FRONTIERSCAPE

Brandon Pietras
Interdisciplinary Lighting Design + Architecture + Interior Design
Thesis Studio Faculty: Peter Wheelwright and C. Brooke Carter Silber

The foundational research for this thesis studio project began as a search for the presence of environmental light within urban form, necessitating analysis of both "natural" and "constructed" contexts. The term "landscape" was thus split into two, borrowing from the *earth:world* dichotomy established by Martin Heidegger[1] to become *earthscape* and *worldscape* as a description of the palimpsest of the naturally-occurring earth and the anthropologically generated world.[Fig. 1]

Earthscapes' dynamic qualities are often overlooked as critical in our experience of the built environment.[Fig. 2] "[E]arly cities shared a dependence on a clear interaction between human activity and nature,"[2] a quality lacking in a vast majority of contemporary cities. Many historic cities were constructed with an intimate cultural understanding of density, orientation, and scale in response to climactic conditions, resulting in cities and a culture irrevocably tied to the light of their environment.[Fig. 3] This *earthlight* has been undermined by an incessant desire for economy and capital production realized by the *worldscape* of the nineteenth-century grid city. As a result, a once nuanced and personable urban vernacular is being replaced by a decontextualized built environment.

New York City's urban development is trapped within a cage of its own construction. The intersection of an economic city grid, rampant speculation, and complex, restrictive zoning codes have resulted in a built environment that, for all of its vertical ambitions, remains entirely flat.[Fig. 5] Our streetscape thinly blankets the natural topography of the Island. What is lost is light as a material component inherent to our culture's use of space. Granting the streetscape the opportunity to use this light to a greater extent could only lead to a marked improvement of daylighting in these spaces. It is precisely this sensitivity to *earthlight* that drove the form, orientation, and positioning of vernacular structure in rural settlements and pre-grid urban centers.

PRIOR

As magnificently detailed in Pierre Bourdieu's *The Berber house or the world reversed*,[3] the Kabyle Berber house can be considered in components associated with light, darkness, and periods of social or environmental time. The intersection of these results in a complex tableau of environmental adaptations marked by a specific location (spatial) or surface (formal/material). Every object, space, surface, and occupant is intertwined within "a symbolic system."[4] Amos Rapoport's research covers similar ground in *House Form and Culture*. It is his assessment of the vernacular's value as the essential component to urban form that expands Bourdieu's specialized assessment into a systemic foundation for urban development as "the world view writ small, the 'ideal' environment of a people expressed in buildings and settlements."[5]

Vernacular systems developed well before "[gridded streets were] deployed [as] a new type of antiplanning that eliminated nothing less than the agency of deliberate design intervention."[6] In this new paradigm, the *earthscape* is subject to the organization of the built environment rather than its foundation, taking *earthlight* into little or no account.

CONDITION

The introduction of the 1811 Commissioners' Plan for the City isolated Manhattan from its ecological contexts and entrapped its variegated *earthscapes* within a Cartesian *worldscape*. Since, the very image of this iteration of New York has been engraved into the public imagination, making it incredibly difficult to imagine constructing our public realm otherwise. The image of the City produced by the Commissioners' Plan has become the framework for all urban development since Jacob Riis's – but most predominantly since the Lindsay administration's – use of photography and film to re-present New York City to the world, thereby defining its urban potential to this day.[7]

DEPROGRAMMING

To address these concerns, we must combine a far deeper understanding of the territorial, urban, and architectural implications of New York's *earthlight* with an iconoclastic approach to our City image. Despite its dynamic nature in the short term, daylight has changed imperceptibly since the beginning of history. This continuity allows us to draw the formal past of our cities into the present. To compare and contrast these states reveals an environmental sensitivity since lost in our urban planning and a richness in everyday experience that can be regained through a careful deprogramming of our cultural dependence on the grid.

This thesis provokes the reader to reconsider the productive friction between New York's *earthscapes* and *worldscapes* in order to better fulfill the City's experiential and cultural potential.

FRONTIER

My investigation of this potential begins at the beginning of the grid - the boundary between the Margin-Goerck Plan and the 1811 Commissioner's Plan. Specifically, the site of my thesis is a small stretch of 13th St. west of Jackson Square, which bifurcates 13th St. at Greenwich Ave, Horatio St. and 8th Avenue.

Jackson Square marks the northernmost corner of the Mangin-Goerck Plan, the bulwark against the southerly extents of the Commissioners' Plan. At this *frontier*, two *worldscapes* vie to assert competing priorities. The Mangin-era blocks have been heavily compromised to meet with new avenues created by the 1811 Plan, and historic maps reveal that the streetscape has been dramatically altered several times since; the grid is far more flexible than it appears.

What exists today are the physical consequences of a neighborhood that has been consistently reconfigured to meet economic, social, and political directives. The waterfront with which the site engages has suffered equally. Storm surges and future sea level rise reclaim landfill extensions in the Hudson and return the waterfront to its seventeenth-century position, implicating the City's past into its future. This stretch of West 13th St., already an anomaly within the broader contexts of the city, is itself composed of anomalous conditions both architectural and luminous. Three moments are particularly vital to the conception of my thesis within this site:

1. **Jackson Square gas station** An anchor to fuel, both literally and figuratively, the transformation of the city's public realm into a space for cars.

2. **Gansevoort St./13th St.** Intersection Revealing the collision between the solar E-W axis (along which runs Gansevoort St.) and the imposed Commissioners' Plan.

3. **Gansevoort Hotel billboards** The billboard is a long-standing icon of the domination of landscape by the Anthropocene as well as of the use of image to sell and produce culture.

PROVOCATION

My urban and architectural provocation reveals the potential for alternative *worldscape:earthscape* configurations here by formally explicating these conditions in juxtaposition to the contemporary city and its embedded *earthscape*. This is done in two stages: first, the city's past topography is revealed dramatically through a tectonic intervention along the length of 13th Street between Jackson Square and the Hudson River;[Fig. 4A] secondly, an architecture, exemplary of the formal potential as yet unrealized in our current *worldscape* paradigm, anchors the intervention and provides educational programs to synthesize the thesis' provocations for the general public.[Figs. 4B, 6]

The program is composed with three stages of use corresponding to those necessary for the reconstruction of the City:

1. Promote awareness of alternative paradigms. (galleries, circulation space, billboard screening)

2. Engage with the community to ideate unique visions of the city. (bar, public forum, media production, galleries)

3. Act upon those ideas through the projection of newly synthesized visions in multiple mediums. (media production, billboard screening)

The programmatic spaces are arranged from both experiential and thematic standpoints. Thematically, it is divided into two sections corresponding to *earthscape* (galleries, circulation) and *worldscape* (circulation, media production, bar). The overlap between these is intentional, and arranged such that the two are formally and conceptually bound. Its central feature is the Gansevoort Hotel billboard, removed from its current, controversial, position to become the structural face of the *worldscape* component of the programming.

The key to the success of the programming is its engagement with the site's sociopolitical and geologic history, the explication of which transforms W. 13th St. from merely an historically contentious site into one that literally confronts the standing image of our city.
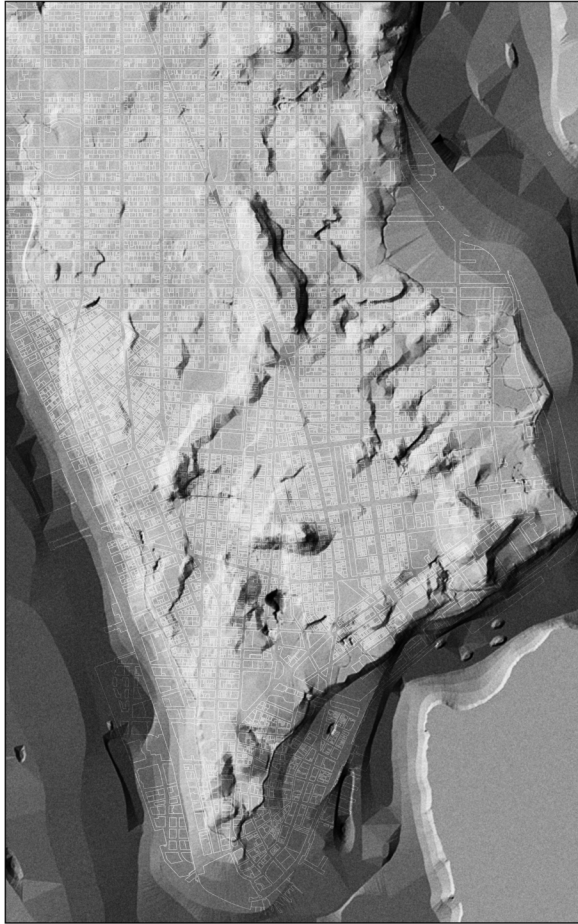
[Fig. 1] The Mannahatta hillshade map overlayed with the 2016 lot map, displaying the city's entrapped earthscapes.

boundary, earthscape

region, earthlight

region, earthscape
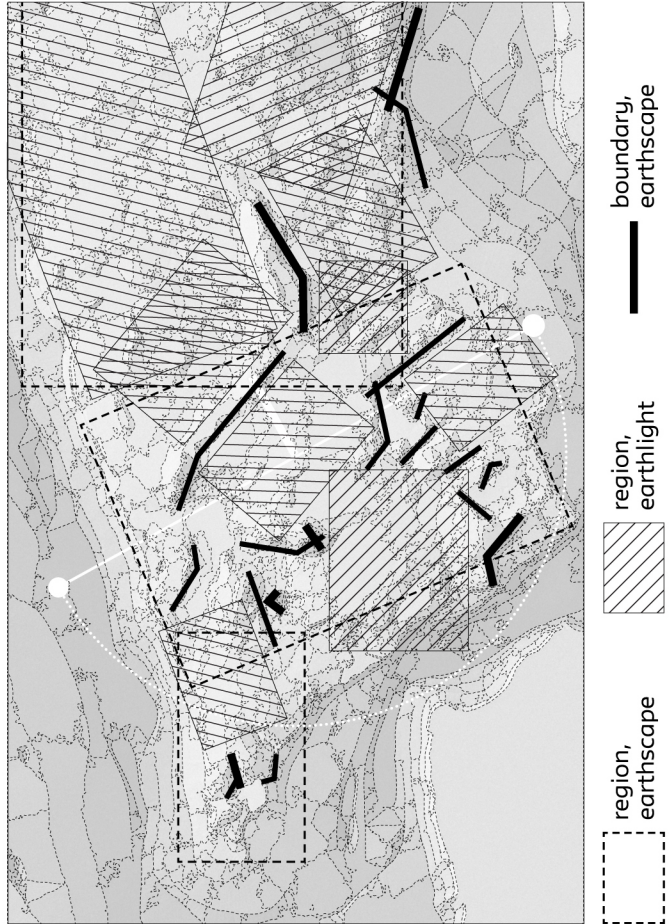
[Fig. 2] Preliminary analysis of Manhattan's lost geographic variegation from the perspective of earthlight and earthscape relationships.
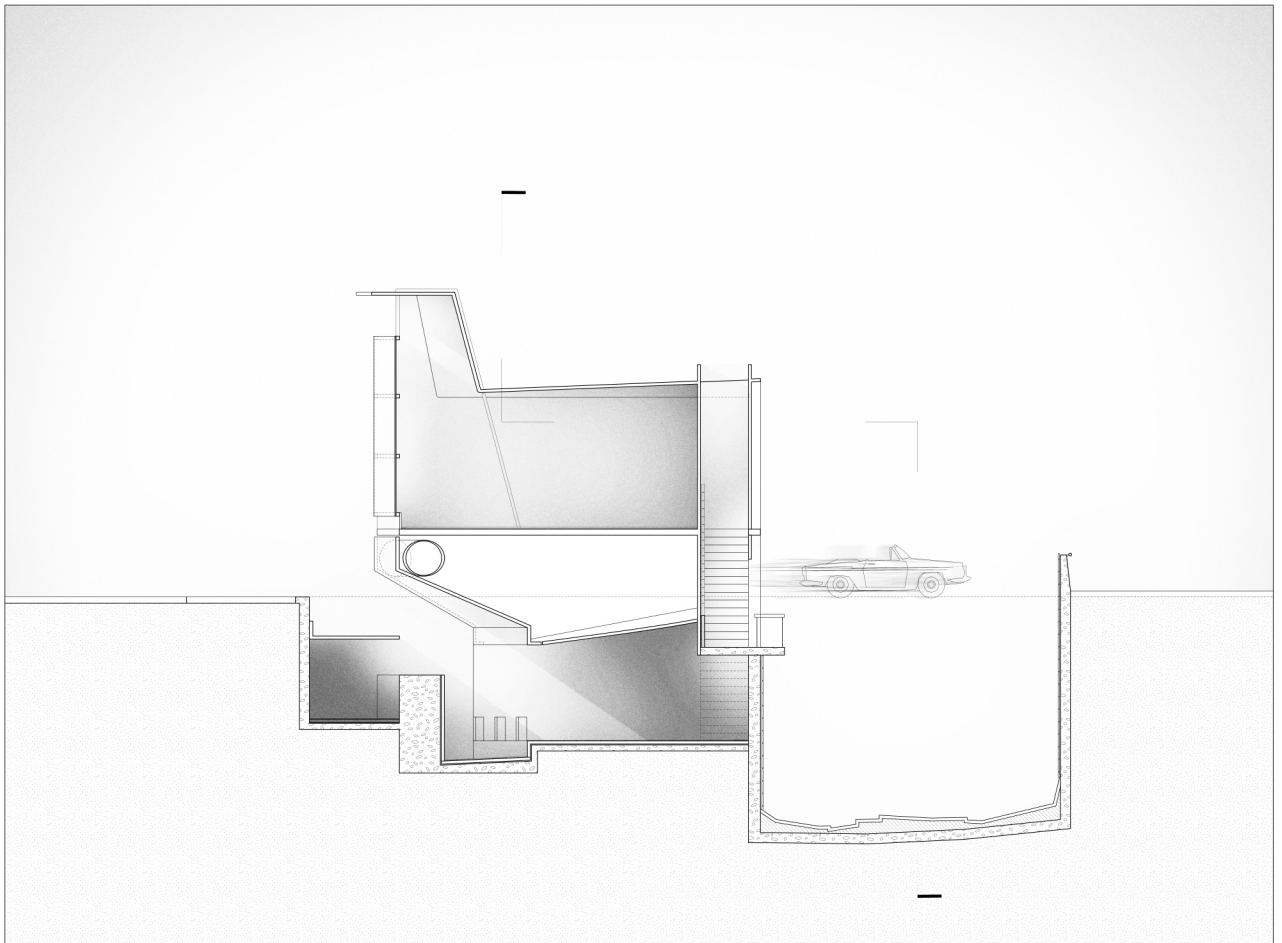
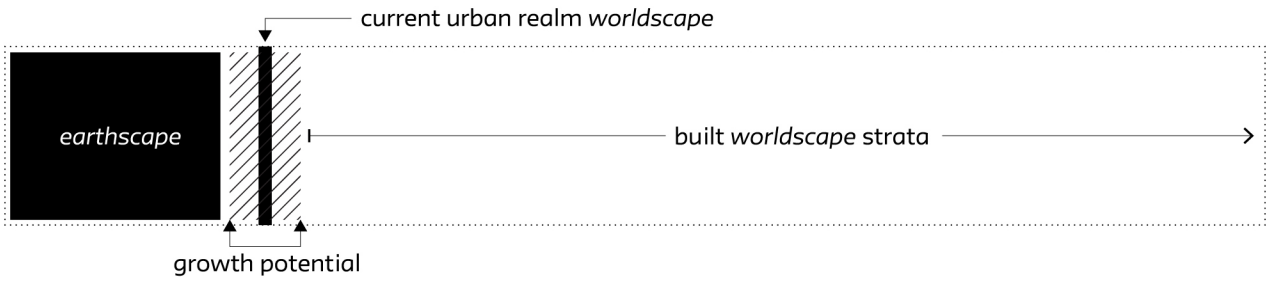[Fig. 3] Conceptual analysis of Marrakech, Morocco's urbanism from the same perspective, 2016.
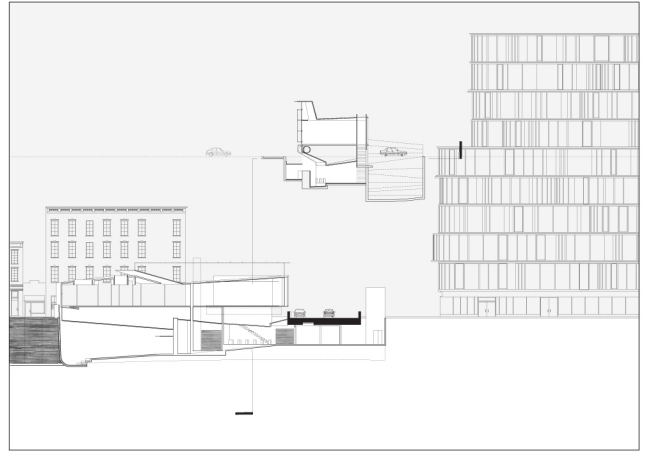
[Fig. 4A] The thesis' formal intervention reconfigures 13th St. to reveal an approximation of its original topography. Far from nostalgic, the conflict between this and the current *worldscape* of the city didactically reveals both the current *worldscape*'s shortcomings and opportunities for alternative development.
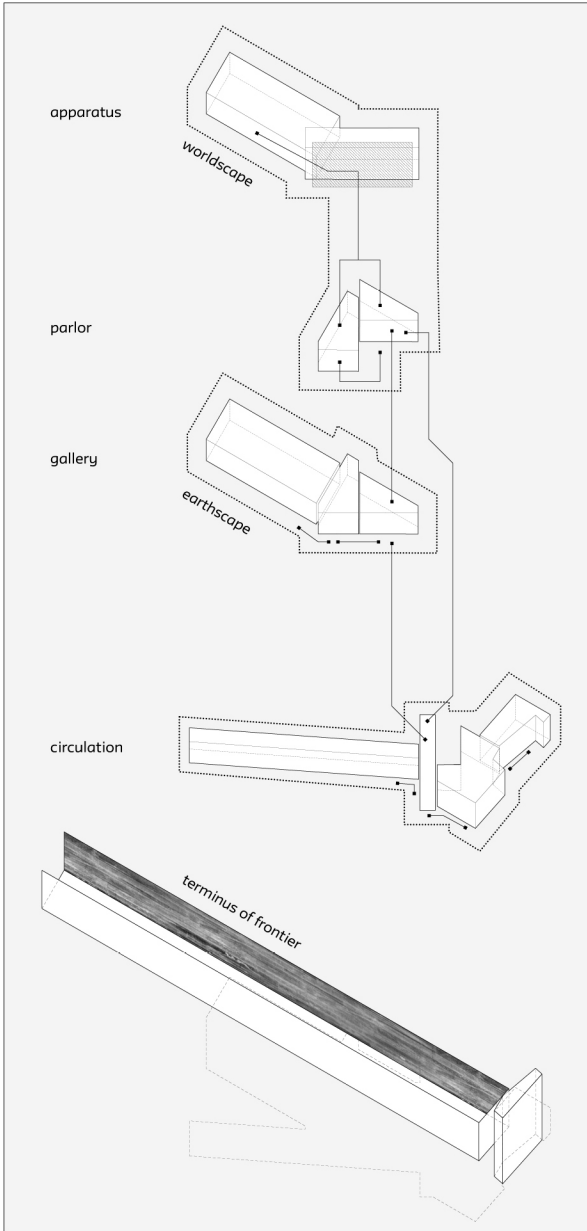
[Fig. 4B] This section - drawn through a typically complex portion of the thesis' architecture, displays the opportunity for a "thickened" urban realm to capture the luminous phenomena of Manhattan's *earthlight*.
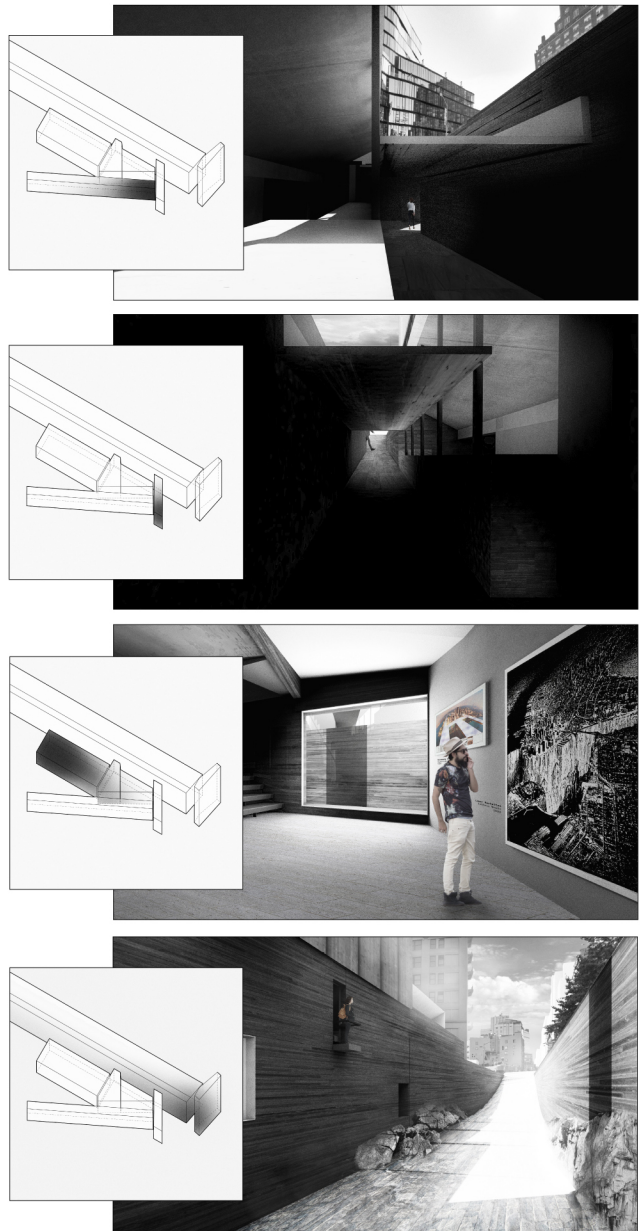
current urban realm *worldscape*

earthscape

built *worldscape* strata

growth potential

[Fig. 5]

[Fig. 6]

[Fig. 7]

apparatus

worldscape

parlor

gallery

earthscape

circulation

terminus of frontier

[Fig. 5] For all its vertical ambitions, Manhattan's urban realm is almost entirely flat.

[Fig. 6] The architecture's educational intent is translated as a circuital experience of the experiential variety engendered by an urban realm realizing the potential suggested by this thesis.

[Fig. 7] The architecture was designed through the arrangement of specific "densities" of light to correspond experiential intentions with the programming's functional needs. These were then validated through analysis with DIVA for Rhino3D.
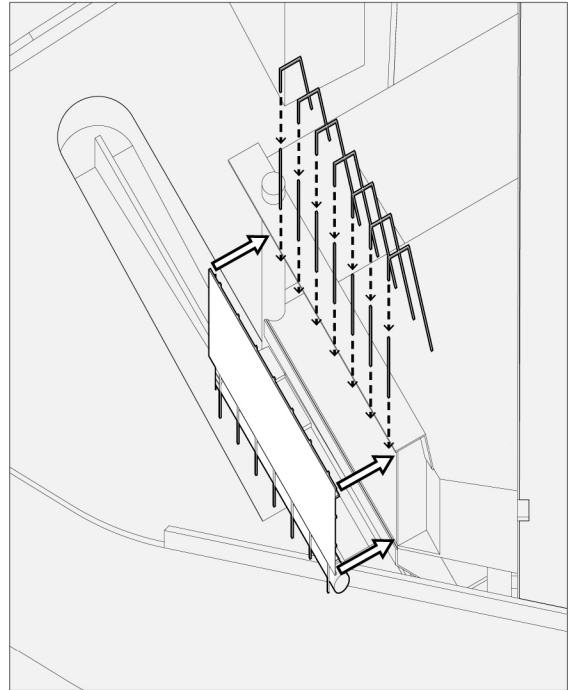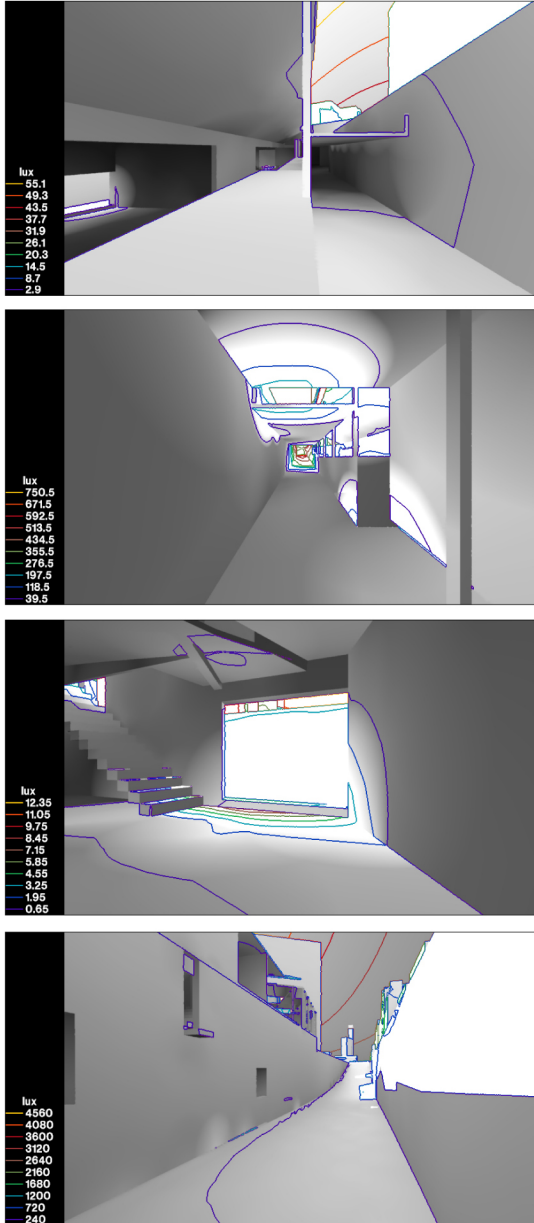
[Fig. 8, 9] The billboard at the Gansevoort Hotel is transofrmed from contentious eyesore to a productive component of the architecture's intent to "deprogram" our vision of the city, projecting unique visions to the public.