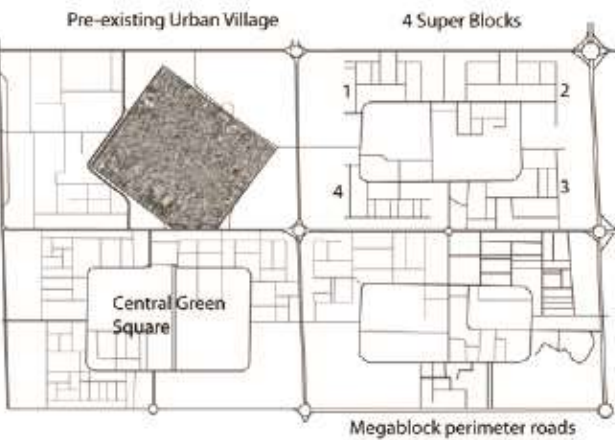




# CHANDIGARH

1951

Sector plan made of 4 megablocks  
16 superblocks



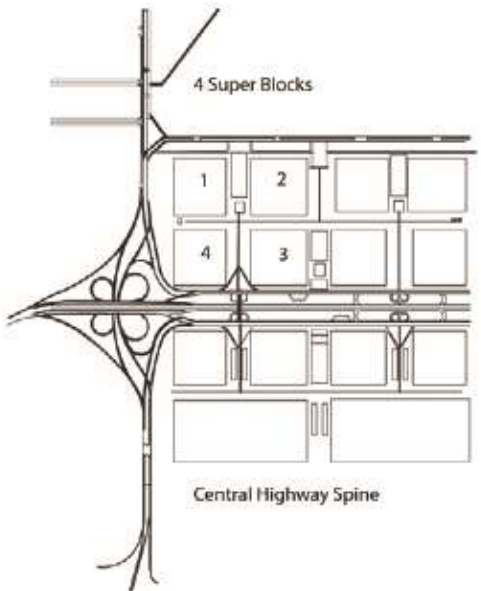
Sector 1.5x 1miles, 2.4x1.6km.



# BRASILIA

1956

Sector plan made of 4 megablocks  
16 superblocks



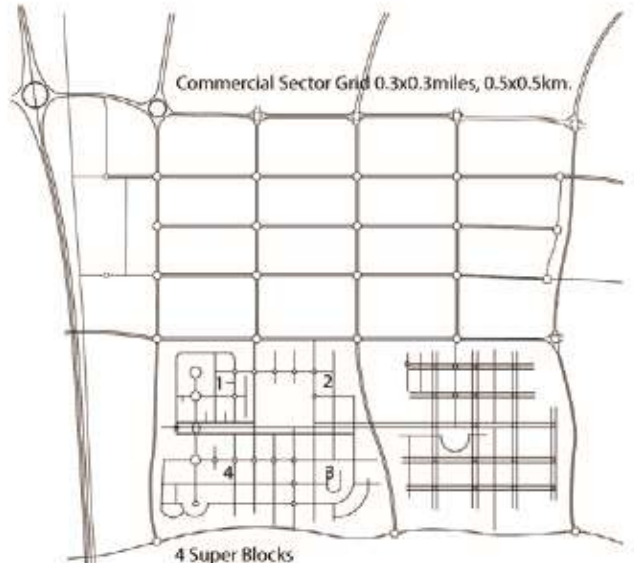
Sector 0.6x0.6miles, 1.0x1.0km.



# MILTON KEYNES

1968

Sector plan made of 4 megablocks  
16 superblocks

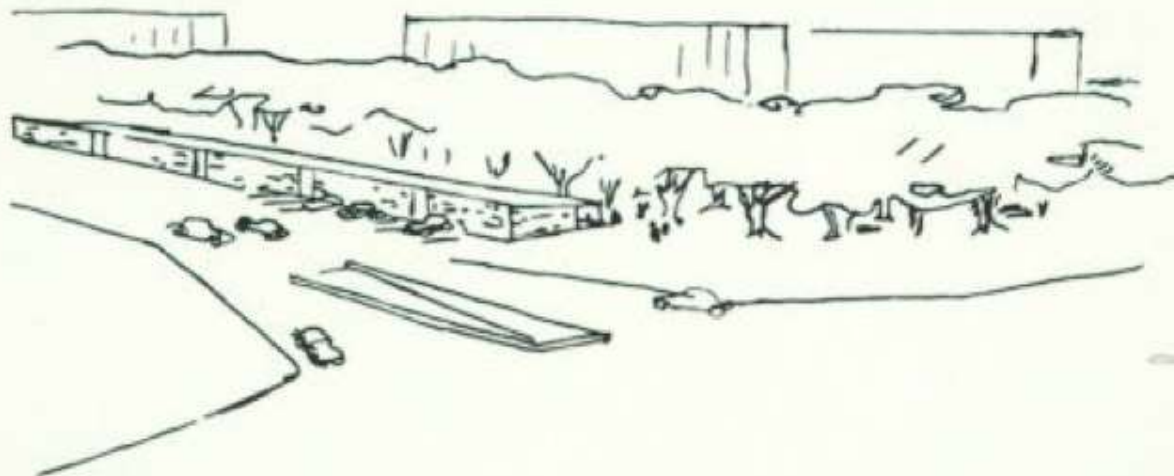
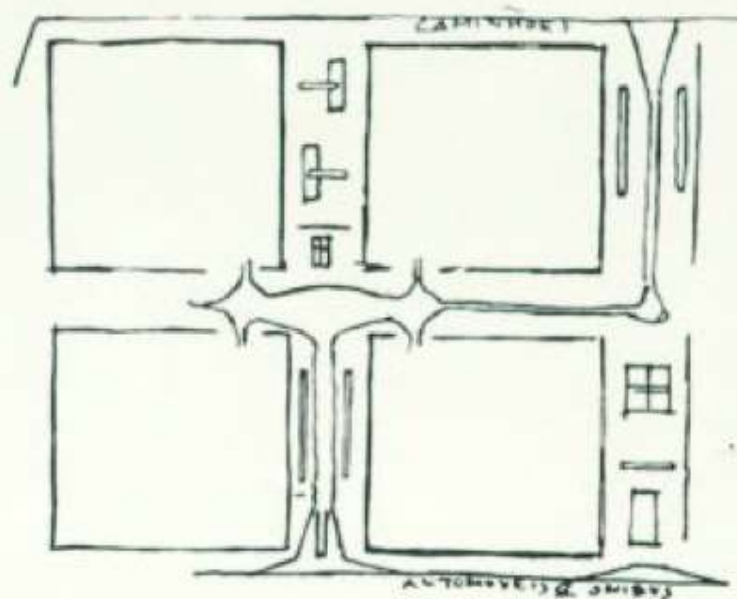
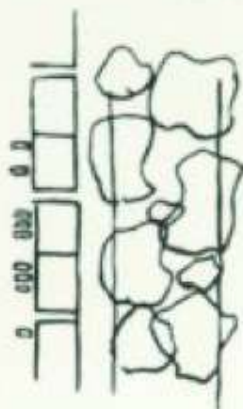


Sector 0.6x0.6miles, 1.0x1.0km.



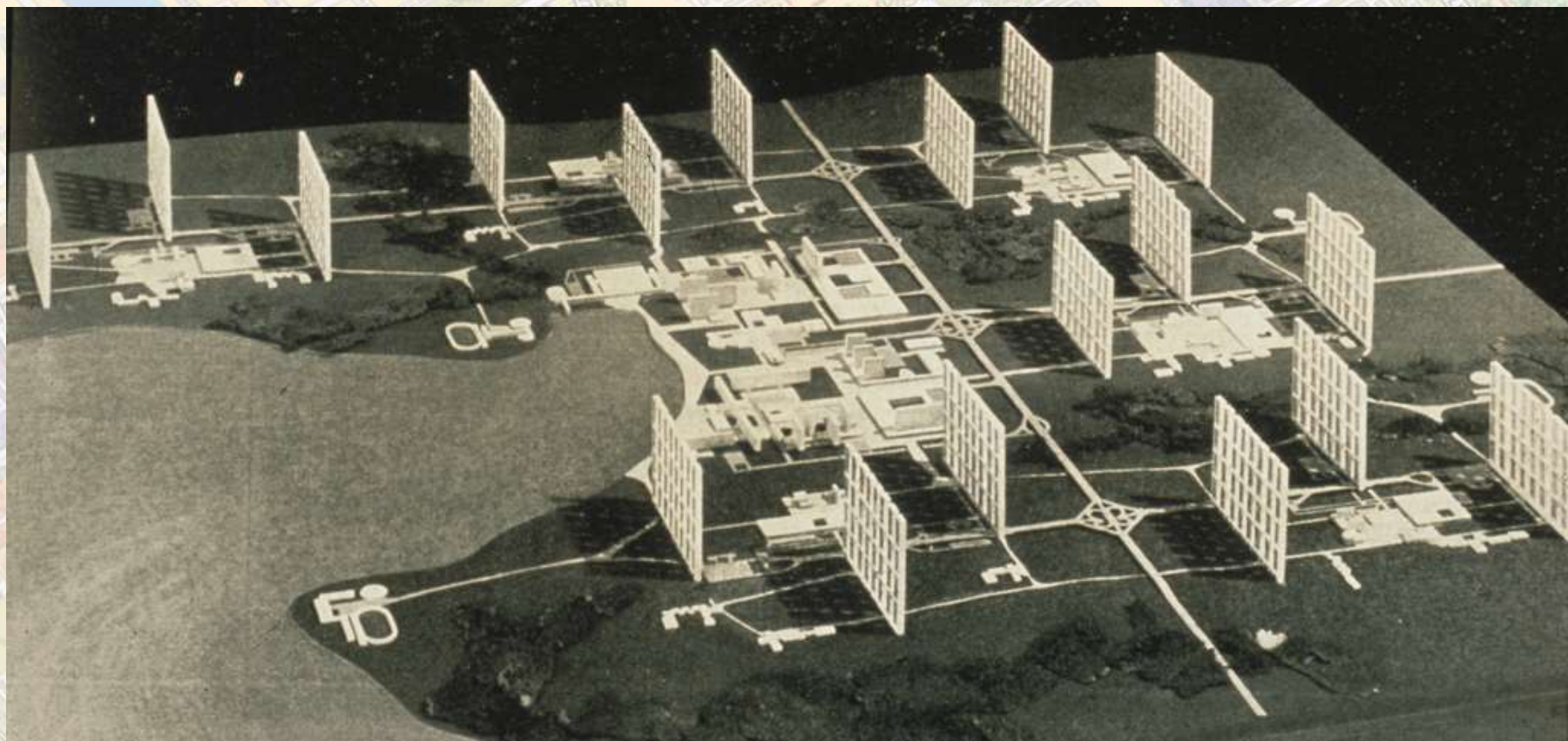


Superquadras con enquadramento arborizado,  
 visando - além da intimidade -  
 exclusão e escala "identificável"  
 e escala monumental.



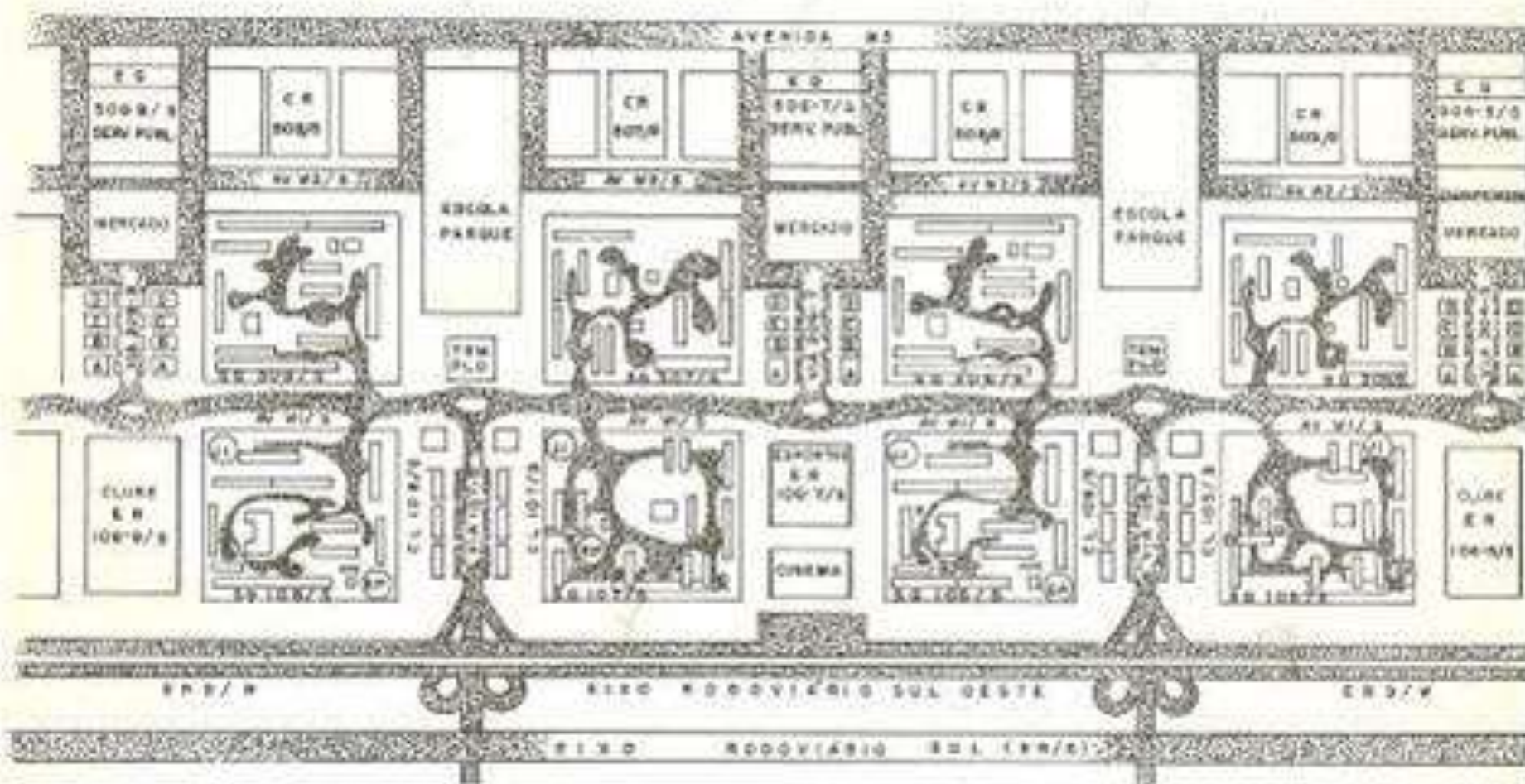
André G. G.







# ESQUEMA DA ÁREA OU UNIDADE DE VIZINHANÇA



21

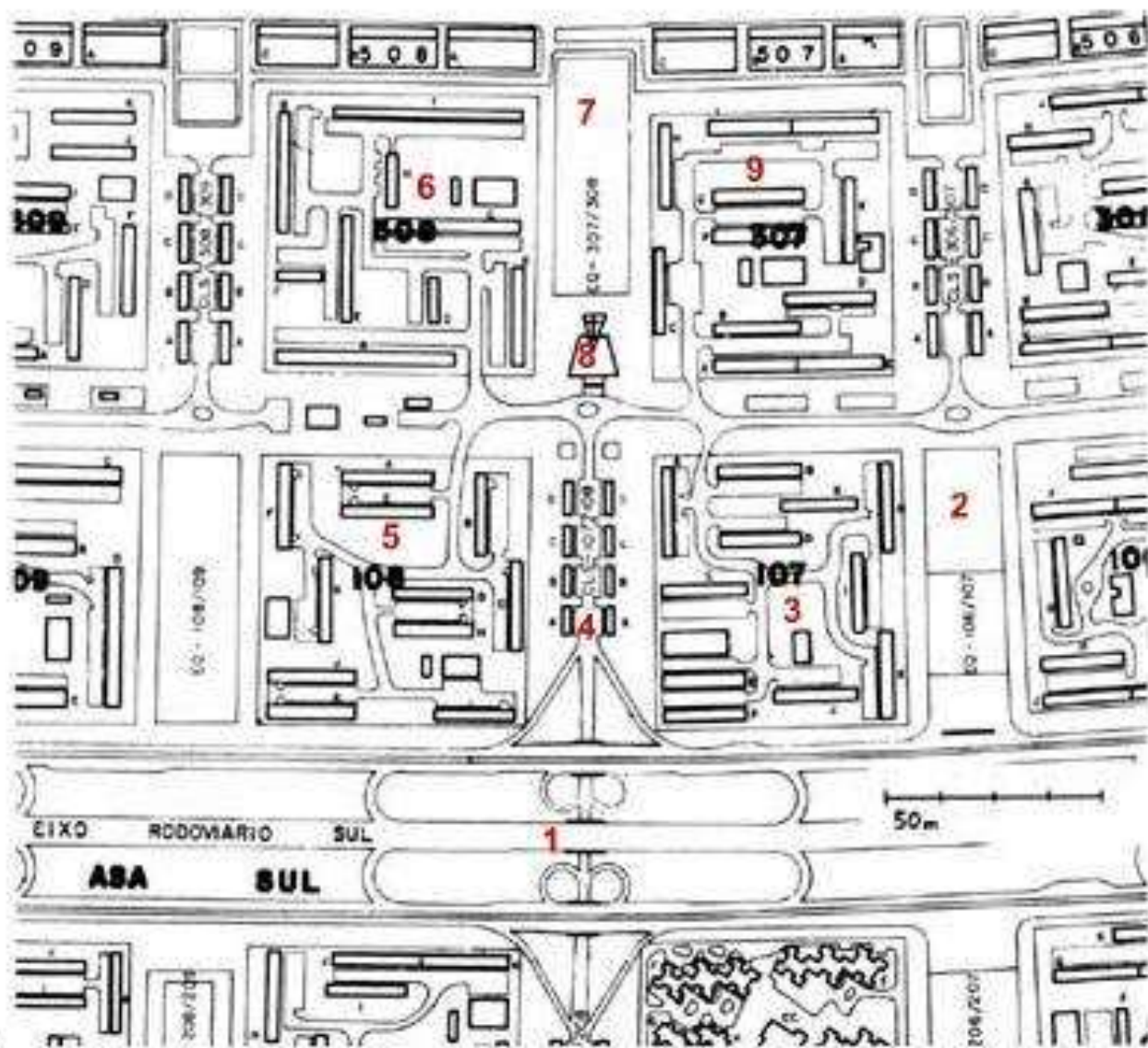
CR - COMÉRCIO REGIONAL  
CL - COMÉRCIO LOCAL  
SOD - SUPER QUADRA

EL - COMÉRCIO LOCAL  
EP - ESCOLA PRIMÁRIA

A,B,C,D,E - SETORES DE COMÉRCIO LOCAL  
S-A - BLOCOS DE APARTAMENTOS







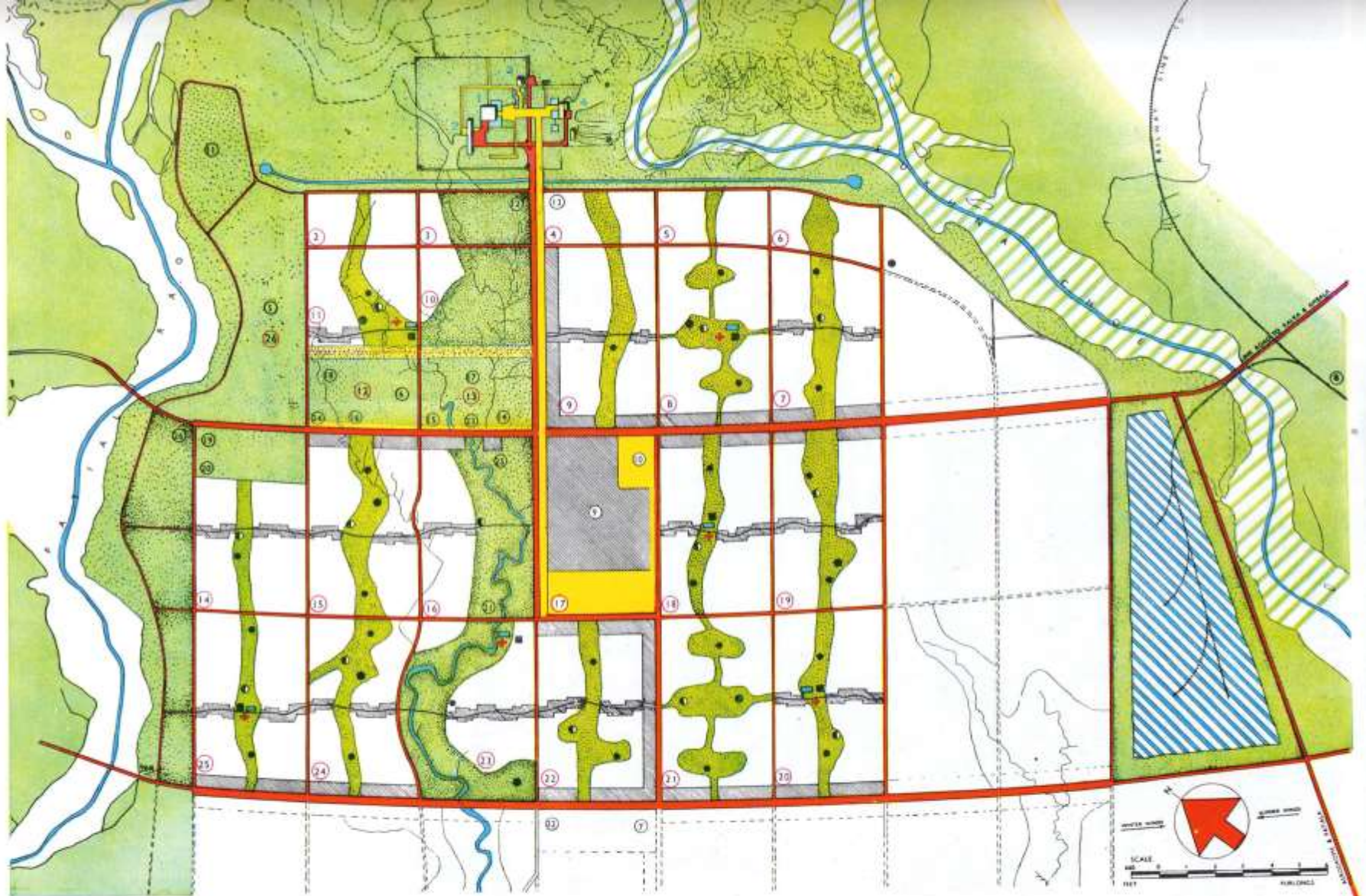
# **Implantação**

1. Eixo rodoviário norte-sul
2. Entrequadra Sul 106/107
3. Superquadra Sul 107 / 4. Comércio Local Sul 107/108 / 5. Superquadra Sul 108
6. Superquadra Sul 308 / 7. Entrequadra Sul 307/308 / 8. Igreja / 9. Superquadra Sul 307









Chandigarh, maggio 1952.  
Piano urbanistico definitivo  
della prima fase di  
realizzazione che comprende  
abitazioni e servizi per 150 000  
abitanti e il Campidoglio

1 Parlamento  
2 Segretariato

3 Campidoglio  
4 Corte di giustizia  
5 Università  
6 Stadio  
7 Mercati generali  
8 Stazione ferroviaria  
9 Centro commerciale  
10 Municipio  
11 Istituto di ingegneria

12 Residenza del Primo  
Ministro  
13 Residenza del Capo della  
Magistratura  
14 Biblioteca  
15 Museo  
16 Scuola di arti applicate  
17 College statale maschile  
18 College statale femminile

19 Istituto superiore e ospedale  
odontoiatrico  
20 Ospedale  
21 Maternità  
22 Sarai  
23 Teatro  
24 Istituto Politecnico  
25 Croce Rossa  
26 Boys Scouts

Vie principali (V2)  
Vie secondarie (V3)  
Strade locali (V5+V6)  
Spazi aperti e parchi  
Affari e commercio  
Zona industriale  
Aree pedonali

• Scuole elementari  
• Scuole medie  
• Scuole superiori  
+ Centri sanitari  
■ Centri comunitari  
○ Piscine  
○ Numeri dei settori  
■ Spazi aperti interni





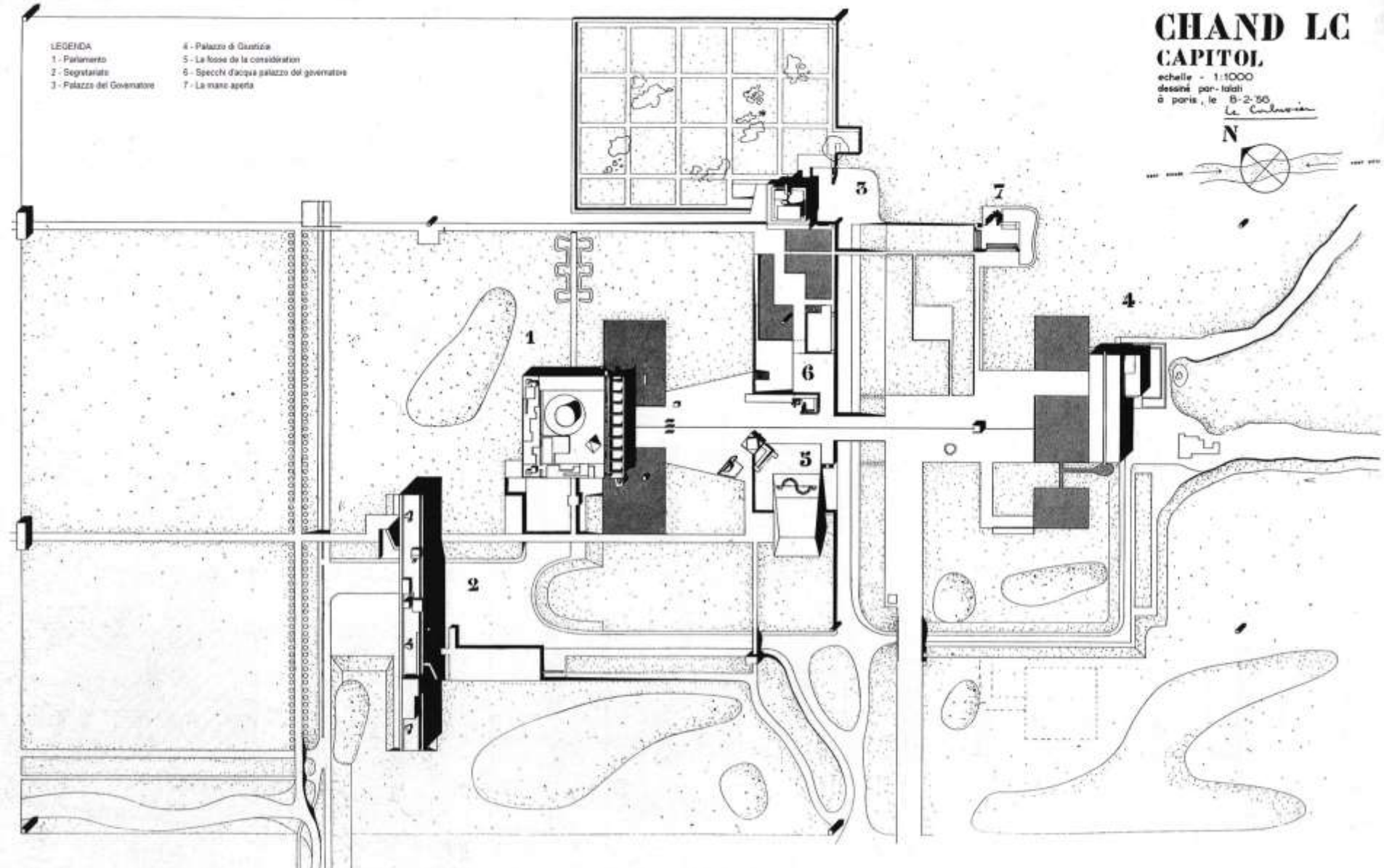
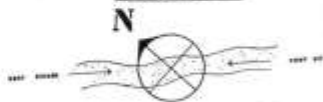


# LEGENDA

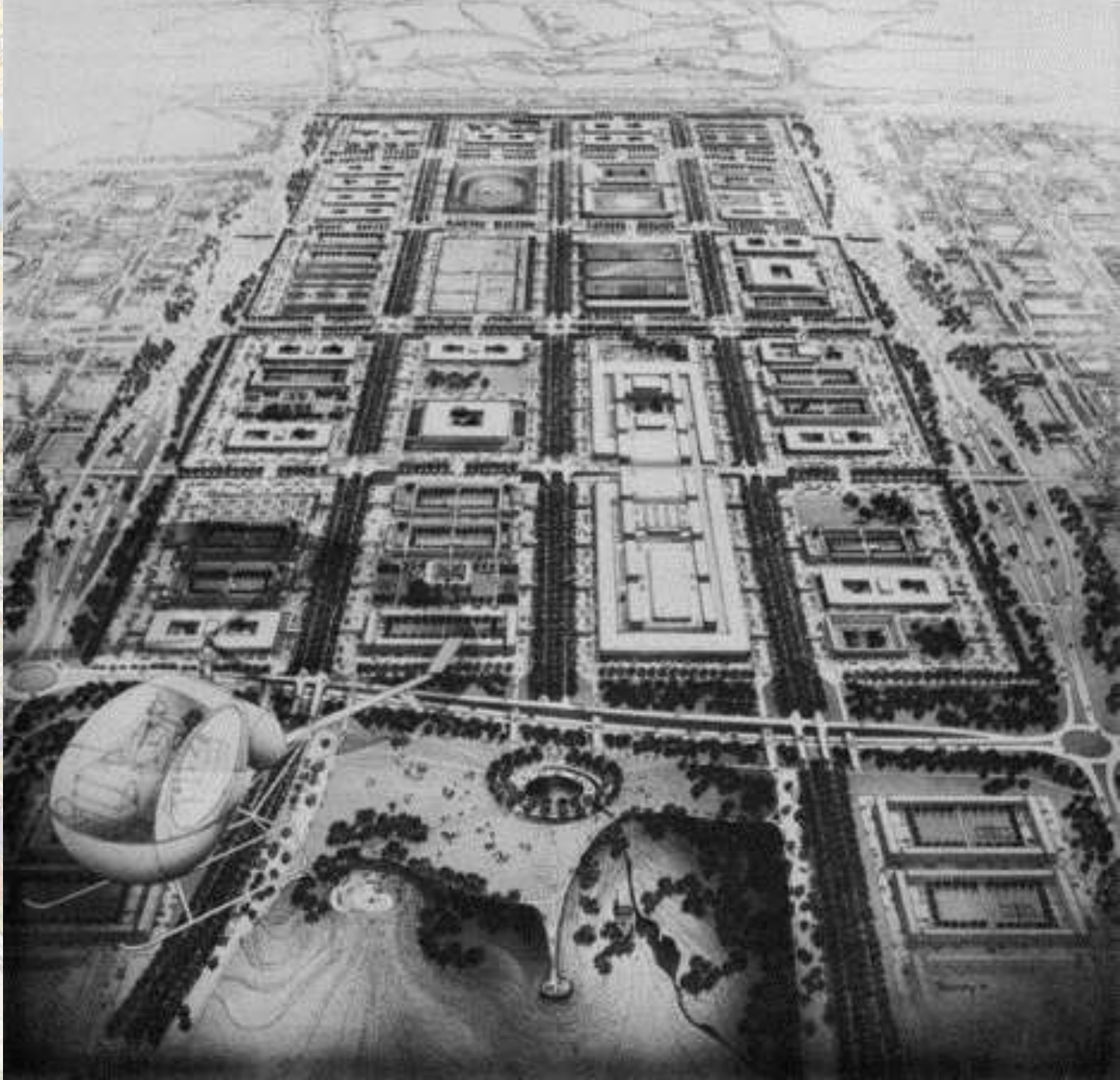
- |                             |   |
|-----------------------------|---|
| 1 - Parlamento              | 4 - Palazzo di Giustizia                    |
| 2 - Segretariato            | 5 - La fossa de la consideration            |
| 3 - Palazzo del Governatore | 6 - Specchi d'acqua palazzo del governatore |
|                             | 7 - La mane aperta                          |

## CHAND LC CAPITOL

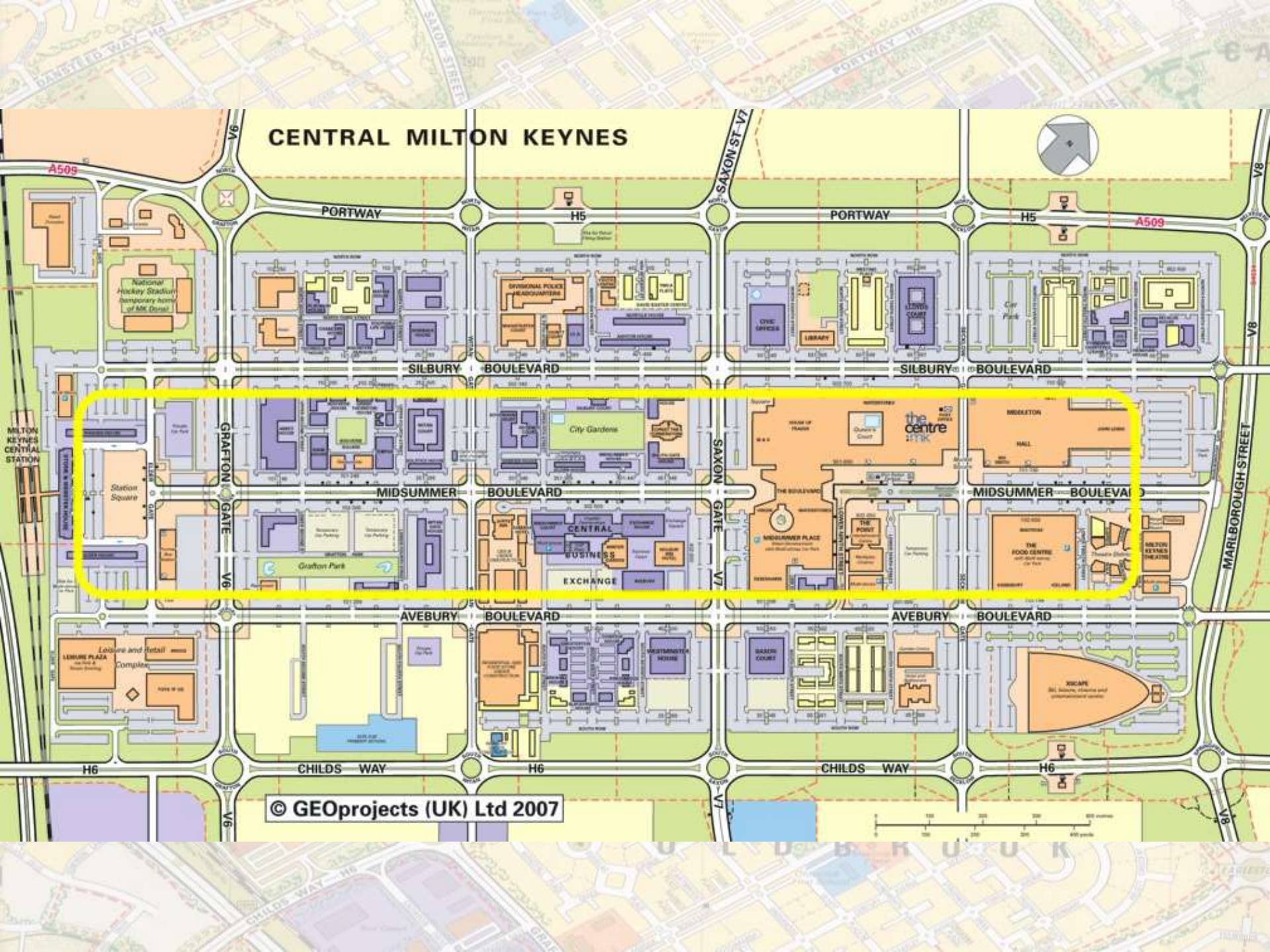
echelle - 1:1000  
dessiné par - Itali  
à paris, le 6-2-50  
*Le Colosseum*







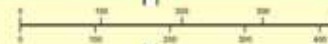




# CENTRAL MILTON KEYNES



© GEOprojects (UK) Ltd 2007



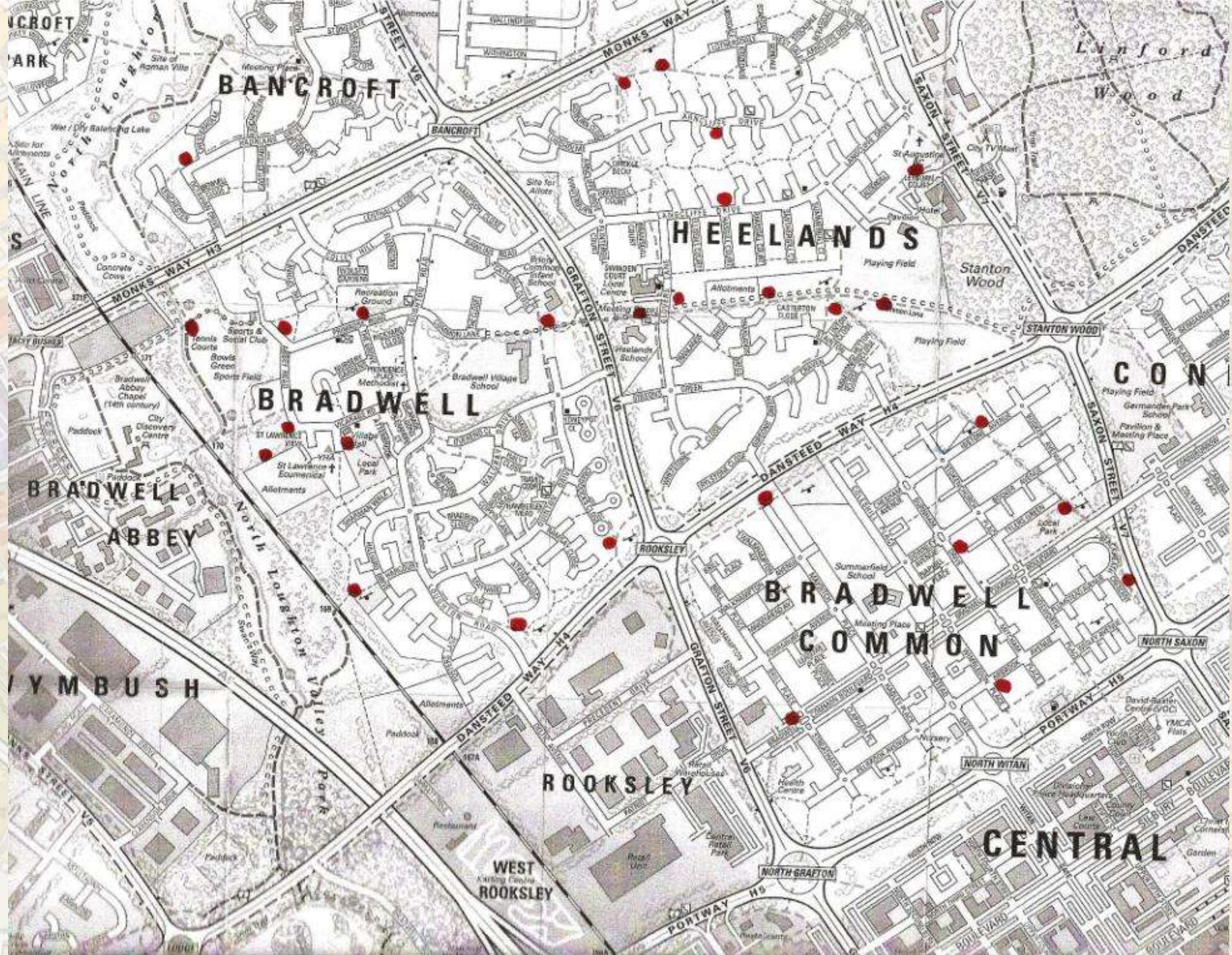




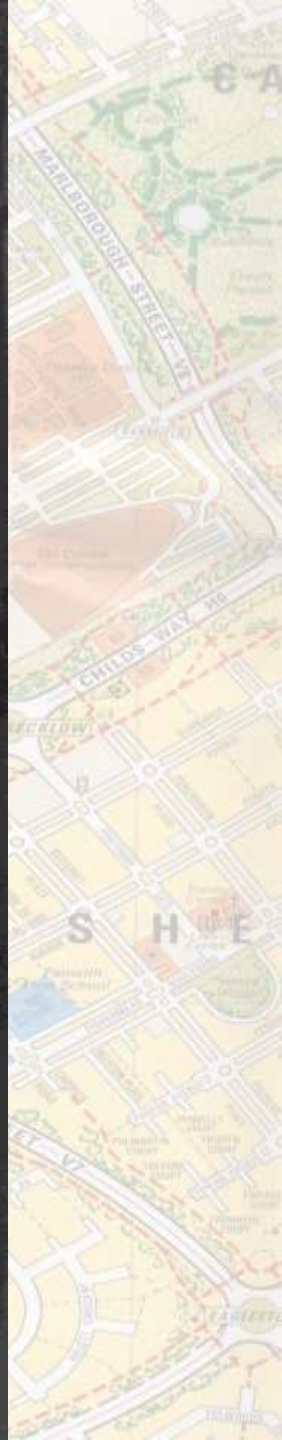












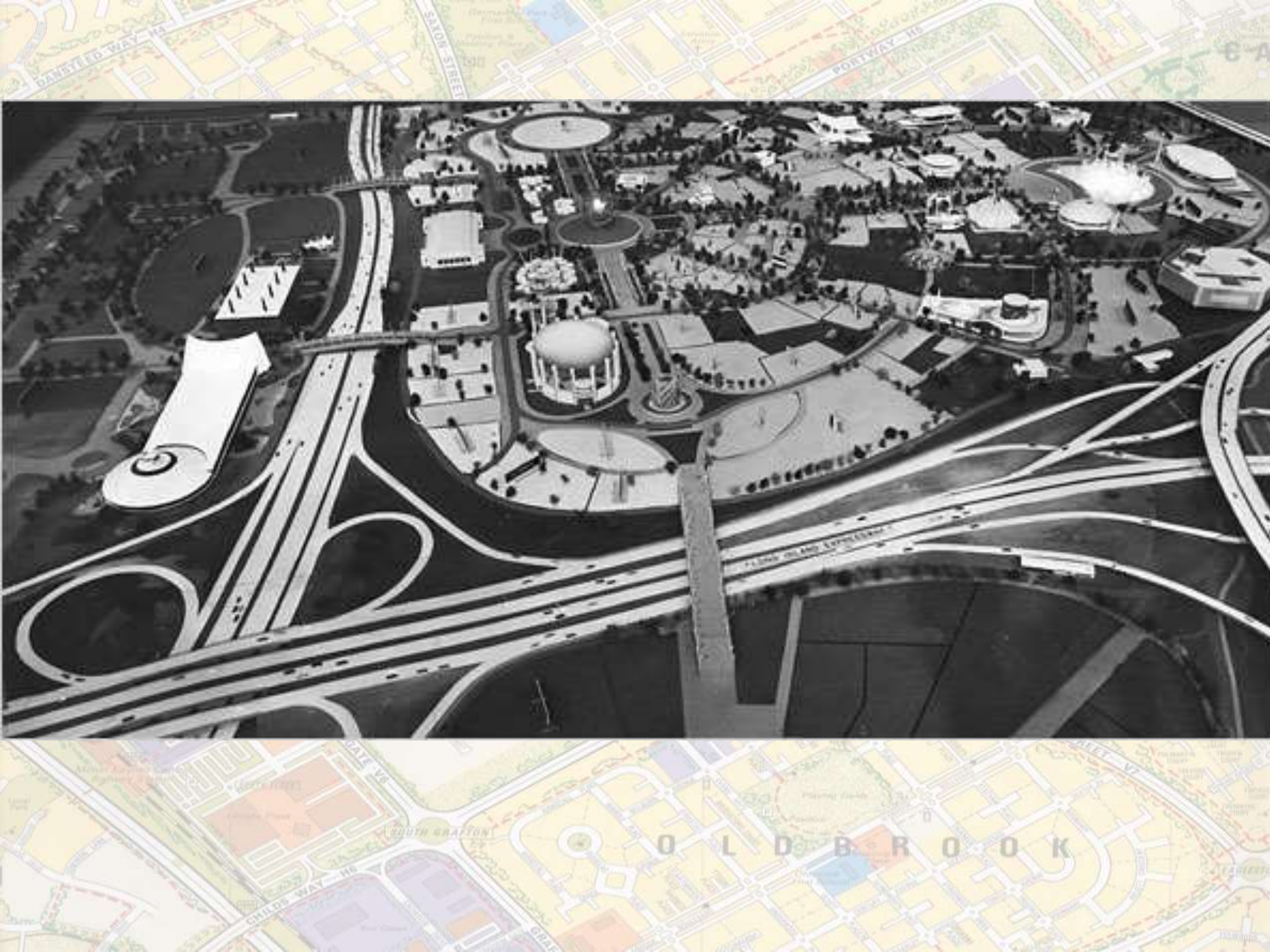








































**THE CITY PLANNERS ARE RAVAGING OUR CITIES!**

✚ They've put up gleaming stone and glass file cabinet housing which breeds delinquency and crime.

✚ They've built spacious green park areas that are avoided by everyone but bums and hoodlums.

✚ They've condemned and destroyed entire city blocks that are not slums, but attractive places to live.

✚ They've zoned our cities into intolerable patterns of dullness.

Jane Jacobs says this and much more in her explosive new book, *THE DEATH AND LIFE OF GREAT AMERICAN CITIES*. Mrs. Jacobs shows that the city

planners have failed because they have overlooked the realities of urban life, and stripped our cities of the vitality and diversity which make them exciting places to live. She offers concrete, practical alternatives that can save our cities from the blunders of orthodox planners.

Harrison Salisbury of the *New York Times* hails this book as "the most refreshing, stimulating and exciting study of this greatest of our problems of living which I've seen. It fairly crackles with bright honesty and good sense."

William H. Whyte, author of *The Organization Man*, calls it "magnificent. One of the most remarkable books ever written about the city."

# The Death and Life of Great American Cities

**By JANE JACOBS**

\$5.95, now at your bookstore

**RANDOM HOUSE**







30" They've got up glooming stone and glass  
the cabinet housing which breeds delinquency  
and crime.

30" They've built spurious green park areas  
that are avoided by everyone but buses and  
beggars.

30" They've condemned and destroyed entire  
city blocks that are not slums, but still  
live.

30" They've made our cities intolerable  
to

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William H. Whyte, author of The Organization

**The Death and  
Life of Great  
American Cities**  
By JANE JACOBS

## CENTER FOR THE LIVING CITY









## THE HUMANIST STANCE

**B** It is a collection of intentions, techniques, and design ideas offered by a  
**C** diverse group of proponents

It emerged in the 1950s and 1960s not as a new theory but as a reaction to the unsatisfactory results of functionalist thinking and design

Among those representing humanist attitudes were the British townscape school, disaffected CIAM members who took the name TEAM 10 and certain Dutch Architects

The good city is a collection of enclaves, shaped by and reflect the individuals and groups who inhabit the city

City should not be a fait accompli but that people should specify and help to create what they want



# THE HUMANIST STANCE

Decisions are based on users' needs and circumstances rather than on concepts

Decision making tends to be INCREMENTAL rather than set by a master plan. Its goal is to CATALYZE and NOURISH rather than to direct

The humanist urban designer pays attention to small – scale elements and informal ordering systems, avoiding large – scale, superimposed geometries

Things are made by and for people

Humanist designers advocate a mixed use of the urban environment. Functional zoning and functional distinctions are not the norm.

Activities and elements overlap and are strictly interwoven

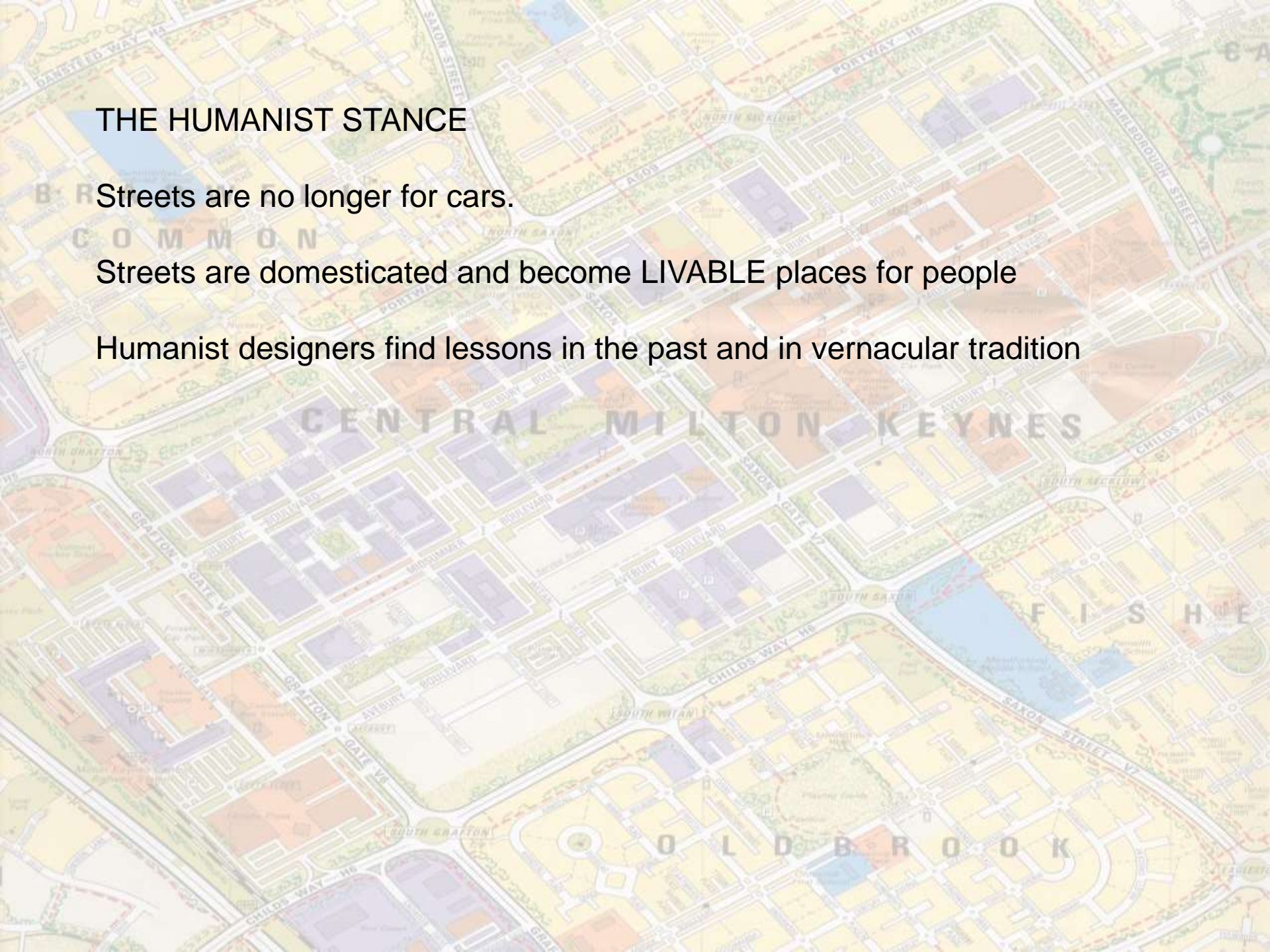


## THE HUMANIST STANCE

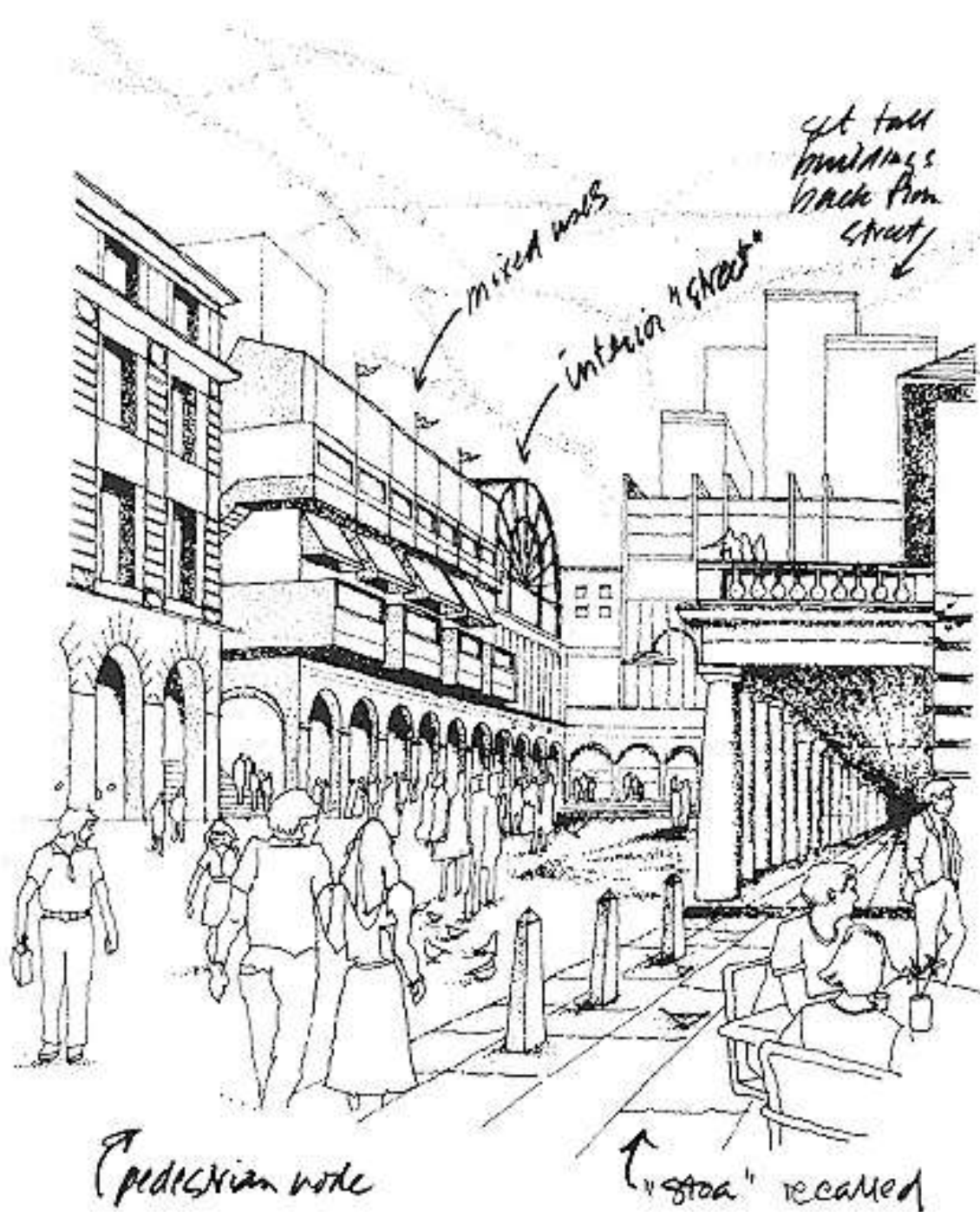
Streets are no longer for cars.

Streets are domesticated and become LIVABLE places for people

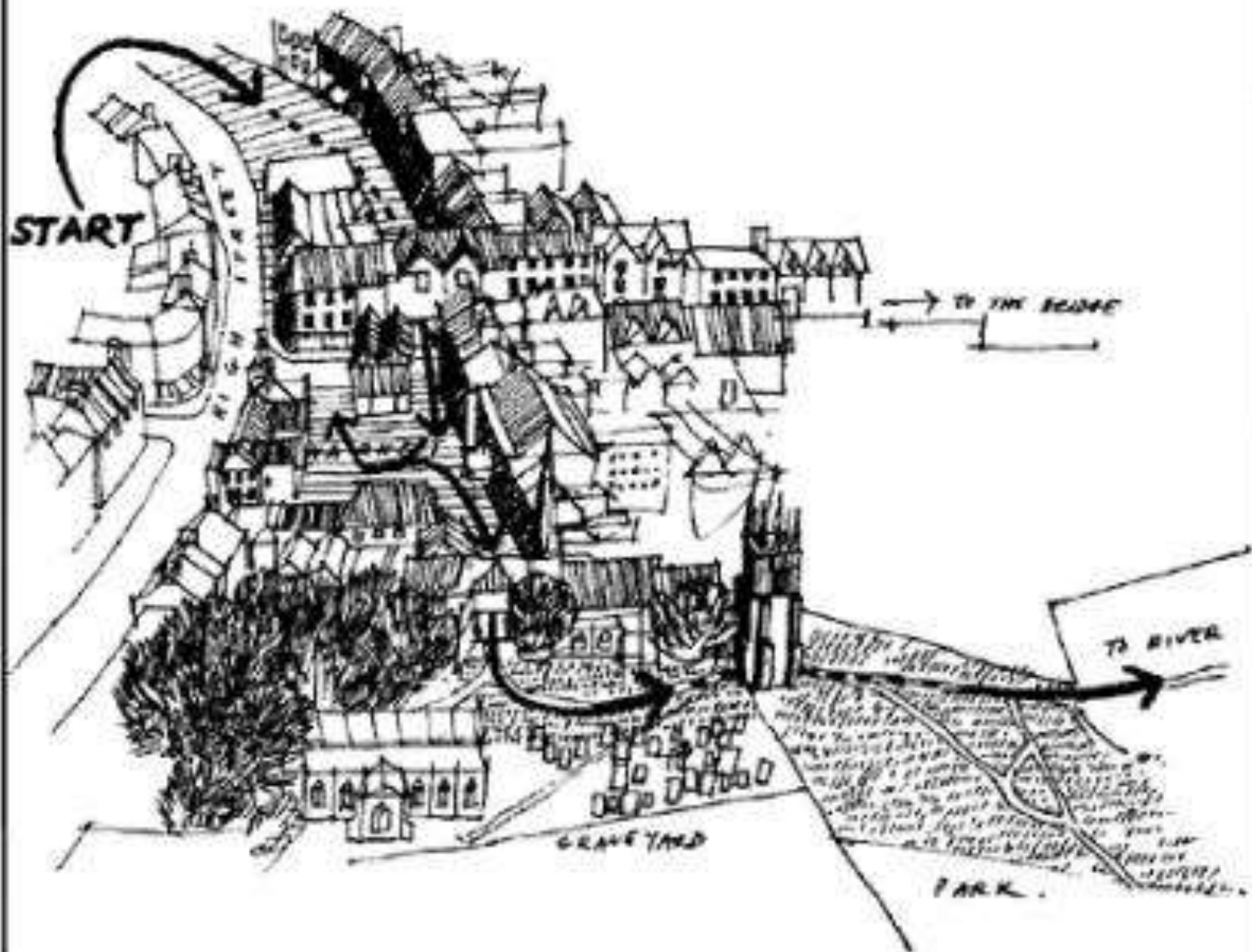
Humanist designers find lessons in the past and in vernacular tradition













### ZONE 6:

- Largely contemporary building fabric of low quality
- Extremely fragmented and ill-defined urban spaces
- Eyesore shopfronts, buildings and local streets
- Vehicle dominated zone with directional quality and gateway function
- Parking facilities
- Some retail, some wholesale; apparently depressed

### ZONE 4:

- Historic 16c building fabric with mixed Georgian, Victorian and 20c infill
- Squares and pedestrian spaces flanked by strong but varied built form
- "Chic" spaces
- Vibrant retail activity
- Pedestrian domination

### ZONE 3:

- Historic Georgian building fabric with Victorian infill
- Terraced houses built for working classes 18th 19th and 20th century
- Transitional urban space setting as threshold to zone 4
- Largely residential commercial activity
- Viable local street scenes and high street scene viable

### ZONE 5:

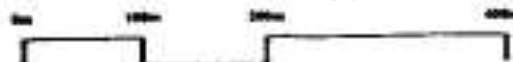
- Early 20c and contemporary building fabric and weak design
- Strong building line on west side; gap site and back of buildings on east affording eyesore views
- Gentle slope to a wide, linear right of way
- Mixed retail and service activity
- Transitional zone from pedestrian to vehicular modes (bus stands, taxis, parking areas, cycle stands)
- Threshold zone leading to historic core
- Poor shop signs, poor street furniture

### ZONE 2:

- Historic 16c building fabric with Georgian infill; good roofline
- Strong curvilinear, sinuous built form on a steep incline
- Retail frontages, gastronomy, visitor attractions
- Transitional, trafficked road - difficult to cross

### ZONE 1:

- Historic Georgian building fabric
- Strong built form and urban space - the
- Symbolic and operational gateway zone
- Apparently depressed retail activity
- Some very poor shop signage
- Some buildings in poor repair
- Relatively high traffic distribution zone



































## THE SYSTEMIC STANCE

The systemic approach emphasizes large-scale elements of urban design and planning and seek and overall order for the urban environment.

Systemic theories accept urbanization and increasing complexity as inevitable

The key is the organization of the system, not of single elements

Diagrammatic clarity in transportation systems

Physical armature ('support') to which detachable units are added

The city is an interlocked system of movement corridors and structural armatures supporting housing and other uses

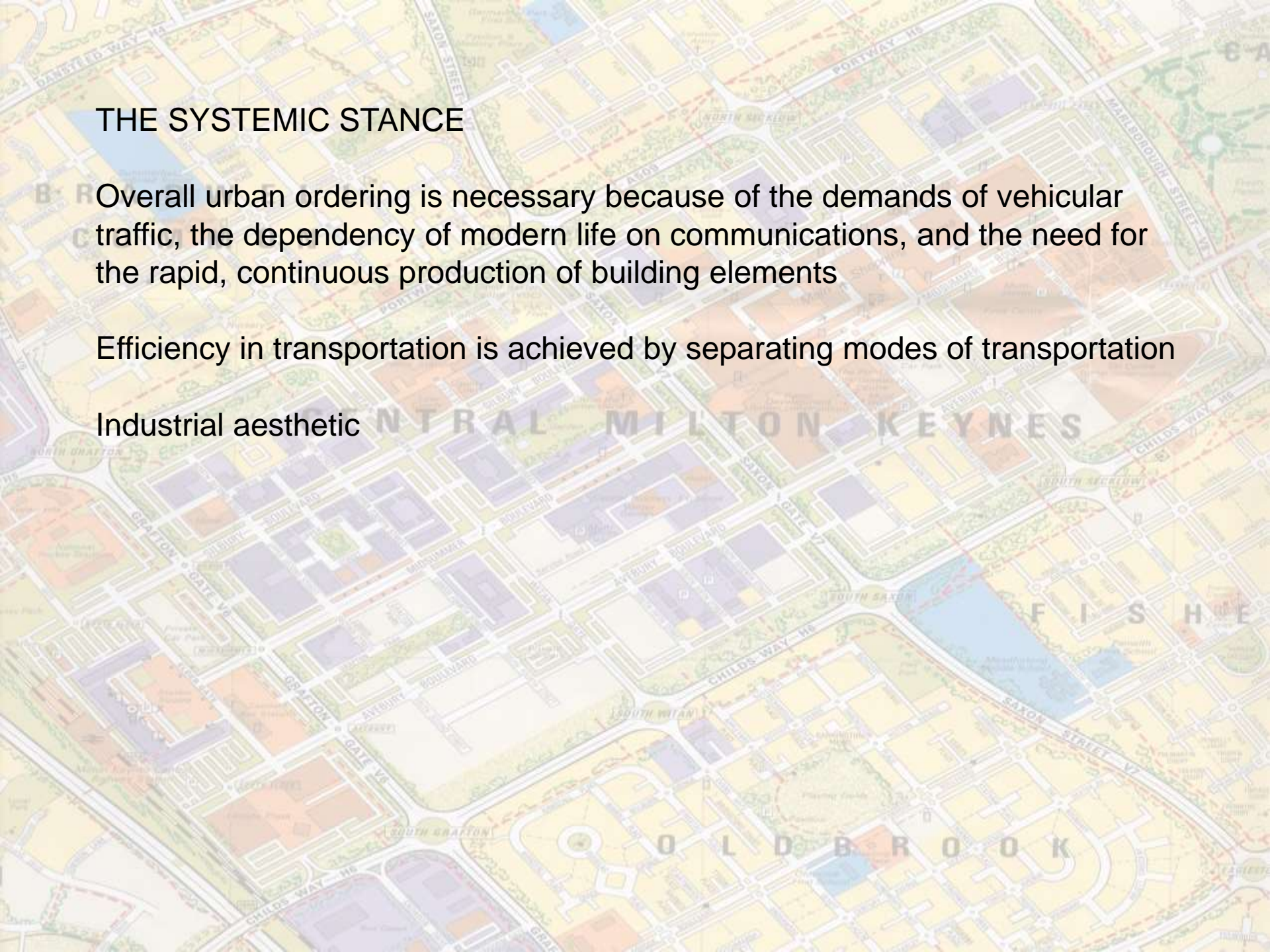


## THE SYSTEMIC STANCE

Overall urban ordering is necessary because of the demands of vehicular traffic, the dependency of modern life on communications, and the need for the rapid, continuous production of building elements

Efficiency in transportation is achieved by separating modes of transportation

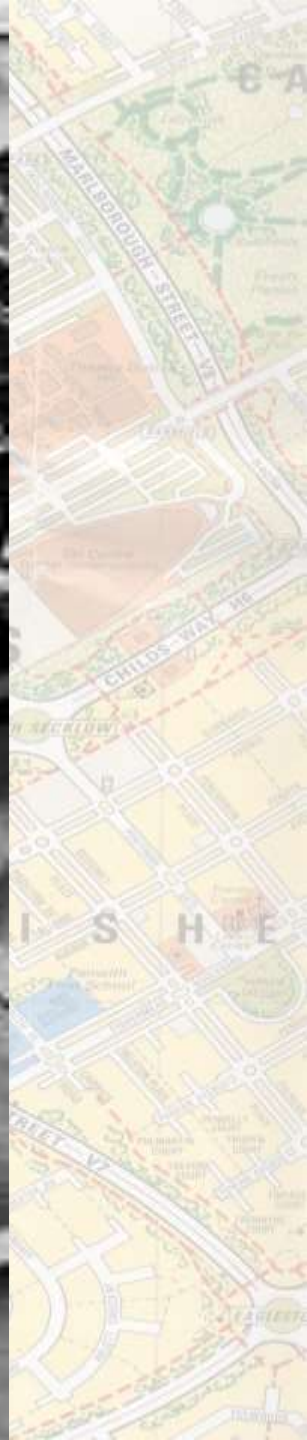
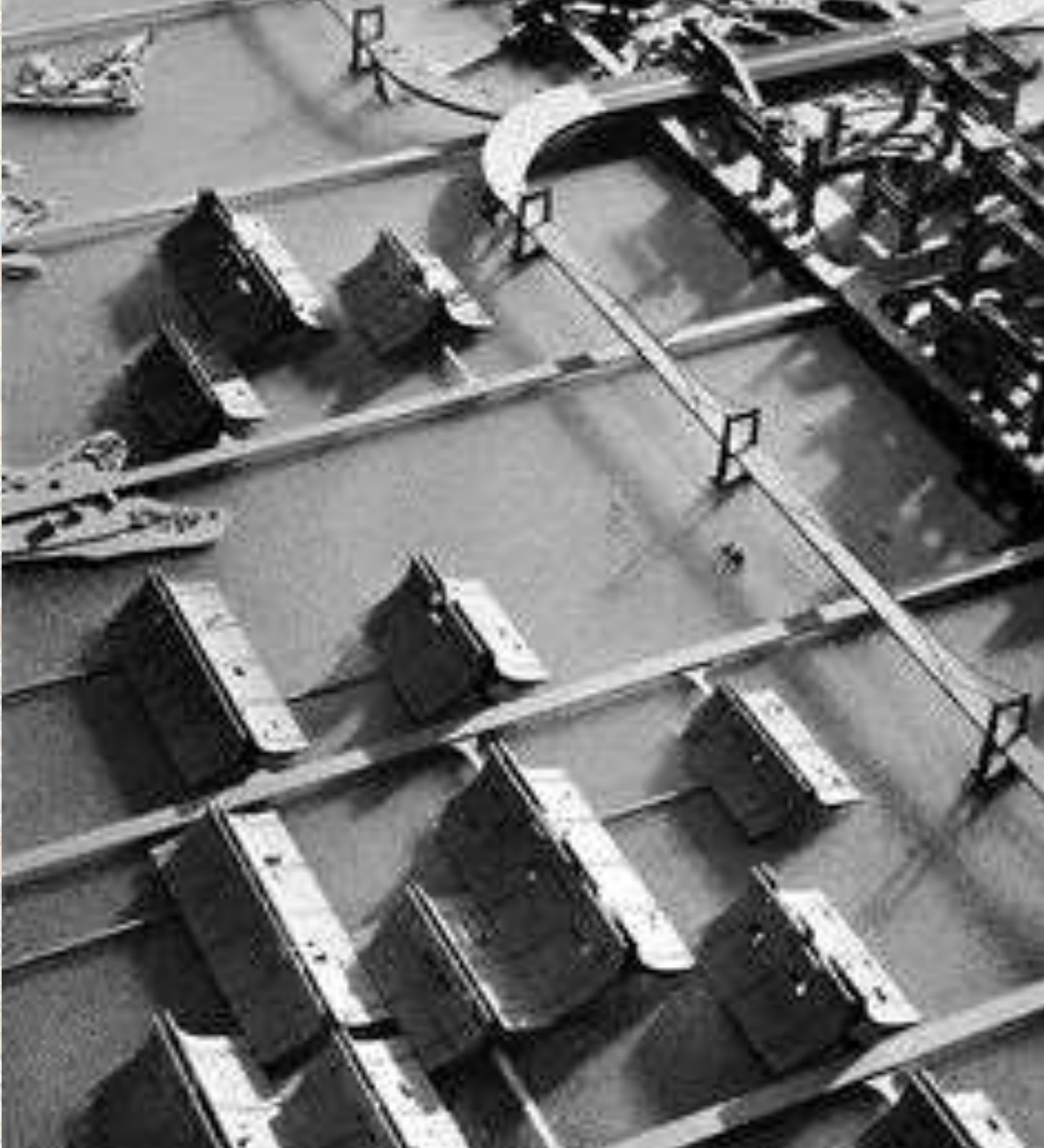
Industrial aesthetic



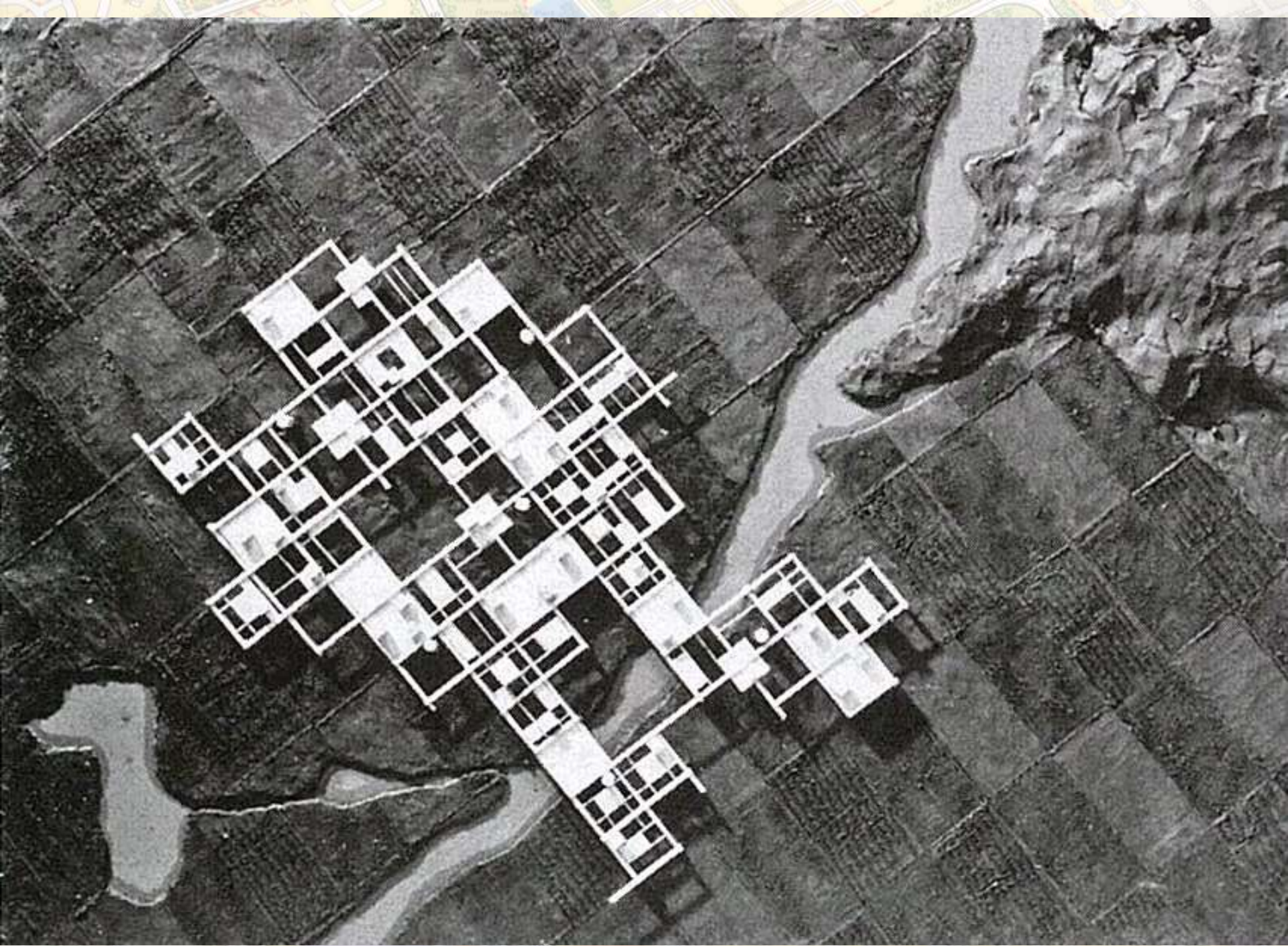




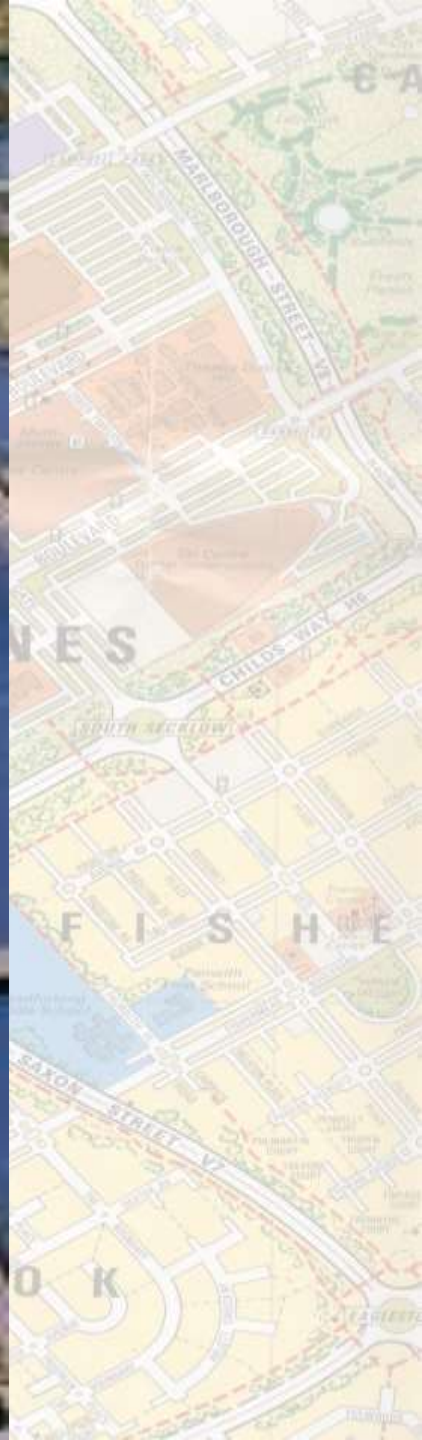








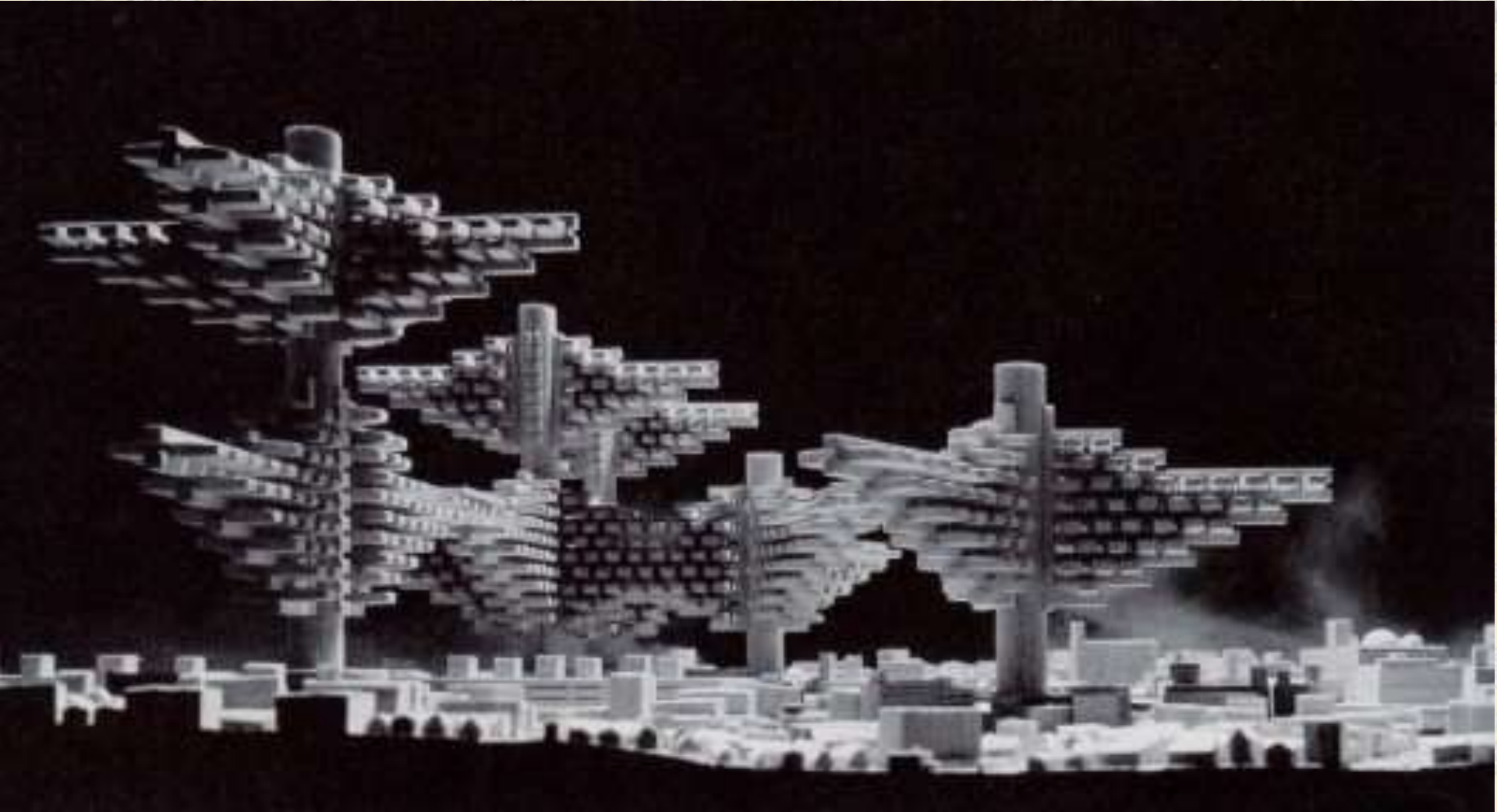






















# THE SYSTEMIC STANCE

Overall urban  
COMMON

CENTRAL MILTON KEYNES

FISH H E

OLD BROOK