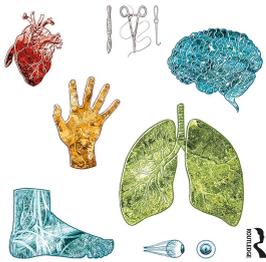

Book Reviews

Federico Cugurullo 2021: *Frankenstein Urbanism: Eco, Smart and Autonomous Cities, Artificial Intelligence and the End of the City*. London and New York, NY: Routledge.

FRANKENSTEIN URBANISM

Eco, Smart and Autonomous Cities, Artificial
Intelligence and the End of the City

FEDERICO CUGURULLO



In an age of intense urban transformation, Federico Cugurullo's *Frankenstein Urbanism* emerges as a thought-provoking and timely exploration of the intricate relationships between humans, technology and cities. Authored with insightful precision, the book delves into evolving urban paradigms where the definitions that typically distinguished between natural and artificial are becoming ever more blurred. Relying on a curious parallelism with Mary Shelley's *Frankenstein*, Cugurullo examines the complex pursuit of urban sustainability, understood as an assemblage of various components according to a unique scientific formula. Although several potential elements are examined along the way, it becomes clear that deciphering the algorithm is not

Cugurullo's main goal with this work. Rather, he aims to provide some critical reflections regarding current attempts at defining a final and successful 'urban equation'.

Frankenstein Urbanism takes the reader on a peculiar journey through space and time as it intersects with insightful literature and compelling case studies. Mirroring Shelley's own novel, it is divided into three sections called 'The Literature', 'The Experiment' and 'The Apocalypse'. The first of these provides some theoretical tools for engaging with the major themes of ecological urbanism and smart urbanism. Looking to distinguish clearly between the two concepts, Cugurullo begins by reviewing the work of those authors who have contributed to defining the 'eco-city'. He then outlines how the idea of the 'smart city'—a place characterized by the widespread integration of artificial intelligence—is used in order to comprehend the implications of adopting *smartness* at the urban level.

The author follows an interesting and original line of thought which, on the one hand, deals with approaches that conceive the ecology of cities primarily in terms of the built environment and, on the other, presents an intriguing debate around whether the pursuit of sustainable cities is simply concerned with the development of intelligent technologies. This section thus depicts a rich framework of urban theoretical history in which debates about sustainable cities inevitably open the door to much deeper questions regarding the human condition. This creates a useful basis

from which to properly enter into more recent urban approaches, which are discussed in Part II, 'The Experiment'.

Taking readers on an immersive journey around Frankenstein urbanism, the author leads them through an all-encompassing discovery of two of the most *modern* cities of our time: Masdar City in the United Arab Emirates and Hong Kong. Cugurullo describes the first of these as a technological vanguard of ecologically attuned urban constructs, conceived in partial fulfilment of the UAE's broader transformation to sustainability. Nonetheless, although envisaged as a revolutionary experimental eco-city, Masdar City quickly transformed into a global marketplace where urban sustainability was conceptualized in purely economic terms. The author presents some interesting insights concerning the effects of developing cities purely as sustainable economies; specifically, the danger that social and environmental matters may not be adequately addressed.

The other case discussed in this section is characterized by a different set of premises which, curiously, lead to a similar outcome. Even though Hong Kong is often claimed to be an example of a smart city, given the multiple efforts to install ICT everywhere as an efficient medium to guide the city, the reality is quite different. Cugurullo shows what lies behind the smokescreen of homogenous, cohesive and total smartness, uncovering a fragmented agenda that does not converge into a harmonious collaborative effort at all. Rather, it represents the sum of different economic interests that have propelled the expansion and transformation of the built environment in several directions at once. Once again, none of these directions leads to improvements in terms of resolving social and environmental issues.

Finally, 'The Apocalypse' begins. Running through the evidence provided by the empirical studies, the third section opens with some critical reflections concerning the pursuit of an urban sustainability formula, which originally seemed achievable by virtue of the constituent elements of efficiency. The resulting *monstrous* entity which emerges when these pieces are put together, however, shows with extraordinary clarity the intricate interplay between urban design components and the final composite structure of these cities. The lack of a homogenous urban agenda combined with the sum of the fragmented development schemes results in a deregulated environment where *autonomy* takes over.

Clarifying the difference between *automatic* and *autonomous*, Cugurullo guides readers to discover the significance of the turn to artificial intelligence by unravelling the multiple AI designs within cities. Using rich and insightful analysis, he illustrates how technological innovation gradually set the conditions for AI to emerge as a *disruptive*, but not an *abrupt* phenomenon. This reflection is crucial for comprehending whether, given such transformative power, the sustainability implications of AI consist in combatting extreme events, or whether they open up new, challenging scenarios instead.

Building upon this groundwork, the author concludes the book with a visionary exploration of (present) futures, where technology is inextricably part of human beings—in the shape of *transhumanism*—and cities—in the form of *transurbanism*. Discussing the blurring of lines between human enhancement and urban transformation, Cugurullo goes beyond making a simple value judgement. Instead, he enters the realm of philosophical questions that have not yet been posed, suggesting that if technological innovation has been exploited to support the business

interests of the elites, then higher concepts are likely to be marginalized in favour of individualistic aims and gains.

Frankenstein Urbanism masterfully caters to a wide spectrum of readers, encompassing newcomers to the urban literature and seasoned academics alike. For those approaching this urban discourse for the first time, the book's exceptional clarity serves as a welcoming guide, providing lucid explanations of intricate concepts. Simultaneously, the book abounds with intellectually stimulating inquiries that spark critical reflection and curiosity among learned scholars. The decision to bind *Frankenstein Urbanism's* narrative to Shelley's masterpiece gives vibrant depth to the reading. Although this review refrains from delving into the specific parallels in order not to spoil any enlightening passage, it is worth noting that the combination of the book's intricate, intertwining and captivating anecdotes alongside photographs from the author's empirical studies produces a new and stimulating literary landscape.

Much more than a curious and proficient compilation of cutting-edge urban studies, Cugurullo's creation works as a manifesto to navigate the human condition in a technology-driven future. The author transcends conventional narratives, instead urging readers to ask questions about the justice, equality and democratic implications of integrating AI into the city. Rather than providing any answers, his aim is to provide readers with the necessary tools to respond with autonomous freedom.

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