



# Future Resilience

## Low Tech isn't smart ?...

<http://www.biennaledelyon.com/veduta/residences/thierry-boutonnier.html>

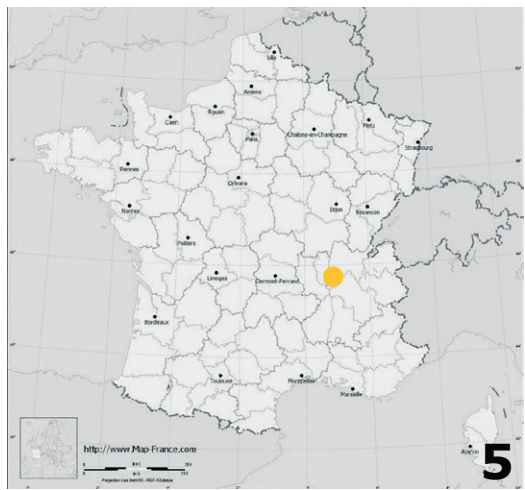
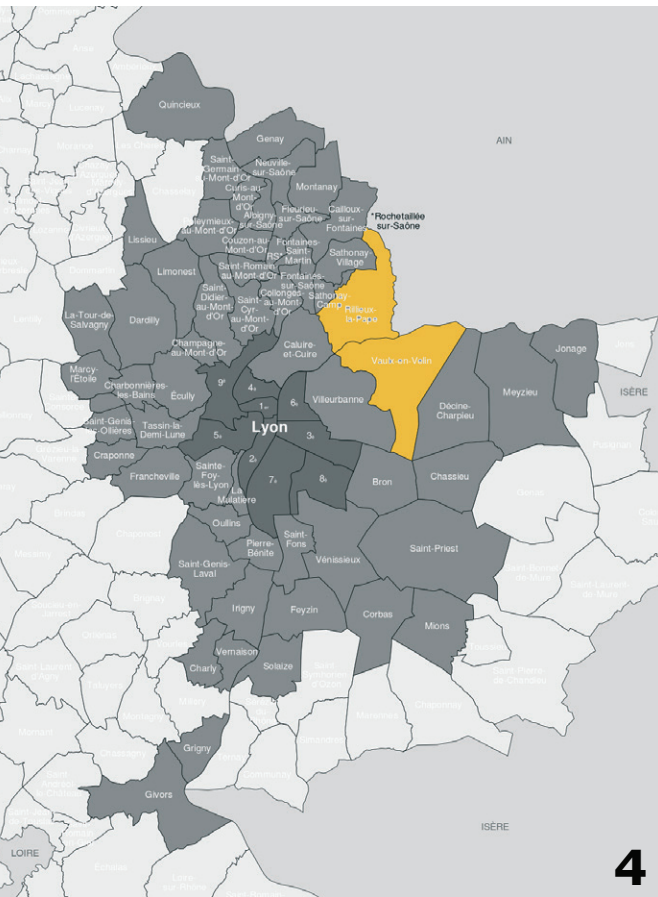


### Abstract

Is it possible to envision the city today without sustainable development? In Western Europe, we put a large part of our energy in the protection of resources in order to reduce the effect of climate change, especially the extreme heat in the city centers, and to develop resilient cities in the face of natural disasters. We also work hard on social development and on generating melting pots between generations and origins. With these goals in mind, we, as landscape architects, with our large scale projects, are part of the solution. But, as nature has proven, large impacts on our environment often come from the sum of a large number of little simple changes. **Nature provides 'low tech' answers, so, what can we learn from it? Fighting high level summer temperatures in our living spaces today is simple with smart technological solutions. But, it is just as simple and efficient with low tech natural solutions, like storm water management, evapotranspiration, wind use?** These solutions represent no energy costs. And they are reliable, even during a large power failure, this type of design continuing to function no matter the circumstances. Scientific experimentation in **Lyon, France** (but also elsewhere), has already proven that a planted street (trees and bushes) is 4° Celsius cooler than a mineral street nearby.

In each project, we have to choose between to use of "pre-invented" industrial solutions, often with a high need of technical maintenance, or the use of locally adapted solutions, needing little maintenance, except observation, cleaning and gardening. In order to answer the city's needs and be as efficient as industrial products, **we must dedicate more time to designing our public spaces, adapting solutions and designs to the spaces being refurbished.** Using these "natural" solutions will change the face of our cities, the atmospheres, the social networks, as well as the way we organize / share work. **We will need more and more 'city gardeners'.** These new 'gardeners' could be local citizens, just as they could be members of the city's extended garden department. In any case, more 'gardeners' also mean more social exchange and more social appropriation of public spaces.

This thinking is illustrated in projects developed in **the Lyon suburbs**, where a number of projects are being renovated. The refurbishment of large settlements from the seventies (associated with social housing) in the North of Lyon, integrates as basic design requirements, green infrastructure, storm water management and biodiversity strategies, wind orientation studies, as well as a structural analysis and thermal scan of all existing buildings. This doesn't forego the economic or the mobility analysis of the project. In another neighborhood, East of Lyon, raingardens and green spaces colonize the city center further preparing the area to climate change. The question is not to confront a smart life for smart cities, with a 'slow' and simple life for sustainable human installations, but just to choose the best solution for each situation.



4. The 55 municipalities of the Greater Lyon area. In yellow, cities of Vaulx-en-Velin and Rillieux-la-Pape

5. Location of Lyon in France

## RILLIEUX-LA-PAPE – THROUGH A NATIONAL URBAN RENEWAL PROGRAM, GREAT UNIFYING GREEN INFRASTRUCTURES - THE NEW «CLIMATE CONTROL»



1 - 1'. Phase 2 of construction on the Park: a before shot (2017: an abandoned bike park and path) and an after shot (2019: a new sporting plain, large grassy areas with community barbecues, an exterior bowling track and a secured bicycle path)

2 - 2'. Phase 1 of construction on the Park: a before shot (2017: a parking area with asphalt surfaces) and an after shot (2018: a prolonged tree filled park with secured bicycle path, green amphitheater, flower bed)



## VAULX-EN-VELIN - THE EVOLUTION / TRANSFORMATION OF DIFFERENT CITY NEIGHBORHOODS USING SHARED PUBLIC SPACES



6 to 7. Vaulx-en-Velin : Construction of the "priority development area" in the 70s

8. New design today (Corten steel screens engraved with the thistle motif). The thistle, the city emblem, refers to the market gardening's past, just as the blossoming hedges of the City hall Urban Development Zone are a reminder of the old alluvial landscape ambiance.



9. Planted fruit tree varieties, 10. Birdhouses, 11-12-13. The rainwater management of all local streets in the urban zone is exclusively alternative via rain gardens or ditches rainwater garden



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