

**2<sup>nd</sup> International Conference on Future Challenges in Sustainable Urban Planning & Territorial Management**  
**SUPTM 2024**  
**January 29-31, 2024**





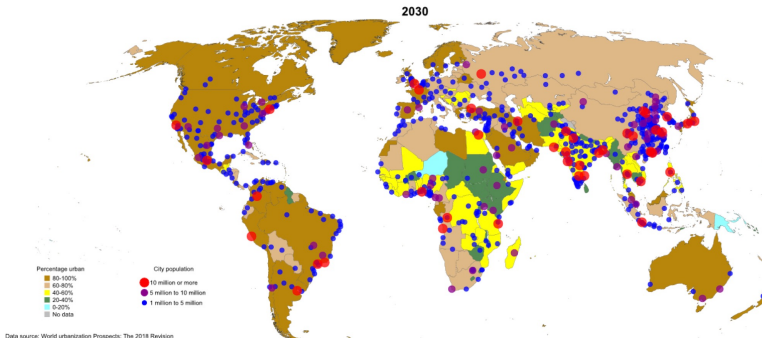


**Urbanity in Transition**  
*Chiaroscuros in the Project of the Contemporary City*

Juan Luis de las Rivas Sanz  
 Full professor of City Planning and Urban Design  
 School of Architecture, University of Valladolid (Spain)

1

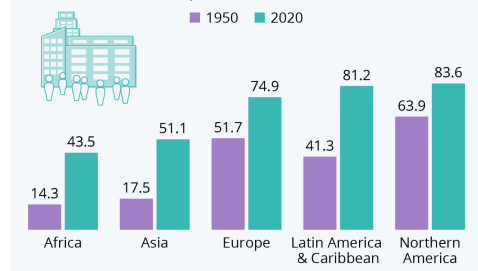
1970   1990   2018   2030



Data source: World Urbanization Prospects: The 2018 Revision

**Then & Now Urban Population Worldwide**

Share of the urban population by continent in 1950 and 2020 (in percent)



Source: U.N. Population Division

a. **The context**, an urbanized world, with the triumph of large cities, the decline of medium and small towns, the disappearance of the traditional rural universe...

2

Figure 1. The Singapore Liveability Framework

Centre for Liveable Cities (CLC), 2014  
A global knowledge centre for liveable and sustainable cities

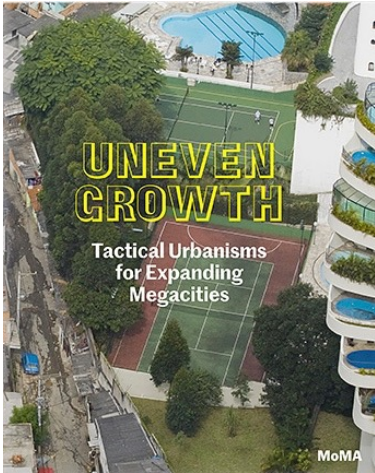
b. A common urban agenda?  
Form sustainability to **liveability**... **Resilience** of the built environment and quality of life in cities

3

c. A shared urban model?  
From agropolis to ecopolis, via petropolis...  
A round trip?

Herbert Girardet (Germany, 1943...), World Future Council,  
A pioneer of urban sustainability with "The Gaia Atlas of Cities: New Directions for Sustainable Urban Living" (1992)...  
Conference in Bodo, Norway, 2018 (54th Isocarp Congress)

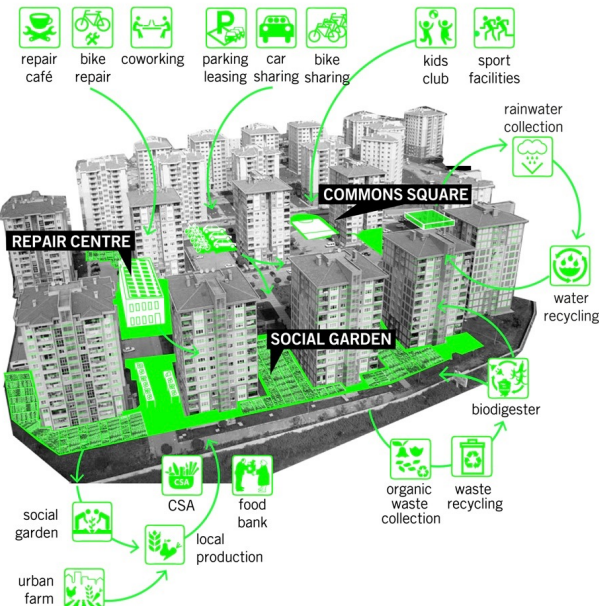
4



**1** Spatial Planning for an uneven world...

- What do we know how to do?
- What we don't know how to do?
- What we would like to avoid?

“Uneven Growth: Tactical Urbanisms for Expanding Megacities”  
MoMA (Nov 22, 2014–May 25, 2015)

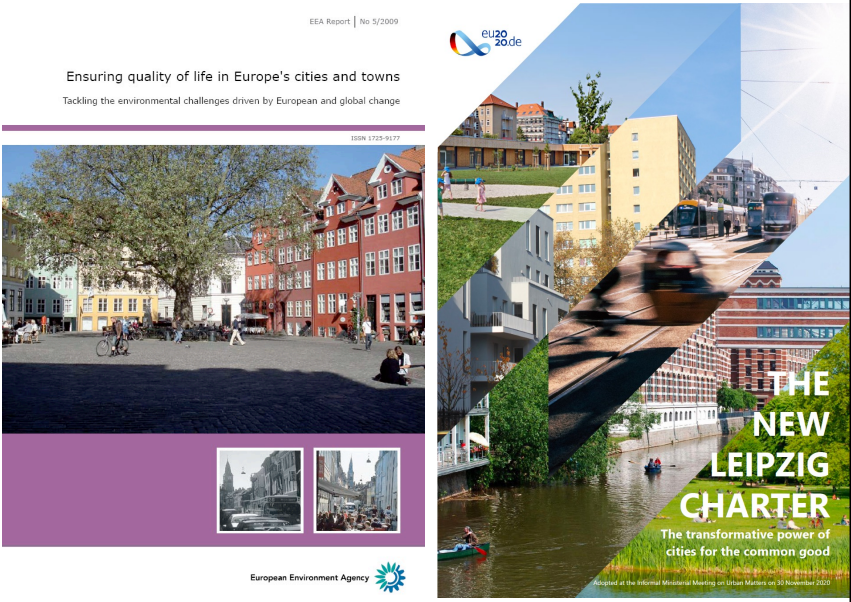


*R's... Regenerar, reutilizar, reciclar, rehabilitar, ser resiliente, etc.*  
*C's... Colaborar, compartir, cooperar, co-trabajar, co-habitar, etc.*

5

Regions are deeply related with cities... The specific ends of EU forced to work in terms of regions and sustainability, mixing responsibilities about environment policies and regional policies... but cities (urbanism) are so relevant that, beyond official competences... **a new policy for cities emerges.**

*Ensuring quality of life in Europe's cities and towns* (European Environment Agency, 2008) and *Leipzig Charter on Sustainable European Cities* (2007)... reviewed in 2020



EEA Report | No 5/2009

Ensuring quality of life in Europe's cities and towns  
Tackling the environmental challenges driven by European and global change

ISSN 1725-9177

European Environment Agency

**THE NEW LEIPZIG CHARTER**  
The transformative power of cities for the common good

Adopted at the Informal Ministerial Meeting on Urban Matters on 30 November 2009

6



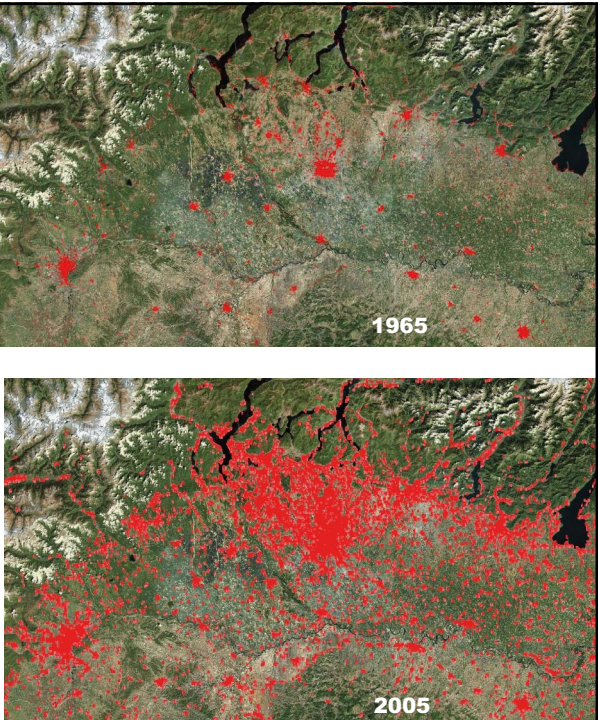
Pervasive territorial dimension of the urban realm

Milan urban region

Francesco Indovina, "The metropolization of territory":

*"Può valere la pena di interrogarsi se questa tendenza alla metropolizzazione del territorio non possa costituire una risposta ad alcune sfide che la situazione attuale pone. In particolare quella derivante dalla globalizzazione e dalla nuova divisione internazionale del lavoro e quella qui discende dalla necessità di attivare forme di sviluppo sostenibile. In sostanza il nuovo mosaico metropolitano costituisce, non importa se consapevolmente o meno, un contributo per dare risposte positive a questi problemi?"*


See "La explosión de la ciudad", Antonio Font, Francesco Indovina y Nuno Portas, Forum de las Culturas, Barcelona 2004.



City region  
(G. De Carlo, 1992; J.L. De las Rivas, 1996)

City-territory  
(N. Portas, 1998)

7



**THE LINE REDEFINED LIVING**

THE MODULES ARE DESIGNED TO HOUSE UP TO 85,000 PEOPLE IN CLOSE PROXIMITY TO WORK, LEISURE, EDUCATION AND HEALTH SERVICES, ENABLING EVERYONE TO ATTAIN A GOOD WORK/LIFE BALANCE.

**2 MIN** UNINTERRUPTED ACCESS TO NATURE

**ZERO** CARS & CARBON EMISSIONS

**5 MIN WALK** TO ALL AMENITIES

**NATURAL VENTILATION** YEAR ROUND THERMAL COMFORT FOR INDOR AND PUBLIC SPACES

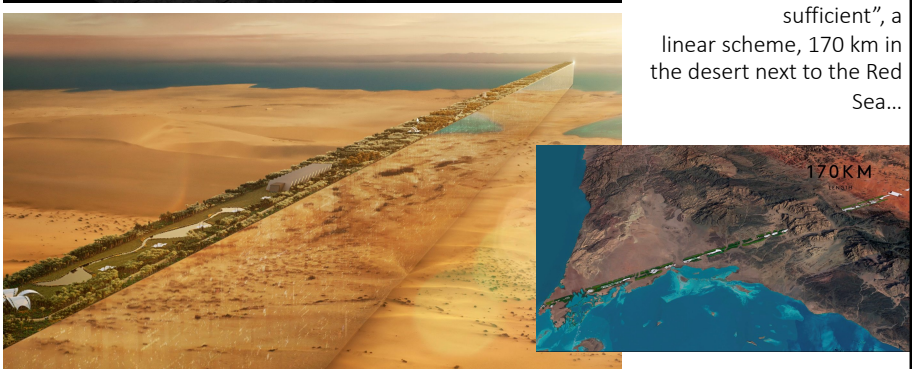
**HYPER PROXIMITY OF AMENITIES**

- WORK
- OFFICE
- HEALTH
- EDUCATION
- CULTURE
- HOSPITALITY
- RESIDENTIAL

NEOM.COM

¿City Future?

"The Line" – NEOM City, Saudi Arabia, today: New Eco-Smart City "Self-sufficient", a linear scheme, 170 km in the desert next to the Red Sea...



8





The city of the future as the regeneration of the existing city

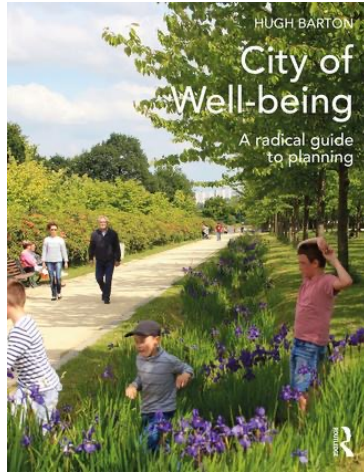
Future szenario – Berlin for "Ariadne an der Spree", 2020

9

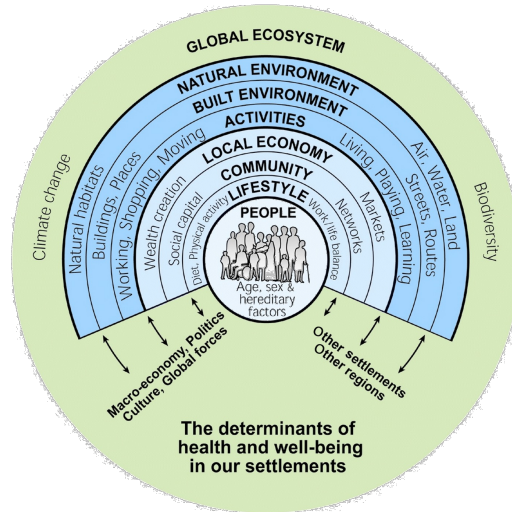


10

Urban Quality and Equity: the main objective



The well-being of urban society -a concept of well-being that is increasingly complex and deeply linked to the potential of sustainability- should be the first objective for any urban plan. An objective where the idea of quality of life – **liveability**- becomes strategic and leads the conventional objectives of planning.



“A health map for the local human habitat”  
Hugh Barton & Marcus Grant, 2006.

Evolution of the Official Agenda: SDG's... but something more!

After the Pandemic, some ideas related to the demand for a new or different urbanism, which could be associated with (1) the **“proximity revolution”**, led in Spain by the urban ecologist Salvador Rueda who coined the idea of **superblocks**, and which is expressed in different ways, like the successful **“fifteen-minute city.”** Something that has also to do with a review of the urban metabolism from (2) the territorial perspective that incorporates the concept of **bio-region** and is projected at the service of a **coherent and collaborative local project**, rescuing the deep inter-relationship that exists between the urban and its rural and natural environments. One of the advantages of said urbanism, both strategic and tactical, would be that it remains outside the complex regulatory and management frameworks of conventional planning systems, even the development of large projects because it is aimed at combining the vision of the future, which facilitates progressive and continued action, maintaining and adapting long-term objectives, with rapid and low-cost action, agile implementation and focused on work on urgent issues and needs close to the affected urban communities... their quality of life..

- (1) Rueda, Salvador y BCN Ecologia, 2017, *“Barcelona, a compact and complex mediterranean city. A more sustainable vision for the future”*, Ayuntamiento de Barcelona;
- (2) Magnaghi, Alberto, 2020, *“Il principio territoriale”*. Turin, Bollati Boringhieri Editore.

BARCELONA, a compact and complex mediterranean city  
A more sustainable vision for the future

Salvador Rueda Palenzuela





## 2 The urban realm

...For the human mind, the tree is the easiest vehicle for complex thoughts. But the city is not, cannot and must not be a tree. **The city is a receptacle for life.** If the receptacle severs the overlap of the strands of life within it, because it is a tree, it will be like a bowl full of razor blades on edge, ready to cut up whatever is entrusted to it. In such a receptacle life will be cut to pieces. If we make cities which are trees, they will cut our life within to pieces.

(The tree of my title is not a green tree with leaves. It is the name of an abstract structure...)

The City is not a Tree, Ch.  
Alexander 1965.



13

The urban planning model continues to be an **"improved functionalism"** :  
More green?  
More sustainable?  
No Carbon cities?



Urban renewal versus eco-neighborhoods:  
Hafen City, Hamburg;  
Västra Hamn, Malmö;  
Tjuvholmen, Oslo;  
Rieselfeld, Friburg



14



**We know what to do...?**  
 Key issues for urban project... new targets, new tools, better understanding (our common urban spaces)

Governance and the urban common goods: integrated projects (Bilbao Ria 2000), managing the urban (Hammarby model), increasing the value of public spaces (SuperKilen, Copenhagen)...




15

**i. CO2 emissions reduction and energy transition:** Renewable energy (+ efficient, demand reduction...), sustainable mobility (proximity relations, public transport, TOD), soil consumption...

Europe's Vibrant New Low Car(bon) Communities  
 Nicole Falletta and Simon Field  
 Summer 2011

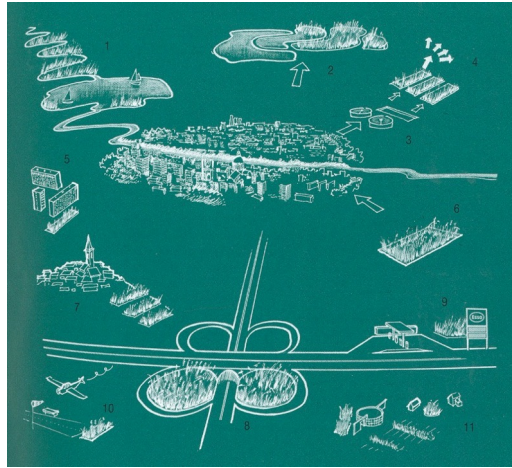
16



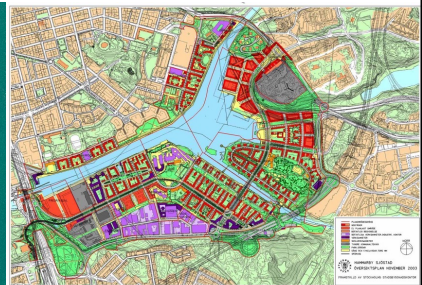
ii. New visions about urban (+ green) infrastructures and their relationships with natural processes: water cycles, green infrastructure, urban metabolism, urban agriculture...



Ecolonia  
(Netherlands)



"Waterscapes",  
Hélène Izembart, Bertrand Le Boudec (2008)



17

iii. A more innovative urban planning: + planning + urban design + management



Vauvan (Friburgo, Francia); Linz Solar City (Austria)



"...(27) ...We support all the efforts, which help to make cities motors of smart, sustainable and inclusive development and attractive places to live, work, visit and invest in. Accordingly, we recommend **applying an integrated and multilevel approach in urban development and regeneration policies**. The cooperation and networking of cities could contribute to smart development of city regions at varying scales in the long run. Cities should, where appropriate look beyond their administrative borders and focus on functional regions, including their peri-urban neighbourhoods."

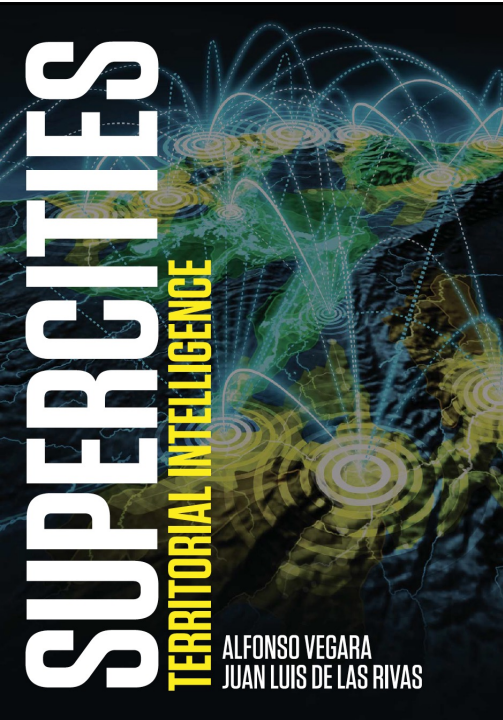
(Territorial Agenda of the European Union, 2011)

18

3

A critical reading of contemporary urban culture demonstrates both its usefulness and the remaining challenges.

Vegara, A. & De las Rivas, J.L., 2020, "Supercities: Territorial intelligence"; Kuala Lumpur: Fundación Metrópoli & Think City



19



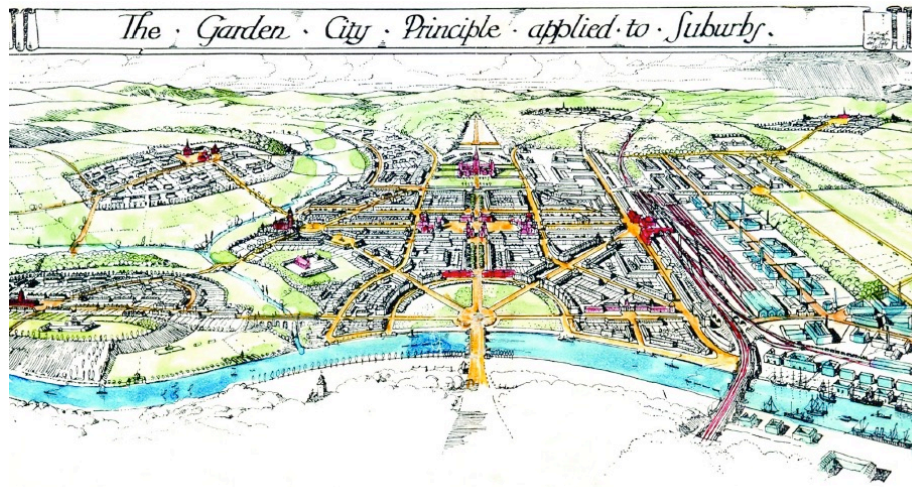
PA, no. 8, 1956, includes the first meeting on Urban Design convened by José Luis Sert at Harvard, in search of a **meeting between three disciplines**: architecture, urban planning and landscape architecture... (today it would be broader integration necessary?)



Attendees at the 2<sup>nd</sup> Urban Design conference, 1959, Penn University, from left to right: William L.C. Wheaton, **Lewis Mumford**, **Ian McHarg**, **J.B. Jackson**, David Crane, **Louis Kahn**, G. Holmes Perkins, Arthur Holden, Perkins's secretary, Catherine Bauer Wurster, Leslie Cheek, Mrs. Eric Larrabee, **Jane Jacobs**, **Kevin Lynch**, Gordon Stephenson, Mrs. Grady Clay and **I.M. Pei**.

20





Raymond Unwin famous pamphlet "**Nothing Gained by Overcrowding!**"  
(1912, P.S. King & Son, Orchard House, Westminster)

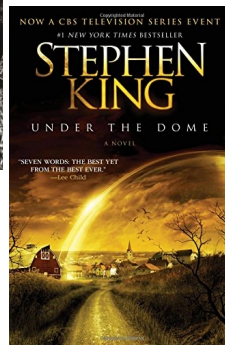
Promoting the Garden Cities and Town Planning Association, with the subtitle: "*How the Garden City type of development may benefit both owner and occupier*".

21

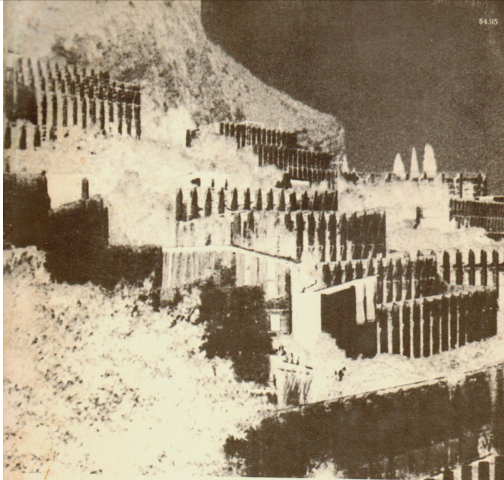


The **super-refuge**, a nightmare or the artificial isolation/comfort (technology) in the face of hostile nature?

Manhattan Dome  
Buckminster Fuller & Soji Sadao, 1960 y 1964





22



**ARCHITECTURE WITHOUT ARCHITECTS**  
by Bernard Rudofsky

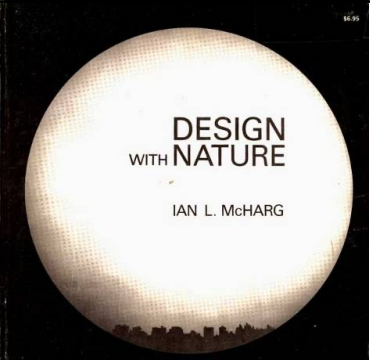
Bertrand Rudofsky, 1964. "Architecture Without Architects", MoMA exhibition

Nanjing, Fujian, China  
Saná, Yemen

Without forgetting other sources... the culture of the cities.

23

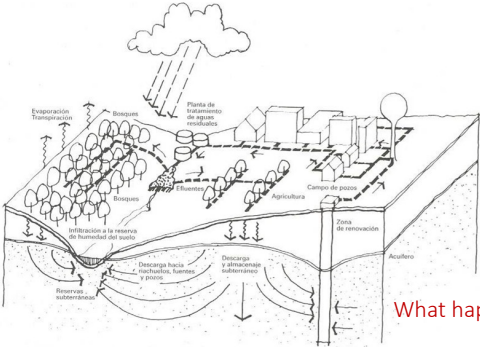


**DESIGN WITH NATURE**  
IAN L. McHARG

**CITY FORM AND NATURAL PROCESS**  
MICHAEL HOUGH

**Planning with ecological thinking**  
"Our eyes do not divide us from the world, but unite us with it. Let this be known to be true. Let us then abandon the simplicity of separation and give unity its due. Let us abandon the self mutilation which has been our way and give expression to the potential harmony of man-nature. The world is abundant, we require only a deference born of understanding to fulfill man's promise. Man is that uniquely conscious creature who can perceive and express. He must become the steward of the biosphere. To do this he must design with nature."  
Ian L. McHarg (1920-2001), 'Design with Nature', 1969.

*The invention of a new methodology: Suitability analysis, overlay mapping, impact assessment...*



What happens in a city when it rains?

24



The diagram illustrates the ecological gradients and community types across a coastal dune system. The zones from left to right are: OCEAN, BEACH, PRIMARY DUNE, TROUGH, SECONDARY DUNE, BACKDUNE, BAYSHORE, and BAY. It shows gradients for sand moisture, salt spray, soil salinity, and soil moisture. Below these are community types such as Dune grass, Low sedge thicket, High sedge thicket, Red cedar woodland, Fine woodland, Beach heather, Low sedge thicket, Salt grass, and Salt grass on myrtine sand heath.

How does a dune create an habitat full of life on the hostile edge of the sea?...

*"In their long dialogue with the sea, the Dutch have learned that it cannot be stopped but simply directed or moderated, so they always have opted for flexible construction" ... Ian McHarg, 1969.*

25

i. Ecological reading: habitats, interactions, processes...

From Landscape Ecology to Urban Ecology.

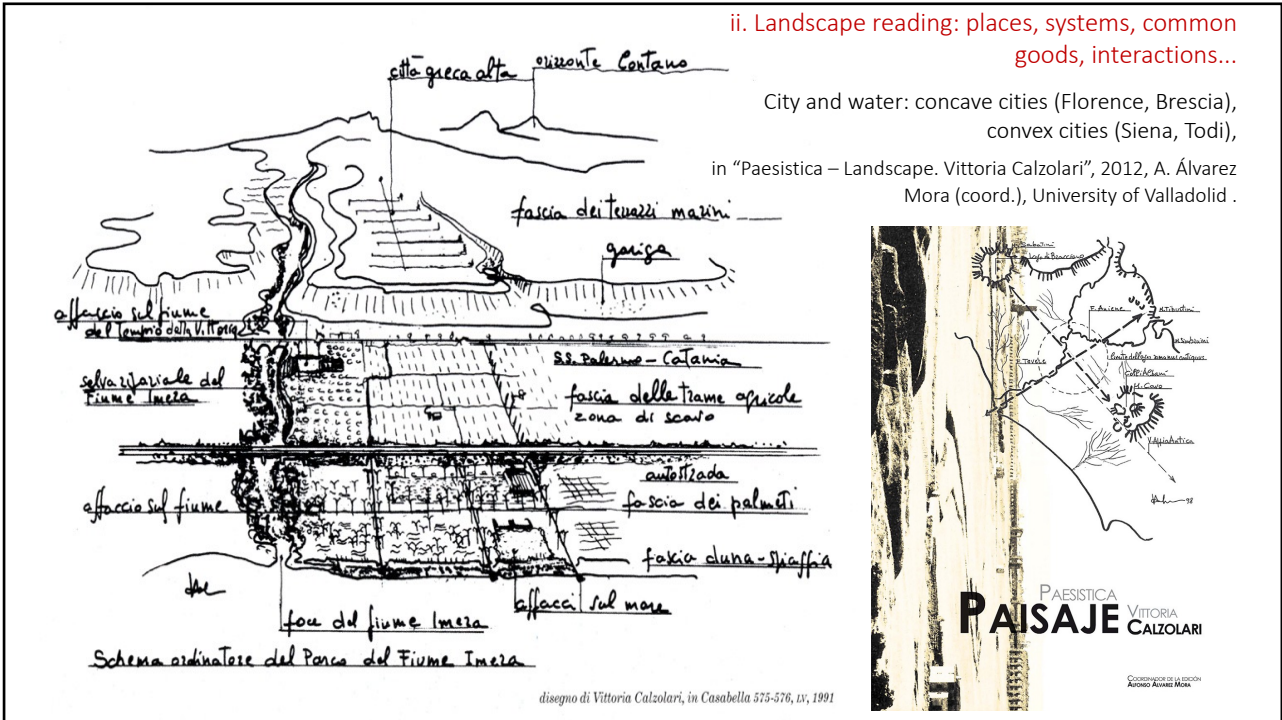
Principles, relationships: Biodiversity

Elements: Patches, niches, zones... Boundaries, limits, buffers... Corridors, connectivity... Mosaics, networks, patterns

The diagrams show a progression from a simple landscape map to a complex urban ecological model. The first diagram is a simple landscape map. The second is a map with green patches. The third is a map with purple and green patches. The fourth is a map with green and yellow patches. The fifth is a map with a network of lines. The sixth is a map with a complex network of lines and patches. An arrow points from the fifth diagram to the sixth.

Books shown: *Landscape Ecology Principles in Landscape Architecture and Land-Use Planning* by Wenche E. Dramstad, James D. Olson, and Richard T. T. Forman; *Landscape Planning Environmental Applications* by William M. Marsh; *Land Mosaics The ecology of landscapes and regions* by Richard T. T. Forman; *Urban Ecology Science of Cities* by Richard T. T. Forman.

26



27

**Towards a "recombinant" urbanism...** "In the 21st century, the condition of civilized urbanity can be based less on the accumulation of objects and more on the flow of information, less on geographical centrality and more on electronic connectivity, less on the increase in scarce resources consumption and more in its intelligent management. We will discover more and more that **we can adapt the existing places to the new needs** by reconnecting the equipment, modifying computing and reorganizing the network connections, **without having to demolish the physical structures and build new ones** "

William J. Mitchell, "City of Bits: Space, Place and the Infobahn", MIT press, Cambridge, Mass. 1994.

**Figure 2.2 Circular Metabolism Model of Cities**  
 Source: Author, adapted from Doughty and Hammond, 2004 in Eaton et al. 2007

**STRATEGIA DI RIGENERAZIONE: URBANI E CITTÀ E L'UOMO**

1	Attualità urbana	
2	Intervento di rigenerazione	
3	Colonna	
4	Scenario urbano	
5	Intervento	
6	Scenario urbano e intervento	
7	Intervento urbano e intervento	

**DIRETTIVE PER LO SVILUPPO DELLE AZIONI DI RIGENERAZIONE, RECUPERO E RINNOVO URBANO**

La ERUCI, pianifica come uno dei suoi principali obiettivi la consegna di qualsiasi situazione di riabilitazione, recupero e rinnovamento della città esistente in modo che si integri con un tipo di intervento. Tenendo conto dell'attuale situazione, si propone incorporare a tale progetto in la Ley 7/2014, la ERUCI, pianifica alcuni grandi obiettivi di valore e sostenibilità che orientano le azioni che si svolgono:

- 1) Impatto positivo in el sistema urbano (contesto territoriali e urbano).
- 2) Integrazione in la struttura urbana (intorno prossimo).
- 3) Integrazione in la urbana, interazione con edifici e spazio pubblico.
- 4) Qualità sostenibile del progetto di riabilitazione.
- 5) Qualità sostenibile del progetto di urbanizzazione.
- 6) Gestione integrata del metabolismo urbano.
- 7) Centralità del progetto di gestione.

Per ottenere, además de otros generares, es necesario disponer de directrices concretas que hagan más sencilla su aplicación. En este sentido, la ERUCI, aporta una herramienta de trabajo y valoración de la calidad de los sistemas urbanos a la regeneración urbana, consistente en la definición de una serie de recomendaciones de criterios, acompañadas de indicaciones de calidad que faciliten la actualización técnica de los resultados. Para ello, se han tomado como referencia las numerosas publicaciones que existen en materia –trabaja de alto calidad–, han elaborado en los últimos años, todos ellos de libre acceso a través de internet y que adaptamos un carácter de "biblioteca especializada".

Las recomendaciones planteadas se organizan según una triple lógica: la movilidad de la actividad (rehabilitación, regeneración o renovación), los límites de actuación (definición de espacio público, infraestructuras y servicios urbanos, y nueva edificación) y los estándares de actuación, que en un total de 23 se articulan en cuatro grandes grupos:

- 1) Accesibilidad/Movilidad: accesibilidad universal y movilidad integrada.
- 2) Calidad: calidad del diseño urbano y calidad del diseño arquitectónico.
- 3) Metabolismo urbano y procesos naturales: vegetación y procesos naturales, espacio de la estructura urbana, incorporación de energía renovable, eficiencia de las instalaciones energéticas, eficiencia de las redes urbanas de energía, gestión eficiente del agua, gestión sostenible de los residuos y gestión inteligente (IUC).
- 4) Vida urbana: mezcla de usos (hibridación), equipamiento e impulso de la actividad económica.

La herramienta se materializa en un folleto que contiene breves explicaciones para la aplicación de recomendaciones e indicaciones con una serie de fotos, que resumen de forma gráfica el conjunto de acciones recomendadas aplicadas en los distintos ámbitos de actuación, actualizadas también, en su caso, la legislación básica de referencia a tener en cuenta.

Formato de 4 x 6 cm. Contiene un total de 23 recomendaciones de alto nivel de calidad.

28





**4**  
Urban  
Happiness!

Segovia, Spain

*Cities as Sustainable Ecosystems: Principles and Practices*  
Peter Newman & Isabella Jennings.  
Washington: Island Press, 2008

### Table of Contents

Acknowledgments IX

Introducing Cities as Sustainable Ecosystems 2

CHAPTER 1 Vision 8

CHAPTER 2 Economy and Society 32

CHAPTER 3 Biodiversity 64

CHAPTER 4 Ecological Footprints 80

CHAPTER 5 Modeling Cities on Ecosystems 92

**CHAPTER 6 Sense of Place 144**

CHAPTER 7 Empowerment and Participation 156

CHAPTER 8 Partnerships 168

CHAPTER 9 Sustainable Production and Consumption 188

CHAPTER 10 Governance and Hope 216

Conclusions 238

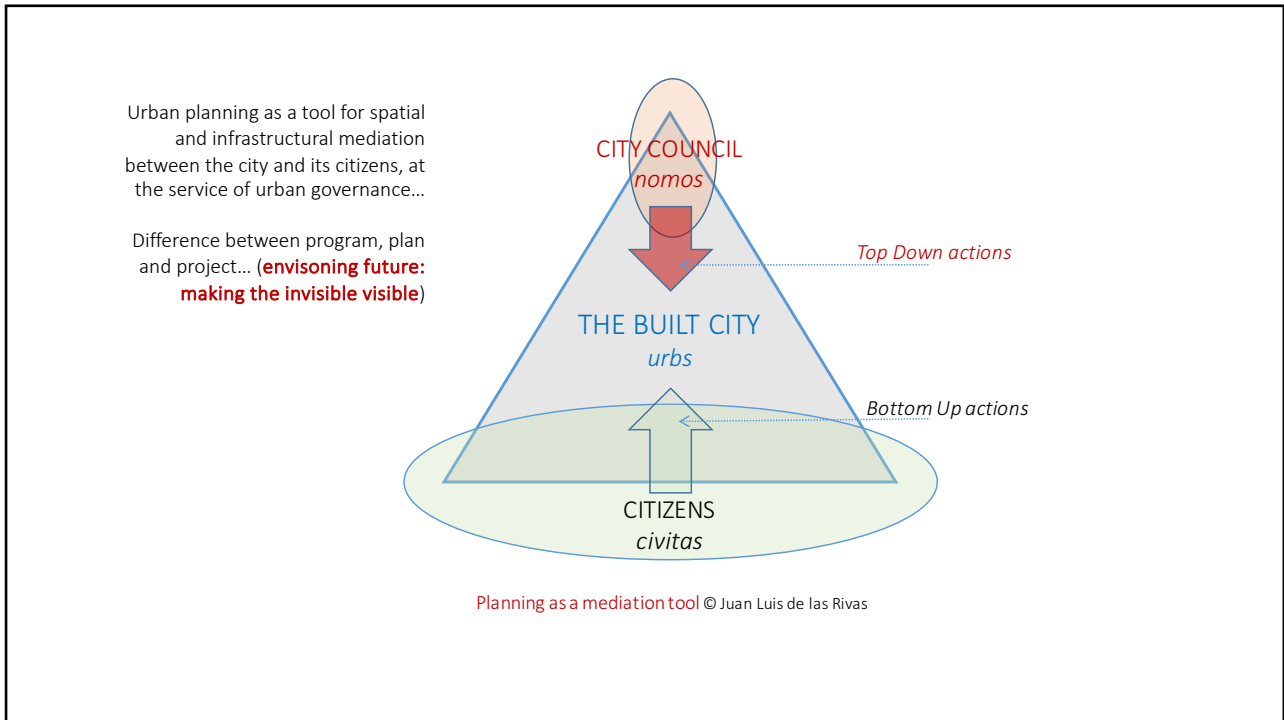
APPENDIX A: Extracts from the "Local Government Declaration to the World Summit on Sustainable Development," 2002 242

APPENDIX B: The Carbon Cycle 244

APPENDIX C: The Nitrogen Cycle 246

APPENDIX D: The Phosphorus Cycle 248

APPENDIX E: The Hydrological Cycle 250



31

VISION. VALLADOLID AND ITS FUTURE		CONCEPTUAL SUPPORT		PATTERN
0. REGIONAL CONTEXT	I. TERRITORY	II. CITY		III. URBAN STRUCTURE
<p><b>Culture, economy and society...</b> Capital role Position and size Central role</p> <p><b>City/Region</b> Confluence of two rivers (valleys) <b>1. Space of Fluxes</b></p>	<p><b>Urban area</b> City and its outskirts.</p> <p><b>A policentric and low-density urban system</b> Strengthening local ecologies <b>Activities, Work, Services</b></p>	<p><b>1a. MOBILITY</b> City gates</p> <p><b>2a. OPEN SPACES</b> Two green rings</p>	<p><b>1b. URBAN MOBILITY</b> roads + public transport + bicycle paths + walkability (main routes, growth management)</p> <p><b>Change the mindset</b></p> <p><b>2b. URBAN PARKS SYSTEM</b> Continuity: urban parks + green lines + protected sites Rio Pisuerga as a connector <b>Power of Urban System</b></p>	<p><b>Urban regeneration:</b> Planning strategies and urban design paths for the correction of existing model, looking for more sustainable and resilient ways...</p>
<p><b>Environment: the "solar vallisoletano"</b> Landscapes, natural conditioners, settlement <b>2. System of places</b> <b>Towards a more exciting and livable city</b></p>	<p>Rural and urban</p> <p><b>DOTVaEnt</b></p> <p>Protections Quality of life</p>	<p><b>3a. CENTERS AND PLACES</b> Systematic urban improvement</p>	<p><b>3b. ACCIONES of URBAN REGENERATION</b></p> <p>Network of strategic services in neighborhood Specific actions to rehabilitate build environment</p>	
<p>Valladolid General Plan Juan Luis de las Rivas IUU Lab, 2014</p>				

32





33

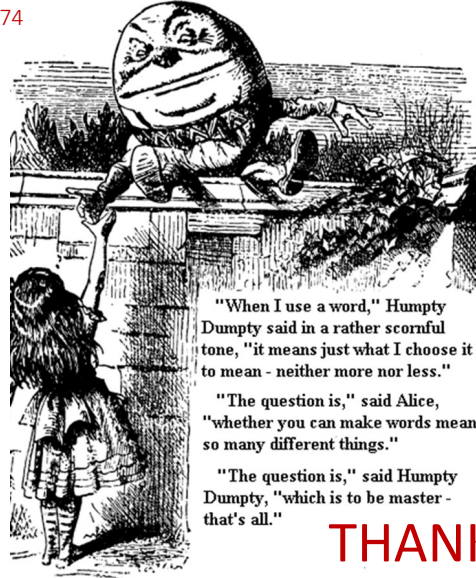
*“Health is the capacity of the land for self-renewal. Conservation is our effort to understand and preserve this capacity”*  
Aldo Leopold, 1949, in “A Sand County Almanac”, last chapter: “Land Ethic”

An idea to venture into a critical context: simply adding is not enough!

34

*...les différences se maintiennent ou débutent en marge de l'homogénéisation, soit comme résistances, soit comme extériorités (le latéral, l'hétérotopique, l'hétérologique). Le différent c'est d'abord l'exclu...*

Henri Lefebvre, 1974



"When I use a word," Humpty Dumpty said in a rather scornful tone, "it means just what I choose it to mean - neither more nor less."

"The question is," said Alice, "whether you can make words mean so many different things."

"The question is," said Humpty Dumpty, "which is to be master - that's all."

**THANK YOU**