The city is a confluence of not just the social, cultural, and political, but also the material and environmental. The ecological forces that we consider to be firmly a part of nature nevertheless persist in the urban environment and are, in fact, completely indifferent to whether the environment is ‘natural’ or man-made. Ecology is relentlessly material in its different states, constantly shifting, engaging, and exerting on what we imagine to be stable and static elements that avert, capture, or redirect. With new and intensified pressures that are brought about by climate change, the city will need to understand how to incorporate these forces and extreme fluctuations that are re-shaping urban form.

New methods of representation and notation must be explored to understand the shifting dynamics and processes that are active in the current urban environment. Using the five boroughs of New York City as our source material, we will begin to give these forces and systems a material agency that architects can begin to work with, they must be drawn, modelled, and represented. Through different methods of representation, we can reveal how these different forces are active in our urban conditions, acting on one another, and necessitating for a novel system for understanding the city.