Controlling Speculation

JOYCE HWANG
University At Buffalo, SUNY

Controlling Speculation[1] is a methodology – and an attitude – for urban production[2], which purposefully crosses subjective desires with systematic evaluations. *Speculation* -- the process of producing hypotheses via conjecture – takes on subjectivity and ephemerality as significant factors in evaluating urban conditions. *Control*, on the other hand, insists that the speculative process is systematically monitored through rule sets, not unlike those already present in urban policies today. By definition, *Controlling Speculation* necessarily produces an array of seemingly irreconcilable differences. However, it is precisely its capacity to negotiate these conflicting logics which empowers the designer to maneuver within a field of regulations, and productively advocate an urbanism that resists bureaucratic regulations by operating within the logics that define them.

In numbers we trust?

Quantitative evaluation processes, such as surveying and ranking, provide digestible ways of capturing pluralistic urban conditions. Despite our suspicions of their evaluative validity, we harbor an implicit dependence on them. We consult them to ensure that our children are attending the best colleges[3], that our new home is located in the safest city in the nation[4], or that we may have the pleasure of consuming the best cheesesteak in Philadelphia[5]. While the seeming objectivity of these "democratic" procedures is alluring, it also masks the subjectivity of the information being processed.

Consider our reliance on U.S. Census data as a principle factor in analyzing demographic trends. As objective as "data" may seem, its interpretation is highly dependent not only on its method of acquisition, but also on its graphic representation. Even U.S. population density maps – based on relatively straightforward information[6] – often present conflicting readings, depending on the units of measure by which one chooses to "view" the information. Given the same data set[7], multiple maps could be constructed. One may show, for instance, that Los Angeles County is the most populous county in the United States (subdivision by county, total population count), while another may reveal that New Jersey is the state with the greatest population density (subdivision by state, population count per square mile)[8]. The task of delineating representational standards already begins to construct our interpretation of "facts."

Controlling Speculation first insists that alternate standards of measure are defined. Let's examine this tactic through an analysis of Soldier's Place, a neighborhood in Buffalo, NY. Conducted by Chris Willett, a student in my urban representation course, this project re-maps existing property assessment data – not through the standard units of blocks, tracts, or parcels – but rather by subdividing each city block into four triangular units, where each unit was then color coded based on its median property value (see fig. 1). Comparing "official" maps[9] with the analysis, it becomes evident that the latter more tangibly *reveals* land assessment as a function of a property's relationship with its adjacent

street. The author also challenges the notion of a "standard" walking radius. Based on a logic of Buffalo's climatic extremes, he created two *walkability* maps for Soldier's Place (see fig. 1). While "Summer Walkability" assumes a radius of one-half mile from local amenities, "Winter Walkability" projects a reduced radius of one-fifth of a mile. The resulting comparison reveals several less-advantaged pockets within the neighborhood.

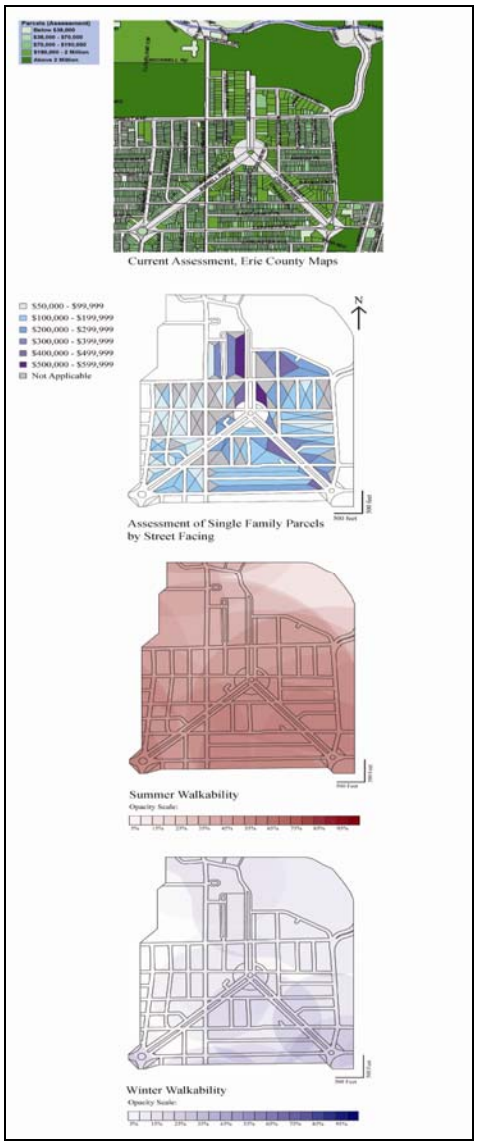

Fig. 1. Re-mapping Soldier's Place, Buffalo, NY. *From top to bottom*: "Current Assessment," map produced using Erie County's Internet Mapping Service (http://erie-gis.co.erie.ny.us, accessed August 2, 2006), Courtesy of the Erie County GIS Office; "Assessment of Single Family Parcels by Street Facing"; "Winter Walkability"; and "Summer Walkability."

Playing by the rules

If we consider urban design as a game that is played within a set of rules, one could profoundly influence the game's outcome not only by "playing," but also by reconsidering the rules-of-play themselves. Game rules, however, often do not exist independently as a list of instructions. In the case of board games or sports, the rules are inextricably tied to the *intelligences* within the *playing field*.

The objective of the "urban planning game" often promotes ideals of orderliness and efficiency – with the language of codes even stating these well-meaning desires as such. For example, Philadelphia's municipal codes introduces its section on "Non-Conforming Structures and Uses"[10] with the following:

It is the purpose of this section to discourage and eventually eliminate non-conforming uses and structures because they are detrimental to the orderly development of the City.[11]

Here, the general objective is clear. However, once the municipal codes begin describing more specific definitions and qualifications, the clarity of *intention* becomes obscured in a sea of numbers. Philadelphia's official definition for an "Adult Video Store," for example, reads:

...An establishment having thirty-three percent (33%) or more of its floor area and/or thirty-three percent (33%) of its stock-in-trade, videos and other visual production materials which are distinguished or characterized by their emphasis on matter depicting, describing or related to "specified sexual activities" or "specified anatomical areas"...[12]

Likewise, many other use-related definitions rely on whether or not a specific number is exceeded. More than four "mechanical or electrical ...devices or games" qualifies a place as an "Amusement Arcade." The display of more than three "motor vehicles for sale to the public..." qualifies as an "Automotive Sales Lot."[13] These finite rules, however, leave room for interpretation. In each case, the context or *playing* field has not been clearly defined. Would an establishment be defined as an "Adult Video Store" if

anatomically-inclined posters were overtly displayed throughout the establishment, yet less than 33% of its stock contains "visual production materials" as described? Technically, the answer is no, but tangibly, the answer is negotiable.

Controlling Speculation insists that the context of any urban situation is interrogated and re-mapped, to more productively define what I refer to as a *playing field*. Among the mapping projects developed in my urban representation courses, two distinct tendencies emerged, one which sought to redefine points of interest based on frequently overlooked factors, and another which sought to redefine neighborhood in terms of social or environmental *intensities*. Illustrating the first tendency, "Web of Tourism" rates each of Buffalo's tourist attractions in terms of its *collective* accessibility to public transit; that is, a site within walking distance to five bus stops received a higher "score" than a site within the range of one stop. These ratings were mapped as a kind of three-dimensional bar graph, represented by varying heights of plastic rods: the longer the rod, the more *collectively* accessible the site (see fig. 2). By looking at this *playing field*, one simply can not be satisfied with a (defeatist) response such as: *But there is already a bus stop near that museum – I don't understand why it doesn't have many visitors.*

An example of the second tendency can be seen in "Livelihood in Allentown," a project for "measuring" *potential social intensities*. In this project, the author, Puichee Lee, constructed a series of color-coded *proximity radii*, centered around (subjective) activity indicators – namely restaurants, parks, playgrounds, landmarks and public transit stations. She "interpolated" the resulting color densities into a range of warm colors, with red indicating the highest degree of social intensity, thus rendering Allentown in terms of a pixelated "heat" map (see fig. 2). Similarly, in "Urban Heat Islands" by Ryan McConnell, the author mapped the *intensities* of projected heat emissions in downtown Buffalo by inventorying potential and actual *material presences-- for example,* green space, water, concrete, asphalt, and potential bus exhaust (see fig. 2).[14] These quantities, evaluated per squared dimension, were then subsequently translated into "values" within a fabricated *Heat Emissions Intensity Index.* Now, after all this number-crunching and color-coding, how do these maps distinguish themselves as *playing fields*? One response might be that they are not only programmed to graphically represent urban intensities, but also inscribed with codes that *already* address rules for further production.

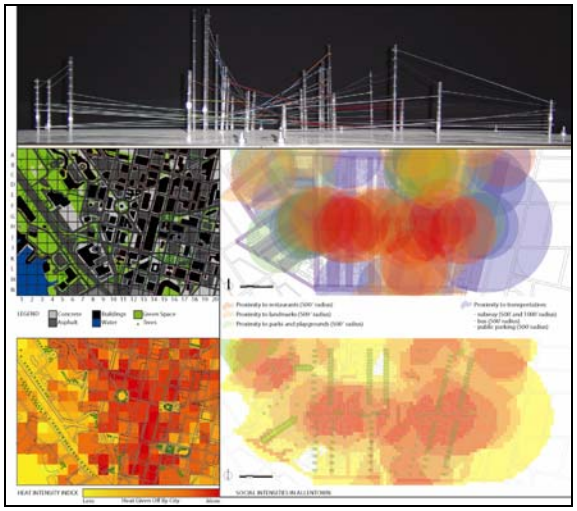

Fig. 2. Mapping intensities. Clockwise from top: "Web of Tourism"; "Livelihood in Allentown"; "Urban Heat Islands."

Decisions, decision, decisions

From buying a house to eating out for dinner, we face the task of decision-making on a regular basis. While consumer reports, guidebooks and other no-nonsense sources are often consulted to aid in solidifying decisions, issues of subjectivity necessarily play decisive roles as well. This is made apparent by looking at the vast array of urban mapping services which now accompany the more ubiquitous government-driven mapping websites.[15] We refer not only to zoning maps and the like, but also to hyper-specific sources which respond to subjective desires or fears. *MapMuse*,[16] for instance, is a website that provides assistance in finding "places to live, learn, work and play"[17] by custom-producing maps based on categories such as "interests" and "brands." Browsers can select from a diverse range of mappable items[18] in each category, from "extreme sports" to "knitting", and from brand apparel stores to fast food shop locations. *MapMuse*, in effect, empowers the masses to identify locations geared toward

personal interests and preferences in brand names. Try combining, for starters, “skate parks”, “bingo halls”, “architects”, “In-n-Out Burger”, and “Starbucks.”

Similarly, urban fears can be readily visualized through websites such as *Family Watchdog*[19], a service which maps out homes and workplaces of nationally registered sexual offenders. The effects of the website are glimpsed through its “testimonial” section. As one satisfied mapper states: "To see that there is a registered sex offender within 426 feet of my child's school is a very scary thought. This is a great tool."[20]

Value assessment

The increasing availability of mapping databases breeds the increasing availability of information customization. Urban citizens are being given more opportunities to selectively edit data sets and visualize specific particularities which influence important life-questions – such as where to buy a home, or where to send one's child to school. They are, in effect, able to manipulate data sets to produce their own sense of “value” assessment. The effects of subjective and ephemeral criteria have always influenced decision-making processes, but now these criteria are more readily and systematically defined, accessed, documented, and coordinated with other sets of criteria.

At the heart of *Controlling Speculation* lies the exercise of negotiation, or factoring “values.” To illustrate this operational strategy, I will discuss a speculative project which instigated – and became a medium for – the unraveling its tactics. The “New York Value Exchange”[21] specifically targets a “value re-assessment” of Manhattan by factoring in potential new desires and fears resulting from the 2001 World Trade Center catastrophe[22]. In the time period immediately following the attacks, many former tenants quickly made long-term plans to relocate their offices outside of downtown Manhattan, with a stir of speculation about real estate possibilities in New Jersey. Desires to stay in the heart of the financial center conflicted with fears of its prominent location. Desires for the grandeur of an office in the sky conflicted with fears of being unable to quickly access solid ground. Systematically juggling sets of hypothetical values representing workplace “qualities”, the objective of the “New York Value Exchange” revolves around balancing equations – equations which regulate criteria of desires and fears in proposing alternative office configurations, while maintaining the values so treasured by Manhattan's office tenants.

Aligned with *Controlling Speculation*'s first tactic, the “New York Value Exchange” disassociates itself from the Manhattan's standard units of measure (blocks) by imagining Manhattan as a field of measurable points. Each point's value was calculated by determining that point's *collective distances* [23] to a selection of “rated” neighborhood amenities: day care center, Fed Ex locations, restaurants requiring sport coats, and gyms with deejays, among others. Using the same evaluation system, the World Trade Center was established to be, numerically, sixty-six (see fig. 3).

Aligned with *Controlling Speculation*'s second tactic, the “New York Value Exchange” defines a new base map, or *playing field*. Manhattan's point-landscape was first translated into a three-dimensional digital model. A new map was then produced by slicing the digital model at the height level corresponding to value sixty-six, thereby identifying all possible locations in Manhattan which would hypothetically provide an “amenities value” equivalent to that of the World Trade Center (see fig. 3).

Aligned with *Controlling Speculation*'s third tactic, the “New York Value Exchange” integrates the construction of its *playing field* with the process of developing its rules-of-play. The exercise of “transferring” values from one site to another, at an urban scale, established the rules for a *Value Transfer* system at the scale of an office building. Numerically-based data sets were “calculated” to represent the World Trade Center's *view values*[24] and *exit efficiency values*[25] (see fig. 3). In displacing these values to another site, it became clear that zoning setbacks and building height regulations impeded any possibility of achieving an equivalent *view value*. Therefore a new category of values, *Prestige*, was concocted to make up for the balance of “lost” values (see fig. 4).

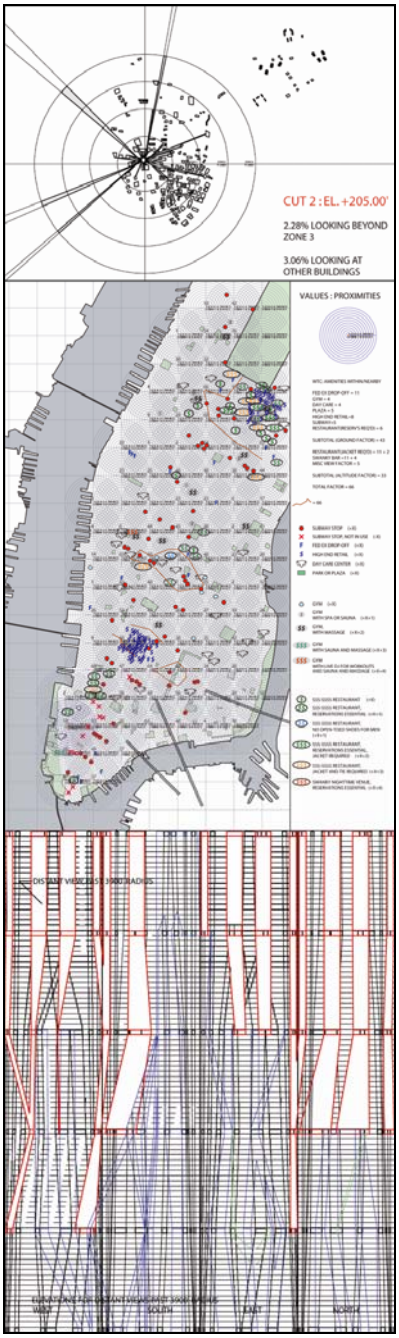

Fig. 3. Drawings excerpted from the "New York Value Exchange." *From top to bottom*: View Value mapping of Lower Manhattan, taken at an elevation of +205.00'; Amenities Value mapping; Unfolded elevation mapping of the World Trade Center (North Tower), showing hypothetical effects of View Values and Exit Efficiency Values. Images by author.

Subjective values, by their very nature, shift over time. If the fear of future terrorist attacks causes *exit efficiency values* to gain increasing significance, the rules-of-play must be able to accommodate this projected shift in attitude. This is the aim of *Controlling Speculation*'s last tactic: it insists that the rules are constructed with sufficient flexibility to strategically adapt to changing conditions. The "New York Value Exchange" is a project that began with a *value transfer* system and ended with that of a *value exchange*. No longer is the project about replicating the values of the World Trade Center. Instead, it projects new values of urban desire and fear into a frenetic trading game, trading penthouse suites for faster escape routes and sweeping views for other forms of prestige. We know that assessing real estate value is already a game of calculating subjective criteria in determining a set of seemingly objective data. The "New York Value Exchange" only intensifies an existing condition to an extreme degree.

So why go through all the trouble of *Controlling Speculation*?

Controlling Speculation developed from a process of asking: In a world that is regulated strictly by codes and laws, where and what is the role of the designer – dare I say visionary – in urbanism? Clearly, fantastic urban visions whet the imagination of the public and motivate collective dreams. But dreams are often dashed by regulations. Witness the web of logistical warfare that is currently playing itself out at Ground Zero. *Controlling Speculation* begins by recognizing established regulatory tendencies and attempts to capitalize on both their logics and loopholes. As mapping systems become increasingly ubiquitous and frequently referenced as a mechanism of urban authority, we must begin to interrogate the very methods by which these maps were produced. As databases become increasingly customizable, we too must imagine ways of infiltrating the systematic means of regulating subjective desires.

But like war, this urgency is not new. David Pinder suggested that the Situationists' agenda of "Subverting Cartography"[26] was born from a strategical desire to subversively undermine the mechanisms of control and empowerment ever-present in map-making. Psychogeographical mapping, he claimed, was not exercised without reference to, or rather,

appropriation of "official" maps. *Controlling Speculation*, too, stems from a desire to operate within the very system it interrogates. However, unlike Psychogeography, its process does move against, but rather, *with* the grain of bureaucratic procedures. In this sense *Controlling Speculation* taps into a practical sensibility. It posits that in order to advocate and sustain an urbanism of visionary dimensions, it is imperative to also sustain a belief – if not only momentarily – in the kind of control that is made possible by conceits of democracy.

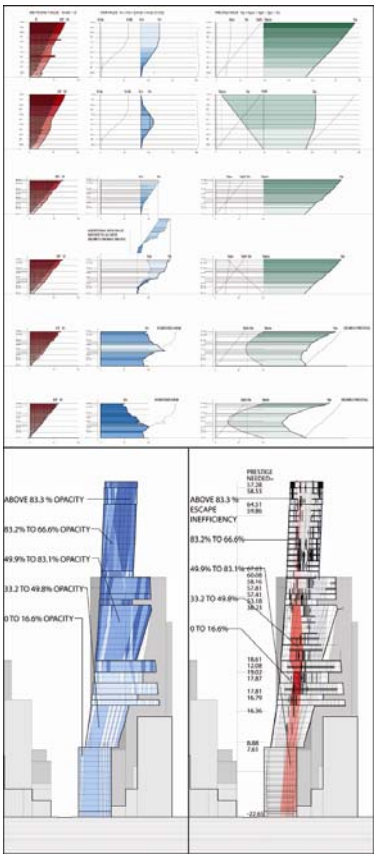

Fig. 4. Drawings excerpted from the "New York Value Exchange." *Top*: Portion of graphs illustrating Exit efficiency, View, and Prestige Values; *Bottom*: Diagrammatic elevation and section showing the resulting "office building" from Value Transfer and Exchange processes. Images by author.

Endnotes

[1] *Controlling Speculation* was initiated through the development of a research and design project, "The New York Value Exchange" (to be discussed later in this paper), and has evolved into a set of urban production strategies through teaching studio and representation courses.

[2] As opposed to urban planning, for example.

[3] See, for instance, the annual ranking of "America's Best Colleges" in *U.S. News and World Report.*

[4] *City Crime Rankings* (Lawrence, KS: Morgan Quitno Press). See the annual "Safest and Most Dangerous Cities Awards."

[5] One of the urbanite's most trusted companions is the *Zagat Survey* (more popularly known as the "Zagat's guide"), the heart of which – as any well-prepared urban dweller will know -- lies in its restaurant ranking system. Rated on a scale of zero to thirty, restaurants around the world are interrogated annually within the neatly defined categories of Food (F), Décor (D), and Service (S). Although the numbers tabulated and published are based entirely on subjective opinions, they nonetheless cast a wide net of authority over a captivated dining audience.

[6] As opposed to an opinion-based line of questioning.

[7] U.S. Census Bureau and American Fact Finder, http://factfinder.census.gov/servlet/TMSubjectAllThemesServlet?_ts=172410330218 (accessed July 18, 2006). Database used: 2005 U.S. Population Estimates. Themes selected: "TM-M1. Total Persons: 2005" and "TM-M2. Persons per Square Mile: 2005."

[8] U.S. Census Bureau and American Fact Finder, http://factfinder.census.gov/jsp/saff/SAFFInfo.jsp?_pageId=gn7_maps (accessed July 18, 2006). See "Thematic Maps."

[9] For instance, Erie County provides "Land Use" and "Current Assessment" maps. See http://www.erie.gov/, go to "Internet Mapping System."

[10] The Philadelphia Code and Charter, §14-104. Non-Conforming Structures and Uses, http://municipalcodes.lexisnexis.com/codes/philadelphia/ (accessed July 18, 2006). See "Title 14 Zoning and Planning" and "Chapter 14-100 General Provisions."

[11] Ibid.

[12] The Philadelphia Code and Charter, §14-102. Definitions, http://municipalcodes.lexisnexis.com/codes/philadelphia/ (accessed July 18, 2006). See "Title 14 Zoning and Planning" and "Chapter 14-100 General Provisions."

[13] Ibid. The definition for “Amusement Arcade” reads: “An establishment which offers to patrons four (4) or more mechanical or electrical amusement devices or games such as pinball machines, ping-pong, darts, shooting galleries or similar devices or games, excluding juke boxes and amusement devices in the establishments regulated by the Liquor Control Board of the Commonwealth of Pennsylvania, and vending machines for the dispensing of goods”; The definition for “Automotive Sales Lot” reads: “Any outdoor area or space where more than three (3) motor vehicles for sale to the public may be parked, stored or displayed.”

[14] Material presence categories included: first, tangible materials such as Pavement, Green Space, Trees, and Water; second, physical characteristics such as Roof color; and third, specific presences which implied increases in heat emissions, for instance larger Building Sizes and the presence of Bus Routes. All categories were evaluated and given a score. For each urban pixel, all scores were added and translated into a color on the Heat Index.

[15] Currently many city governments are providing internet mapping services which provide urban citizens, from architects and planners to developers and home buyers, a convenient resource for accessing and understanding city regulations. To list a few of numerous examples, the City of Philadelphia’s website, http://www.phila.gov, provides an interactive zoning regulation map. The City of Los Angeles’ website, http://www.ci.la.ca.us, provides "Interactive City Maps," categorized under the titles of "General Access" (Real time traffic info, parcel maps, official district maps), "Construction and Development" (Automated zoning information system, flood zone information, property info and public works facilities, i.e. sewers, storm drains, etc) and "Locators" (service which allows citizens to locate parks, used oil recycling centers, police stations and other neighborhood services).

[16] MapMuse, http://find.mapmuse.com/re1/mmHomeBrands.php (accessed July 18, 2006).

[17] Ibid.

[18] New brands and interests are added every week, based on online votes by website visitors.

[19] Family Watchdog, http://www.familywatchdog.us/ (accessed July 18, 2006).

[20] Family Watchdog, http://www.familywatchdog.us/testimonial.asp (accessed July 18, 2006).

[21] Situated immediately following September 11, 2001, this project initially responded to Liz Diller’s graduate studio directive: “Design 15 million square feet of displaced office space in Manhattan.”

[22] The project speculates that a new urban phobia has been “diagnosed”, resulting from the events of 9-11. *Acronoexitaphobia* is a combination of a fear of heights and fear of being unable to exit a building.

[23] Collective distance for any given location was determined by identifying selected amenities within a drawn radius, and tabulating the total number of points given per amenity. Points, from one to eleven, were assigned based on the amenity's distance to the location in question. The “value” of the location was then determined by factoring the total number of collective-distance points with a prestige-based number. For example, given that the collective-distance points equals “x”, a “gym with massage” would be worth “x + 2”, while a “gym with live DJ for workouts and sauna and massage” would be worth “x + 4.”

[24] Assuming that the best possible view is a combination of: 1) a 360 degree panorama where the extents of that view reach beyond the confines of Manhattan itself and b) opportunities for looking into the windows of neighboring buildings, the *View Value* was calculated both factors, using the: Vv = Vvi + [(Vvlb + Vvla)/2 (10)], where Vv is the *Overall View Value;* Vvi is the linear feet of *Immediate View*, measured at 40 feet from any point along the building's exterior wall; Vvlb is the percentage of *Potential View*, looking beyond a radius of 3900 feet; Vvla is the percentage of *Potential View*, looking at other buildings.

[25] Assuming that *Exit Efficiency* is a function of both fire stairs and elevator access, the *Exit Efficiency* Value is calculated using the formula: (Efs + Ee)/2, where Efs is the total number of floors required to pass in order to exit the building, and Ee is the number of potential elevator stops required to reach the ground floor, including functions of express elevator systems.

[26] David Pinder, “Subverting Cartography: The Situations and Maps of the City,” *Environment and Planning A* 28 (March 1996): 405-427.