

Density has long been at issue in the design of our collective built environments. The degree of spatial and programmatic compactness is at the heart of how we artfully occupy buildings and cities. Density directly effects the amount and kind, and the experience of social interaction. Whether density creates shared identity through shared space (Rowe, Rossi) or interprets the city as a montage stage-set of events (Tschumi), as an engine of creativity that is the result of the intense proximity of multiple, different functions and identities (Koolhaas), or is defined as a culturally specific aspiration in an attempt to relax control of social communication in the private worlds of exurbia (Estudio Cruz), density is an essential ingredient of how we consciously and subconsciously occupy and arrange our worlds.

The combined pressures of global population explosion, measurable and alarming ecological stress and related urbanization, and projected food and clean water shortages, force questions about settlement optimization; density related issues take on a new urgency. They suggest that those who make policy and design future environments, must develop a complex, qualitative understanding of density and how it affects the arrangement of cities. All urbanized, 21st c. settlements will in some way be affected by the shifting pieces of a complicated equation that include resource consumption, environmental performance and unpredictability, economic opportunity, social integration and cultural shift, mass migration, and the balance and ambition of political regimes. These pervasive and perpetual forces have always changed the way we imagine and project urban environments.

It is commonly assumed that urban compactness is more environmentally friendly, economically efficient and socially desirable. Recent studies however, offer mixed conclusions. Urban mass tends to over-heat, city centers are unaffordable, and an increasingly universal appetite for privacy drives a diffuse arrangement of urban patterns.

How should we optimize density; physically, functionally and culturally? Should we design for an increasingly compact urban core and condition ourselves to either “get used to it” or design ways of temporarily escaping its negative effects? Should we take the opposite approach and spread out across the landscape, allowing for sufficient light and air, with the aim to engineer systems that service our corporeal and social needs efficiently and ecologically? Is there a sweet spot between the two; how might we measure it?

These are just a few questions generated by the issue of urban density in the 21st century. As with most architectural-urban issues, the response often pairs measurable data against culturally driven and fluid aspirations of identity and lifestyle. This symposium series offers an arena to discuss the current and near future status of a fundamental quality of built environments. The stakes are high. Architects and urban designers must be partners in the design of desirable, negotiated, and sustainable built environments. If we are not, the results may be devastating. Faced with the threat of our own extinction, of populations that cannot be sustained under current models, we are now required to rethink the nature of human settlement, of how we live in cities, and indeed, on the planet.

Some statistics:

From 1959 to 1999, global population doubled from 3 to 6 billion and another 1.4 billion people have been added in the first 16 years of the 21st century. Although the rate of population growth has slowed from its peak of 2.19% in 1963 to 1.3% in 2016, the latest projections indicate that world population will reach 10 billion people by 2056, and keep on growing. Between 1960 and 2016, global population density has increased 247% (from 23 to 57 people/km²), and urban populations have grown from 33.8% to 54.3% of the total population. That amounts to 4.034 billion people – over half the global population – living in what we now recognize as urban centers. The earth is just so big