

DESIGN
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ON EXACTITUDE IN SCIENCE

En route to perfecting an intimate map

The new Street View feature of Google Maps has gathered almost every street in Manhattan into a single, rhizomatic photograph. It's a tableau stretching 13 miles, from South Street to the Bronx, from the West Side to the East Side. Despite this scope, the picture is so detailed you can see two men moving hand trucks of bulk-packaged inventory through a sidewalk loading door on Ludlow Street. You see not only that this bit in New York's economic data stream exists but also how it's happening. One man is leaning casually on his hand truck, shirt untucked, looking toward the camera, while he waits for the other to pass through the open doors. Meanwhile two people saunter by on the sidewalk into the distance.

Is Street View's image of New York the most ambitious documentary photograph ever made, a whole city's routine captured in a single picture? It's the kind of image Brueghel might have dreamed about, a vernacular comedy of infinite perception. And it's the kind of map that, as in various Borges stories, makes the viewer begin to imagine a technological singularity in which the drawing's resolution would eventually equal that of its own subject; or the simulation trope of contemporary sci-fi, in which a data set is rich enough to realize an autonomous copy of a person or place. Google, Inc.'s great social contribution may turn out to be imaginative rather than utilitarian, and it's the same project that pop culture has always pursued: to help us grasp the syntax and grammar made possible by our technological and political present.

In a strict sense, Street View is a cartographic photograph. A history of the genre begins with the first picture of Paris from a balloon, made in 1858 by the French photographer Nadar. It continues with the late-century kite photographs of Arthur Batut, on through the off-kilter 1929 photo of Auburn, Massachusetts, from one of Robert H. Goddard's first liquid-fuel rockets. Street View's grainy, glitchy rhetorics have more in common with the look of those early images than with the claims to scientific, military, and aesthetic precision made by contemporary aerial photography and satellite remote-sensing imagery.

But in an obvious way, Street View (unlike an earlier Google product, Google Earth) has no precedent in any aerial photography. Its ground-level, ad hoc, cellular structure owes more to the aggregating logic of network traversal. Street View's perspective is essentially a standing person's horizontal gaze, or many such gazes joined, rather than the plan view of a downward-pointing airborne instrument. Like other network infrastructure, Street View's imagery becomes more valuable the more it extends and interconnects, and its greatest meaning derives from movement along its filaments rather than from scrutiny of any one site. One of Google's declared reasons for creating this perspective, at great cost, is that with it you see actual signs on buildings and subway stations. That information can be useful for planning, as can the more qualitative information in the imagery of each neighborhood. But Street View's value is not only a use value.



Its lowered, manifold perspective lets you see patterns of people coursing to work not as a diagram but subjectively, as the aggregate of the directions and qualities of many individual gaits.

There may be little utility in this aspect of Street View since its data is anonymous, ephemeral, and unscientific. Instead there is complexity, subtlety, honesty, and beauty.

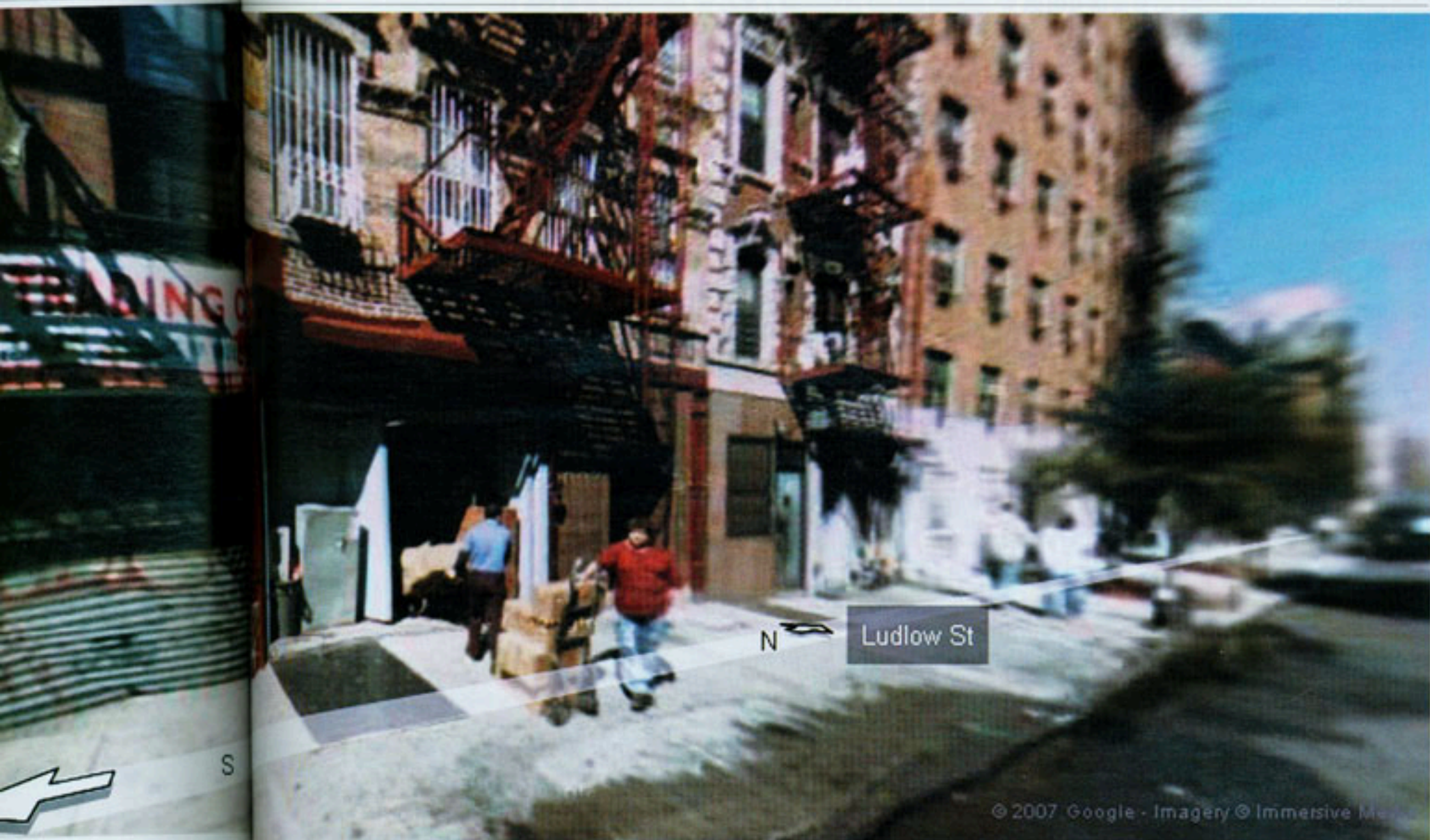
GOOGLE MAPS STREET VIEW
IMAGE OF LUDLOW STREET
BETWEEN HESTER AND GRAND
STREETS, NEW YORK
SCREENSHOT



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It's useful to consider the image's process of manufacture. A 360-degree panoramic video camera was fixed to the roof of a van, which then drove the length of nearly every street in Man-

hattan in a looping, chaotic tracking shot that took days to complete. Each frame of the resulting video was then extracted as a panoramic still, correlated with the camera's geographic

location at that moment, and stitched together with the rest to form a single complex image. Consequently the view at 50th Street and Eighth Avenue may have been captured either a moment

earlier or later than the view at 51st and Eighth, depending on which direction the camera was traveling in; or significantly earlier or later if the camera was traveling crosstown or if the

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driver took a break. Despite the linear (if strange), block-by-block scanning movement of this complex exposure, a Street View user can look at any intersection in any order, smoothly pan from one intersection to the next in any direction, and look around in 360 degrees from any point. Because no matter where you look you see a frozen frame, and because the viewing interface allows fluid panning both in 360 degrees and across the length of the city, the experience is more like a kind of extended gaze than it is like traveling, and more like photography than video games or film.

The best, most surreal parts of Street View are its inaccuracies and the visible artifacts of its manufacture. Curbs and buildings warble like the visual equivalent of an audiotape played too much, the blended spherical distortions at the periphery of each source frame rendered unpredictable by the camera's jolts, accelerations, and decelerations. Some trees are crisp collections of leaves, while elsewhere similar-size trees blur into the grain of the image. Strange temporal effects occur like surprising implications of an advanced physics. A car reappears Cheshire cat-like at multiple intersections because it happened to drive behind the camera for a while. Other disruptions, like a change in the weather, occur when you move your gaze against the flow of the camera—for example, uptown when the camera was moving crosstown. The New York depicted in Street View is an even contest between signal and noise. It is contingent, error ridden, malleable, membrane thin, and dreamlike.



As a photograph Street View is more Atget than Walker Evans: loose, open to random encounters, relating sympathetically with the city at least as much as with the people in it.

Because of the citywide presence of its camera, Street View's point of view approaches the omniscient. But it also embraces chance and doesn't generalize. These three aspects happen to be crucial to all of Google's successful endeavors. The company's approach has been characterized by a kind of benevolent and active neutrality, a celebration of the heterogeneous, and apparent respect for users' abilities to find their own meanings within data if given a means to engage it. Of course instruments such as those Google has created are necessarily political, and the company has made significant, occasionally appalling compromises, like its agreement with the government of China to censor search results there. Street View has been criticized as invasive, and for publicizing oth-

erwise innocuous moments in a way that renders them notorious. This "magnifying effect of technology" argument is an important one, but it ought to register more strongly with regard to other technologies (BitTorrent trackers, the National Security Agency's telcom pattern-recognition algorithms) or future versions of this one. For now caution should focus not on any particular content but on Street View's visual language and provenance. Regardless of the lowered, human perspective Street View achieves through a manic series of technical convolutions, it is still a surveying if not surveillance system. It isn't the disciplinary apparatus of a state, but it is the totalizing product of a massively capitalized corporation that, with other corporations, is vying to singularly reshape our conceptions and use of public space.

In its successes and failures, Street View provides a useful model for design that wants to be both modern

and honest. Start by identifying the possibilities of current technology and the values to which those possibilities are beholden. If you decide to go ahead because those values are good ones on balance, then don't try to hide the technical structure of your work, even if that structure is strange, complicated, ungeometric, or surprising. Instead seek beneficial secondary and tertiary effects of your approach, like the pleasing rhythm of a reappearing car, the flattening of a city into a surreal fabric, or unlimited chance encounters.

Google has undertaken the Street View project in several other cities. San Francisco's imagery, for example, is more crisply detailed than New York's; it is a much different kind of image. But somehow, despite and exactly because of its many technical failures and compromised postures, this gritty, ghostlike, many-tentacled image is the right one to describe New York.

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OF CHURCH AND DEY STREETS,
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SCREENSHOT