

**THE IMPORTANCE OF KNOWLEDGE TRANSFER AND EDUCATION
BETWEEN URBAN CLIMATE SCIENCE AND URBAN DESIGN: A
COMPARISON OF MANCHESTER (UK) AND STUTTGART (GERMANY)**

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Abstract

The histories of urban climate science and urban design, respectively are in many ways histories of failed encounters, with dramatic consequences in terms of environmental sustainability, resilience and wellbeing in contemporary urban settings. Indeed, while urban climate science has much to contribute to urban design, in terms of producing affordable, cost-effective sustainable environments, with such simple 'tweaks' as proper building orientation to the sun and wind and correct insulation practices for instance, very little of this knowledge seems to be applied in cities today. Instead, we are witnesses to the continuing 'business as usual' scenario that sees inadequate, unsustainable building practices, such as steel and glass skyscrapers reliant on air conditioning. This is also a fundamental cause of repetitive, uninspiring urban environments that do not promote vernacular architecture and aesthetic satisfaction, a leading factor in wellbeing.

My presentation questions the lack of communication, knowledge exchange and education between urban climate science and urban design, from a general standpoint and with an enlightening focus on the cities of Manchester and Stuttgart, to highlight the fundamental role of knowledge flows and education in promoting sustainable urban environments and a greener future for all.

Keywords: Contemporary Urban Design, Sustainable Environments, Urban Climate Science, Manchester, Stuttgart.
