

LANDSCAPE FUTURES

UNISCAPE CONFERENCE 2017

CONFERENCE PROGRAMME
BOOK OF ABSTRACTS



Bioremediation techniques: from environmental regeneration to cultural re-appropriation in post-industrial landscape

Elisa Baldin, University of Liège, Faculty of Architecture, Laboratoire Ville Territoire Paysage, Belgium

Key words

Intermediate Scenarios, Post-Industrial Landscape, Bioremediation Methods, Ecosystems Activation

The progressive lack of soil, due to the extension of built-up areas, raises the attention towards the potential of brownfields, which are emerging as wrecks, left on the territory by the deindustrialisation wave. The debate on the reuse of abandoned sites appears as an urgent issue within territorial policies in Belgium, where the urban sprawl will soon achieve a saturation point, generating an irreversible depletion of green areas. Still the soil remediation of abandoned industrial sites adds complexity and high costs to the recycle process, which has the aim of giving new inhabitable places back to the towns.

The interest in nature-based solutions lies in their multiple effects, which are required elements for the construction of future sustainable landscapes. First, the application of bioremediation methods on polluted soils, such as phytoremediation, biodegradation, and other techniques based on the use of organisms to neutralize pollutants, reintroduces the value of nature as an activator of ecological processes in those manufactured sites where soil and subsoil have been exploited to depletion. In fact, the use of bioremediation techniques, based on ecosystems activation, reintroduces the slow temporality of nature, where seasonality reveals the rhythm of regeneration phases in "degenerated" wastelands. Secondly, the presence of numerous derelict lands, offers the possibility to test these experimental methods by observing and managing the reclamation process directly on site. Hence, the regeneration of wastelands by bioremediation techniques represents a research branch where landscape discipline is enriched by the close cooperation with agronomic discipline and environmental engineering. Furthermore, even if these green technologies are supposed to provide quite long-term results, the effect of occupying vacant lots by cultivating them represents a strategy against decay, where landscape research plays an essential role in the design of intermediate scenarios.

This concept of *nature intermédiaire*, (M. Desvigne), promotes small landscape-based interventions aimed at reviving citizens' interest in urban quality, against decline. Following this approach the researches of Lab VTP at the Faculty of Architecture of Liège have led to the constitution of a landscape laboratory, lab Pay(S)age, concerning the observation of landscape transformations and the proposal of evolutionary visions of the territory. The project is a "medium", a designed interface, capable to raise a dialogue between the stakeholders involved in urban transformations and to orient citizens towards a cultural re-appropriation of the places. The paper describes a first stage of a PhD research, développé at the Lab Pay(S)age, with the aim of exploring possibilities and realisations about the landscape approach in regenerative design strategies of industrial abandoned sites in Walloon region.