

# Foregrounding the Geologic



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Title: Foregrounding the Geologic: a device for working in Manhattan's Faults

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Tiago Torres-Campos is a Portuguese Landscape Architect and Lecturer at the University of Edinburgh. After spending five years in a landscape architectural practice, he joined academia in 2012 and is now the programme director of the MA in Landscape Architecture. He is a Visiting Teaching Fellow on the PhD programme in Architecture at the University of Lisbon. His PhD in Architecture by Design currently investigates the potential of the landscape as an immersive experimental field to define time. Other research areas include landscape representations in the Anthropocene and the effects of digital media on the landscape. He has published internationally and is a founder of CNTXT Studio, a research-by-design platform.

(total no. of words in author biographies: 110)

**Images (if included)**

Number of images: 1

Figure 1 caption: Foregrounding Manhattan's geologic conditions on 125th Street, 2016, Torres-Campos

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**MAIN BODY of TEXT**

**Title: Foregrounding the Geologic**

**Subheadings:** A device for working in Manhattan's Faults

**Main text:**

The iconographic power of thick representations such as the *Viele Map* of 1865, which shows the original territorial and landscape conditions of the island superimposed over the city grid, comes from their evocation of a subliminal image of the city.[i] They are representations of the island that gesture towards what exceeds them, as well as being powerful and engaging devices that allow us to read what usually escapes our comprehension and attention in more conventional depictions. The *Viele Map* remains today a fundamental document for many structural engineers facing the challenges of laying foundations across the island, precisely because of the information it reveals about the inaccessible layers of the city.[ii]

In my quest to foreground Manhattan's geologic conditions I found in the trestle bridges that span over 125th Street, where there is a geological fault line, fertile ground to explore how architectural and geo-engineering inventions may challenge our usual ways of reading the island. These bridges make preoccupation with geological dynamics visible. Where they carry

an elevated section of the Broadway Interborough Rapid Transit Subway System, for example, there are large hinges on the abutments, so that “if vertical movement were to take place along the fault, the bridge would move on its hinges but remain intact, and the transportation system would be undisturbed”.[iii]

The creation of a representational device able to reveal the role of the bridges within a thicker exploration of the island as a whole implied a creative leap beyond the usual representational limits of Manhattan. The device soon became an architectural invention in itself, whose main potential was to convey unexpected scales of space and time. *Optimal distance* and *focal length* were transformed into operative tools to generate multiple readings of architecture. Manipulation and abstraction were fine-tuned through successive acts of drawing and modeling in order to allow elements of the geological layers to interfere with the man-made layers that compose the city. The geologic, in turn, was contaminated with interferences coming from other spatial and temporal scales, such as the original conditions of the island—the once wet, hilly and densely forested *Mannahatta*—or the movement of the geological apparatus across deep time.[iv] It is as though the lens of a microscope was deliberately used to blur city surfaces that are usually at the center of our focus, and the samples being observed have been deliberately contaminated with unexpected dimensions of change.

One of the consequences of this creative process has been to encourage the conditions of some of Manhattan’s faults to emerge from the background. Foregrounding the geologic in representation highlights an interesting scalefulness that verges on the scaleless. This is not unusual in the discipline of geology, which moves diligently across exponential scales of both time and space in search of behavioral patterns, structure and material responses to environmental conditions. The strangeness of macroscopic depictions of whole territorial conditions, side by side, with microscopic images of truncated mineral composition leave us with an uncanny sense, not of mastering, but of losing control of scale.

**Spelling conventions**: U.S.

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**Endnotes:**

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**Bibliography:**

No bibliography

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[i] The map was produced by the American engineer Egbert L. Viele with the title *Sanitary & Topographical Map of the City and Island of New York.* The *Viele Map* (as it came to be known) was one of a series of representation of the city grid that started with John Randel's initial plan certified by the city's street commissioners in 1811.

[ii] Steven Kurutz, *When There Was Water, Water Everywhere* (New York Times, June 11, 2006), http://www.nytimes.com/2006/06/11/nyregion/thecity/11viel.html?_r=2&oref=slogin& (accessed January 12, 2016).

[iii] Charles A. Baskerville, "The foundation geology of New York City", in *Geology under Cities*, ed. Robert F. Legget (Boulder, Colorado: The Geological Society of America, 1982), 95-117.

[iv] Eric W. Sanderson, *Mannahatta: A natural History of New York City* (New York: Abrams, 2009). When describing the conditions of the old *Mannahatta* (the Lenni Lenape name for the island, meaning the land of many hills) before the establishment of the first colonies, Sanderson refers to a luxuriant and very diverse landscape, crossed by many streams that nourished fertile valleys, wetlands and dense forests.