"Make No Little Plans."
Big Moves for the Post-Industrial City

by

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Abstract
With the current trend in planning and urban design aspiring towards incrementally executed, phased-in projects, it becomes necessary to ask if this strategy is based upon anything more than anxiety, fear and apprehension leveled in the face of reelection-minded city leaderships, institutionalized planning bureaucracies and developer-driven market forces. The notion that cities evolve in well-proportioned, single-serving digestible bites is as untenable as the notion that a singular logical diagram of physical organization can alone dictate a city's character and evolution. Constrained by these two notions the current practice of urban design appears both hemmed in and characterized by the contradiction of Burnham's charge and OMA's 'taboo.' While this 'taboo' may, somewhat correctly, be associated with previous notions of grandeur and oversimplified static models of urban evolution, it should be recognized as a severe constraint on the space of possible solutions to urban issues. As such it represents an obstacle to the formation of new ideas and models, particularly in cities undergoing the most dramatic transformations.

Proposing a line of inquiry focused about the notion of radically-large scale urban design proposals this thesis inquires as to the appropriateness of such designs for post-industrial North American cities. It seeks to occupy and explore the 'taboo' which lies at the heart of the paradox of the urban proposition today.

Thesis Supervisor: John P. De Monchaux
Title: Professor of Architecture and Urban Planning
“Make No Little Plans.”
Big Moves for the Post-Industrial City
“Make no little plans; they have no power to stir men’s blood and probably will themselves not be realized. Make big plans; aim high in hope and work, remembering that a noble, logical diagram once recorded will not die.”

Daniel H. Burnham
"Paradoxically, at the end of the Twentieth Century, the frank admission of the Promethean ambition - like for example, to change the destiny of an entire city, is taboo."

Rem Koolhaas
With the current trend in planning and urban design aspiring towards incrementally executed, phased-in projects, it becomes necessary to ask if this strategy is based upon anything more than anxiety, fear and apprehension leveled in the face of reelection-minded city leaderships, institutionalized planning bureaucracies and developer-driven market forces. The notion that cities evolve in well-proportioned, single-serving digestible bites is as untenable as the notion that a singular logical diagram of physical organization can alone dictate a city’s character and evolution. Constrained by these two notions the current practice of urban design appears both hemmed in and characterized by the contradiction of Burnham’s charge and OMA’s ‘taboo.’ While this ‘taboo’ may, somewhat correctly, be associated with previous notions of grandeur and oversimplified static models of urban evolution, it should be recognized as a severe constraint on the space of possible solutions to urban issues. As such it represents an obstacle to the formation of new ideas and models, particularly in cities undergoing the most dramatic transformations.
Contents

conjectures
urban evolution
big moves: catalog
baltimore: inventory
the figurative and the urban
big move: baltimore
observations
realizing the big move
conclusion
Conjectures
Proposing a line of inquiry focused about the notion of radically-large scale urban design proposals this thesis inquires as to the appropriateness of such designs for post-industrial North American cities. It seeks to occupy and explore the ‘taboo’ which lies at the heart of the paradox of the urban proposition today.

At the beginning of the twenty-first century, there is no greater threat to the urban proposition in North America than the actual dissolution of the urban condition itself. While nearly every American city has experienced a steady decrease in physical density, there are currently over 70 urban centers in which processes of disinvestment, abandonment and decay are active and ongoing. While such processes tend to acquire characterizations of a catastrophic nature, there is no inherent reason to accept such prophecies of doom. Urbanism has never been, either in form or concept, a stable proposition. Indeed the move towards a less dense city demands renewed debate and conjecture on the fundamental nature of American cities:

"Rather than taking the abandonment of these previously industrial urban centers as an indicator of the so-called "failure" of the design disciplines to create a meaningful and coherent public realm, these trends must be understood as the rational end-game of industrial urbanism itself"²

The less dense city presents a unique opportunity to explore the role of urban design in the destiny of a city. As the urban cores of such cities become less dense and further suburbanized³ the relevance and role of design in the urban planning process becomes less clear and further destabilized. In a city expanding under the outward pressures of growth, development and economic potential, large urban design proposals can
be viewed as, at least, an entity for generating awareness and focusing investment in a targeted manner. In a city where the expansion pressures have reversed, where population drops and growth stagnates, new forces are found transforming the nature and form of the city itself. This situation, reiterates the paradox, in that the need for suggestive urban design increases while the possible form and relevance of its products becomes less clear. Here the validity of Burnham’s proposition is called into question not just in regard to the implied scale but also in relation to the ability of design to mold public awareness and form civic will.

While the engines of urban expansion will consume the grandeur, or at least the imagery, of large scale urban master plans it is unclear what type of urban design can channel the forces pushing the city towards lower densities and suburban forms. Is it some 21st century equivalent to Olmstead’s ‘green device’ for attracting development and bringing value to an urban area? Is it some form of the bidding/building process by which cities traditionally grew, reversed so that the city edge can be ‘developed-out’ of the urban environment shrinking the city and limiting its responsibilities? Is it a practice of urban ecology, facilitated by the move toward lower densities, recognizing the fragileness of urban ecosystems and the value they might add? Is it a dramatic expansion of the civil borders of the city so that it can recapture the wealthy tax base that has migrated outward? Is it a process of planned obsolescence in which the city engineers its own formal demise in order to satisfy market forces, balance its budget and maximize its real-estate values? Is it some synthesis of all of these?
This thesis seeks to probe this paradox of urban design with a series of urban design propositions for just such a North American city. As a post-industrial city which has seen its current population decline to almost half what it was fifty years ago while its metropolitan area has exploded, Baltimore represents an ideal testing ground for the relevance of the radically-scaled urban design of the less dense city. As a city in which the stereotypical ‘white flight’ of the 1970’s and 1980’s not only extended through the 1990’s and into this decade, but also crossed racial and socio-economic classifications to include the migration of the working class, Baltimore represents, perhaps, the foremost candidate for a model of urban disintegration.

By virtue of its ongoing disintegration, Baltimore is clearly in need of some Promethean ambition. Yet the urban proposition in Baltimore has rarely transcended the claustrophobic constraints of socio-economic ‘realities’ and segregated political constituencies. A once poster child for successful urban revitalization, Baltimore has been fed a stream of urban redevelopments whose impotencies have only been mitigated by their eventual demise. Having emerged from (what was hailed as) one of the most successful urban renaissances ever only to find itself essentially no better off, Baltimore has entered a critical but highly underdetermined moment—a moment where the future of the city is neither inevitable nor malleable—a moment where the city has no future.

It is in this moment that the latter part of Burnham’s proposition is called into question. If urban evolution has traditionally been rationalized against a linear trajectory of morphological shifts from village to town to city to metropolis, then the process of de-densification only confounds the ambiguity of Baltimore’s current state and future evolution. Bypassed by
regional forces, lacking a coherent geographic identity and composed of distinct yet isolated neighborhoods, Baltimore has entered a state in which its "noble, logical diagram", far from being immortal has gone missing or appears never to have existed. Whether by changing conditions or historical missteps the fundamental logic of the city has eroded with its population.

The evolution toward lower densities not only necessitates the need for an urban design of ‘taboo’ proportions in Baltimore but it also makes such a design possible. The extreme mismatch between form and function in a shrinking city creates a certain degree of breathing room in the amount of ‘wasted’ space generated. Certain regions of the city, possessing tens of thousands of abandoned houses, have by default already moved toward a less dense state. The possibility of turning such vast quantities of, wasted or left-over space, into a resource and channeling the continuing process of population loss into a useful and coherent process of urban transformation is, from a design standpoint, as profoundly tantalizing as it profoundly challenging.

Bleak more from stagnation than decay, Baltimore is a city undergoing a transformation so fundamental as to completely undermine the relevance and applicability of traditional methods of urban design and planning. Much like the situation of the Asian Megacity in which planning "makes no difference whatsoever" Baltimore exists in a state in which the role of urban design is as paradoxical as OMA's ‘taboo.’ To reinstate or recreate the underlying logic of a city is, in an urban design context, clearly presumptuous and probably impossible, yet to address the issues with incremental interventions not only lacks effectiveness but also severely
underestimates the scale of Baltimore’s problems.

In light of OMA’s ‘taboo’, the acceptance of Burnham’s notion that a "noble, logical diagram" is crucial to the evolution and perseverance of the urban condition becomes problematic. Having surpassed the grand classical figures of Burnham, the methodical zoning and land use policy of CIAM, the small-scale community development schemes of 1980’s, and the late-Capitalist big plan modernism of OMA, the content of such urban diagrams (and indeed urban design as a whole) remains ambiguous. Seeking the relevance of the "big plan" in urban design, this thesis attempts to address the post-Industrial North American city at the very largest of scales. By proposing a series of imagined transformations that address, in built form, the current urban condition in Baltimore City, this thesis hopes to explore not only the possible urban evolution of the city but also the role of urban design in conceiving that evolution.

(Footnotes)
2 Waldheim. p. 92.
Urban Evolution:
Baltimore in 10 Big Moves
Multiple Independent Settlements 1729

Context:
Along with Baltimore Town (B) grew two independent and competing settlements. Jones Town (J), founded in 1932, grew up directly across the Jones Falls river from Baltimore Town. At the other end of the harbor basin from Baltimore Town, on a natural point with good deep water access grew Fell's Point (F).

Strategy:
Multiple active centers, with different strengths, orientations and connections between them give clear trajectories for development and offer potential to make land in between valuable and attractive for speculation.
Gay Street Bridge
the first major east-west connection

Context:
Baltimore town and Jones town were separated not only by the bluffs and water of the Jones Falls but also by the acres of tidal marsh the river created as it met the harbor. The river and the marsh hindered development along what would otherwise have been a natural direction of valuable development.

Strategy:
The Gay street bridge not only connected Baltimore town and Jones town but it also brought the great eastern road linking Philadelphia and Georgetown through both town. The road and the bridge added value to marshy land between town makings its development profitable and facilitating the unification of both town.

1.0
'Unplugging' Calvert Street I
Underpinning the Courthouse

Context:
Calvert street's northward procession was blocked by several obstacles. In its way, architecturally was the two-story brick courthouse built in 1768. By the 1780's Baltimore had begun to grow north beyond the courthouse which was in the center of Calvert Street.

Strategy:
A full-height stone basement with an arched carriageway was excavated so that Calvert street could continue north as traffic flowed directly under the courthouse.

Response:
Known as the "courthouse on stilts," the eccentric building became one of Baltimore's earliest tourist attractions.
'Unplugging' Calvert Street II
Rerouting the Falls

Context:
As the city grew and development pushed north, Calvert Street, the main North-South street, ran directly into the Jones Falls river.

Strategy:
Rerouting the Falls along a North-South axis to the East of the city allowed for the continuation of Calvert street and the rapid expansion of the city North.
Radial Turnpikes 1745-1810

a logic for future expansion

Context:
In 1745 York Road, Reisterstown Road and Frederick Road were part of a crudely formed emerging network between Baltimore and other local towns like Hanover and Westminster. Traversable by wagon only under good weather conditions, the roads helped join the inland wheat farms to the port of Baltimore. As more inland communities, like Cumberland and Hagerstown, were founded, the need to connect inland farming communities and Baltimore’s trading establishments intensified.

Strategy:
Over the next 40 years Baltimore would develop a more extensive and functional network of roads and turnpikes. By 1809 York Road, Resisterstown Road and Frederick Road would together represent 150 miles of 20 foot wide stone paved roads. Expanding inland, off the city grid, Baltimore’s turnpikes exploded radially in a pattern of dramatic efficiency.
The Row House. Ground Rent
another logic for future expansion

Context:
Baltimore’s rapid industrialization created a massive housing boom across many socioeconomic levels and in many different areas of the city.

Strategy:
The row house operate as both a type and strategy for the residential development necessitated by Baltimore’s rapid industrialization. Its ease and efficiency of construction allowed speculators to develop whole blocks of the city in one move. Its adaptability as a typology allowed for the row house to be modified to better fit the wealth and geography of various neighborhoods. Along with adaptable row house as a physical strategy was an economic strategy called ground rent. Ground allowed speculators to build on land without having to first acquire the land. In effect the developers sold the houses but not the land on which they were built leaving the new tenants to pay a small annual rent to the original owners of the land. As a strategy, ground rents allowed for needed development even when capital was scarce.
Context:
Baltimore is unique in that it defied being incorporated for almost a century and when it was setup completely independent from the surrounding Baltimore county.

Strategy:
While the benefits of Baltimore independence were probably well suited toward the industrial expansion of the 19th century, the city’s independence from Baltimore county has become problematic as industrialization has declined. Baltimore’s status as an independent entity has in some ways deprived the city of a voice in larger regional and statewide issues. Historically this has been particularly problematic with regard to budgets and other state-wide financial issues.
Annexation 1888-1918
radial consumption, the solidification of the city's borders

Context:
Baltimore was once one of the largest cities in the United States and its rapid industrialization put a premium on space, particularly port space on the waterfront.

Strategy:
Several times in its history Baltimore has annexed land (and citizens) from adjoining Baltimore county. With the last annexation in 1918, Baltimore city's boundaries seem to have solidified.
Mismatched Highways
I-83, I95 Downtown trapped in middle

Context:
I83, which links the city to the Northern suburbs of Baltimore county and Pennsylvania was meant to feed directly into Interstate 95, the main North-South artery of the East Coast. Because the plan to connect the highways would have required bringing a highway out over the harbor the plan met stiff opposition and was defeated.

Strategy:
The highways were left in their disconnected state, with I83 ending sharply near the inner Harbor and the entrance to I95 being a short distance away on the other side of downtown.

Response:
The resulting condition is one of extreme congestion and inefficiency. Caught between these two highways, downtown Baltimore is prone to becoming a large traffic jam with the bulk of the congestion occurring on roads within a block of the waterfront.
Context:
The section of Baltimore's waterfront adjacent to downtown was a derelict collection of old warehouses and wharfs.

Strategy:
This area was formalized the Inner Harbor, clear of industrial artifacts and filled with shopping, hotels, restaurants, and a public waterfront promenade. Various tourist attractions included the National Aquarium and a science museum.

Response
The Inner Harbor, however came at the expense of the connection of the city grid and the waterfront itself. Cut off from surrounding areas by large quasi-highways, and requiring little incentive to leave its clearly defined confines the Inner Harbor's overall effect on Baltimore as a whole was mitigated.
Big.Moves: Catalog
a collection of pictures, plans and processes

At the conclusion of the twentieth century it becomes necessary to ask if the product of urban design is even the city. The greatest indication that the practice of urban design actually exists is not so much in the physical realization of any particular city but rather in the stream of grandiose drawings urban designers have produced. Far from being stagnant artifacts, the most intriguing of these designs are a potent mixture of figure and process, shape and strategy...
Paris
'surgical makeover'

Georges-Eugene Haussmann

Situation:
19th century Paris is a dense fabric of fine grained irregular localized neighborhoods with little uniformity and few direct connections across the city.

Strategy:
Straight boulevards cut into the smaller, irregular grains of existing neighborhoods in order to establish grand, axial connections and opportunities for architectural uniformity.
Lille
Office For Metropolitan Architecture
'Autonomous Program'

Dimensions: .4 square miles (1,000,000 square meters)

Problem:
The location of a node on the TGV high-speed train network instantaneously locates the formerly overlooked city of Lille, France directly on the center of gravity of Northern Europe's main population centers. The result of such proximities is to layer onto Lille a set of generic programs with no historical locus within the city.

Strategy:
Recognizing the synthetic nature of Lille's newfound regional proximities, the urban plan is found amongst the reroutings, juxtapositions and relations of the various transport infrastructures that have conspired to make Lille central. Avoiding the desire toward the seamless integration of new and old the plan seeks to create a hybrid condition out of the two at the heart of the city.
Tokyo
‘Vertebrate Megastructure’
Kenzo Tange

Dimensions: 10 million inhabitants

Situation:
Address the sprawl and congestion of Tokyo.

Strategy:
Tange’s strategy is to connect and augment the urban mass of Tokyo by creating a massive spine of transportation and infrastructure bridging land and water - to effectively short circuit the matrix of urban connections. The plan allows the spine to serve as a floating and or flying skeletal frame for the accretion of dwellings and program. This results in overall recentering of the city about a new center of gravity located on Tokyo Bay.
Paris
'towers and highways'

Dimensions: 3 million inhabitants

Situation:
LeCorbusier’s 1925 Voisin Plan for Paris was based on his 1922 studies of a city for 3 million people. The geometric forms and organizational plans shown here constitute the primary elements for his vision for a new core for Paris.

Strategy:
Rigid predefined composition for geometrical form of city. The plan relies upon an extreme degree of architectural unity. Ground space devoted to parks as much as possible. Population housed in dense cruciform towers. Transportation removed from ground plane and carried by floating highways.
Brasilia

‘sub-title’

Oscar Neimeyer. Lucio Costa

Dimensions: 500,000 inhabitants

Situation:

The Brazilian government decided to relocate the country’s capital within the interior of the country, in an effort to jump-start the development and industrialization of the country’s massive inland areas. The new capital city is meant to be a symbol of the government’s effort to bring “50 years of progress in 5.”

Strategy:

Adopting a the strict functionalism of CIAM the city is arranged about rigidly zoned sectors, with separate areas for industry, residence, government and recreation. Resembling a bird, the city’s general plan is formed by the intersection of two massive axes. Built at a garden-city density the new capital is based from the outset on the automobile.
Rome

'Dominic Fontanna. Pope Sixtus V

'city as network'

Dimensions: 80,000 inhabitants

Situation:
Rome's medieval texture deemed unsuitable and un navigable for the large number of religious pilgrims. The city not seen as physically monumental enough for its religious stature.

Strategy:
Sixtus identified the movement system, the streets, needed for the pilgrims as an idea around which to center urban improvements and subsequent development.

Sixtus and Fontanna marked all the major pilgrimage sites with tall obelisks and figural public spaces. He then connected all the sites with grand boulevards in order to create a network within the city navigable solely by visual means for the pilgrims and offering efficient movement across the city for the citizens.

1585
US Interstate System

'Dimensions:' \( \sim 45,000 \) miles of road

'Situation:

In 1919 crossing the United States by automobile was a two month ordeal consisting of dirt roads and spotty infrastructure.

'Strategy:

Viewed as a national security issue state highway agencies and the Department of Defense planned an interconnected system of nationwide routes. Far beyond its military origins, the interstate system has had an incalculable if not causal effect on the physical and economic expansion of North America.
Northwest Land Ordinance
‘manifest geometry’

Jefferson Thomas

**Dimensions:** 260,000 square miles

**Situation:**
Rapid expansion of the United States creates a vast and largely unknown frontier which must be consumed by the growing country.

**Strategy:**
A uniform mile-square grid allows for the orderly dispersion of land in a manner that promotes speculation, agriculture and the establishment of townships. The hierarchical division of the land deployed in the ordinance also serves to diagram the emerging urban, educational and political institutions.

1787
Manhattan, NYC
‘the grid’

City Commissioners

**Dimensions:** 23 square miles

**Strategy:**

“The Grid is above all a conceptual speculation. In spite of its apparent neutrality, it implies an intellectual program for the island: in its indifference to topography, to what exists, it claims the superiority of the mental construction over reality.”

Koolhaas, *Delirious New York*¹

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¹ Koolhaas, Rem. *Delirious New York*, p. 20
Washington DC  Pierre Charles, L’Enfant
‘the axis, the topography and the grid’

Dimensions: 10 square miles

Situation:  
As a newly founded independent country, America needed a plan for a monumental Capital that also allowed for its rapid development

Strategy:  
Viewing the axis as a primary instrument of monumentality, L’Enfant centered the city about two massive intersecting axial public spaces (The Mall). Given that the grid was already a publicly accepted strategy for encouraging real estate speculation in the new capital, L’Enfant incorporates it as an extension of the L-shaped geometry of the Mall. Addressing the topography of the site L’Enfant created a Renaissance network of minor axis and public squares which he again launched from the geometry of the Mall. L’Enfant synthesis all of these motivations and formal structures created an innovative and adept plan.

1791
Versailles
‘royal landscape’
Andre Le Notre

Dimensions:

Strategy:

Versailles’ mixing of town, palace and private park represents a combination of Renaissance Rome’s network superimposed upon and interacting with a gridded French town plan.

With the major axis of the town and the park occupied by the monarch, the palace mediates the city and the ideal landscape. The streets of city converge on the palace, in a large open space only to reemerge in the royal landscape shielded from the public.

The branching, scattering paths of the park are strewn out, reconverging and rescattering off circular roundabouts and each other. The overall result is a vast landscape of scenic vistas deployed mainly as a display of royal providence.
Timgad
‘imperial prototype’

Dimensions: 30 acres

Situation:
Like any empire, Rome's broad geographic reach required it to extend a strong physical presence in conquered areas. Such a mandate necessitated an urban form capable of extending its military control while promoting its cultural and economic authority.

Strategy:
Imperial Rome’s *castrum* plan represented a sort of instant urban condition based around the structure of a military camp. Generic enough to be portable and flexible enough to work in many geographic and cultural contexts, this type of plan centered around gridded city blocks and two intersecting main streets dedicated to commerce.

It is interesting to note that in many cases, including Timgad, the grid did not carry beyond the initial limits of the camp, with irregular development sprouting off it.
Boston Parkway

'green device'

Frederick Law Olmstead

Dimensions: 2000 acres

Situation:

Strategy:

'green device' to add real estate value
curves help maximize edge length
strategize and commoditize picturesque ideal
geography and 'city' (response to geo) conceived simultaneously orchestrated from the outset

Olmstead's device is anti-haussmann in its ability to make localities and generate local conditions
form an extended city plan. The free form geometries and major landscape features of the park
are played off major boulevard streets, crossing them, bouncing off them and redirecting them to
create picturesque moments in an already existing city plan.
La Defense
Office for Metropolitan Architecture
‘structured erasure, urban graft’

Dimensions:

Situation:
Starting condition is the result of previous strategy to save Paris from unsightly office towers by ejecting and quarantining the business district out of the city. In its mandated blind extension of Paris’ great axis, La Defense is given an urban reason d’etre of extending and augmenting the city’s monumentality. La Defense becomes a tight cluster of generic office towers.

Strategy:
OMA’s strategy is to ease the congestion of the site by gradually erasing most of the older buildings on the site and replacing them with a new, and initially empty urban fabric predicated on Manhattan’s street grid. The Manhattan block is deployed as a well-established urban form capable of promoting development and handling multiple shifting programs.
Back Bay

'urban landfill'

Arthur Gilman

**Dimensions:** 560 acres, 50 years and 80 men

**Situation:**
Low lying muddy harbor of stagnant water adjacent to downtown Boston and the public gardens. Downtown Boston apparently hemmed, confined from growth on a narrow peninsula.

**Strategy:**
50 year landfill reclamation of 550 acres coupled with a formal urban strategy of organized rectilinear blocks, main boulevards and a row house typology created an engine of speculative real estate and ultimately an elegant neighborhood.
Downsview Park
‘the diagram as project’

Office for Metropolitan Architecture

**Dimension:** .5 square miles.

**Situation:**
Large decommissioned air base in the heart of Toronto, a city without enough park space.

**Strategy:**
Instead of trying to fill, design or program the site OMA professes to grow it, as a 'tree city,' by placing a network of landscape clusters across the site. These clusters are strategized as able to adopt functions and grow as they are needed. The project is only the diagram.
No-Stop City
‘urban mat’

Dimension: ???

Situation:

“Nowadays there can be no hesitation in admitting that the urban phenomenon is the weakest point in the whole industrial system. The metropolis once the traditional “birthplace of progress”, is today, in fact the, most backward and confused sector of Capital in its actual state.”

Strategy:

Extreme ‘matting’ of the urban condition so that it can spread limitlessly and omnidirectionally in a controlled uniform manner. Buildings, streets and landscape folded into an endless and predictable singular ‘urban’ environment so boundaryless that position and geography become undefined. Even in the expansion no unique point or center is identified. Geometrically the design is not an endless tiling but a layering of repeating systems to generate a boundaryless system.
Canberra

Situation:
Competition to design a new federal capital for Australia

Strategy:
Inspired by topography the designers create multiple centers about three hilltops with long straight axial streets connecting these city centers. The street grids radiate from these centers and 'interfere' with each other creating overlapping zones. The design of the city is further characterized by a desire to place important buildings in settings and juxtaposition based upon their use and on diagrammatic relations of governmental agencies. The valleys between the hills are given over to a large lake.
Copenhagen
'edited networks'

Situation:
A crowded historic city center being overrun by automobile traffic.

Strategy:
Understanding that while walking, bicycling and driving are all necessary forms of transportation, they are not at all equal in their ability to dominate urban space, Copenhagen began to edit the street network of the city center to create a range of street conditions from pedestrian only to automobile-dominated. By separating out different forms of transportation in crucial areas, the quality and use of various city areas could be more closely designed. The operative strategy here is one of creating alternate, parallel and controlled sub networks within an already existing system.

Scale Comparisons
Outline for a Theory of the Big Move:

Big Plans decompose into Big Moves and Masterplans.
Masterplan and Big Move are antithetical.
Masterplan displays extensive control given to the least influential city formers.
Masterplan is a strategy of concentrated **power** and unimpeded **agency**
Masterplan is **singular**, localized in time and bounded in space.
Masterplan is prone to overestimating the rationality of actual city development.

Big Move is **strategic**, **process-driven** and **dynamic**.
Big Moves embody agency, take advantage of or perhaps even force
the necessary political/economic/social alignments required for their
implementation.

Big Moves possess (require?) a measure of **unpredictably** and lack of control
once initiated.

Big Move is not purely **rational** or **deductive**.
Big Moves are in part **empirical**

Big plans have a **genetic**, a lineage, a **taxonomy**.
Since a Big Move must be born, at least in part from observation, measurement and analysis of the historical conditions and the current situation, an overview of Baltimore’s vital signs is a prerequisite to any proposed transformations. The following summary is an attempt to not only present Baltimore by the numbers that quantify its current condition but also to present the trends that brought the city to this moment. It is meant as an inventory of what Baltimore possesses and what it has lost.

*Previous page photo: 99 cent by Andreas Gursky found at http://www.moma.org/exhibitions/2001/gursky/*. 
Baltimore's population has been steadily dropping since reaching a maximum of 959,000 in 1959. It is currently hovering at ~630,000 persons.
Population Density

data plotted by block group
Major transformation in city size and configuration are on the scale ~50-100 years. With the last major event, the annexations of 1918, almost a century ago Baltimore is overdue for a change to its physical character.
Land Area annexation

Historical Expansion:
- Area Annexed in 1918
- Area Annexed in 1888
- Area of City before 1888
Shocks to the system, the spikes represent the effect on density of the changes in the city's geographic size. Currently the density is being changed from the other direction, population loss has now changed the demographic of the city without any large-scale alteration to its physical form. Baltimore's current ambivalence toward urban transformation is manifested as a flatline.
Baltimore was second only to St. Louis in density decrease in 1990s. Baltimore fits into a larger pattern of North American post-industrial cities.
Density Implied Area Comparison

Baltimore’s populations redistributed at the densities of various cities.
Vacancy Rates u.s.cites
Shifting population...importance of Baltimore City to the state.
Migration

Population of Baltimore City and Surrounding Counties (millions)

- Baltimore City
- Baltimore County
- Anne Arundel County
- Howard County

Year:
- 1900
- 1920
- 1940
- 1960
- 1980
- 2000
- 2020

Population:
- 0.1
- 0.2
- 0.3
- 0.4
- 0.5
- 0.6
- 0.7
- 0.8
- 0.9
- 1.0
According to the 2000 Census, Baltimore is the 17th most populous city in the country but part of the 4th largest metropolitan area (source: Census 2000 PHC-T-3 from factfinder.census.gov).
According to the 2000 Census, Baltimore is the 17th most populous city in the country but part of the 4th largest metropolitan area.

Baltimore’s geographic place within its metropolitan area is clearly defined, while its larger place in regional and metropolitan issues is ambiguous.
Baltimore's main cultural, educational and public institutions are concentrated along central North-South axis which neglects the east and west edges of the city and almost the entire area of South Baltimore.
Park space forms hint at a continuous band of open space entering the city in South West Baltimore cutting north across the city wrapping downtown as it heads east.
The Figurative and the Urban
Points of Departure

The temporal aspect of urban design: diagramming uncertainty, change and instability.

Issues of empiricism: data and mapping, diagramming incompleteness

Issues of representation: How we represent the city affects how we form it. The reliance on the plan and the overhead aerial view. The reliance on models: networks, organism and ecologies. Architectonic methods applied to cities are problematic since in urban design there is a much greater distance between the composition and the physical reality.

The transformation of the figurative: Abstract expressionism and the destabilization of the subject. Is there are an urban design parallel to what happened in the transition toward non-subjective painting?
Big Moves: Sketches
Big.Move: Baltimore
Part I: Motivations
Issues for a Big Move

Radial Sparsity. Isolated pockets of neighborhoods, public spaces, park spaces, universities, cultural sites and tourist sites, scattered by the radial plan.

Connective Tissue. Not enough connections and connective tissues between open spaces, neighborhoods and cultural sites. Little variety and exploitation of potentially enriching interactions, adjacencies and juxtapositions.

Fragmentation. Baltimore lacks a central, unifying and sizable figure around which it is arranged. It offers no main system of public spaces, park spaces or continuous urban fabric about which connections and circulations can be created and sustained.

Scale. Baltimore is a big city without any of the qualities of ‘Bigness.’ Rapidly inflated by industrialization, the small town got big without a corresponding shift in its formal logic. For all its geographic bulk the city seems configured to prevent critical mass. It offers few moments of hybridization, cross-pollination and superposition.

Inner Harbor. The Inner Harbor is a dense nucleus of tourist attraction and commercial development whose benefits to the surrounding area have been largely undermined by roads and morphology. Its sphere of influence and effect extends little beyond its own sharp boundaries.

Waterfront Connectivity. Baltimore’s vast waterfront is barely developed and offers little continuity in access, movement, public space or use. Much of Baltimore’s waterfront and the areas surrounding it are occupied by a port of waning productivity and potential.

The Less Dense City. The vast mismatch between form and function in the post-industrial city, manifested in dropping density, not only creates large amounts of wasted space but necessitates the large-scale redesign of the city itself.
Baltimore’s waterfront is currently poised to be lost again. Having been lost the first time to the forces of industrialization, Baltimore city’s relationship with its coastline is now threatened by the demise of these very same industrial powers. Sacrificed, almost completely, to port and industry, Baltimore’s waterfront, save for a few disconnected moments, has largely evaporated from both the public’s view and conscience. Largely inaccessible and often completely obstructed, Baltimore’s coastline no longer manifests itself as an extended geographic entity or a part of the city’s urban fabric. In this condition, Baltimore’s waterfront is far more vulnerable than it was before industrialization.

What makes this second loss of the waterfront so profound is that it has the ability to go largely unnoticed. By virtue of the disaggregated state of former industrial sites, Baltimore’s waterfront has become amenable to spurious, unconcerted development. While Baltimore’s waterfront was first severed from the city by massive industrial sites, railroads tracks and highways it now set to be severed from the city and itself by
isolated, quasi-suburban ‘gated-community’ developments and private marinas.

Baltimore’s waterfront is an amenity of massive proportions and it consequently has been central to the city’s historic transformations. In some sense Baltimore’s history is inscribed in its waterfront. It was once the main resource fueling the city’s industrial ambitions and it now stands to be a resource around which the city’s post-industrial ambitions can be focused. The waterfront represents Baltimore’s largest opportunity for urban transformation not just because it can focus demand and sustain a real estate market but also because it offers the city an opportunity to form a visible accessible urban identity beyond the Inner Harbor.

That the needs of a 21st century city should be so different from the needs of a late 19th century industrial city is hardly surprising. While post-industrial economies downplay the importance of physical proximities and connections for businesses, they only intensify the importance of and demands placed upon the physical realm by the people running those economies.
Baltimore's waterfront is a pleated folded line whose complex forms suggest multiple geographic and urban scales. Between the vastness of the whole waterfront and the relatively small, but densely developed Inner Harbor lies an intermediate scale. A scale capable of bridging the localized urban scale of the Inner Harbor with the geographic scale of the whole coastline.
Waterfront Potential

Can Baltimore's waterfront become an open heart of the city?

With a length of about 60 miles, Baltimore's waterfront is a vast and geographically extended object. Such a scale necessitates a big plan. Such a plan needs to be part figure and part strategy, part process and part attitude change.

Baltimore's waterfront must come to be seen as more than the Inner Harbor. Only then can it begin to incorporate and extend the Inner Harbor's physical range and range of influences. The very existence of an Inner Harbor implies an Outer Harbor-- a larger context into which the dense commercial nucleus of the Inner Harbor has been embedded.
Waterfront Potential

Is an amenity on the scale of Central Park sitting ignored at the center of the city?

If so why has it not been realized?

What is the difference between New York’s Central Park, Boston’s Back Bay, Vancouver’s Stanley Park, and Baltimore’s waterfront? Baltimore’s waterfront has the ecology, the geography and the size to match any of these places. What is missing are the physical connections, the attitude and the infrastructure. Baltimore’s harbor is treated too much like a backyard, an industrial afterthought.
Range of Influence

Inner Harbor

Sharply bounded by the quasi-highways of Pratt and Light streets, ‘suburbanized’ by the space planning of the various tourist attractions and fragmented by discontinuous and unconcerted building/open space relationships, **the Inner Harbor’s range of influence is severely constrained and limited.** Its overall effect is to sever the city grid and the urban fabric from the waterfront*.

Extending the Range of Influence
Inner Harbor to Outer Harbor

If the inner harbor produces an effect of a given size on neighboring areas then extending the continuity and access of the inner harbor to greater sections of the waterfront should scale up the range of effects to even greater portions of the city.

Operating on a larger section of the waterfront will not just benefit the waterfront itself but, given the effect of new connections, the geography of the site and the increased amenity of a continuous waterfront, surrounding areas should benefit dramatically. Reconnecting the city grid to the waterfront and creating continuity allow the water to serve as an organizing matrix for the surrounding area.

This change in attitude toward the waterfront is Baltimore’s next Big Move. The organizational and architectural imperative it necessitates has the power to transform the city as a whole.
Observations
Inaccessibility has many manifestations. The spectrum of ways in which usage and occupation of the waterfront is discouraged is wide and varied. In the case of the warning sign it manifests itself as an expressed attitude. Industrial sites rely on security gates, imposing structures and barbed wire fences.

Some forms of inaccessibility are more disguised and ambiguous in the attitude they express. In some case a ‘false’ waterfront is created where the public is allowed a well manicured promenade a long a waterway just inland from the actual private waterfront uses.
CAUTION
PLEASE STAY OFF SEAWALL
Obstructed Waterfront:

In some areas the waterfront, beyond being inaccessible is almost completely obstructed from the public view and experience. In such areas the continuity of the waterfront is compromised as it is not always possible to even establish one's orientation and trajectory against the water's edge.
Observation. Discontinuous Waterfront

Physical obstructions aside, discontinuities between waterfront owners and uses presents an enormous challenge to establishing a continuous, coherent, and navigable waterfront.
Baltimore's waterfront already displays a wide range of uses and spatial characters. Fort McHenry presents a historical and indeed pastoral park setting along the water. The rail yard as Locust Point give a hint of the vastness of the industrial landscape. Recent development has brought suburban stylings and limited access of a gated-community to the waterfront.

Waterfront.Park ~2.5 miles from inner harbor

Suburbanization of the Waterfront.Private Spaces
>1 mile from inner harbor
Observation: Context.

The Inner Harbor and Downtown Baltimore form a hardened nucleus at the recessed interior point of the city's waterfront. Outside of the confines of the all too clearly demarcated tourist area, the inner harbor gives way, almost immediately, to vast stretches of industrial complexes, and neighborhoods of rowhouses.
The Figurative and the Industrial
Realizing the Big Move
Proposals for Creating an Outer Harbor

Proposal 1
Seeing the Harbor as a Whole

Not just extend the Inner Harbor but create its logical greater context. Take down the scale of the both the waterfront and the water surface. Promote a variety of transportation routes and connections in and around the water. Promote a variety of types of recreation and open spaces. Promote a variety of scales for these activities on and adjacent to the water. Just like control access and quality of route for automobile, bike and walking so too for rowboat, sailboat and container ship.

First the waterfront, the outer harbor needs to be clearly defined, it needs to become a figure, it needs to become its own solid, iconic form within the city. It needs to become embodied.

Baltimore's waterfront is too large to be consumed whole. It must be short-circuited. Like its electrical counterpart, the waterfront circuit will not function, not carry current until it is a closed system. The pleated linear continuity of the waterfront must be reconfigured, broken and rejoined. Baltimore's 1-D endless waterfront needs to be compactified to a geometric figure of greater complexity. Its dimensions cannot run off to infinity but must fold back on itself, creating a periodic and bounded but edgeless system. The waterfront must be operated upon at a global level of topologic connectivity.

Viewed as a bounded figure, like Central Park, the Outer Harbor has a surface area of 1.1 square miles and total perimeter of 8.7 miles. Similar in length to Central park but with less area and more perimeter.
Waterfront Current Conditions

Waterfront in this area has large amount of industrial, small amount of park space, overall limited public access.

Connectivity between spaces is barely existent.

The form of the industrial waterfront, the shape of harbor, and the massive amount of waterfront land represent an enormous opportunity to strategize the evolution of Baltimore’s waterfront in the coming decades. The dense nucleus of the harbor is an excellent seed from which to launch a larger strategy. Inner Harbor as attractor (people, commerce) and Inner Harbor as gateway to larger waterfront.
Proposal 2

Vacant or underused waterfront areas as of 1996. (From Port Land Use Development Zone Master Plan, Phase 3 Technical Memorandum June 2001, prepared by LDR International p. 12)
Relocation.Port.Waterfront Industrial

Given the vast amount of vacated industrial properties on or near the waterfront, the relocation and consolidation of port and waterfront industrial uses is both necessary and possible. The port and other waterfront industrial sites take up a disproportionate amount of waterfront space. The port is not as productive to the local economy as it was 50 years ago and will not be as productive as it is today in another 50 years.

Baltimore’s one Fortune 500 company grossed last year ~$10 Billion in revenue* while the port grossed ~$1.4 Billion.**

Port and industrial waterfront need to be seen as only one player amongst many competing for the waterfront. Waterfront must become contested and opened to the post-industrial forces of remediation, development, adaptive reuse and speculation.

The current map of population density in this area clearly shows two parallel concentrations of population pushing away from the Inner Harbor and extending along either side of the water. The further these concentrations of population get away from the nexus of the Inner Harbor they become more geographically separated from each other and from other urban areas. Without new connections between these areas they will remain isolated, difficult to access and consequently less attractive as places for living and working.
Current Conditions Usage

Proposal 3
Waterfront Increasing Connectivity

Current model of connectivity is a one-dimensional ring lattice that is missing a connection. This model captures the lack of connection between waterfront access points (nodes). Characterized by long travel times between nodes further from the inner harbor.

The major step in altering the connectivity of the waterfront, changing its topology, is to complete the ring. This will reduce the average travel time between nodes dramatically. As a complete circuit, people and activities can begin to flow and circulate around the waterfront without encountering and dead-ends or edges.

Once the ring has been completed, new layers of connectivity can be opportunistically and asymmetrically designed into the waterfront. These new connections not only further reduce travel times around the ring but they also allow for a multiplicity of routes to be supported by the network. This in turn allows for the emergence of redundant, parallel, conflicting and hybrid conditions within the network.
The Inner Harbor is essentially a one-stop destination for visitors. It is a terminal at the center of a radial network. By transforming this terminal center into an extended ring-like object, the center of the radial network is no longer terminal but rotational, able, by means of its ability to impart a centripetal acceleration, to redirect visitors, development and attention to a broader and more diverse than Inner Harbor alone.
Proposal 5

Waterfront Unfolded
Waterfront.Waterside Greenway

The waterfront in this area is characterized by large amounts of industrial land use and vacant space, small amounts of park space and limited disconnected public access.

Connectivity between public and open spaces is barely existent. Parks in this area are scattered with no clear connections amongst them.

The form of the industrial waterfront, the shape of harbor, and the massive amount of waterfront land represent an enormous opportunity to strategize the evolution of Baltimore’s waterfront in the coming decades. The dense nucleus of the harbor is an excellent seed from which to launch a larger strategy. Viewing the Inner Harbor as an attractor of people and commerce, the Inner Harbor becomes a gateway to a larger and more complete conception of the waterfront. A conception in which the tourist-driven nature of the Inner Harbor coexists with the more varied, fine-grained and multi-use development of the Outer Harbor.
Proposal 5
Waterfront. Waterside Greenway

A continuous green ring of open space on the waterfront also helps to center and focus the larger city-wide park system. At a large scale the city's parks create a quasi-continuous belt of green which encircles downtown Baltimore. A waterfront park system would offer a natural ‘center’ and focal point for the city’s existing and future parks.
Proposal 6

Public Space, Concert Venue?

Canton Waterfront: Marinas and Commercial

Inner Harbor

Federal Hill

Residential growth from Federal Hill

Pocket Park, Public Space, Park Access for Residential

Residential growth from Locust Point

New Locust Point Commercial Development

Fort McHenry

New Connection Occasional Boat Traffic

Waterfront Unfolded
Waterfront. Proposed. Usage

Given the relocation and consolidation of the port and waterfront industrial, formerly industrial sites will need to remediated and adaptively reused. In carrying out this process development should be structured to promote mixed-used development and to create new urban centers around the waterfront ring. The urban centers should be tied in as much as possible to land-based and water-based transit options.
Proposal 7
Additional Destinations: Islands

Addresses the need for connectivity and multiple routes. Creates crucial figurative relationships for the plan. Breaks down the scale of the water itself, creating a variety of scales and uses for water surface.
Waterfront. Proposed. Islands

Islands as means of augmenting connectivity while breaking down scale of water. Variety of spaces for variety of activities. Separate and appropriate the water for various activities and various users. Place for swimming, for rowing, for sailing, for yachting...Islands can be typed for various recreational and ecological uses. Series of linked islands also allows for control and access to be designed as an changed over time.

Forms of islands based on previous industrial waterfront forms of the piers, wharves and terminals

Islands (and the connections between them) begin to form a new, ‘artificial’ waterfront to augment the existing one.

This represents one possible realization of an island scheme for the Outer Harbor. It is meant as an illustrative example of the ideas discussed without reference to a particular plan or ‘final’ form for the area.
Proposal 7
Waterfront. Proposed. Islands

Waterfront in this area has large amount of industrial, small amount of park space, overall limited public access.

Connectivity between spaces is barely existent. Parks are scattered with no clear connection amongst them.

Islands are not just forms but also a strategy for increasing connectivity and working around immovable, permanent or temporarily permanent waterfront obstructions without losing connectivity.
Proposal 7.5
Zoning the Water
Water Uses /Islands. Uses

**water surface uses**
- All Purpose Use / Large Boats
- Marina / Private Boats
- Public Boating / Education and Instruction
- Unprogrammed / No Large boats
- Transitional Areas

**island uses**
- Athletic / recreational parkspace
- General parkspace
- Waterfront
- Water
- Dedicated facility

- Sailing instruction
- Rowing club
- Dining / cafe
- Bar / cafe
- Bike / equipment rental
- Paddle boats rental
- Athletic facilities / gym
- Educational
- Dining
Proposal 8
Waterfront Proposed Connections

Back Bay has 3 main connection across the Charles River for roughly the same amount of waterfront. Baltimore has none.
A small number of major connections across the harbor are not only critical to making travel times between geographically-separated regions convenient but they also help to promote movement in the system by offering a multiplicity of routes and options for travel in the area. They also help to break down the vast scale of the Outer Harbor.
Proposal 8
Waterfront. Proposed. Connections

The multiplicity of varied connections creates a network centered around the Outer Harbor. Such a network allows not only a wide variety of uses but it also allows users to program their activities with greater flexibility.

Multiple routes and multiple types of movement.
Different means of transportation are controlled in their interaction and allowed to appropriate spaces. Like Copenhagen, edit the network, pull apart different types of movement and carefully control their intersections.

Design forms entire Outer Harbor waterfront into a figurative whole but figure has become somewhat dispersed. This dispersion allows for drastically reduced travel times around the waterfront, enhanced usage of the water and the waterfront.

Enhances long range global connectivity while creating localities, moments and places, within the larger system.
Short-circuiting the harbor with a few strategically grounded connections has the ability to join various geographically separated city grids resulting in greater connectivity mobility. Coupling this connection strategy with a strategy that seeks to rejoin the waterfront with the continuities of the city's street grids will allow the waterfront to become interwoven directly into the neighborhoods and areas around it.
Proposal 10
Institutional Uses for the Waterfront

As an effort to augment, continue and extend the clustering of institutional uses around a north-south axis, the waterfront presents itself as an organizational tool. Given the vast amount of vacant land on or near the waterfront, seeding institutional uses amongst future development which help diversify and enrich these areas as they find new post-industrial uses.
Conclusions:
Afterthoughts for Future Plans
Urban design in Baltimore needs to be approached from a radically different perspective. Baltimore is a city in the midst of a major transition. It is a city that is quite literally searching for its identity for the next century. What is missing from this search, however, is some modern equivalent of Burnham’s “noble, logical diagram.” With the erosion of its industrial base, the city’s reason for being over the last two centuries has begun to dissolve. To replace it, Baltimore needs a level and scale of urban design thinking that approaches the permanent. While malleable, identity is not a transitory characteristic and a city’s identities should be focused upon that which approaches the inviolate.

While no singular object, plan or development can alone create this identity, certain parts of the city are latent with transformative potential. Because of its geographic scale, its waning industrial usage and its proximity to amenities, Baltimore’s waterfront presents itself as the ripest candidate for spawning and sustaining a Big Move.

Such a Big Move need not necessarily be physical; it does not necessarily require an incredible expenditure of physical capital or a commitment of vast resources. The Big Move, does however, require an expenditure of conceptual capital. On the waterfront the Big Move translates, primarily, into a shift in perception and attitude. It is not enough to work incrementally out from the Inner Harbor considering new areas only as a wave of development washes over them. In the current urban design of Baltimore a leap must be made to a scale where an entire section of the harbor and its coastline can be recognized and addressed as the large public amenity, distinct geographic entity and a possible recentering of the whole city.
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Page 8: The Elusive City, plate 94
Page 9: http://www.tu-cottbus.de/BTU/Fak2/TheoArch/wolke/deu/Themen/971/Schlueter/schlueter_t.html
Page 11: The Elusive City, plate 32.
Page 12: No-Stop City, Archizoom in Domus no. 496 March 1971, pages 49-54.
Page 20: Composite of aerial photos from Maryland Department of Natural Resources Geospatial Data.
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Page 22: Illustration by author but based closely on map found in Baltimore: The Building of an American City.
Page 24: Drawing of courthouse. The Architecture of Baltimore, p. 18
Page 27: Photos and drawing from The Baltimore Bowhouse, p. 68, p. 66 and p. 67 (left to right)
Page 32: (left to right): The Elusive City, plate 32.
Shaping the City. Robbins and El-Khoury, p52.
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Page 34: The Elusive City, plate 32.
Page 36: The Elusive City, plate 147.
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Page 113: Illustration by author, based on Baltimore City Planning Department, Locust Point, June 2004, maritime overlay map, p8.