Urban design in the age of the anthropocene: Facing demographic shifts, climate change and finite resources

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URBAN DESIGN IN THE AGE OF THE ANTHROPOCENE

Facing demographic shifts, climate change and finite resources

A close look at the urbanization of the planet today reveals that most people live in sub-, peri- and exurban areas. Complex infrastructural networks interweave villages, agricultural areas, cities, commercial parks and dispersed settlements into urbanized territories all over the countryside. A key form of contemporary urbanization had never come into existence without the extensive individual mobility that emerged in the second half of the 20th century on the basis of low priced and seemingly inexhaustible fossil fuel. This is the urban form one is dealing with when discussing future challenges for urban planners and designers. Extensive commuting, the fusion of rural and urban as well as superimposed scales of intertwined networks make the situation even more complex. And the demographic and socioeconomic changes of an increasingly cross-linked global society additionally amplify this process of urbanization.

A holistic design approach

Planners need to become able to act as strategic designers of the ‘Kulturlandschaft’. A broad variety of geographical, environmental, social and economical conditions and necessities have to be taken into account. For such a broad variety of stakeholders, specific regional approaches should be fostered that allow adapted answers to local conditions without losing superior perspectives. The cultivation of diversity renders the environment to be more resilient and attractive.

Open territories

The mentioned global trends of the past decades, presenting the challenges for the future, are studied and well known. Rather than shockering blatant utopias, it is more necessary than ever to develop concrete design approaches for the transformation of the urbanized landscape into regenerative territories, maintaining a high quality of life. Closing resource and energy cycles is the order of the day. But certain self-sufficient eco-cities, local energy networks or closed loop recycling management systems run the risk of excluding the non-involved or non-paying others. Responsible design for future open territories should therefore exemplify their potential to accommodate socially democratic collectivities based on individual freedom, the division of labour, specialization and plurality.

A ubiquitous understanding of today’s territory

Everything shaped by humans is culture; this includes the territory. Cultured landscapes emerge through medium dense form of interaction of humans with nature. Their regional differences are due to natural conditions and increase with growing technological development. With this holistic concept of the ‘Kulturlandschaft’ we establish to consider future territories as ONE continuous culturally shaped landscape.

The challenge in the future is to design and develop sustainable concepts based on the implementation of renewable energy production for these territories in order to provide enough living space, employment and a high quality of life for the entire population. This requires architects, planners and urban designers to get involved. The building stock in Europe is accountable for a major share of energy consumption with construction being the most resource consuming human activity. The orientation versus renewable principles is therefore not just a marketing strategy but rather a social necessity in the long run. Additionally, spatial and strategic design is a powerful tool to test and negotiate future developments with the various players involved.

Implementing robust long-term strategies

As the superposition of mankind activities renders the open landscape more and more urban as well. Particularly important for the equation result in more intensive use of landscape. Leisure activities in Switzerland, for instance, are responsible for more than 40% of overall traffic today. Farmers complain about littering along roads and trails and traffic conflicts with horseback riders or mountain bikers in the traditionally compact and dense city cores. The agricultural production in Switzerland is non-profitable and depends on high subsidies and can only be sustained through subsidies. This results from the constant interaction of humans with nature. The Swiss government assumes that four fifth of the population live in these territories in order to provide enough living space, employment and a high quality of life for the entire population. This requires architects, planners and urban designers to get involved. The building stock in Europe is accountable for a major share of energy consumption with construction being the most resource consuming human activity. The orientation versus renewable principles is therefore not just a marketing strategy but rather a social necessity in the long run. Additionally, spatial and strategic design is a powerful tool to test and negotiate future developments with the various players involved.

KULTURLANDSCHAFT is one of the main fields of research at the Chair of Architecture and Urban Design of Professor Kees Christiaanse at the Institute for Urban Design of the ETH Zurich. Applying transdisciplinary concepts at the interface of teaching and research, its team under the direction of Michael Wagner investigates how incentives for sustainable development strategies for low to medium dense urban territories can be created with a focus from within the landscape. One of the goals is to activate synergies through the coordination of different stakeholders in order to develop robust strategies for the design of context-sensitive spaces with high living quality.

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