

Luxembourg 2050 – Prospects for a Regenerative City-Landscape

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What new forms of economy, labour and housing, what new ways of production and resource use, what new practices of nutrition and consumption, what new structures of administration, ownership and participation will have to be developed in order to drastically reduce CO₂ emissions, and protect and regenerate natural resources and biodiversity, while being resilient to the effects of global warming and climate change? In other words, how should our economy, our lifestyles and our governance processes change in order to overcome the fossil age?

Our team shares the belief that technological progress alone will not suffice to bring about the necessary ecological transition. Without denying the benefits of many technological advancements, we are committed to exploring the prospects of a more structural transformation of our society, its economic, social, political and anthropological orientation. The vanishing point of our work is what has been intensively discussed since the 1970s, and more recently, as a post-growth society. This paradigm is not to be equated with demographic shrinkage or economic recession, but emphasizes the need to move away from the illusory idea that current production systems and consumer goods could grow in the long term and globally as long as the consumption of resources can be continuously reduced through technological innovation and efficiency gains. Contrary to the decoupling myth of the green-tech approach – economic growth is to be separated from CO₂ emissions by means of technologies – the aim is to shift indicators such as gross domestic product (GDP) and models such as competitiveness, location policy and mass consumption, towards values such as time, community, diversity, creativity, health, safety, air quality, healthy and rich nutrition, proximity to nature, less fossil based mobility. In other words, to reconfigure the concept of quality of life.

An important point of our approach lies in the prospects of a sufficiency-oriented approach: How can we redefine and recharge Ludwig Mies van der Rohe's motto "Less is more" in relation to current ecological challenges? How can we move from a modernist "existence minimum" to an "existence optimum" that adequately evaluates the consumption of land, resources and energy? We do not want sufficiency to be understood one-sidedly as individual self-restraint and renunciation of consumption; rather, it is about a new socio-political consensus on the necessities and limits of resource use. This approach requires the development, formalization and quantification of alternative practices, structures and typologies that – dialogically speaking – bring things together again, assemble them into local and regional rural-urban cycles. How can we articulate antagonistic processes in urban development such as nature and culture, community and individuality, ownership and participation, and bring them into a productive synergy with one another? How can we transform the localist turn, which was forced by the COVID-19-pandemic but already hotly debated in urbanism, into new spatial and legal structures? For us, one of the possible answers to these questions lies in the valorisation and attractiveness of common goods, cooperative structures and non-profit activities, in the strengthening of local and regional solidarity networks.

Our interdisciplinary team, composed of researchers, planners and practitioners from the University of Luxembourg (UL), the Luxembourg Institute of Science and Technology (LIST), the Centre for Ecological Learning (CELL), the Institute for Organic Agriculture (IBLA), and the Office for Landscape Morphology (OLM), will focus on five most pertinent and closely intertwined topics: agro-ecology, regenerative energy systems, alternative economies and governance/participation-processes, in addition to regional planning, urban planning and design, and architecture. A first planning hypothesis lies at the close interweaving of urban structures, productive landscapes and topologies of biodiversity. On the one hand, geospatial modelling devices able to translate spatial processes into landscape indicators, such as the Suitability Index, will be used in combination with qualitative analyses in order to define areas that should be densified and intensified, and on the other hand, strategies to unseal, re-naturalize or convert areas of the fossil age – brownfields, parking lots, motorways, derelict office space – will be instrumentalized in accordance with the recent context of digitalisation and the COVID-19-crisis. A second planning hypothesis lies at the elaboration of small-scale urban structures and hybrid architectural structures, through which different uses, as well as built and unbuilt areas, could be spatially brought together and designed in such a way that they remain flexible and can be adapted to the changing needs of new forms of cooperation and living together.