



# Urban deserts, access to greenery and environmental justice the oasis-paradise as a strategy for punctual urban transformation

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In the search for the founding principles of sustainable development, the international community has clearly identified the need to combine economic and social issues with a specific attention to environmental justice. The protection of natural ecosystems and the maintenance of natural elements even in highly anthropized contexts are fundamental to ensure human well-being and also to overcome inequalities.

These issues have an important impact in the contemporary city. More and more cities appear as extensive deserts, made of cement instead of sand, and in fact a correlation between urbanization and desertification exists since the uncontrolled extension of urban areas is the cause of the phenomenon of desertification and sterilization of soils due to the extensive sealing of soils and a disproportionate absorption of resources.

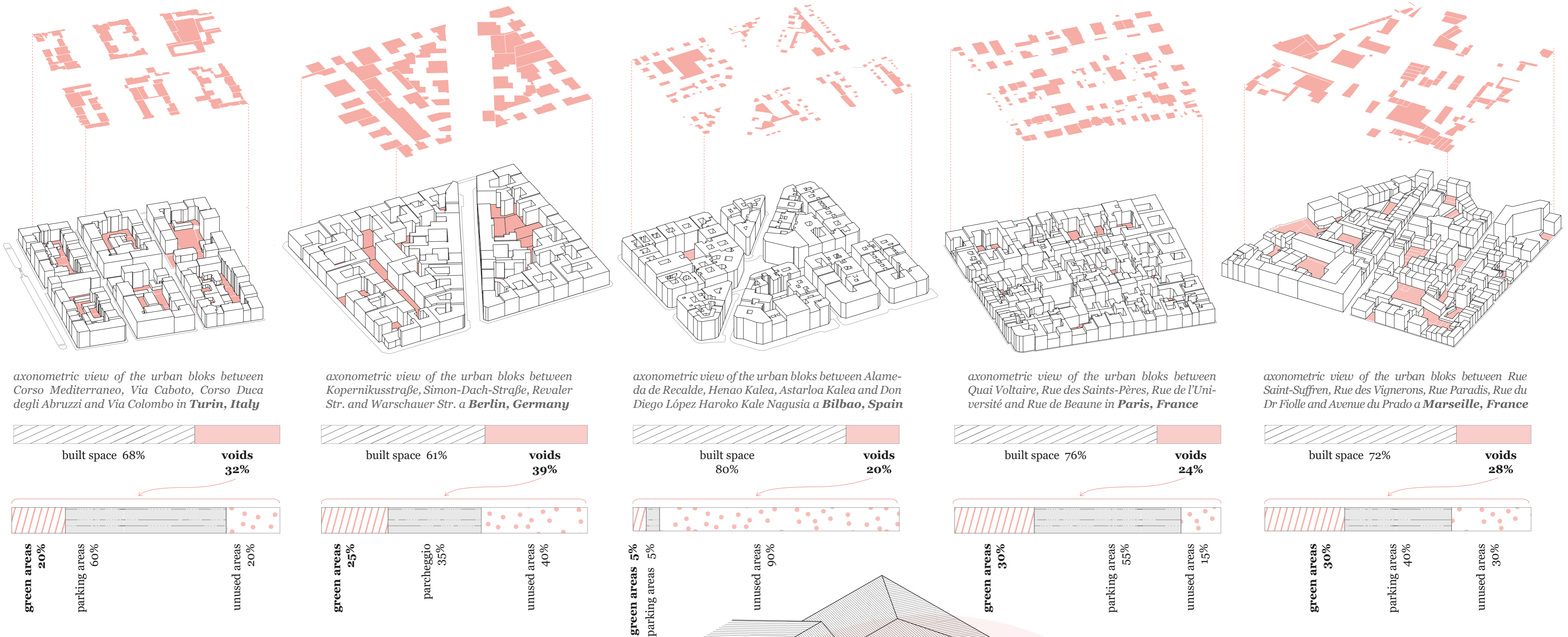
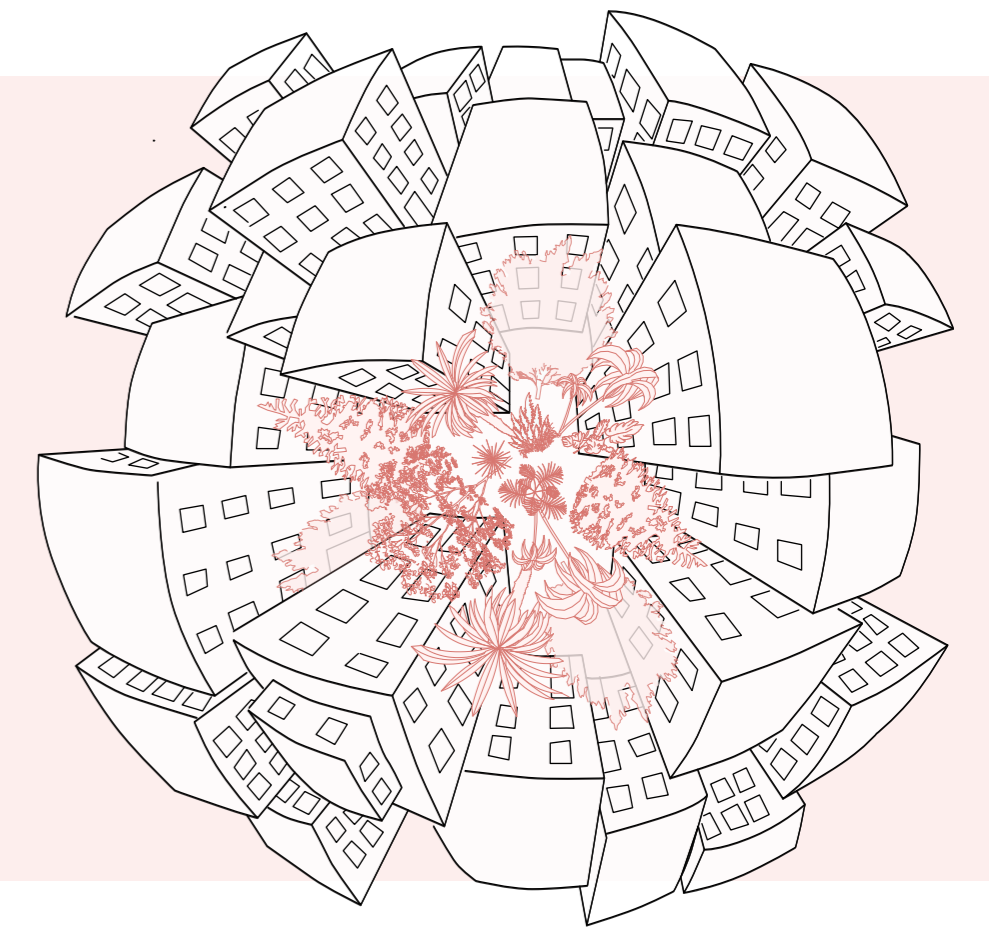
The search for environmental justice in the contemporary city must therefore concern the restoration of natural elements and dynamics in the urban fabric and attention to a fair distribution of the benefits of this process, that means ensuring access to nature for all.

Image created for the Aigües de Barcelona in response to a 2008 drought in Barcelona  
source: <https://essentiallandscapes.wordpress.com/2010/09/08/food-water-and-urban-desertification/>



For this reason, a possible strategy for the sustainable transformation of cities is that of the oasis-paradise.

The oasis is the essential model of a closed microcosm in balance with the context in which self-sustaining dynamics are triggered and better environmental conditions are produced. The oasis-paradise in the contemporary city is a strategy of insertion of gardens based on the recovery and reuse of resources, in order to reinsert nature in the urban environment and to produce closed micro-cycles that go beyond the current functioning of the city based only on consumption.



In order to test the applicability of this strategy, 5 urban areas extrapolated from as many European cities have been investigated: **empty spaces** inside the blocks occupy on average **28%** and of these only **22%** are green spaces (i.e. 6.16% of unbuilt indoor spaces).

The transformation of unused or under-utilised residual spaces into sustainable green spaces would therefore potentially have a massive impact on the urban ecosystem.

Moreover, this strategy has the advantage of being feasible through a series of small interventions favoured by the public system, but necessarily implemented at the level of private initiative, and its application equally concerns central and peripheral areas.

**stormwater planter box**  
a system for housing plant that allows to collect rainwater: in this way an overloading of the centralised network is avoided in case of heavy rainfall and no additional volumes of water are needed for the maintenance of the garden

**water tank**  
for the collection of domestic purified grey water reusable for irrigation

**vegetation**  
the seasonality of the plants makes it possible to reduce the heat island effect in summer, without however hindering direct sunlight in winter; moreover vegetation helps to reduce air pollutants

**water wall**  
for cooling the garden during the summer season and to produce a pleasant noise that reduces stress and depression

Project proposal for an unused inner courtyard of Turin

## Landscape Forum 2020

21<sup>st</sup> - 25<sup>th</sup> of April 2020 | hosted by the Bratislava University of Technology in cooperation with the Slovak University of Agriculture in Nitra and the Technical University Vienna

### Poster exhibition



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## Urban Growth and Green Infrastructure



# 9<sup>th</sup> LE:NOTRE *Landscape Forum* 2020

Full day online event, Bratislava, Slovakia, 22<sup>nd</sup> of April 2020

## CERTIFICATE

Dr. Maria Stella Lux

contributed with a poster on Urban deserts, access to greenery and environmental justice the oasis-paradise as a strategy for punctual urban transformation and participated in the online LE:NOTRE Landscape Forum 2020

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