RC14 : Big Data City

From the Material to the Urban

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From the Material to the Urban

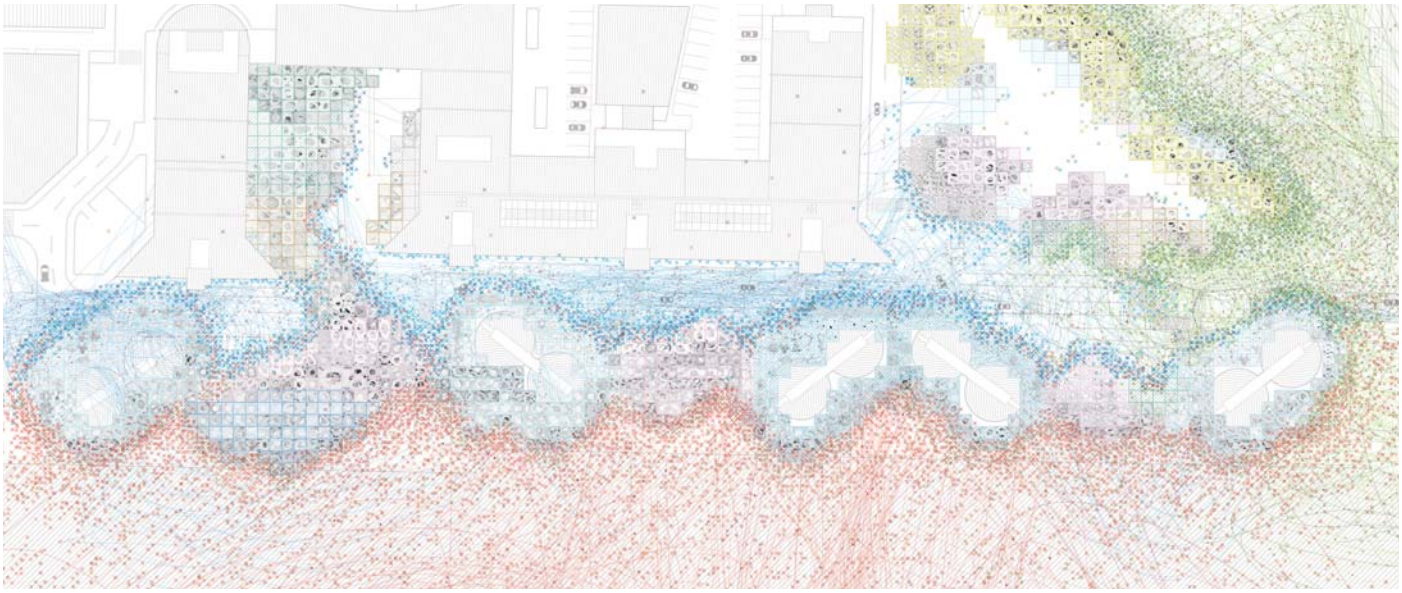
Polemics:

RC 14 explores the role of Big Data in urban design. Big Data – commonly defined as the possibility to aggregate and mine large datasets by employing computers – is often understood as a series of abstract techniques without spatial or visual qualities. RC 14 challenges this perception by developing an applied research agenda in which the capabilities provided by ever-more powerful computation to mine data are utilised to question the role of urban design in the light of ever-thinning distinction between man-made and natural environments.

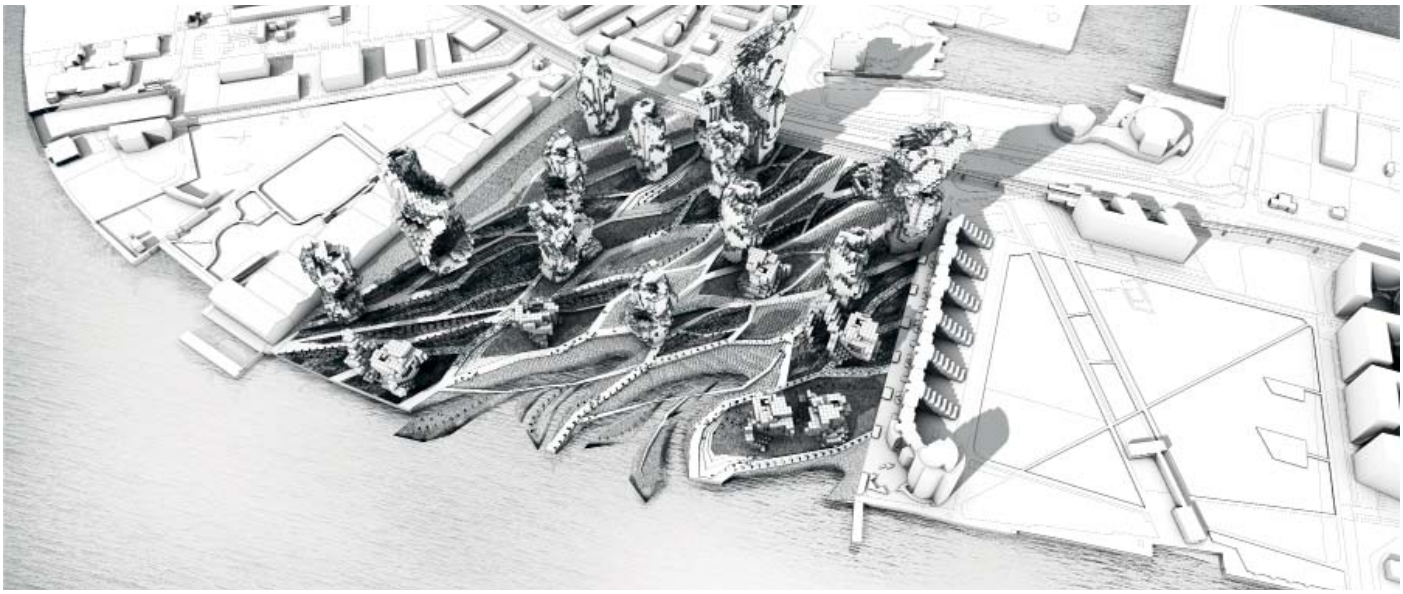
We do in fact live in the age the Anthropocene, the recently discovered geological stratum resulting from the overwhelming influence of human actions on the earth and its biosphere. In this scenario environmental phenomena such as global warming can no longer be seen as simply 'natural' but rather produced by human actions tempering with climatic factors. Previous stable, 'reductionist' binaries such as natural/artificial or subject/object melt away and, similarly, linear causality gives way to a more complex, fluid, open, incomplete, embracing way to account for the transformations of the urban environment.

The consequences of these observations for urban design can be profound: received notions of type, programme, site, representation, and finally human inhabitation will have such urban environments all need questioning. Within the cluster students were asked to map existing conditions as dynamic, volumetric flows in constant transformation operating at varying scales: by computing large amounts of data they not only produce maps to 'see' the site of intervention differently, but also to co-design it in conjunction with natural, complex forces whose complexity far exceeds the power designers have to control them. They simultaneously carry out projects at different scales: material prototypes to urban strategies, they move from the aerial view of the planner to the direct sensorial experience of the city and its dynamics.

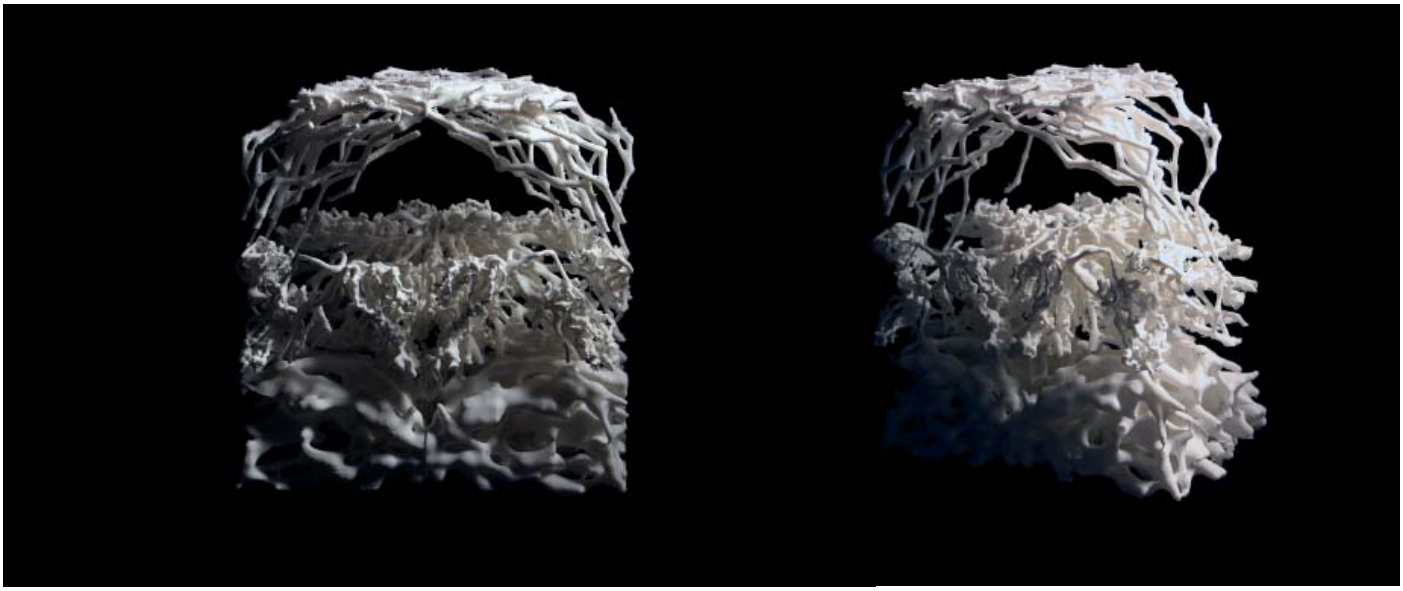
This year the studio will concentrate on the Lea Valley, a complex area in transformation situated in the East of London. Within a short distance, one of the country's largest shopping malls, the new UCL East, major architectural landmarks, large housing complexes, a vibrant art community – mostly located in Hackney Wick – parks are linked together by a series of major urban infrastructures making this area a laboratory to study and speculate on issues of post-industrial city.



Sound Digital Simulation - Group: *City Tuner* [Jiaxin Zhao, Jing Wang, Pengchen Yao]



Bird eye view - Group: *Fluff in Flurry* [Chuanren Lin, Lei Wang, Qiuyang Zhang, Xi Meng]



Plastic park - Group: *Recycled Island* [Haihua Zhu, Leijie Zhong, Jiajuan Yan, Xiangjun Jiang]

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