Public spaces, resilience and urban prosperity: an evolutionary approach to urban development
CONTENTS

1. CITIES AND PLANNERS IN AN EVOLUTIONARY PERSPECTIVE:
   The art of being (very) late at the party and showing off

2. GETTING THE STRUCTURE RIGHT:
   Streets, streets and streets again: the rest can only follow
1. CITIES AND PLANNERS IN AN EVOLUTIONARY PERSPECTIVE

Shots of beauty

The "Quality Without a Name"
Today
15 billion years ago

Cultural evolution

Genus Homo

Organic evolution

Chemical evolution

Geologic evolution

Nuclear evolution

Billions of years

First appearance

Origin of Universe

Millions of years

15-12,000

Homo Habilis
(earliest member genus Homo)
2,300,000 of years ago

In COSMIC evolution
23h 59m 46.8s
(13.3 s.)

Human Culture
(symbols, language, lithic technology)
50,000 years ago

In MAN evolution
23h 59m 59.7s
(2.3 tenth of s.)

Stages of cosmic evolution
billions of years ago
50,000 years ago

Planning evolution

Urban evolution

Cultural evolution

Thousands of years

First appearance

50,000

Years

Symbols
Language
Lithic tech

Cities
(since Uruk, Mesopotamia)
6,500 years ago

In CULTURE evolution
20h 52m 48s
(3h 7m 12s.)

Planning
(since RPAA, 1923)
c.a. 100 years ago

In CITY evolution
23h 37m 51s
(22m 9s.)

Today

First City
6,500

First Planners
100

Stages of cultural and urban evolution
Thousands of years ago
Evolution: diversity AND unity
1. CITIES AND PLANNERS IN AN EVOLUTIONARY PERSPECTIVE

Beauty does not come by design. Structure does.

CREATIONIST SHORTCUT
“System B”

DIVERSITY
Developing projects

UNITY
Permanent structure

BEAUTY
The resilient, prosperous, inclusive, safe and walkable city

EVOLUTION

EVOLUTIONARY APPROACH
2. GETTING THE STRUCTURE RIGHT

Five things that we think we have understood about the structure

Cities are, fundamentally, a product of streets. Streets, and Main Streets in particular, are the first and most important constituent of city structure. If you don’t get the streets right, you’ll never ever get the city right.

1. One important feature of good urban streets: main streets cross about 400mts or less apart, and they tend to remain stable in time. We call this property “The 400mts rule”.

2. In cities you need a range of densities, building types and plot sizes: this diversity must be closely related to the hierarchy of streets, so that main streets are the backbone of urban communities. We call this property “Main Street Orientation”.

3. Loosely speaking, though you need a diversity of plots types and sizes, one rule applies consistently in good city structures: plots are kind of small. We call this property: “Small Plots”.

4. Nobody draws plots any longer, but in fact a good city structure is based on plots which develop independently from each other in time. We call this property “Disjointed Development”.

5. The structure of good cities always includes simple, short regulations that do not refrain, but actually trigger, people’s direct and personal intervention on their environments. We call this property “Informal Participation”.
2. GETTING THE STRUCTURE RIGHT

The 400mts Rule: getting the right scale


![Diagram showing the 400mts Rule and different urban design paradigm groupings.

Medieval: Lübeck, DE

Industrial: Chicago, USA

New Urbanism

Informal Settlements

Urban Design Paradigm Grouping

Length of Main Street Segments (m)

0 500 1000 1500 2000

Ancient  Medieval  Renaissance  Baroque  Industrial  Garden City  Radiant City  New Urbanism  Informal Settlements

400 m 500 m 500 m 570 m 400 m 400 m 500 m 400 m 400 m

380 m 390 m
2. GETTING THE STRUCTURE RIGHT

![Graph showing the evolution of road networks from 1833 to 2007.](image)

The 400mts Rule: Main Streets will be forever main.

2. GETTING THE STRUCTURE RIGHT

Main Street orientation: communities around streets

Mehaffy, Porta et al. (2010)
The “Emergent Neighbourhood” model.

“If we do right by our streets we can in large measure do right by the city as a whole – and, therefore and most importantly, by its inhabitants.”

Allan Jacobs, Great Streets. 1993