

# From trees to networks

Hierarchical, or tree-like urban patterns are an indication that cities are losing their openness, observed Kees Christiaanse. He fears that the typical city is becoming a patchwork of disjointed, sterile, and partially inaccessible sectors, and argued for an understanding of the city as an open system.



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**Urban**

In medieval times, most European towns and cities were closed entities. Ruling authorities determined who was allowed to enter, and merchants were forced to pay at the toll gate and customs house. In the early modern period, with the advent of industrialization, the situation fundamentally changed. Factories required more workers than cities could provide, forcing urban entities to become more open. This shift was often symbolically expressed by tearing down the old fortified city walls. But in practice, it enabled citizens as well as outsiders to move about freely in an ever-expanding network of public streets and squares.



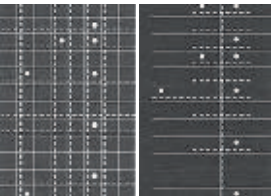
Walled cities formed a coherent entity; contemporary agglomerations have multiple and dispersed zones of limited access.

### **Gated enclaves are becoming the norm**

Christiaanse is convinced that we are once again on the brink of such a fundamental shift: The openness of the modern city has peaked, and the tide is turning. “Someday our grandchildren may tell their grandchildren that between 1820 and 2080, there was a period when cities were open.” In particular, a heightened demand for security has promoted restricted access to increasingly larger urban spaces, which are open only to certain people or during certain times of the day or night. “This is the modern global city – campus, gated communities, shopping malls, and business parks exist as islands linked together by major transportation arteries. Circulation within the city increasingly means traveling along a main transportation axis, and turning off only for the purpose of entering gated or enclosed sectors.”

### **The city has become a tree**

In 1965, architect and urban theorist Christopher Alexander wrote a classic essay called “A City is not a Tree,” expressing his fear that cities



Diagrams comparing open and closed urban patterns, as described by Albert Pope in *Ladders* (1996).

would become increasingly sterile and less inviting if this tendency prevailed. Christiaanse believes that Alexander's fears have in the meantime become reality: "The city *has* become a tree!" Instead of an open grid, the network of city streets increasingly resembles a thick "trunk" with "branches" that are only tangentially connected to one another. "This development pattern can be seen everywhere in the world. It is a common denominator, regardless of the wealth of the country."

### **No genuine interaction in public space**

The consequences of this development for the social structure of a city are fatal, according to Christiaanse. "In the old European cities, public spaces and the network of streets were places for the exchange of information and goods until the 19<sup>th</sup> century. Historic centers might still look the same today, but their social role has radically changed. People on the streets are almost exclusively of one type: consumers." There is no genuine social interaction in public space, and thus the city is becoming a patchwork of sterile and disjointed sectors with limited accessibility.

### **Other opportunities exist**

"If we cannot establish good pedestrian networks, we are lost," Christiaanse asserted. He believes the basic trends are driven by the forces of government and economics. "We can't plan completely new cities," he acknowledges, but other opportunities exist: "We can create public spaces and circulation networks that dissolve the borders between open and closed parts."

Considering this to be one of the most urgent challenges for city planners today, Christiaanse presented two successful examples: A formerly fenced-off part of the port district of Hamburg, Germany, which was opened to the city and designated as the site of the new HafenCity University (HCU), now features a carefully structured network of circulation paths. Similarly, in Istanbul, the new Santral campus of Bilgi University has been designed on an open plan to include a multi-functional park for the general public, as well as Turkey's first contemporary art museum, which will be housed in a historic power station.

### **Urban design as simultaneous chess**

There is hope that, in the future, we will not have to live in gated enclaves, connected to each other by choked highways, but rather open and vital urban patterns will persist. However, open cities require an open approach by city planners, as Christiaanse pointed out. Urban development projects have traditionally been realized in phases that follow a prescribed plan. In the future, he suggests, we must approach urban planning like simultaneous chess: "Analyze, communicate, design, and develop concepts – all at the same time!"



For the new HafenCity University (HCU) in Hamburg, Germany, Holcim sponsored one of the main auditoriums as a contribution focused on sustainable development.



Kees Christiaanse is Chair of Architecture and Urbanism at the Institute for Urban Design at the Swiss Federal Institute of Technology (ETH Zurich). He is an architect, lecturer, and researcher, and was previously Professor of Architecture and Urbanism at the Berlin University of Technology (TU). His work focuses on the interface of architecture and urbanism. Between 1980 and 1989, Christiaanse worked for the Office for Metropolitan Architecture (OMA) in Rotterdam, becoming a partner in 1983. In 1989, he started his own firm in Rotterdam, renamed KCAP Architects & Planners in 2002. In 1990 he founded ASTOC Architects & Planners in Cologne.