

“A city’s treasure hunt – horizontal and vertical open spaces”

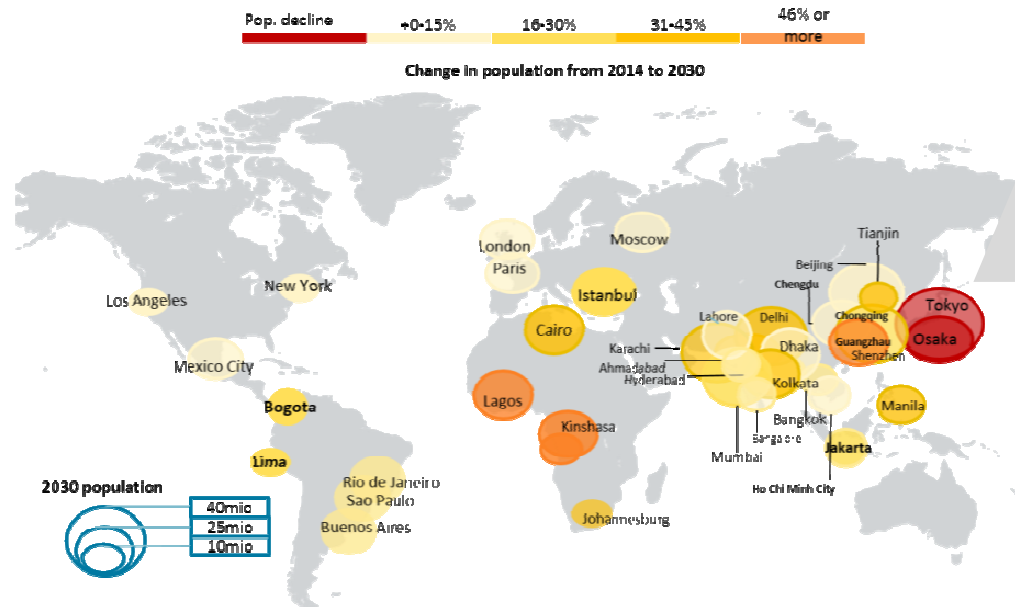


“

The 19th century was a century of empires,
the 20th century was a century of nation states.
The 21st century will be a century of cities.”

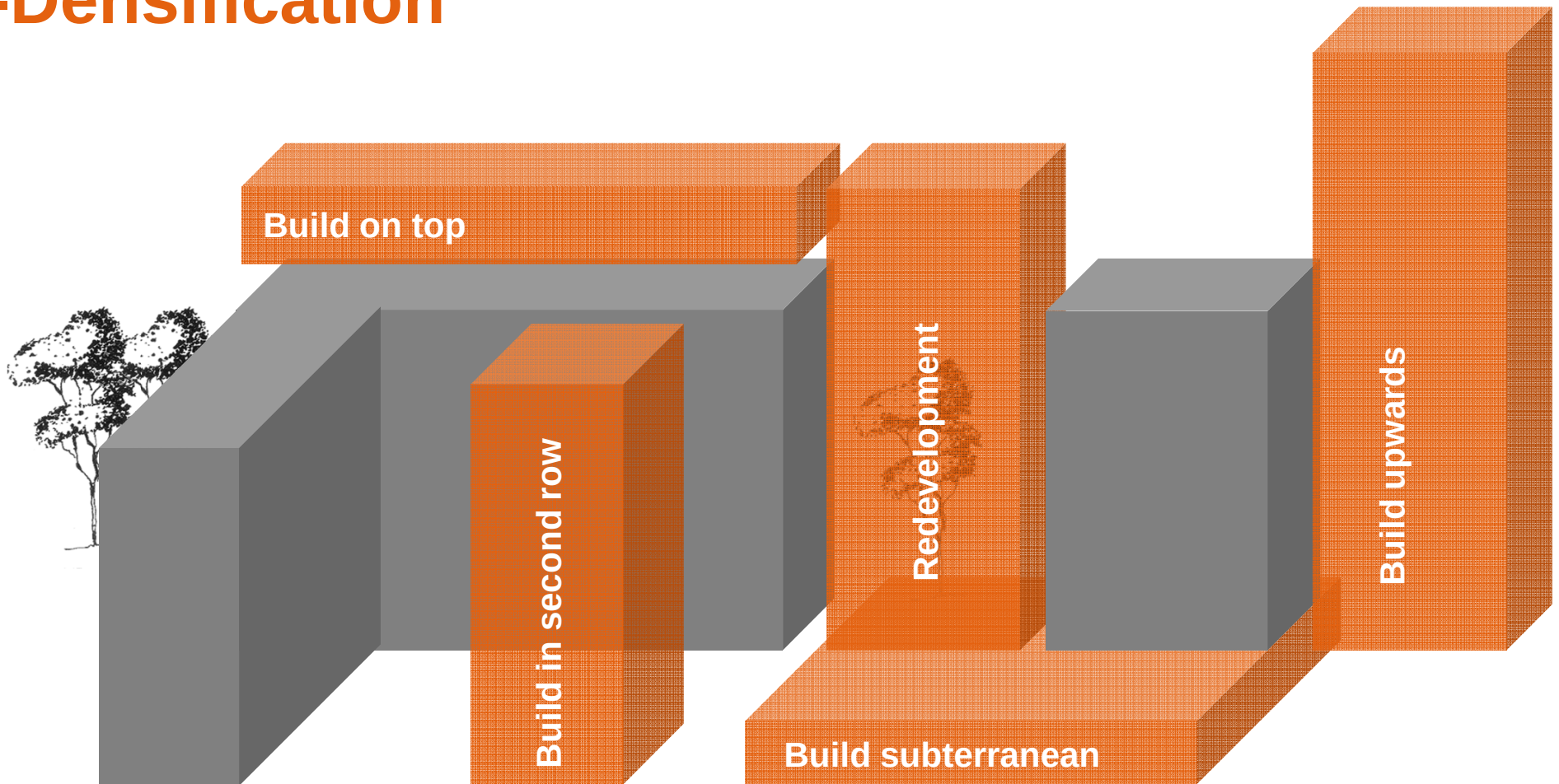
– Wellington E. Webb, former mayor of Denver, Colorado

Growth of the cities



Japan, Tokyo

Re-Densification



Redevelopment – In der Fläche



Use of existing space potential (space management)

Integration into cityscape

Space will be integrated in city developments

Upgrading

Pricier than greenfield new build

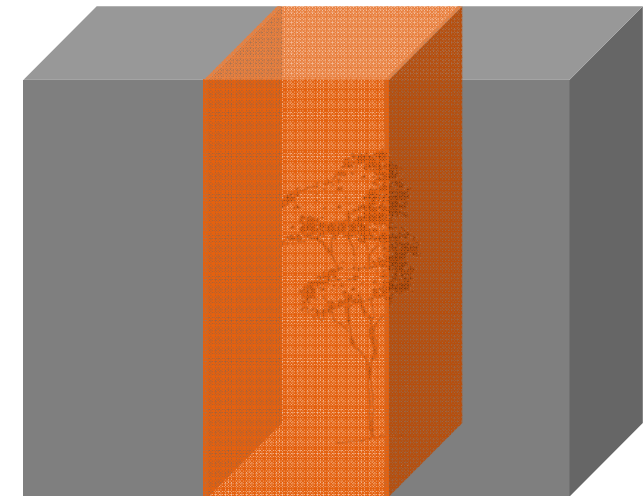


May create barriers to progress by owners and authorities

Circumstances due to building design law requirements

Possible loss of green areas

Micro climate change



Redevelopment – Mercedes Benz Arena



Services provided by Arcadis: city development concept und design of several buildings, Berlin

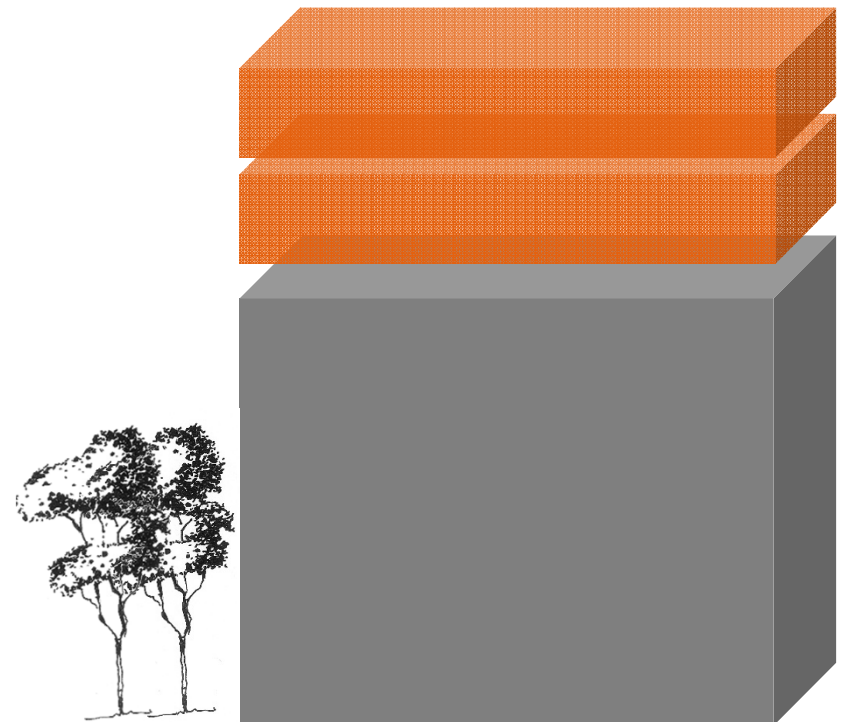
Build on top – Aufstockung



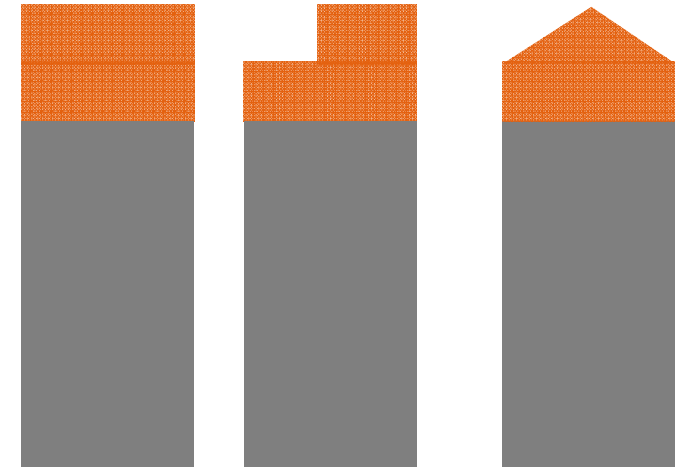
- Creating urban density
- Avoiding additional soil sealing
- Protecting open spaces
- Using existing infrastructure



- Considering statics requirements
- Following high rise building limits
- Missing acceptance, neighbor's tolerance



Build on top – Deutscher Bundestag



Services provided by Arcadis: Project controlling; Deutscher Bundestag, Berlin

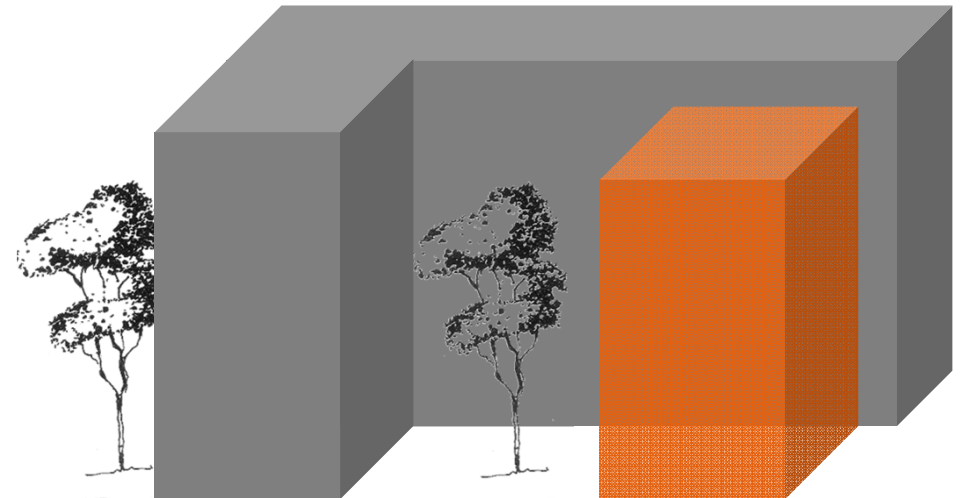
Build in second row – Hidden Assets



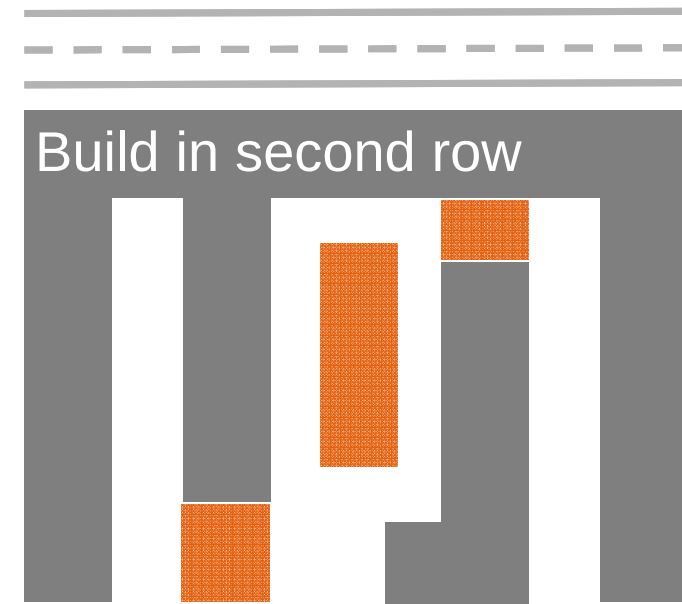
Avoidance of misuse or under use
Creating additional space
Additional utilization



Loss of urban play grounds
Light and air supply
(healthy living conditions)



Build in the second row – Deutscher Bundestag



Services provided by Arcadis: Project controlling, Deutscher Bundestag, Berlin

Build in second row – current news



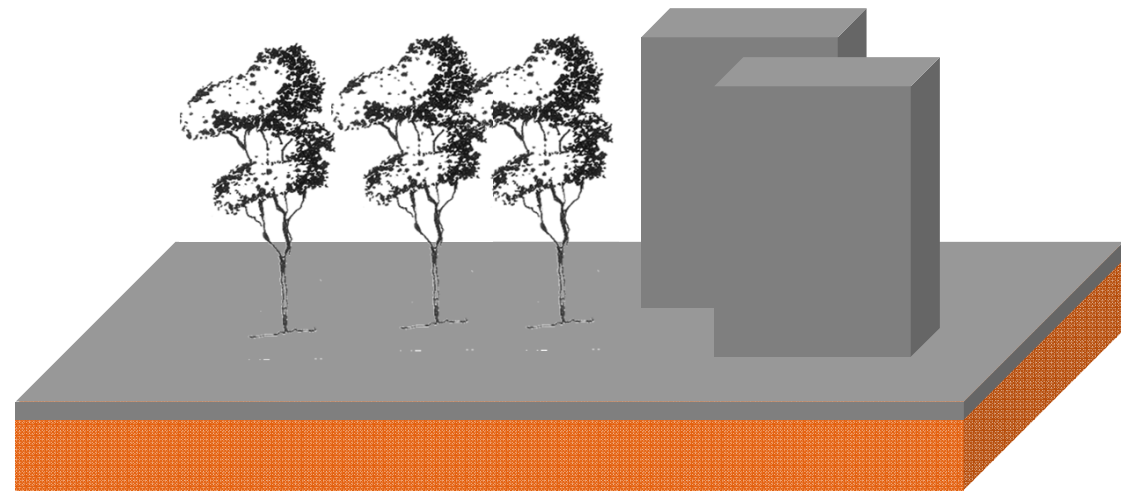
Subterranean – “Bottom-up Urbanism”



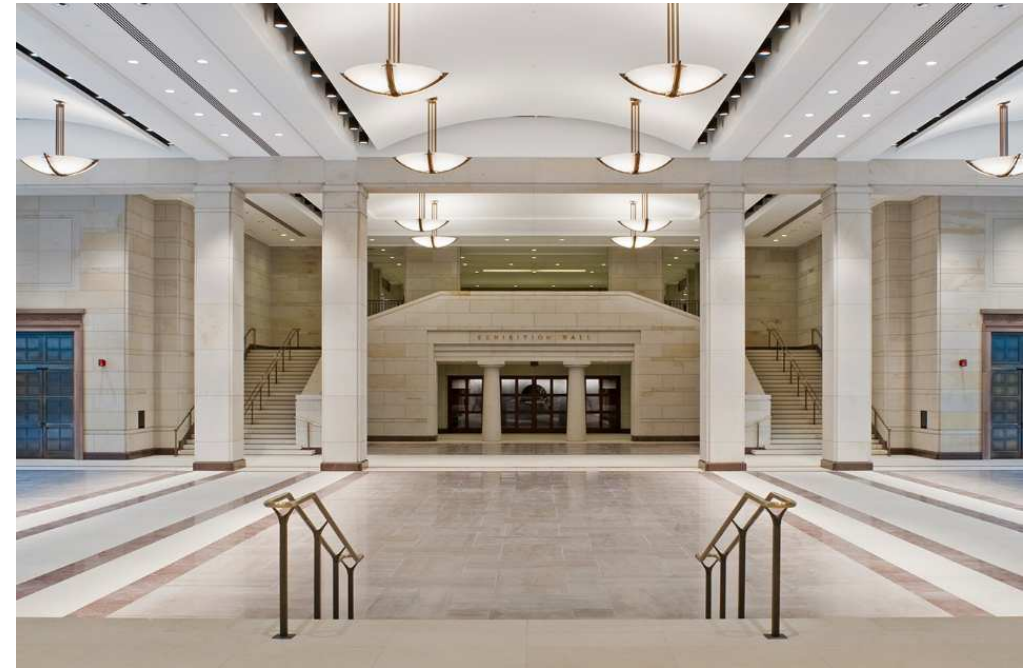
- Cityscape unchanged
- Obtaining green and percolation spaces
- Keeping existing utilization
- Double use possible



- Statics of adjacent constructions
- (Natural) lightning
- Ground water management
- Costs



Subterranean – Capitol Visitor Center



Services provided by CallisonRTKL and Arcadis: Project planning and controlling; CVS Washington

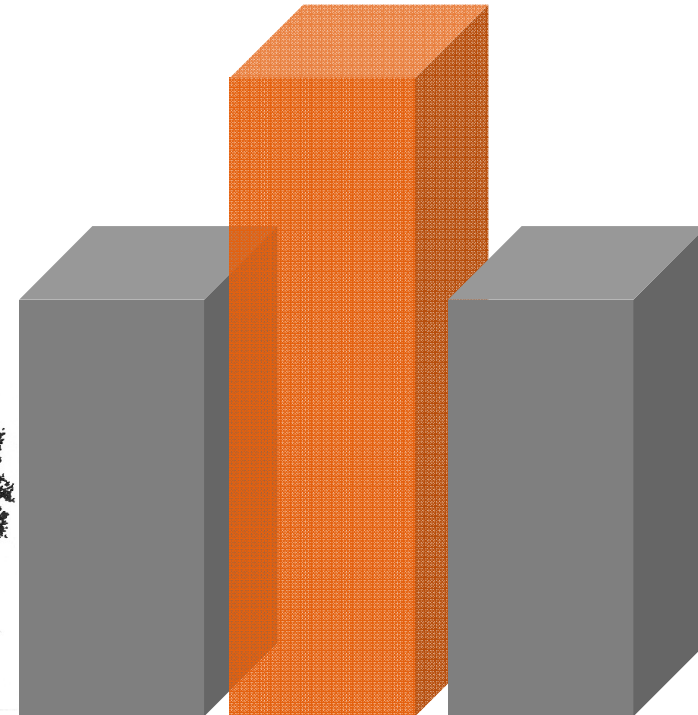
Build upwards – above the clouds



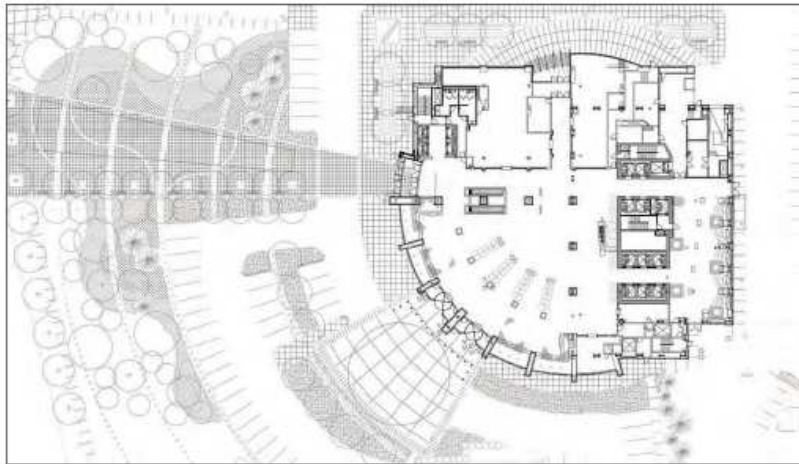
- Creating urban density and keeping free spaces
- Using existing infrastructure
- Possibility for mix use
- Vertical gardens



- Cost-intensive
- Downdrafts (open air aisles)
- Loss of connection to ground at a certain height



Build upwards – Warsaw Trade Tower



Services provided by Arcadis: Architecture, interior architecture and design

Re-Densification



COMBINATIONS

Consequences

Regeneration

- Schools, kinder gardens, play grounds as well as culture and entertainment
- Local supply of daily consumption goods and medical care
- Gastronomy and retail
- Space management and monitoring

Resiliency

- Avoid over heating (e.g. with help of open air aisles)
- Water management – Handling of ground and rain water, flood protection

Mobility

- Reducing traffic and emissions in a city of short distances
- Electro mobility, Bike, by foot, smart mobility and smart grid
- Optimization of limited spaces



“ Die Zukunft der Menschheit
liegt in den Städten.”

– UNO-Generalsekretär Kofi Annan, 2000
(Opening of world conference about the future of cities "Urban 21")

Consequences

How much density is beneficial for a city?

How sustainable should we build new buildings?

Which infrastructural measures have to be considered?

What concepts are available? Which ones do you know?

City of short distances?





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Abbildung 4: Illustration Aufstockung der buildings, http://www.aivhh.de/_bilder/bauwerke_des_jahres/2010_treehouse/treehouse_01_r1_c1.jpg, Abrufdatum 29.03.2016

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