



# 3D e pianificazione territoriale: un quadro tentativo

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Politecnico di Torino



- vicino/lontano
- adiacenza
- inclusione
- intersezione
- connessione

**nelle 3  
dimensioni**

## 3D Geo-visualisation

Computer  
grafica

CAD

# 3D Geo-visualisation: una classificazione

## Laurini (INSA Lyon)

- realistic rendering
- project rendering
- prescriptive rendering
- symbolic rendering
- augmented reality
- virtual reality

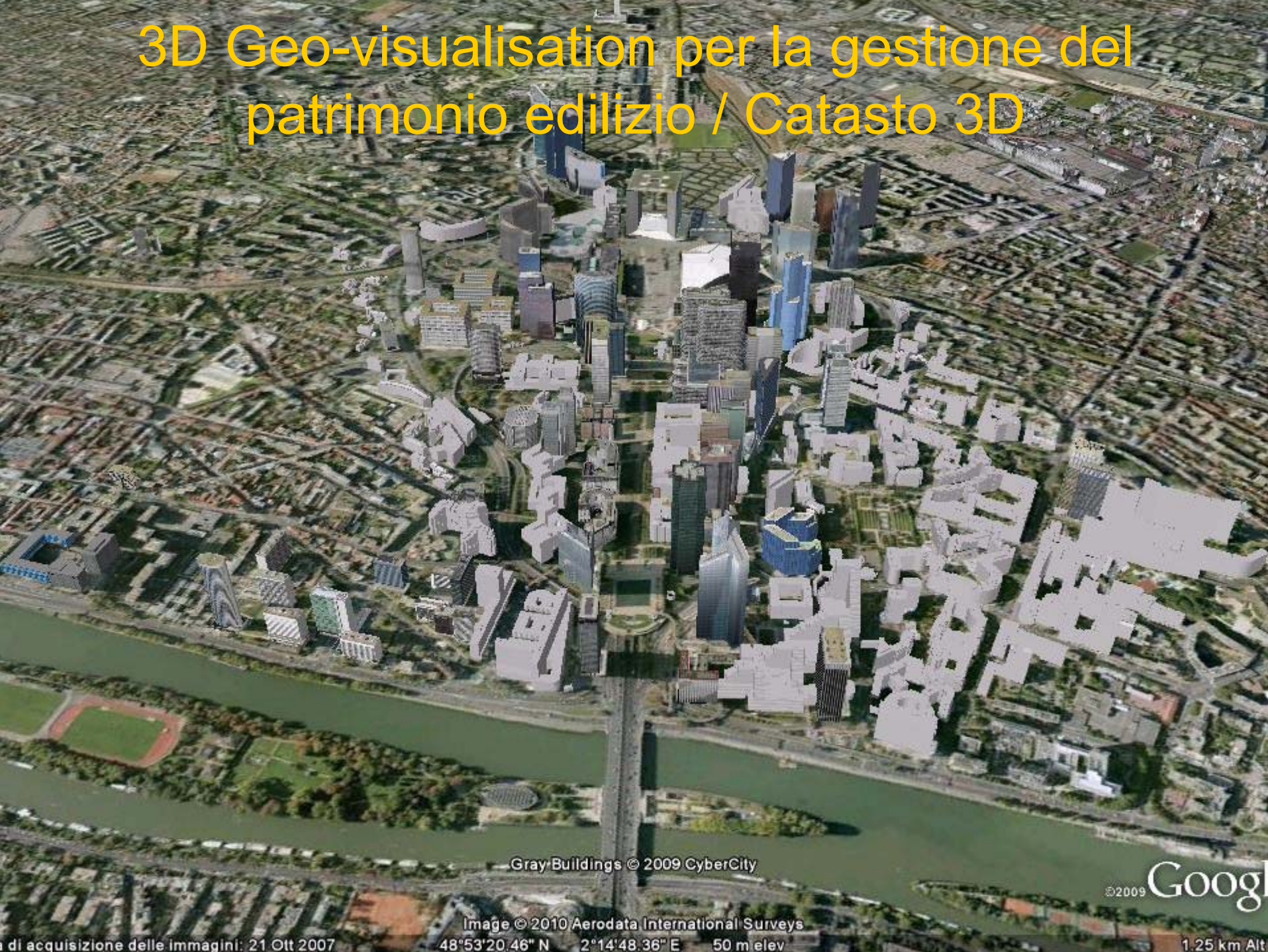
## Altri

- photo-realistic rendering
- datascapes
- metaforic views
- augmented space

## Batty et al. (UCL London)

- 3D iconic models

# 3D Geo-visualisation per la gestione del patrimonio edilizio / Catasto 3D



Gray Buildings © 2009 CyberCity

©2009 Google

Image © 2010 Aerodata International Surveys

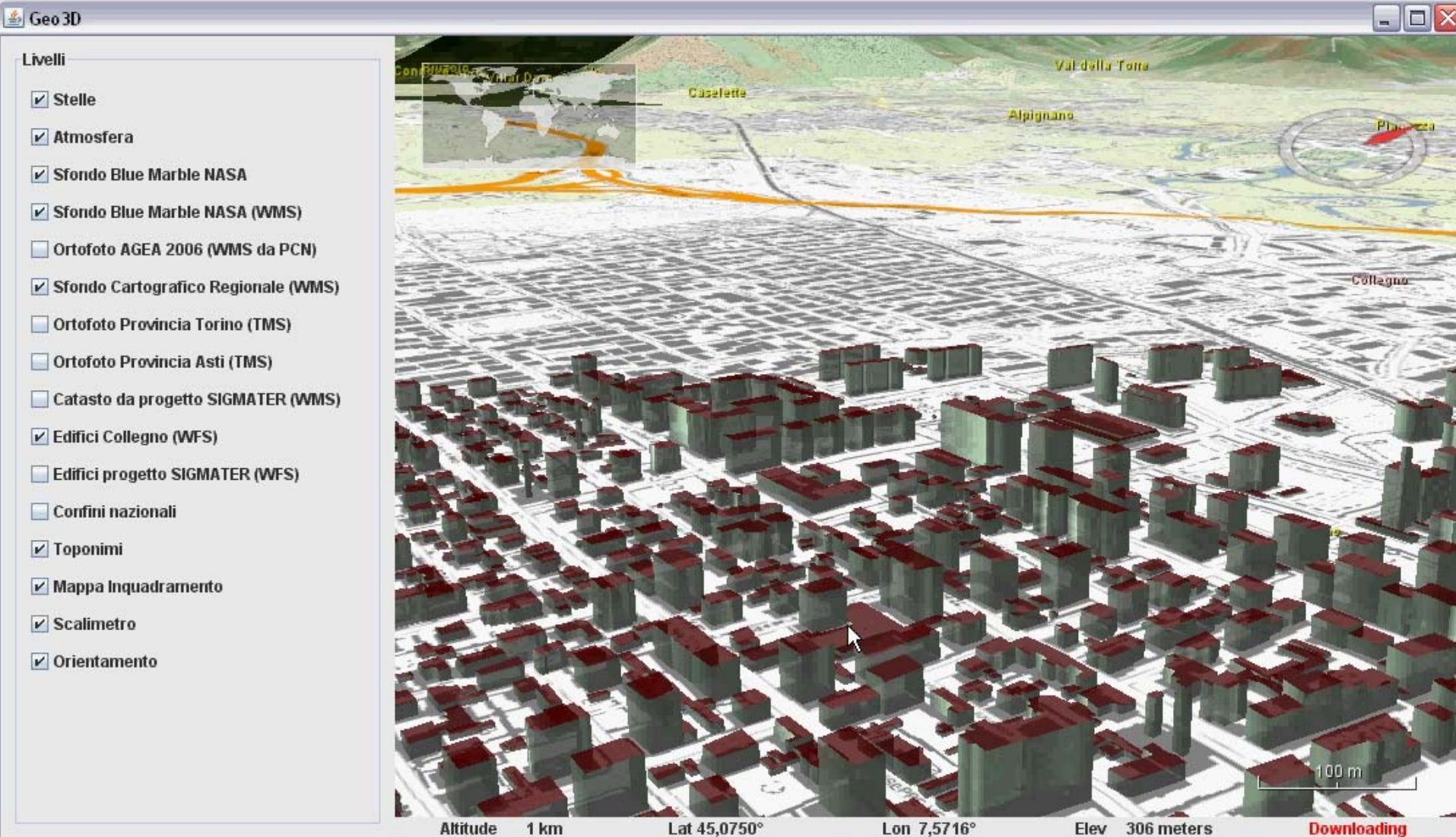
di acquisizione delle immagini: 21 Ott 2007

48°53'20.46" N 2°14'48.36" E 50 m elev

1.25 km Alt

# 3D Geo-visualisation per la gestione del patrimonio edilizio / Catasto 3D

# 3D Geo-visualisation per la gestione del patrimonio edilizio



# 3D Geo-visualisation per la gestione del patrimonio edilizio

The screenshot displays a 3D Geo-visualization application window titled "Geo 3D". The main view shows a 3D perspective of a city with buildings rendered in dark red and grey. A layer control panel on the left lists various data layers with checkboxes. The status bar at the bottom provides technical details: Altitude 0 km, Lat 44,8965°, Lon 8,2085°, Elev 125 meters, and a "Downloading" indicator.

**Livelli**

- Stelle
- Atmosfera
- Sfondo Blue Marble NASA
- Sfondo Blue Marble NASA (WMS)
- Ortofoto AGEA 2006 (WMS da PCN)
- Sfondo Cartografico Regionale (WMS)
- Ortofoto Provincia Torino (TMS)
- Ortofoto Provincia Asti (TMS)
- Catasto da progetto SIGMATER (WMS)
- Edifici Collegno (WFS)
- Edifici progetto SIGMATER (WFS)
- Confini nazionali
- Toponimi
- Mappa Inquadramento
- Scalimetro
- Ori...

Altitude 0 km    Lat 44,8965°    Lon 8,2085°    Elev 125 meters    **Downloading**

facile e veloce:  
sono usati dati  
esistenti

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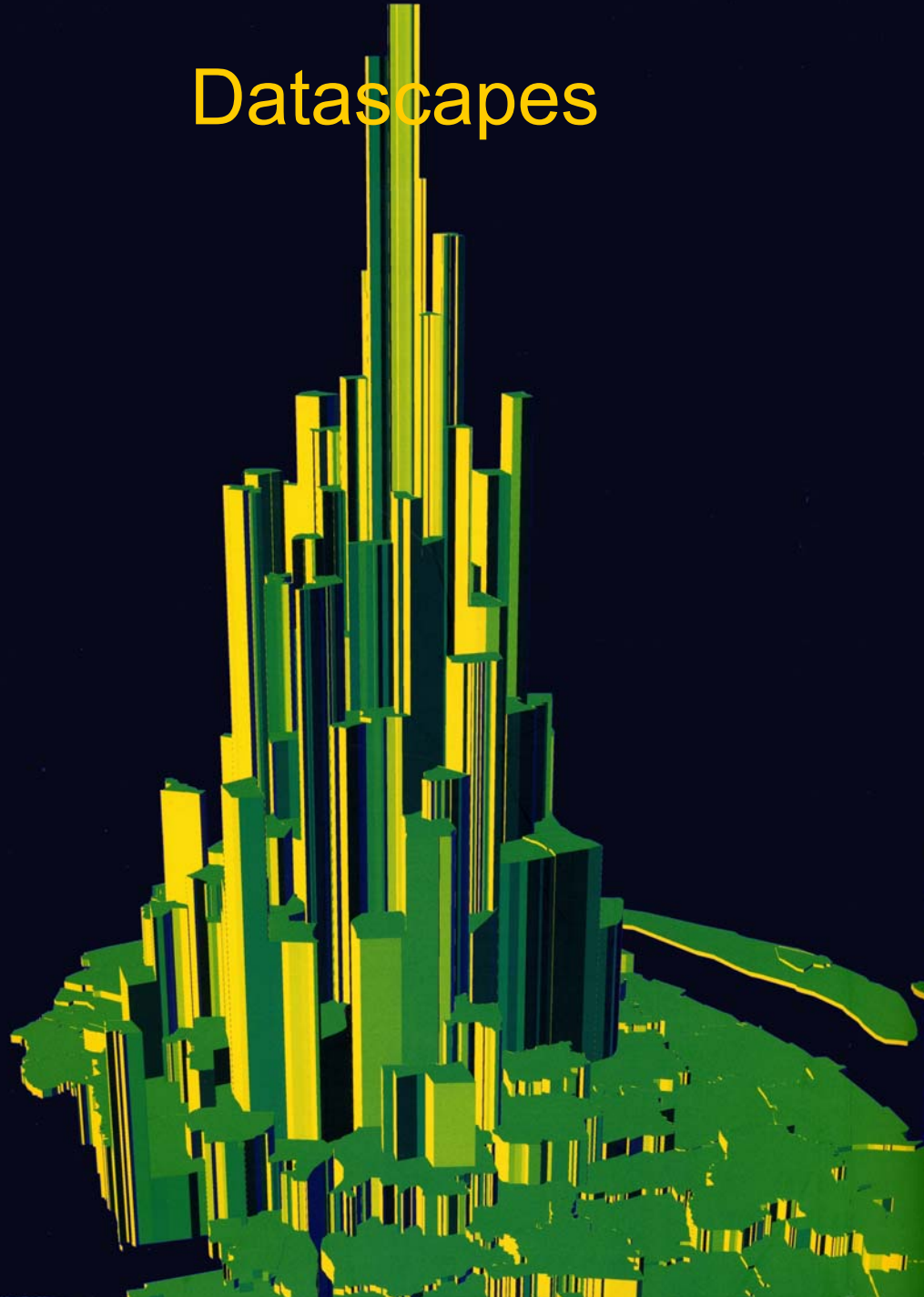
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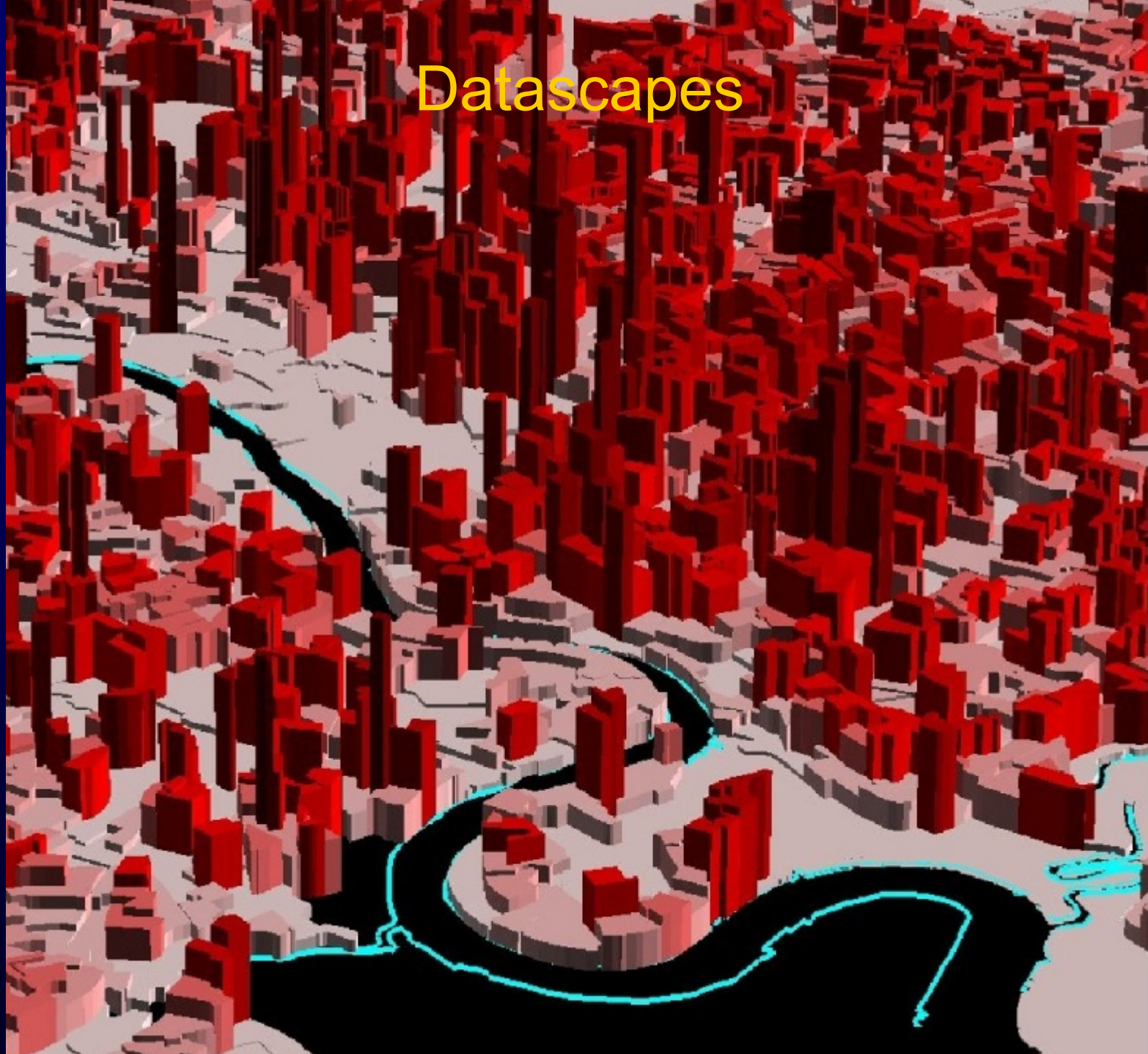
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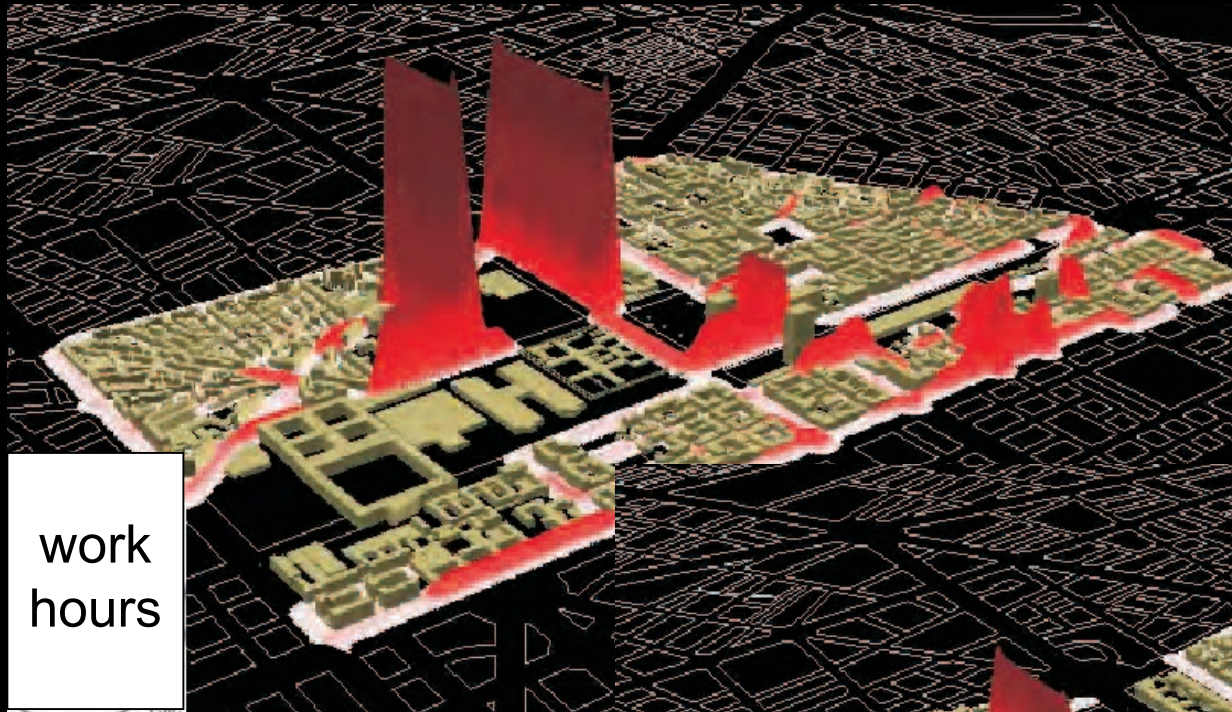
# Datascapes



# Datascapes

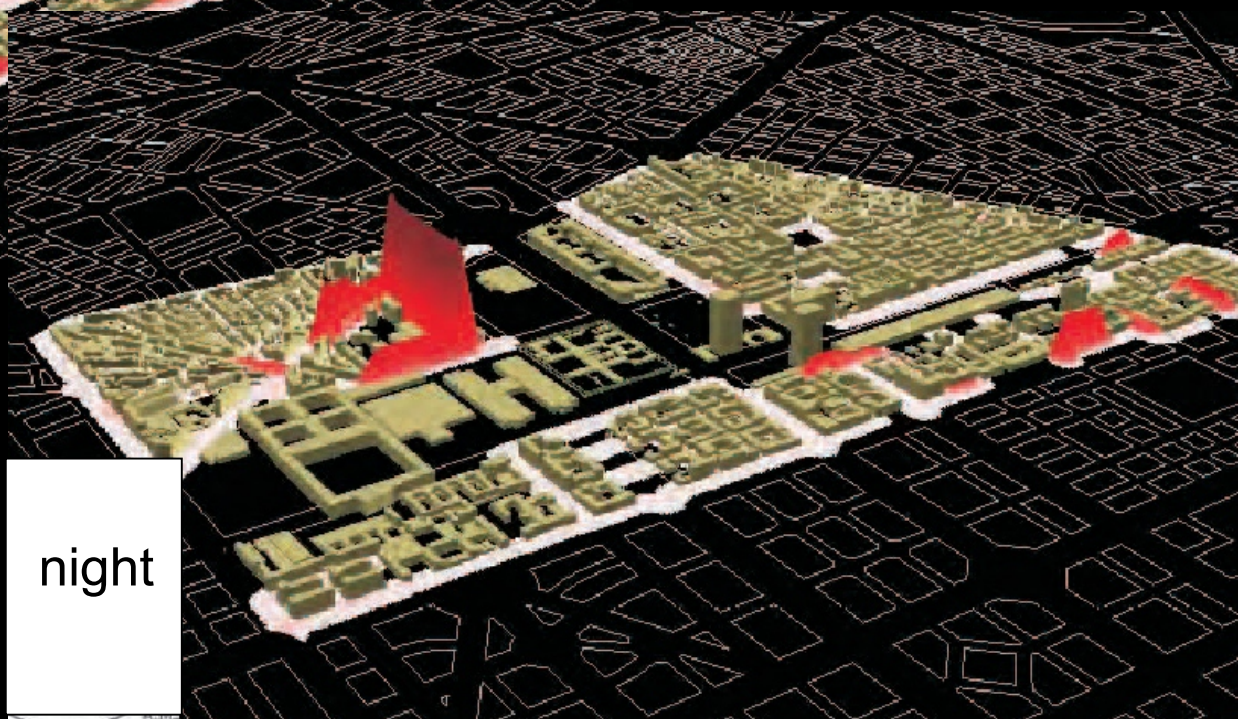


# Datascapes: temporal landscapes



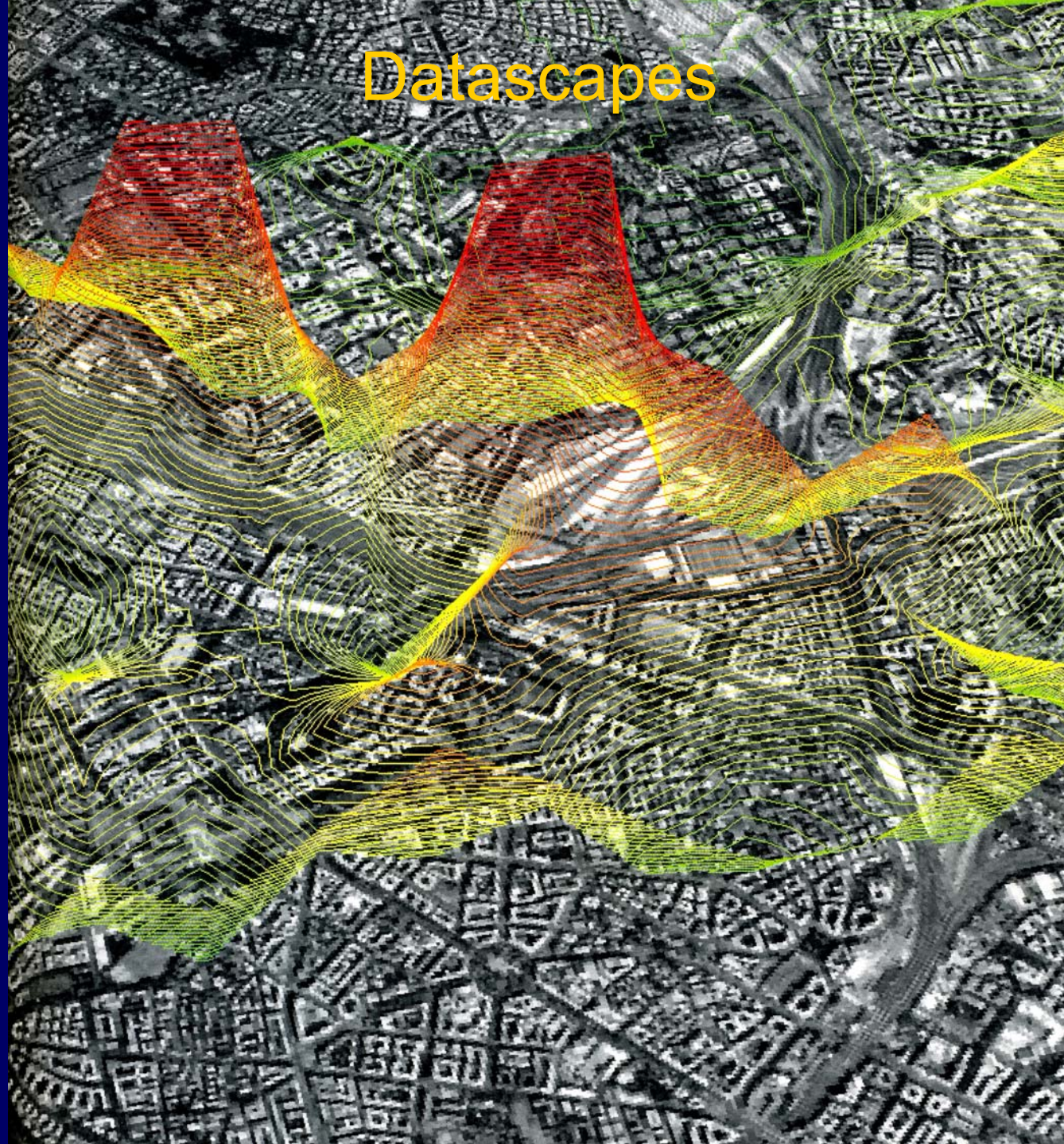
work  
hours

People (employees  
and inhabitants)  
present at a certain  
time



night

# Datascapes



# Datascapes



# Datascapes



Il mix funzionale

# Datascapes



Un paesaggio di €  
i volumi rappresentano i valori immobiliari degli edifici residenziali

# Datascapes

*“Spaces which do not seek to represent geographic space, but which utilize geographic concepts to depict other type of information”*

**Cheesman J., Dodge M., Harvey F., Jacobson D., Kitchin R., 2002, " 'Other' Worlds: Augmented, comprehensible, non-material spaces", in: Fisher P., Unwin D, eds, (2002), *Virtual Reality in Geography*, London, Taylor&Francis, p 295**



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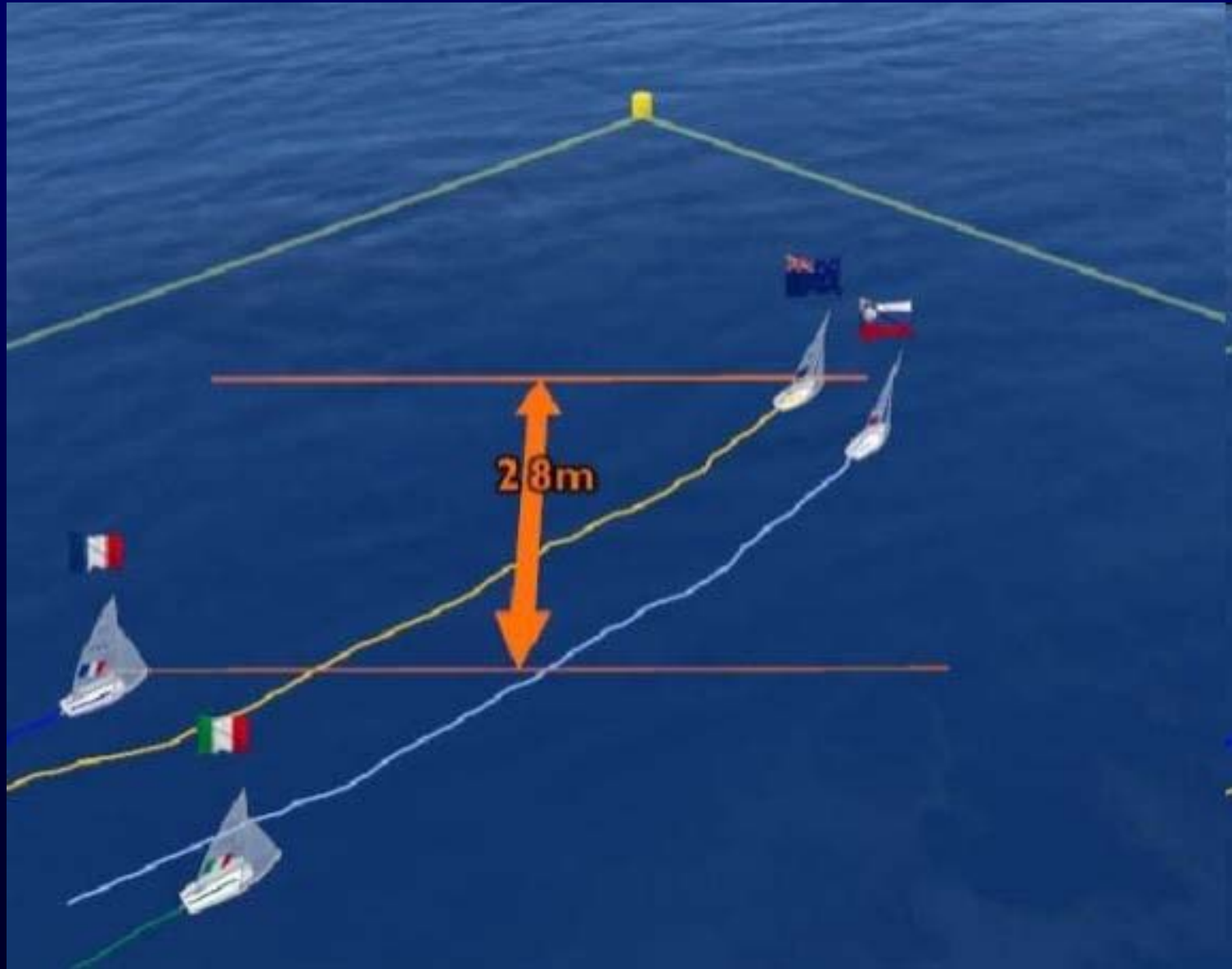
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# Augmented reality



# Augmented reality



# Augmented reality



# Augmented reality

*“AR is a term for a live direct or indirect view of a physical real-world environment whose elements are augmented by virtual computer-generated imagery . It is related to a more general concept called mediated reality in which a view of reality is modified (possibly even diminished rather than augmented) by a computer. [...] Artificial information about the environment and the objects in it can be stored and retrieved as an information layer on top of the real world view”*

Wikipedia [http://en.wikipedia.org/wiki/Augmented\\_reality](http://en.wikipedia.org/wiki/Augmented_reality)

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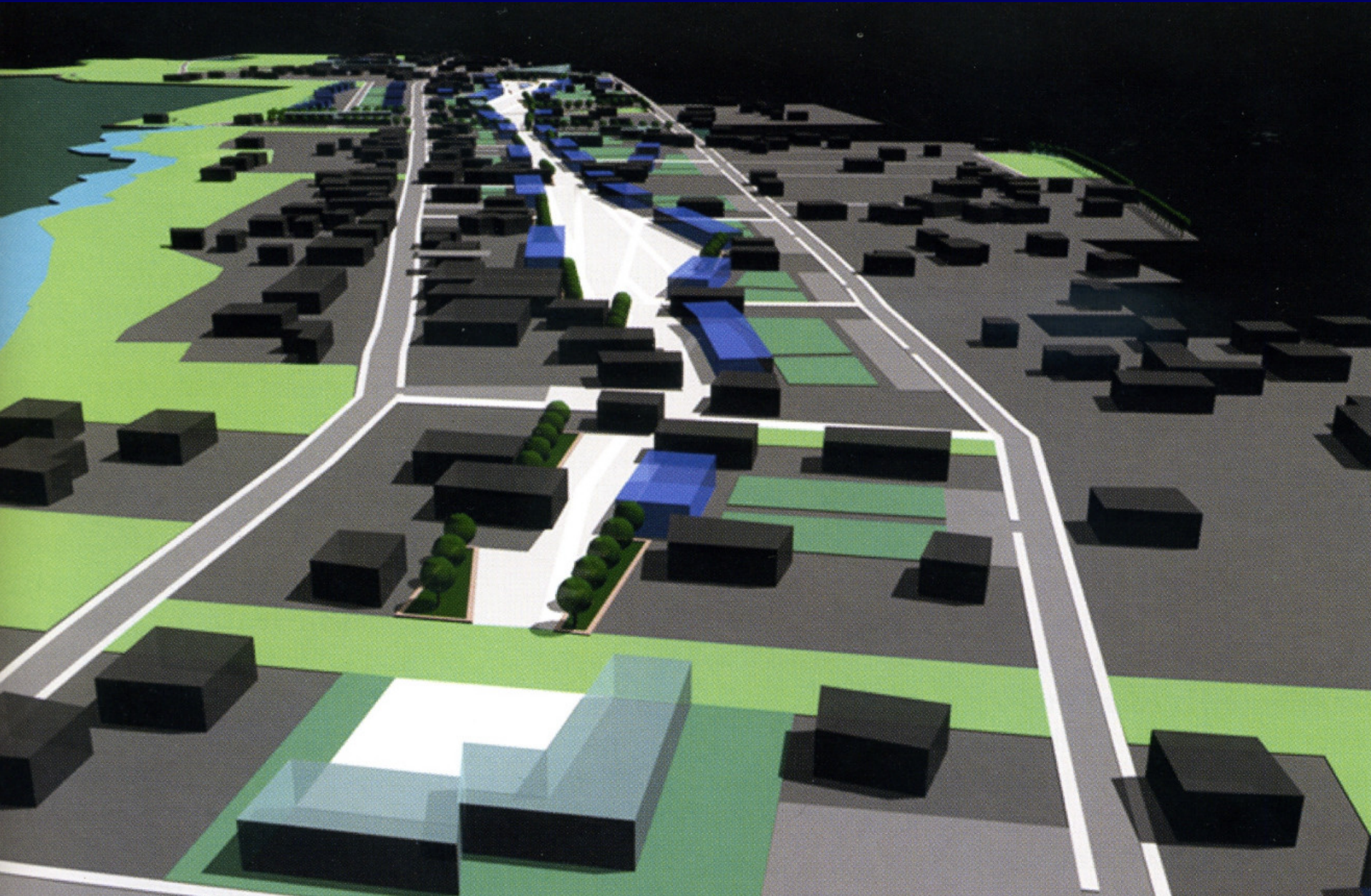
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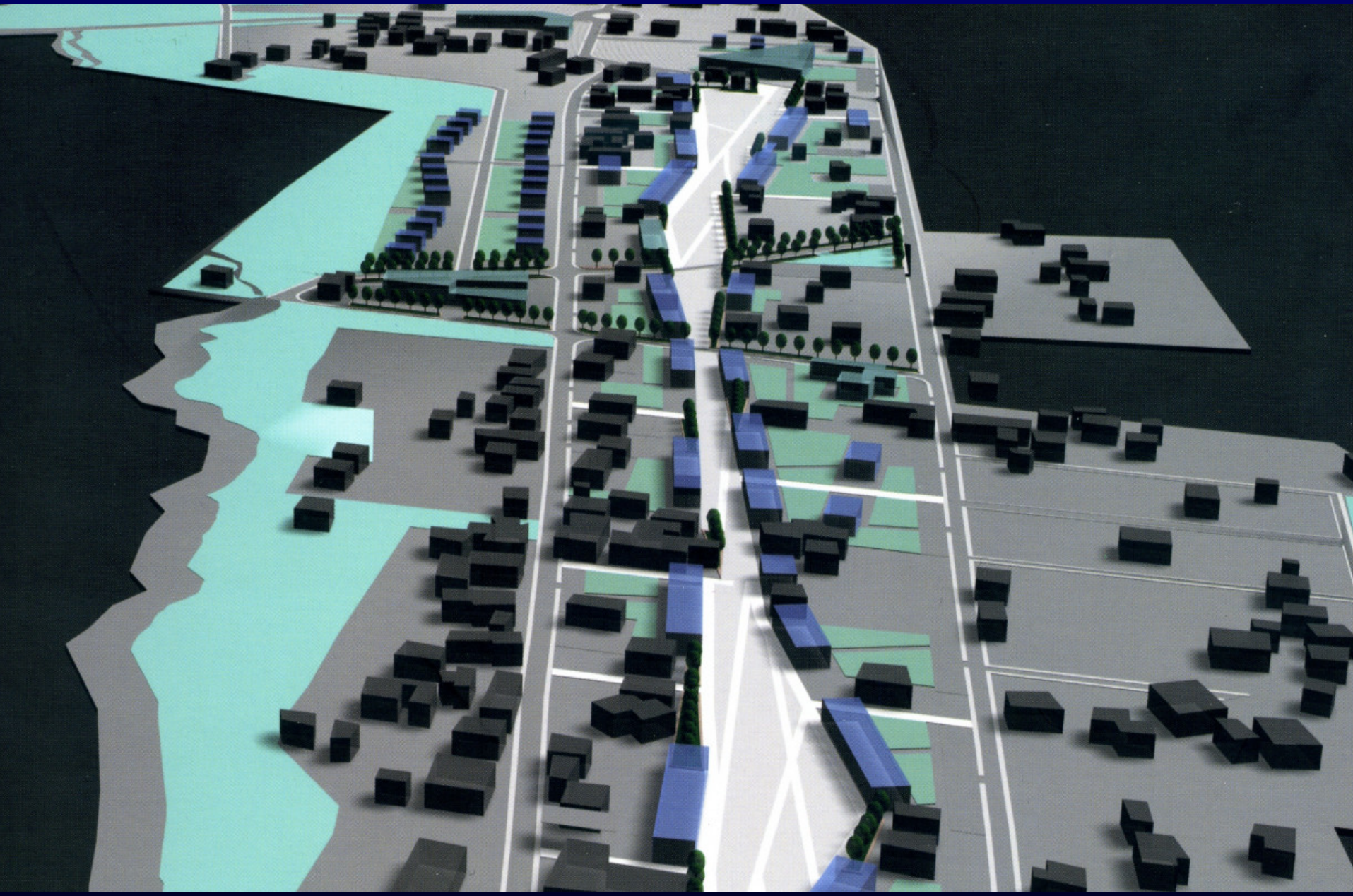
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# Prescriptive rendering



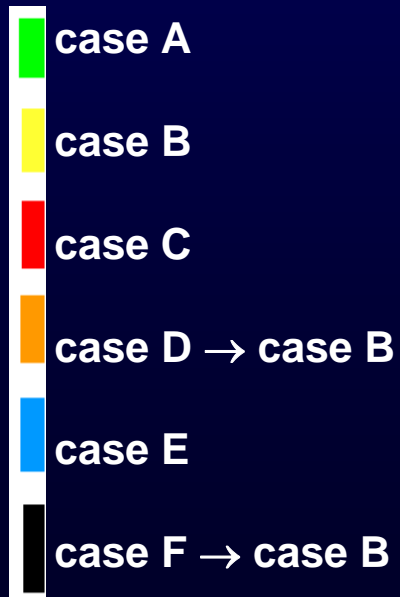
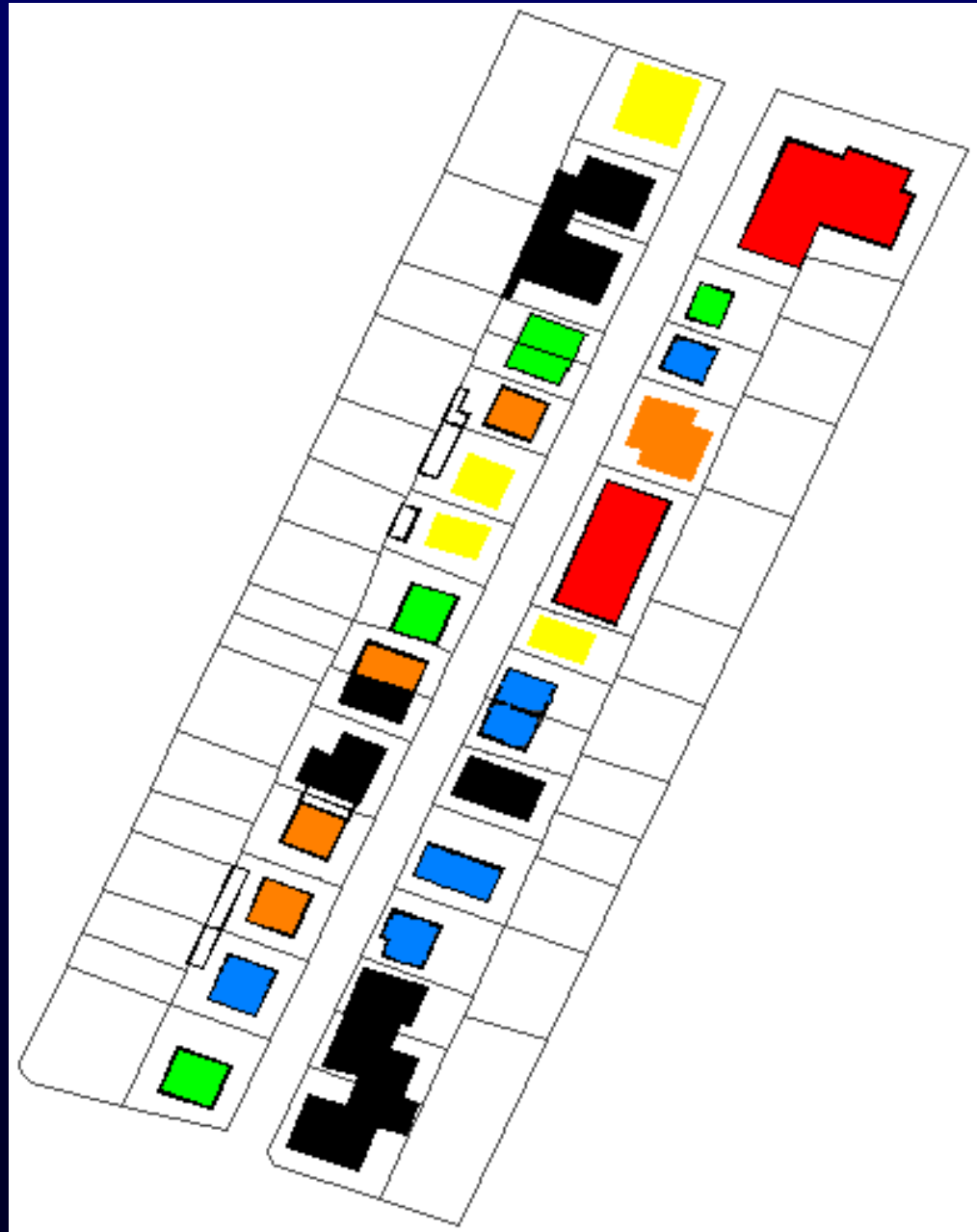
# Prescriptive rendering





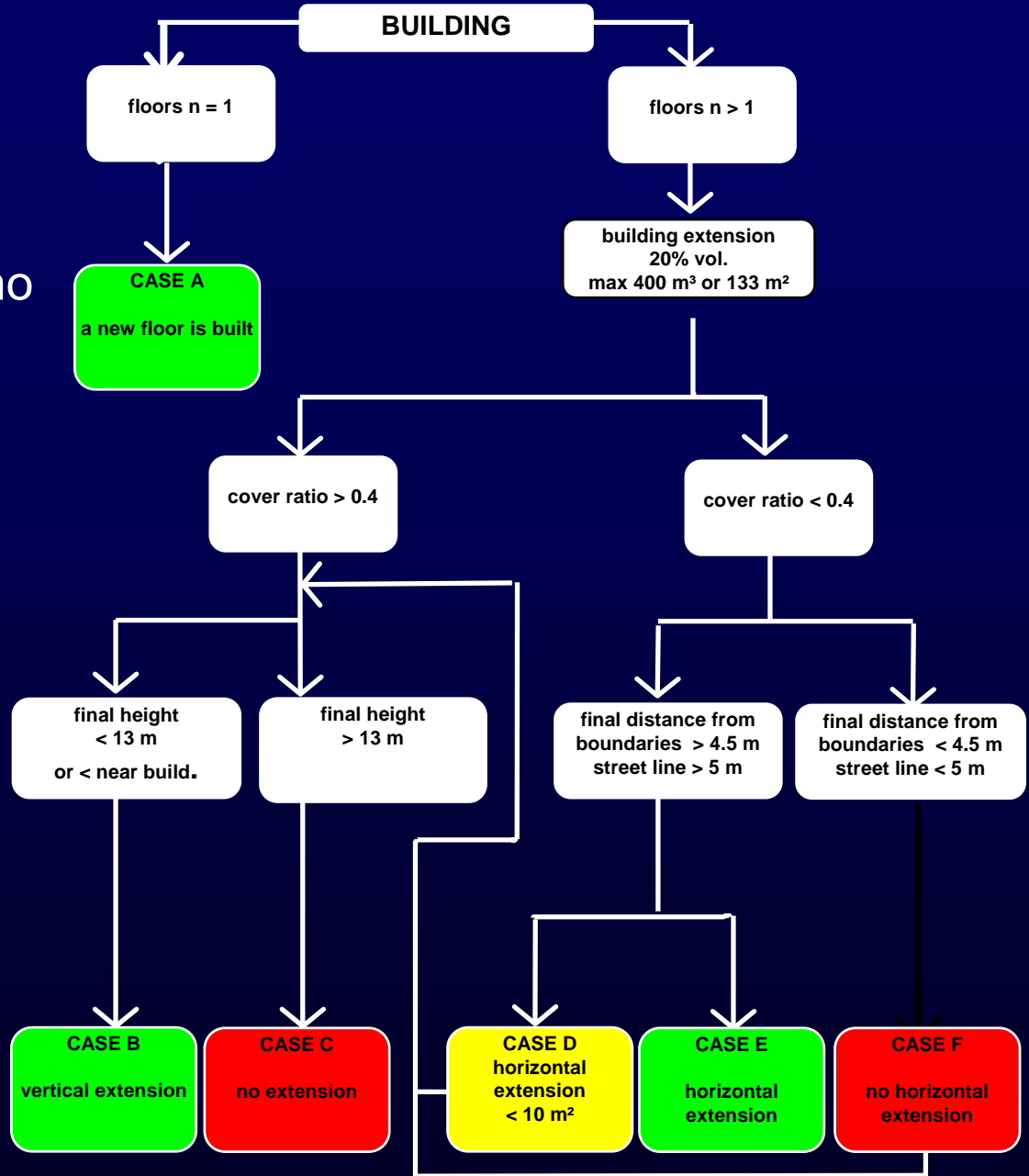
# Prescriptive rendering: il caso del PRG di Carpi

Buildings that can be extended



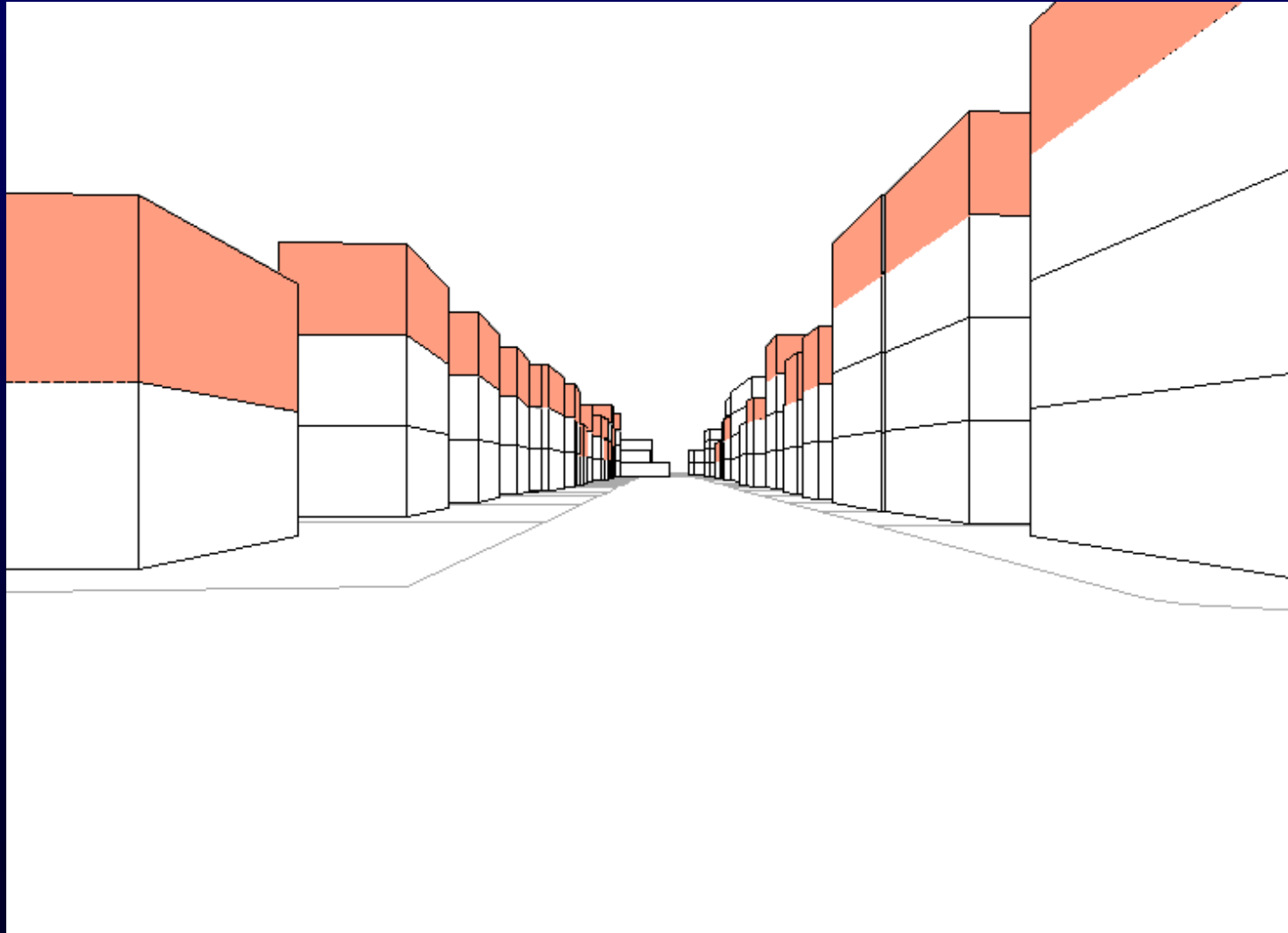
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Norme urbanistiche di una zona di piano



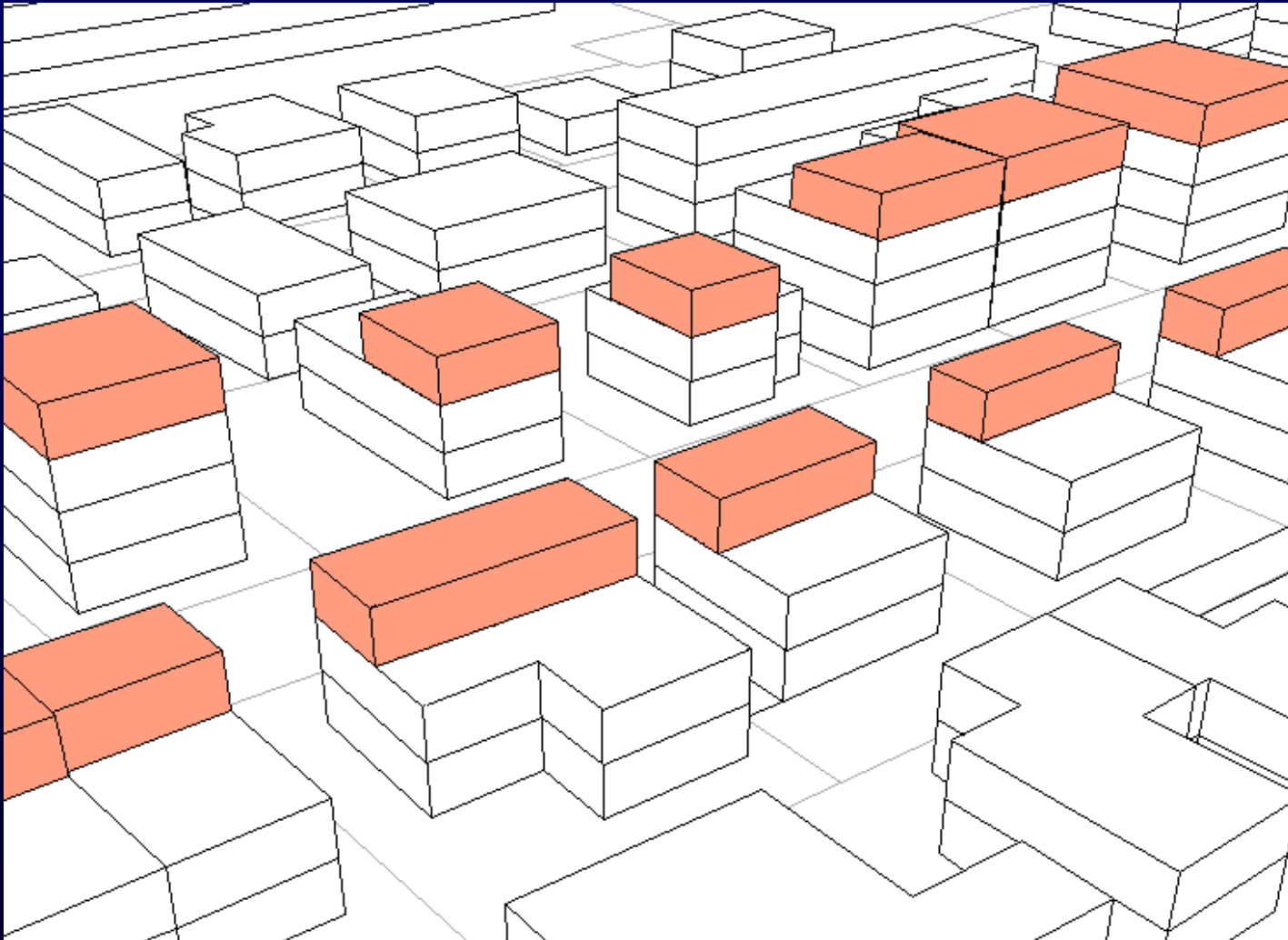
# Prescriptive rendering: il caso del PRG di Carpi

Max hypothesis  
Buildings extension lining street line



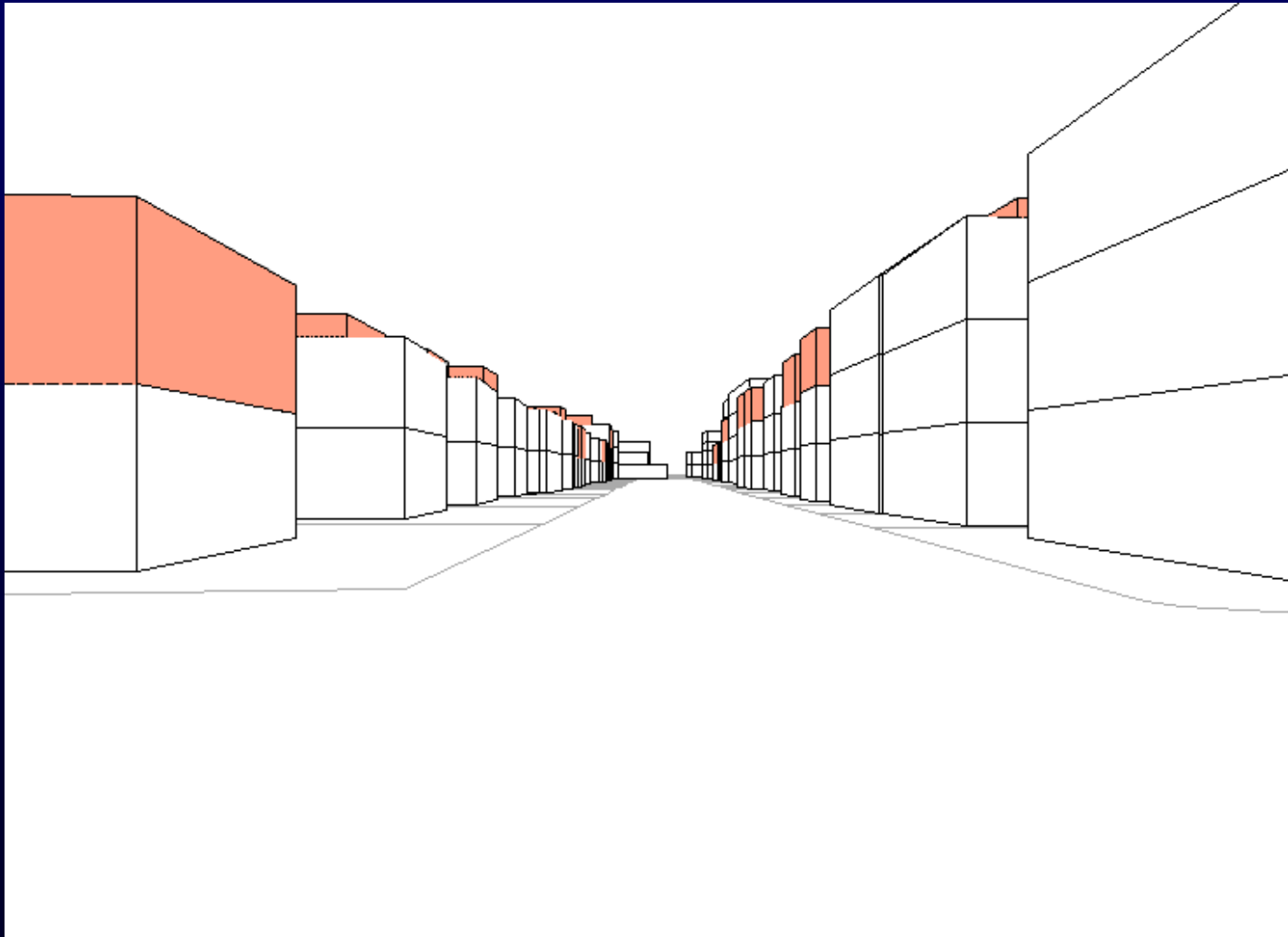
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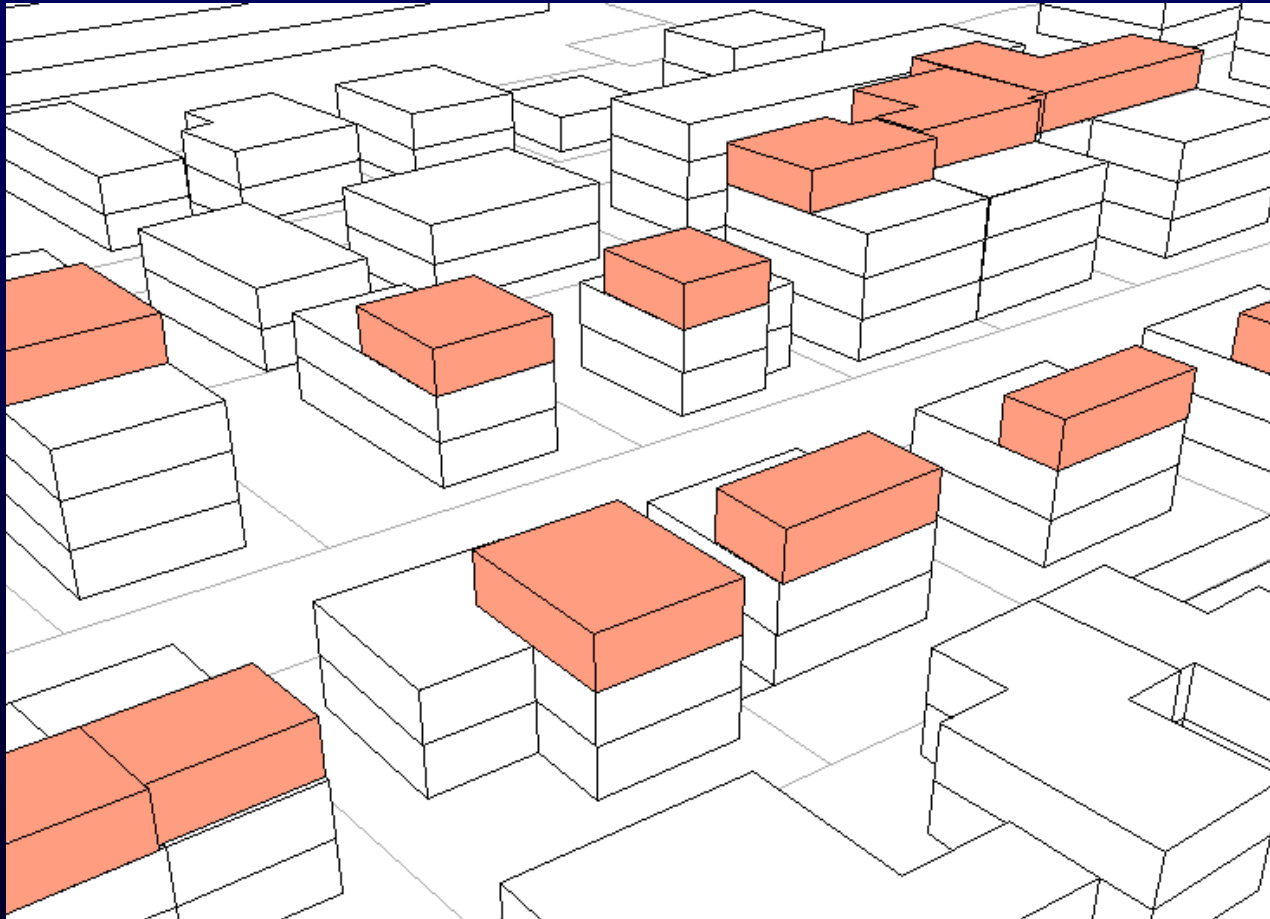
# Prescriptive rendering: il caso del PRG di Carpi

Max Hypothesis  
To make uniform the buildings height



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