

# Mapping Haunted Data: Creative Geographic Visualization

Jin-Kyu Jung and Ted Hiebert

Creative geographic visualization is situated at the intersection of geography, arts, and digital humanities. It emphasizes forms of visualization and mapping that preserve, represent, and generate more authentic, contextual, and nuanced meanings of space and the people that inhabit space—using specifically artistic and humanistic perspectives and approaches. Creative geographic visualization expands traditional critical and qualitative GIS practices and offers a new alternative to historically science-rooted approaches to GIS and mapping.<sup>1</sup> This essay is partly a theoretical reflection on the idea of haunted data and partly an account of an ongoing interdisciplinary collaboration between an urban geographer who has an interest in the critical and creative possibilities of GIS and an art scholar who specializes in thinking about digital culture and creative practice. We are less concerned with our work being received as a ‘legitimate’ scholarship per se and more interested in how our projects can open up conversations about the complexities of data (lives and afterlives) and how occult information forms a necessary component of the inhabited landscape. The goal is to create space for re-imagining where and how mapping and GIS are practiced—a creative expansion of/with critical counter cartography.

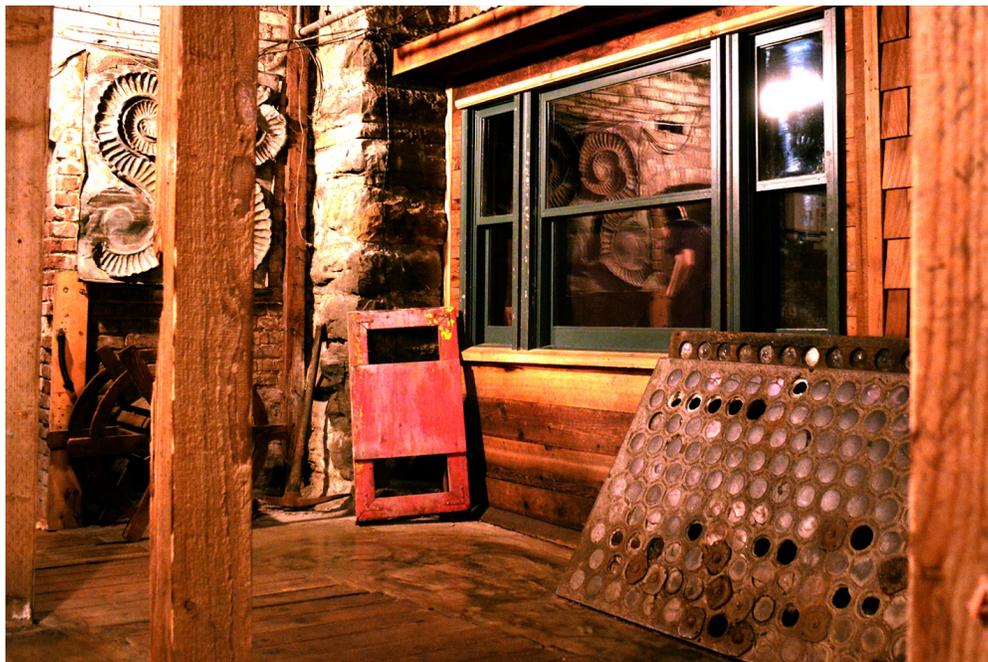
## Mapping Haunted Data

Ghosts are everywhere; we just don’t see them. But what if we could see them—or at the very least, what if we could see that we aren’t seeing them? What if we could find ways to factor in more ambiguous forms of experience—like being haunted—into the geographic imaginary? From our perspective, the multifaceted nature of presence may not be adequately conceptualized within a model of representation that constitutes appearances based only on optical reflection. It is thus worth considering a form of vision that attempts to cohere projections based on available data without precluding complex, speculative, historical, or imaginary manifestations that may be co-existent with those things we can actually see. It is a psychogeographic provocation in reverse: not the insistence of an affective quality to the experience of space but the suggestion of a diversity of psychological modes of apprehension that—taken together—would mean space is always-already inhabited by possibilities of encounter just waiting to be seen or felt.<sup>2</sup> Such possibilities for encounter might be thought of as ‘hauntings’. This might be a sense of the ‘moment[s] of particularization’ at which the hidden side of maps are revealed to us.<sup>3</sup> But in such moments of particularizations, in the conventional sense of mapping, withdrawn capacities remain withdrawn and are not expressed. We are interested in the multiplicity of ways and other capacities that maps may withdraw or express themselves within a post-representational and object-oriented ontology conceptualization of mapping and cartography.

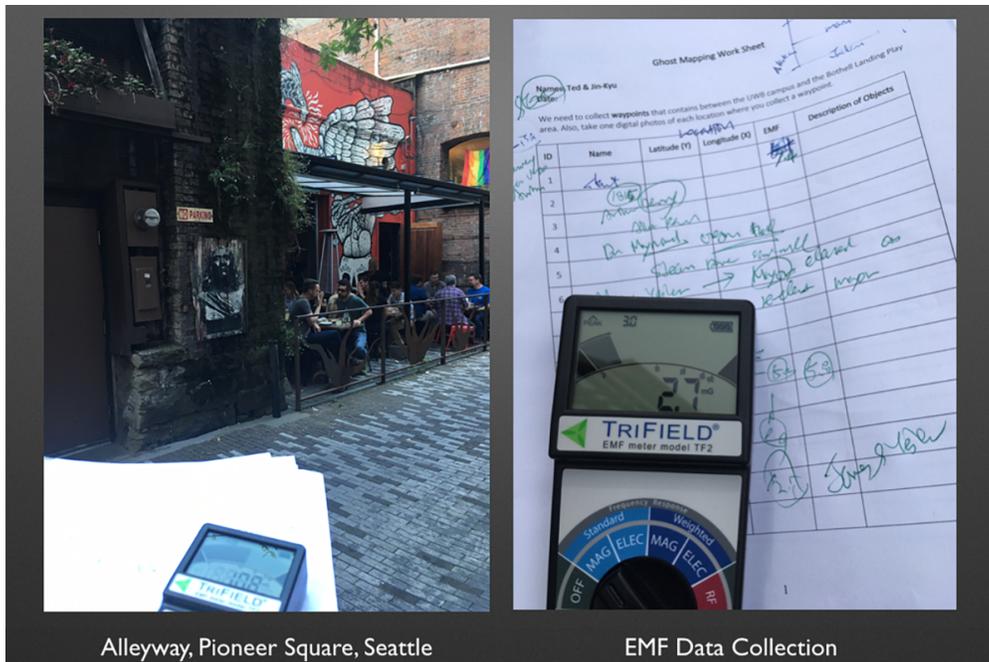
## Underground Seattle

There is a city buried beneath the city of Seattle—a first and failed attempt that burned down over 100 years ago. The Seattle Underground, as it is called, is the remnant of this older city, which is

both a site of history and a popular tourist attraction—geography charged with the trauma of urban crisis and the pleasure of vacation indulgence in equal measure. The underground haunts the overground, unseen from the street but present in the city's history and imagination. We took the tour, photographing the hidden city along the way, to view the city as a museum of itself. A guide adds colorful stories of local history, from overhead beams to old storefronts, including a tin Victorian bathtub beneath the Pioneer building, an old mission, which through the years, metamorphosed into a brothel that flourished at that time. We also saw a restored 1885 print shop turned into the small Underground Tour Museum, and a gift shop displaying historical photos of Seattle portray the life before the Great Seattle Fire of 1889. It feels less like a walk through an old basement and more like a curated visit to an urban excavation site.



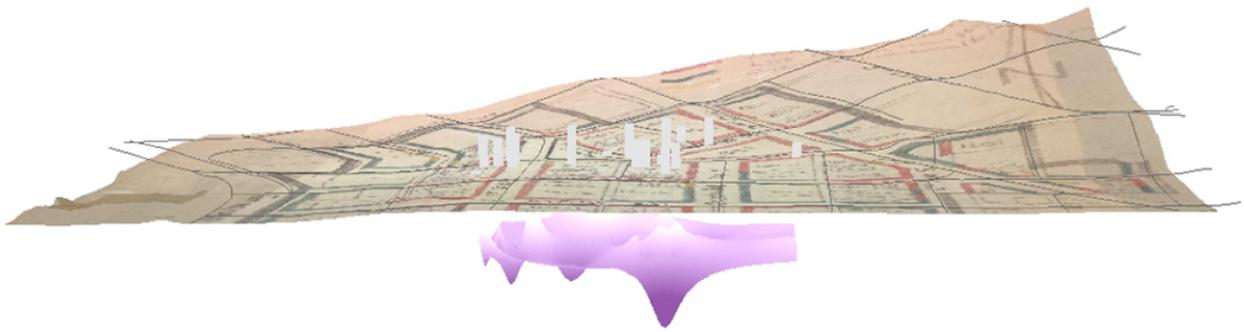
During the tour, we took readings from an Electromagnetic Frequency (EMF) device, a ghost-hunting instrument used to measure unusual magnetic or energetic frequencies. The device didn't really tell us anything, but in not telling us anything it also told us a lot—since the real ghosts in this tour are not there to be seen, but are those we bring with us in our own imaginations. There may well be buried ghosts in these spaces—the history of Seattle is filled with violence of many sorts—but noticeably absent from our EMF readings are the presences of such entities. They exist in the words of the tourist guides, however, in the historical archives of the city and in the imagination of the spectators.



Alleyway, Pioneer Square, Seattle

EMF Data Collection

The failure of the EMF data to render a cohesive representation is not actually a failure. The EMF can be a marker of something we can't really see, but that can nonetheless be gathered for 'mapping'—representative of the geography of the haunted city in a visualized form. To make this point, we linked our collected EMF data to geographic coordinates on the waypoints on the underground tour, using a historical map of downtown Seattle overlaid with EMF data points. We consider the EMF data points as placeholders for a category of haunted data, conceptually present in significant ways even if not comprehensively demonstrative of actual haunted strata to the city. The haunted data points were spatially interpolated and then transformed into the representation of a haunted surface, first using Inverse Distance Weight (IDW) to render a 2-dimensional heat map, then rendered in 3-D in ArcScene.



A post-representational or non-representational perspective on mapping re-theorizes mapping as a ‘process’ that is ‘performative’ rather than ‘representational.’<sup>4</sup> It is a denial of the ontological security of a map but a celebration of the idea that maps are [always] of the moment; fleeting, contingent, relational, and transitory.<sup>5</sup> In this way of thinking, maps are not regarded as fixed and finished but rather as continuously changing and evolving from ontology (what things are) to ontogenetic (what things become)—ontogenetically insecure. A non-representational theory also incorporates a wide range of ideas and practices, unified by recognizing that human cognitive and affective connections to the world do not solely operate through the sense of vision; geographical knowledge is diversely performative, even more so than representation.<sup>6</sup> Post-presentational mapping can be an overarching term for a diverse range of creative geographic works, such as the more-than-textual, more-than-human, and multi-sensual, in which geography, art, and the humanities offer the potential to think and practice space, geography, and representation differently. Re-thinking maps as performative in non-representational theory can also generate new geographies—maps can perform and become inherently *creative* as they emerge and evolve. In addition, object-oriented cartography asks us to return our focus to the maps themselves—not only as representational cartographies but as objects

with their own lives.<sup>7</sup> Object-oriented cartography encourages us to think about maps as relational ontogenetic practices and ontological beings in their own right. These various forms of (non-)representation of haunted data depict the limitations of representations; however, they don't preclude attention to representation. It is the opposite. Haunted data gives attention to maps' emergent, transformative, and performative possibilities.

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<sup>1</sup> Meghan Cope and Sarah Elwood. *Qualitative GIS: A Mixed Methods Approach*. (London: SAGE, 2009); Harriet Hawkins. *Creativity*. (New York: Routledge, 2017); Nadine Schuurman. "Critical GIS: Theorizing an emerging discipline." *Cartographica* 36, no.4 (1999): 1-109 (Monograph 53).

<sup>2</sup> Kanarinka. "Art-Machines, Body-Ovens, and Map-Recipes: Entries for a Psychogeographic Dictionary." *Cartographic Perspectives* 53, Winter (2006): 24-40; Karen O'Rourke. *Walking and Mapping: Artists as Cartographers*. (Cambridge, Massachusetts: The MIT Press, 2013).

<sup>3</sup> Tania Rossetto. *Object-Oriented Cartography: Maps as Things*. (London and New York: Routledge, 2019: 40).

<sup>4</sup> Ben Anderson and Paul Harrison. *Taking-Place: Non-Representational Theories and Geography* (Surrey, England: Ashgate, 2010); Sébastien Caquard, "Cartography III: A Post-representational Perspective on Cognitive Cartography." *Progress in Human Geography* 39, no. 2 (2015): 225-235; Rob Kitchin, Justin Gleeson, and Martin Dodge. "Unfolding mapping practices: a new epistemology for cartography." *Transactions of the Institute of British Geographers* 38, no.3 (2013): 480-496; Tim Cresswell. "Nonrepresentational theory and me: notes of an interested sceptic." *Environment and Planning D* 30 (2012): 96-105.

<sup>5</sup> Joe Gerlach. "Lines, contours, and legends: Coordinates for vernacular mapping." *Progress in Human Geography* 38, no.1 (2014): 22-39.

<sup>6</sup> Denis Cosgrove. *Geography and Vision: Seeing, Imagining and Representing the World*. (New York: I.B. Tauris & Co Ltd., 2008)

<sup>7</sup> Rossetto, 2019