TOD Urban Integration, Community and Value Creation
8 Urban Design Strategies

通过**TOD**实现天津城市一体化发展及社区和价值创造
TOD城市设计8项战略
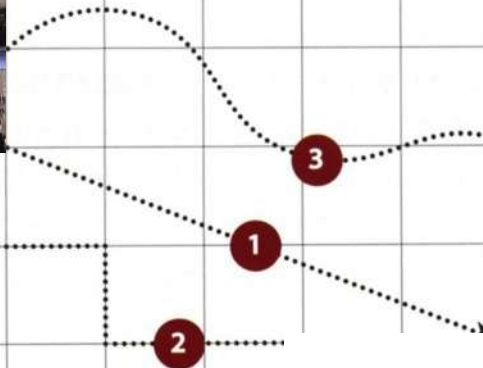
Serge Salat

URBAN MORPHOLOGY
&
COMPLEX SYSTEMS INSTITUTE
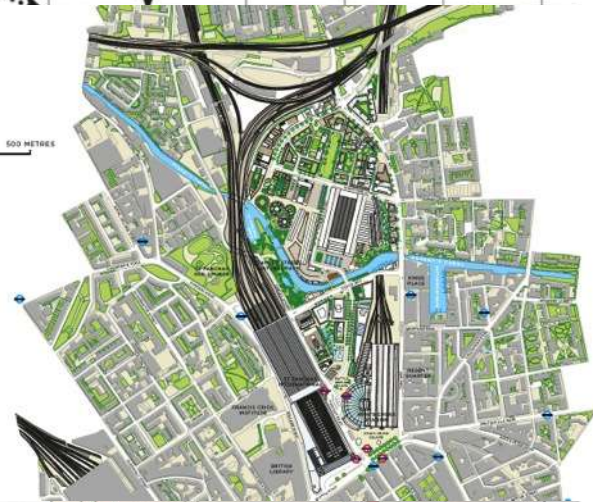
The World Bank seminar on TOD, Tianjin, June 2014

TOD Challenges and opportunities in China
中国TOD发展的挑战和机会

INFRASTRUCTURE / RESOURCES / ENERGY CONSUMPTION/ PER CAPITA

QUALITY OF LIFE
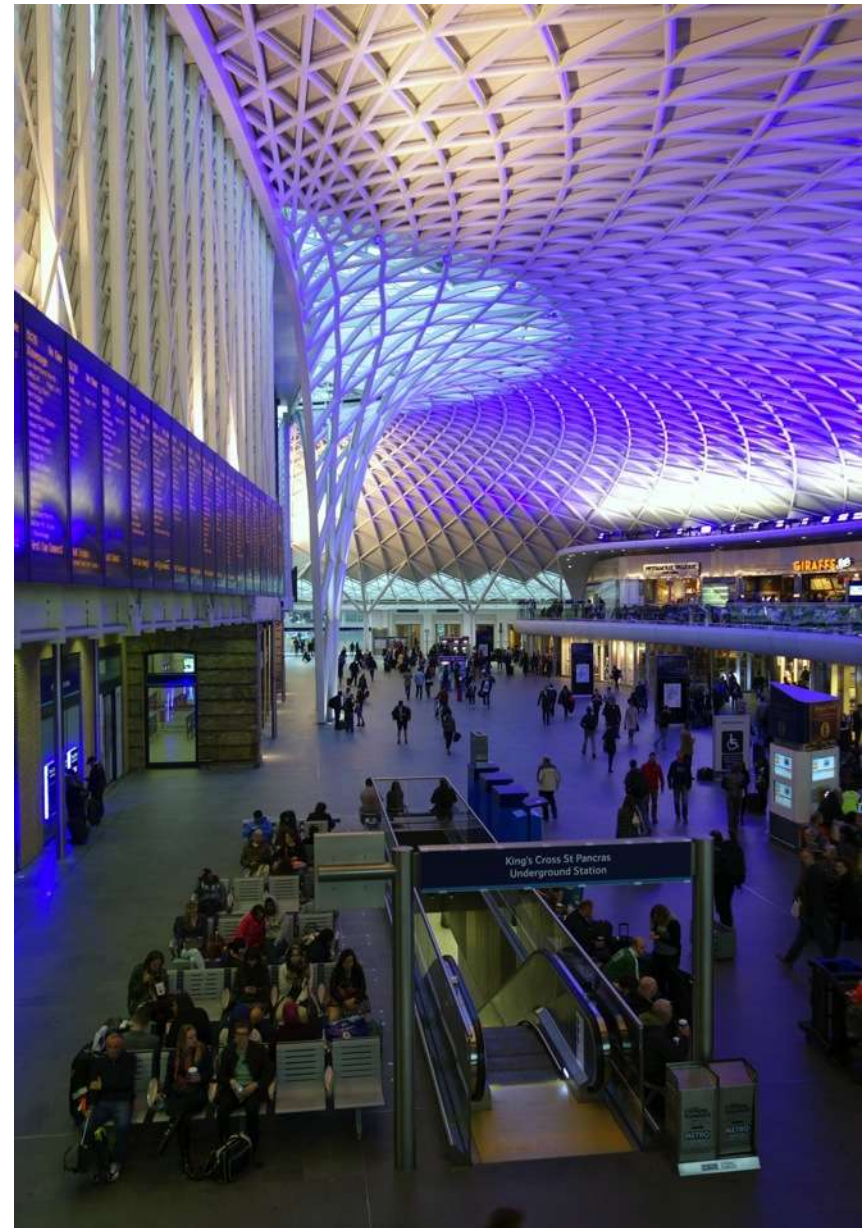
TOD

8 **Urban Design Strategies**
TOD城市设计8项战略

1. Imageability想象性
2. Enclosure密围
3. Human Scale人类尺度
4. Transparency透明
5. Complexity复杂
6. Coherence一致性
7. Legibility可识别性
8. Linkage连接性

1. Imageability is the quality of a place that makes it distinct

Imageability plays to the innate human ability to see and remember patterns: a place whose elements are easily identifiable and grouped into an overall pattern:

- Landmarks (singularity and location)

- Sense of place: a characteristic visual theme

Right: King's Cross new concourse is designed as an enclosed civic plazza

IMAGEABILITY
GREEN TRIANGLE
Serge Salat Architect
An iconic green tower

-Landmark (singularity and locatior
-Sense of place: a characteristic
visual theme

2. Enclosure refers to the degree to which streets

and other public spaces are visually defined by buildings, walls, trees, and other vertical elements. Spaces where the height of vertical elements is proportionately related to the width of the space between them have a room-like quality.
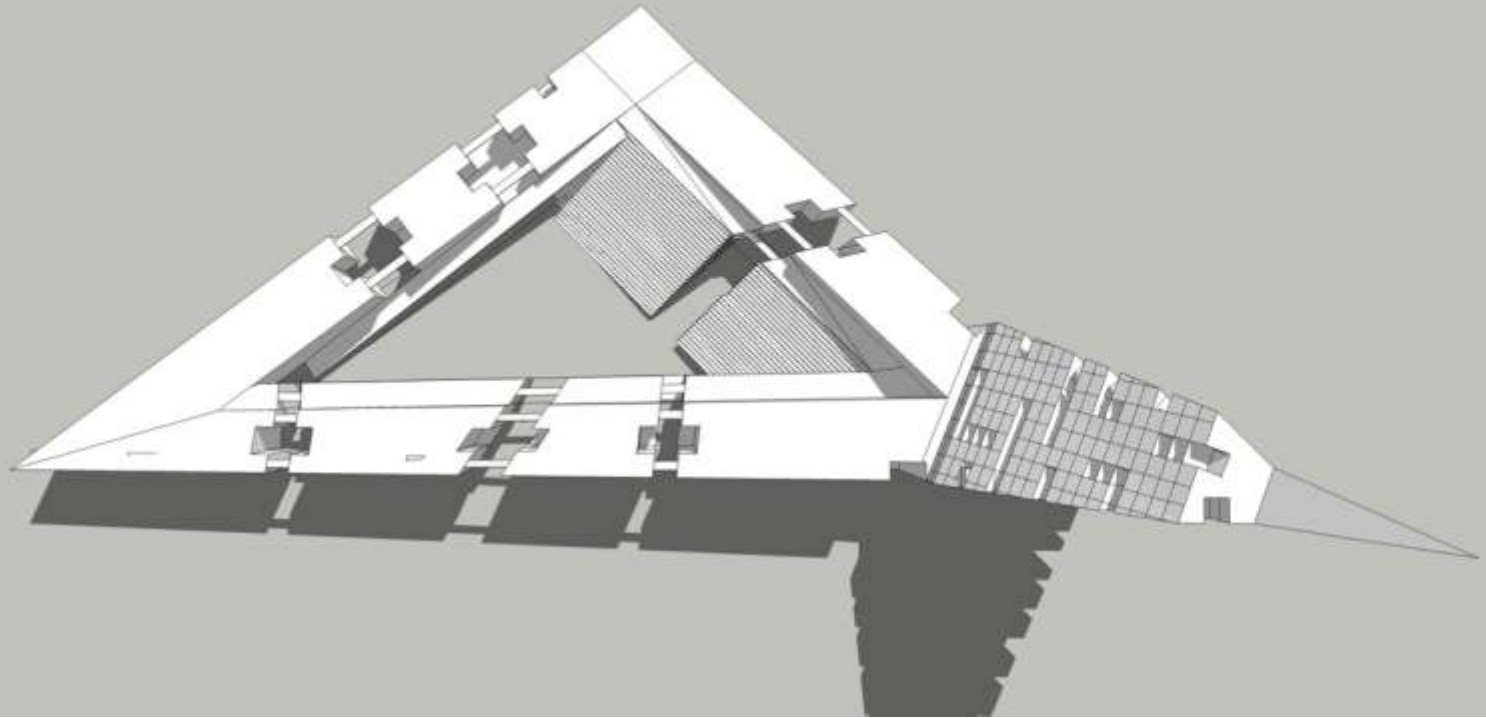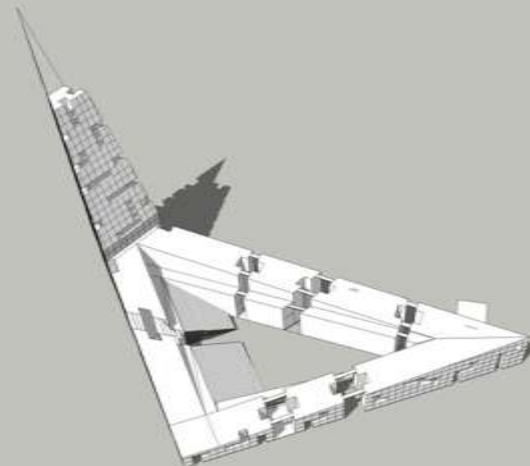
Enclosure

In an urban setting, enclosure is formed by lining the street or plaza with unbroken building fronts of roughly equal height. The buildings become the "walls" of the outdoor room. The street and sidewalks become the "floor"; and if the buildings are roughly equal height, the sky projects as an invisible ceiling. The total width of the street, building to building, should not exceed the building heights in order to maintain a feeling of enclosure. Visual termination points also contribute to a sense of enclosure.
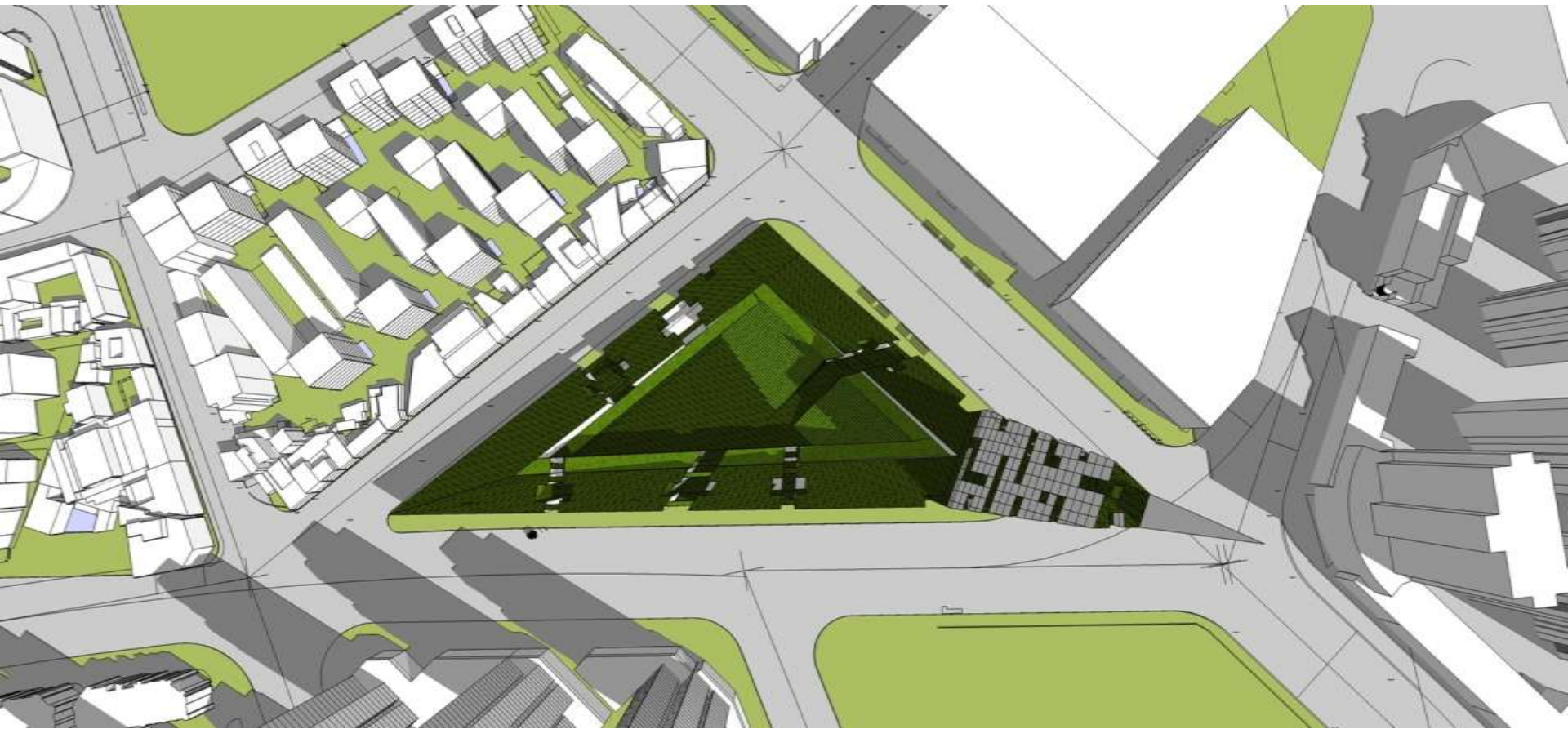

Tallin and Malmö (Turning Torso Tower)

ENCLOSURE AND EFFICIENT LAND USE

GREEN TRIANGLE

Serge Salat Architect

**Perimeter block development
reaches a FAR of 4
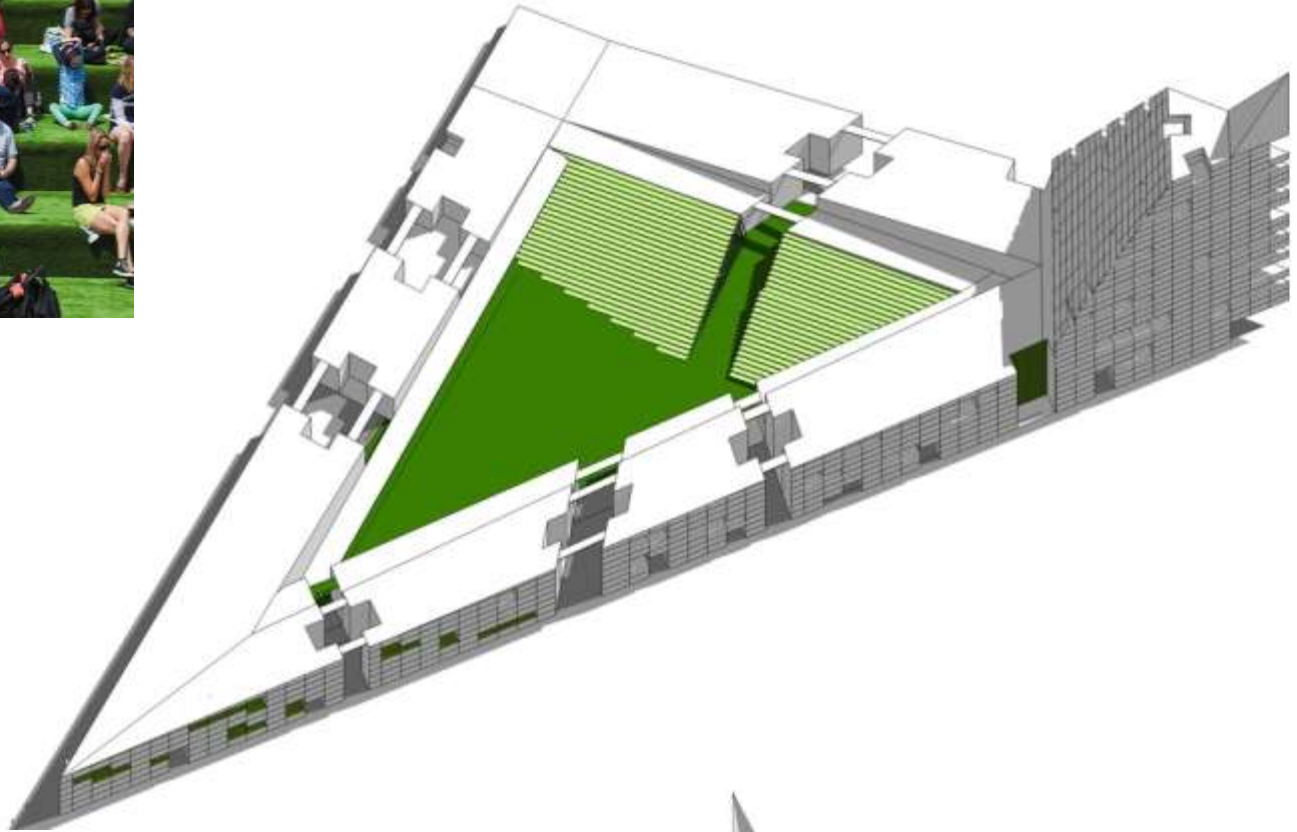with medium rise buildings
and 50 % of land
for inside green civic space**

GREEN TRIANGLE
Serge Salat Architect
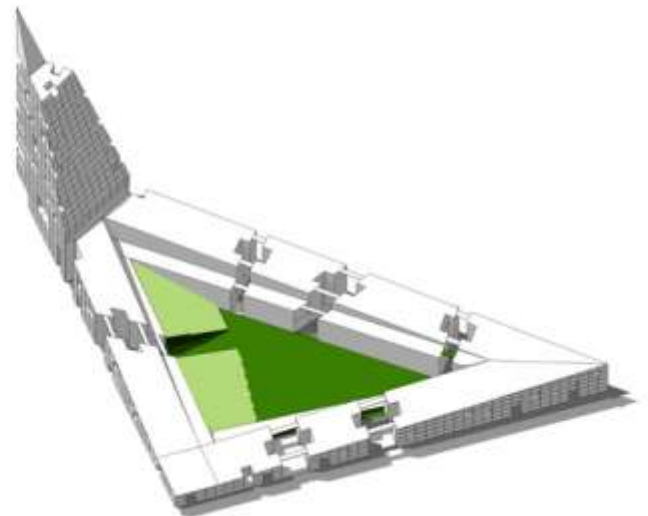**A green preserved island in a highly dense neighborhood**
Preserve Green Space entirely : after project more green space than before thanks to suspended gardens, green roofs and terraced gardens. 50% of the park is preserved at ground level; More than 50% is recreated in the form of elevated gardens.

GREEN CIVIC SPACE

**Green Plaza
and green amphitheater
are astounding civic places**

Serge Salat, Architect.

Enclosure eroded

Top: Madrid Plaza Major is enclosed by an arcade system that defines a perfect rectangle
Bottom: Nanchang Ba Yi Square is circled by curved arterials that destroy any sense of enclosure

Enclosure is eroded by breaks in the continuity of the street wall, that is breaks in the vertical elements, such as buildings or tree rows that line the street. Breaks in continuity that are occupied by non active uses create dead spaces that further erode enclosure; vacant lots, parking lots, driveways, and other uses that do not generate human activity and presence are all considered dead space. Large building setbacks are another source of dead space.

Madrid major civic space: Plaza Mayor
A 122 x 91 m well defined perfect
rectangle, the size of an urban block

Nanchang major civic space: Ba Yi Square
(515 x 255 m, the size of a Chinese
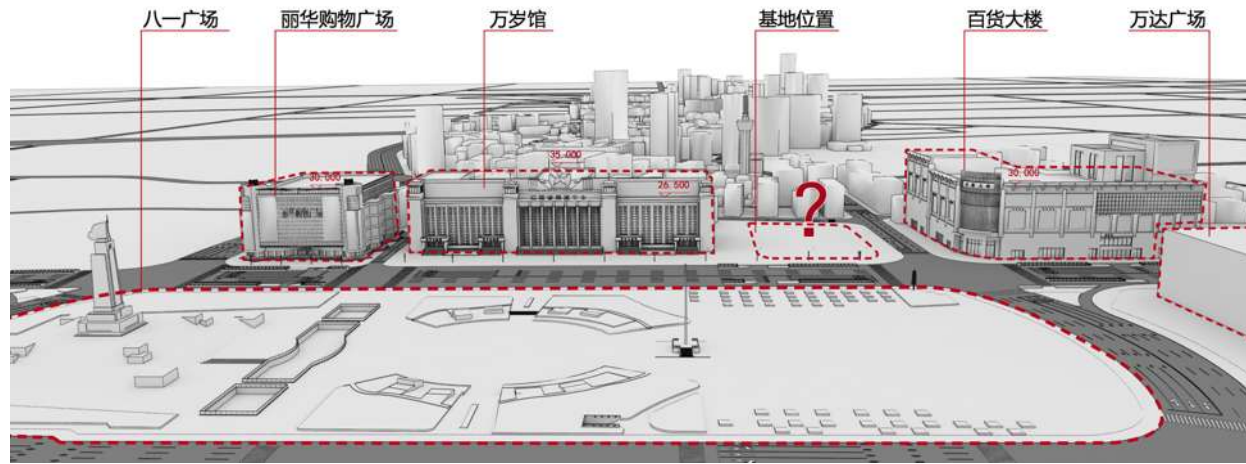superblock) lacks definition and enclosure

Madrid Plaza Mayor and Ba Yi Square at the same scale in a 800 m x 800 m

Plaza Mayor is carved in a complex fabric of coherent and well defined small urban blocks

Ba Yi square fails to give a coherent order to oversized roads and buildings

八一广场　丽华购物广场　万岁馆　基地位置　百货大楼　万达广场

TOD Mixed use building on top of Ba Yi Square subway station creates a well defined east edge to Ba Yi Square. It improves definition and enclosure, mediates with highly active commercial Zhong Shan Lu. It adds pedestrian covered galleries to public space

3. Human Scale refers to size, texture, articulation

of physical elements that match the size and proportions of humans and, equally important, correspond to the speed at which humans walk. Building details, pavement texture, street trees and street furniture are all physical elements contributing to human scale.

Moderate-sized buildings, narrow streets, and small spaces create an intimate environment; the opposite is true for large buildings, wide streets, and open spaces.

Today too many things are built to accommodate the bulk and rapid speed of the automobile: we are designing for 100 km/h. For pedestrians the information field should be scaled for offering a rich and coherent information at 5 km/h.

These distances and speeds set the limits of human scale. The most highly regarded public squares in Europe are almost all smaller than 10,000 square meters; most are smaller than 8,000 square meters.

DIVERSITY, VARIETY and Human Scale

**with a series of small scale buildings
and an iconic tower and façade gardens**

**Top: Tianjin Green Triangle
Serge Salat Architect
Right: REAP Rotterdam**

4.Transparency refers to the degree people can see

or perceive what lies beyond the edge of a street or other public space and, more specifically, the degree to which people can see or perceive human activity beyond the edge of a street or other public space. Physical elements that influence transparency include walls; windows, doors, fences, landscaping, and openings into midblock spaces.

5.Complexity refers to the visual richness of a place

The complexity of a place depends on the variety of the physical environment, specifically the number and kinds of buildings, architectural diversity and ornamentation, landscape elements, street furniture, signage and human activity.

COMPLEXITY
And Transparency
GREEN TRIANGLE
Serge Salat Architect

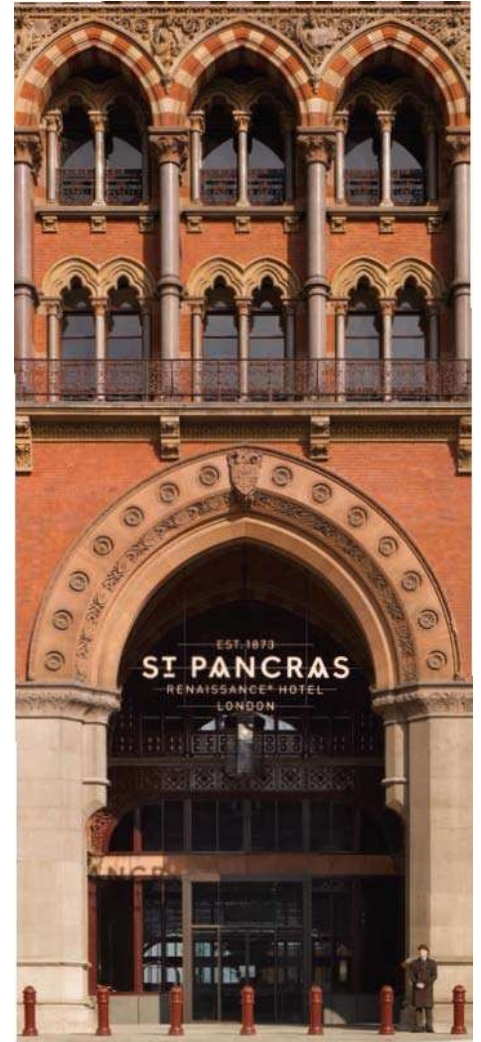**People can see what lies beyond the edge of streets and public spaces**
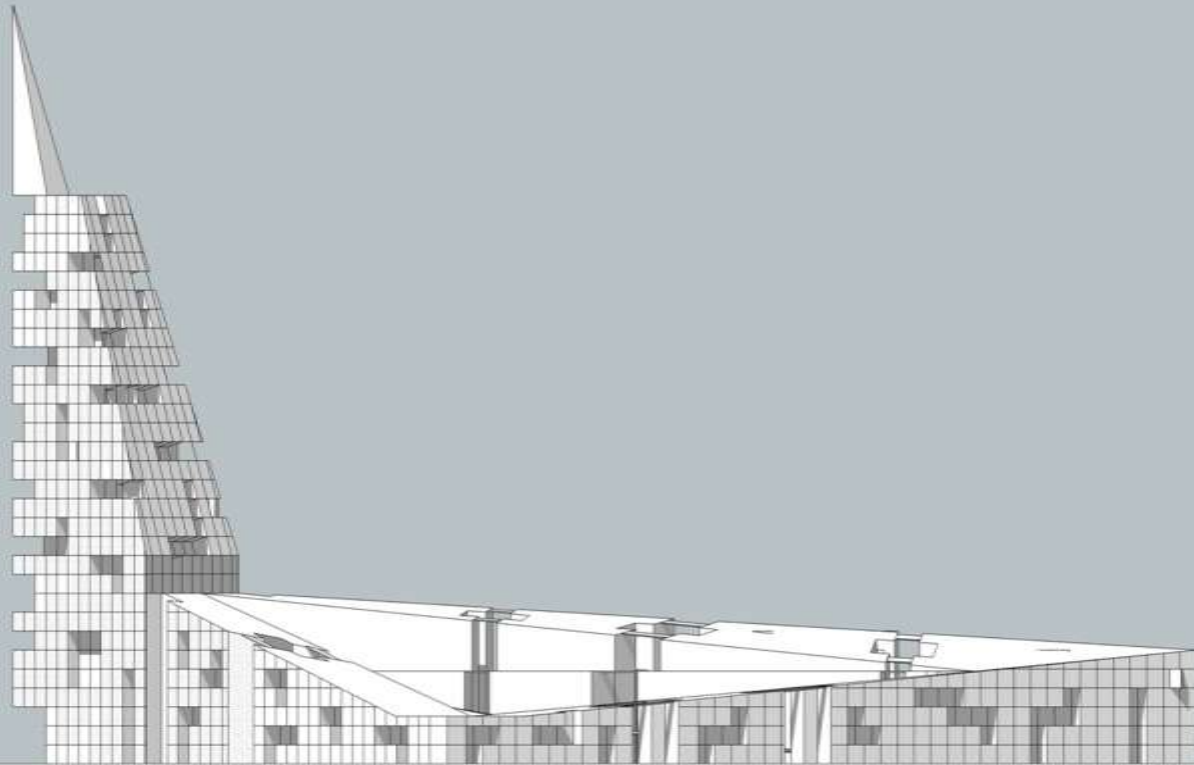
Complexity Eroded

Narrow buildings in varying arrangements add to complexity, whereas wide buildings subtract.

6.Coherence refers to a sense of visual order

The degree of coherence is influenced by consistency and complementarity in the scale, character, and arrangement of building, landscaping, street furniture, paving materials, and other physical elements.

COHERENCE: Rhythm of street edge
GREEN TRIANGLE
Serge Salat Architect

Medium rise buildings line the street
providing a coherent and vibrant streetscape

7.Legibility refers to the ease with which the spatial structure

of a place can be understood and navigated as a whole. The legibility of a place is improved by a street or pedestrian network that provides travelers with a sense of orientation, and relative location and by physical elements that serve as reference points.
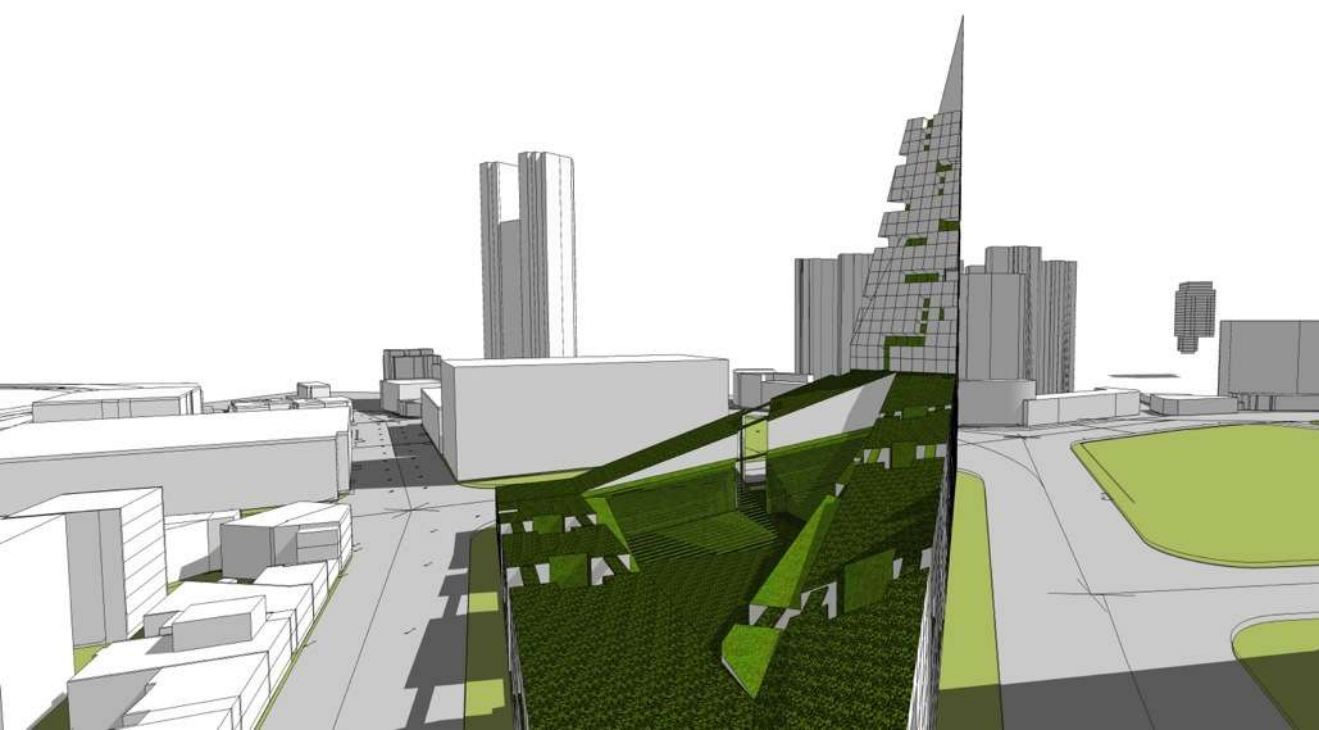
Serge Salat, Architect.

LEGIBILITY: **refers to the ease with which the spatial structure** of a place can be understood and navigated as a whole. The legibility of a place is improved by a street or pedestrian network that provides travelers with a sense of orientation and relative location, and by physical elements that serve as reference points.

LINKAGE: **A continuous green promenade for pedestrians on the green triangle roofs**
links all spaces (inside and outside) with elevated gardens and bridges sloping gently up and down from street level to the tower

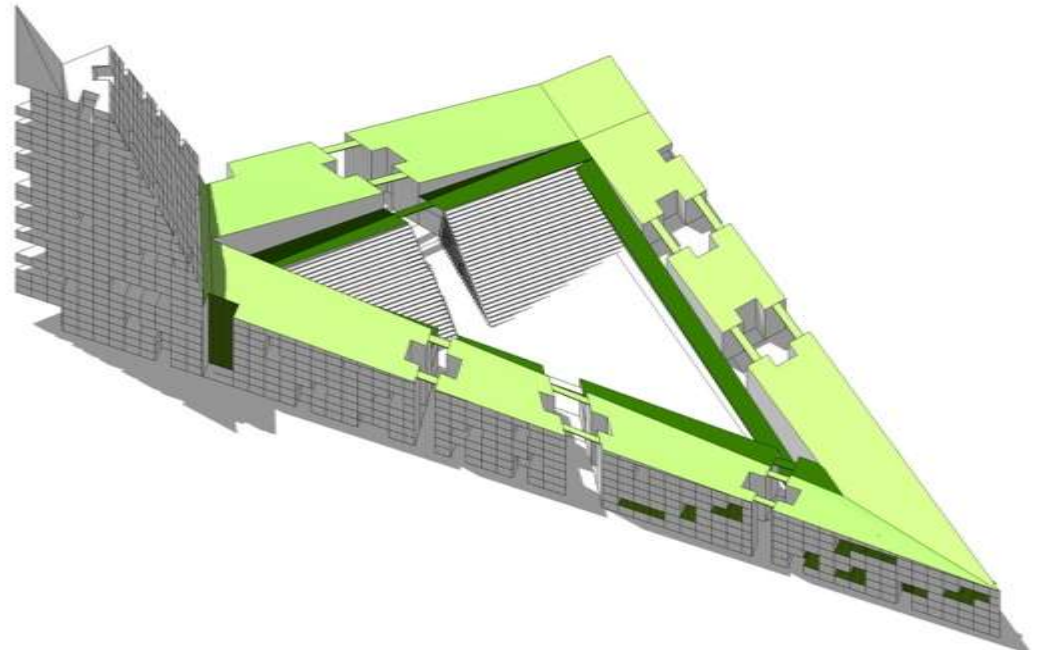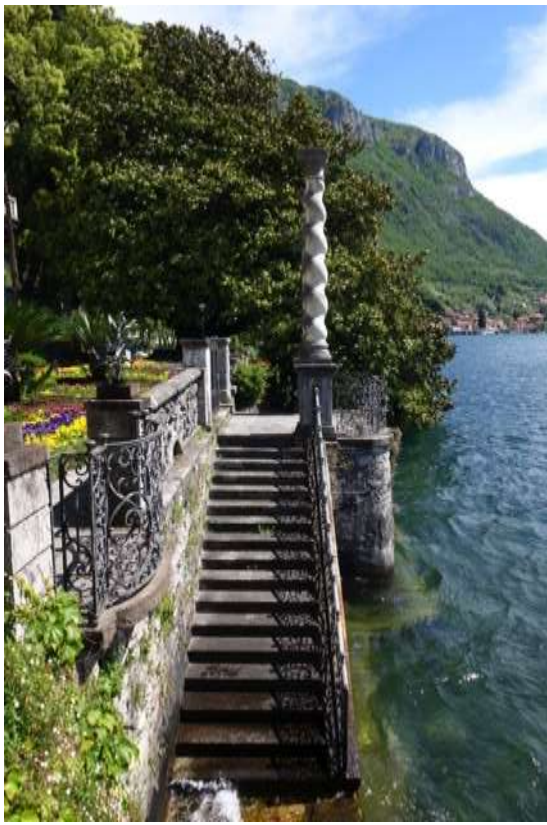# 8. Linkage refers to physical and visual connections

from building to street, building to building, space to space, or one side of the street to the other – that tend to unify disparate element. Tree lines, building projections, and marked crossings all create linkage. Linkage can occur longitudinally along a street or laterally across a street.

Linkage: Green elevated Gardens
Tianjin Green Triangle
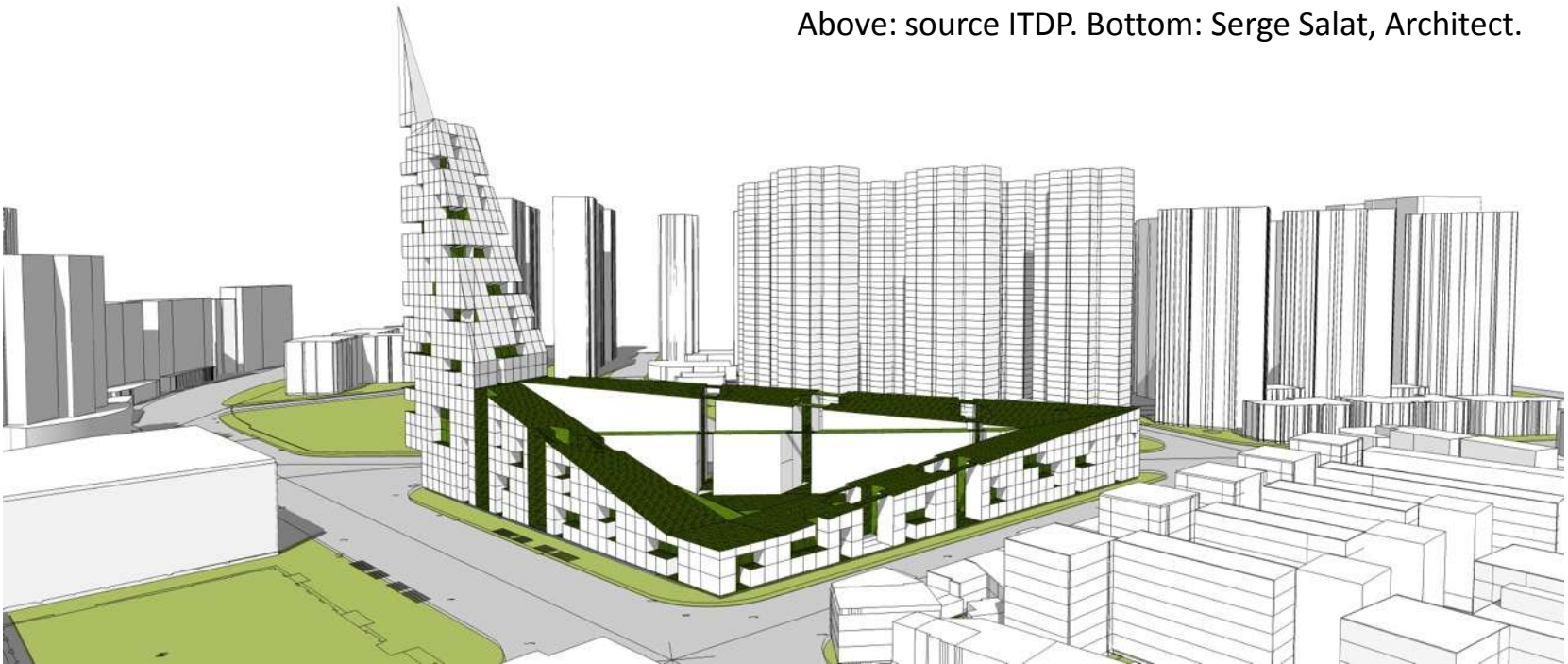**Serge Salat Architect**
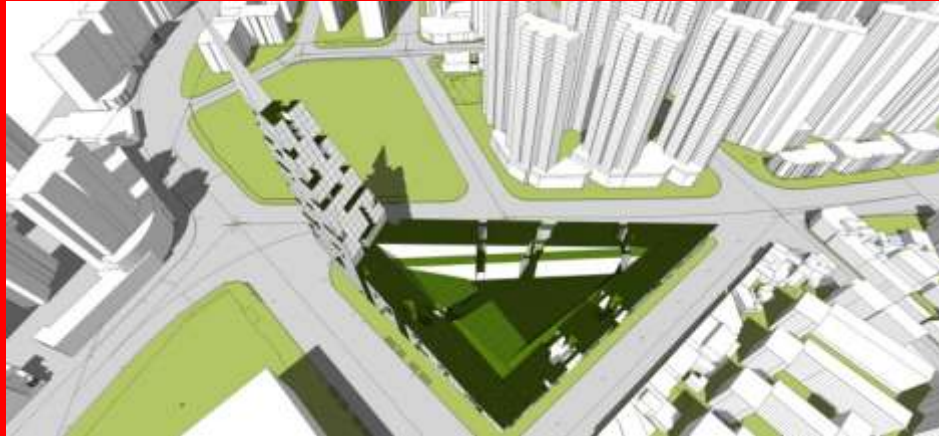**and Varenna, Como Lake**

LINKAGE refers to physical and visual connections from building to street, building to building, space to space, or one side of the street to the other – that tend to unify urban space.

Top: Varenna, Como Lake
Bottom: Tianjin Green Triangle,
Serge Salat Architect

Linkage: Recreating vibrant street edges
Above: source ITDP. Bottom: Serge Salat, Architect.

Thank you for your attention

感謝諸位的時間

The World Bank seminar on TOD, Tianjin, June 2014