The city is a confluence of not just the social, cultural, and political, but also of the material, ecological, and environmental. The ecological forces that we consider to be firmly a part of nature persist in the urban environment and are, in fact, completely indifferent to whether the environment is ‘natural’ or man-made – ecology does not make a reverent halt at the intellectual aspirations and spatial constructions of the city. Ecology is relentlessly material in its different states, constantly shifting, engaging, and exerting on what we imagine to be stable and static elements, producing complex systems that avert, capture, or redirect energy and matter in various intensities and forms. With new and intensified pressures that are brought about by global warming and climate change, it is fundamental that we understand how to incorporate these forces and extreme fluctuations that are re-shaping urban form.

As a result, it is the thesis of this course that new methods of representation and notational systems must be explored and developed 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, as they must be drawn, modeled, and represented. Representational tropes common to the urban plan, such as figure/ground relationships, poche, and the bounding contour, to name but a few, will be be challenged and rethought. This course will develop a specific discourse, with lectures, readings, and discussions on urbanism, ecology/environmental philosophy, and architectural representation, as well as introduce students to various representational concepts and techniques. Through different methods of representation, we will reveal how these varied and variable forces are active in our urban conditions and how they are acting on one another, necessitating the development a novel system for understanding the city.