

Bigness In Context: Some Regressive Tendencies In Rem Koolhaas' Urban Theory

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Introduction

Rem Koolhaas is noted for speaking of urban planning as a thing of the past, and insisting on the need for (a new) urbanism in the same breath. The reality of the contemporary urban condition is, for Koolhaas, that buildings have a built in life span of about twenty years, and that therefore, to think of urban planning as formal relationships articulated architecturally in space is obsolete. Context in this sense is a thing of the past. To insist on the right of certain buildings to exist, to insist on the relevance of context, is to apply conceptual structures valuable only to conditions that are no longer valid, and to further the rift between the discipline of urbanism and the real forces shaping the present. Moreover, old theories of urbanism, insofar as they are the wrong tools for looking at the present, are a repressive veil keeping us from an authentic experience of the real. History, context, and specificity are similarly concealing of the truth.¹ Koolhaas appeals to models of nineteenth century objectivity in calling for a fresh look at the real.² The reality, he claims, is that what we call cities today are really a series of "city islands" grafted onto the larger field of the "un-city." Koolhaas proposes the theory of Bigness as a response to the need to develop new taxonomies and models that will help us understand and operate in the contemporary metropolis.

Koolhaas does not provide a systematic and comprehensive theory of urbanism, nor does he explicitly describe the research methodology that led him to the conclusions he draws in Bigness. This factor accounts in part for his failure to impact the urban planning profession. It also difficult any attempt to synthesize his views into a simple summary. His reflections on the city are impressionistic and fragmentary. Most often he alludes in passing to the forces he considers central to urban transformation, but he does not deal with them in any significant depth. For example the worm-out factors of exploding demographics and of the late-capitalist economy come up repeatedly as issues of importance, without any scientific evidence to map the specific channels of interaction between these factors and urban tissues. These conditions, Koolhaas argues, challenge the disciplines of Architecture and Urbanism and point towards a new kind of synthetic practice guided by the general theory of Bigness.

The City As Island: Resurrecting An Expired Model

In modern times our understanding of urbanism was probably first articulated by Ildefonso Cerda, who, in 1867 coined the now common word "Urbanización" [urbanization]. Cerda argued that the extension of infrastructural services associated with city living (such as sewage, gas lighting, and the telegraph) to the country gave rise to new bureaucracies and professionals whose competencies extended well beyond urban centers. Cerda's process of "urbanización" accounted for the factors of increasing physical, social, and political similitude between the rural and the urban.³ The loss of the classical, "closed" city to the contemporary metropolis has fascinated Koolhaas since his school days. In a rather short but telling essay entitled "Imagining Nothingness" Koolhaas credits his teacher O.M. Ungers as the author of a description of the present in which the notion of a traditional city could be resurrected. Ungers' realization that most European historic centers "float" in larger metropolitan contexts, gave Koolhaas the insight that:

In such a model of urban solid and metropolitan void, the desire for stability and the need for instability are no longer incompatible. They can be pursued as two separate enterprises with invisible connections. Through the parallel actions of reconstruction and destruction, such a city becomes an archipelago of architectural islands floating in a post-architectural landscape of *erasure* where what once was a city is now a highly charged nothingness.⁴

Koolhaas uses the traditional Nolli plan analysis of urban tissue as solid and void, figure and ground, to describe the metropolis. His description is more figurative and projective than objective and researched. It is a conclusion more than an observation. The fact that he would allow himself to consider the great expanse of metropolitan fabric as a void in spite of its vibrant reality and presence, denotes, to say the least, a value judgment. Elsewhere he would make this estimation more explicit. "If you look at our project for Melun-Sénart," writes Koolhaas, "there were explicit judgements of contemporary ar-

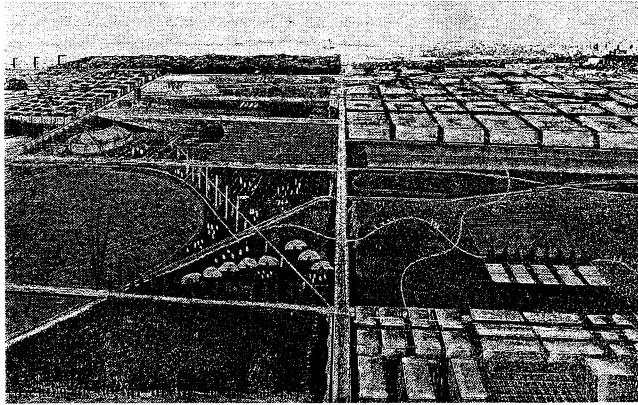


Fig. 1 Islands of urbanity are contained by a series of parks. Rendering of Rem Koolhaas' competition entry for Melun-Sénart (1987). From Jaques Lucan, Rem Koolhaas: OMA, (Princeton: Princeton Architectural Press, 1991), p. 15



Fig. 2 An open boundary between the urban and the non-urban: Manhattan's Central Park circa 1970. From F.L. Olmsted, *Forty Years of Landscape Architecture: Central Park*, ed. F.L. Olmsted Jr., and Theodora Kimball, (Cambridge, MA, and London: The MIT Press, 1973), opposite p. 200

chitecture: it is mostly 'merde' [shit]".⁵ But he does not simply mean that this architecture looks bad. For him, it is bad because it functions as a form of institutional and semantic oppression. The coercive aspect of architecture is something he feels is constitutive of its mission. In 1993 Koolhaas describes his 1971 visit to the Berlin Wall as the experience that was to make him a "serious student." He senses "an enormous reservoir of resentment *against* architecture, with the new evidence of its inadequacies—of its cruel and exhausted performance—accumulating daily; *looking at the wall as architecture, it was inevitable to transpose the despair, hatred, frustration it inspired to the field of architecture.*"⁶ Sixteen years later, his competition entry for a city at Melun-Sénart, France, reconciliates the two ideas that marked his student days: his contempt for architecture, and his fascination with the closed town. A field of what is described as "nothingness" eliminates the sprawling metropolis and contains a series of neatly encapsulated urban islands. But in reality this "void" is a complex system of parks where city dwellers are drawn exercising, or toiling the land. Nature returns as the mythic edge of urbanity, and as its cure.

The Sick City

Koolhaas' formal sanitizing of the city with parks, or "voids" as he calls them, is a strategy with roots in the nineteenth century. By the mid eighteenth hundreds, city bureaucracies in Europe and America, responding to alarming health reports, and to the devastation of cholera and diphtheria pandemics, studied options for improving conditions. In the United States, the idea of the urban park slowly surfaced as a way to accommodate the need to insert new infrastructure, to store clean water, to provide increased light and air circulation, and to furnish citizens with spaces for recreation.

The most famous example in the United States is Manhattan's Central Park. Frederick Law Olmsted, famed landscape architect, superintendent of the park since September 11th 1857, and main strategist of the place Koolhaas now calls a "void," won the 1858 competition to design the park with the help of his partner the English architect Calvert Vaux. In their eyes Central Park was to be much more than just a work of engineering to hold fresh water in the Croton Reservoirs. The park was to be a Republican Institution where the classes would mingle as a single collective in the spirit of democratic fraternity.

It was to be a pleasure ground where all citizens could find an escape from the pressures of cramped living. Their ideas were accented by the moralistic notes of the American transcendentalists who believed in a metaphysical need for individual communion with nature, as a way of salvaging personal autonomy from the social conformity spawned by the nascent commercialism of American culture. For the Transcendentalists, Nature was the last bastion of resistance to the ferment of the city.

In Central Park, Olmsted and Vaux endeavored to construct not just a fragment of the country inside the city, but an entire visual and formal system that would serve as counter balance to the existing urban form. They turned vistas inward, and masked the edges of the city with plantings, in an attempt to create an autonomous environment. Olmsted and Vaux believed that by relating of the non-urban to the urban they were improving the whole. Their position was informed by a pragmatic understanding of the metropolis as a complex system of which the park was just a part. They rejected utopian arguments to replace the city in favor of processes that would transform the existing. Their own method was to introduce elements of nature that could be formally autonomous from the more urban parts of the city, so as to compliment and ameliorate the existing whole. After Olmsted and Vaux the boundary between nature and city was shot through with porosity. What was once separated was brought together within an entirely new kind of urban form.⁷

The Void

Olmsted's parks, interest Koolhaas because they resist the stability of the formal language making up the traditional city. In the parks' formal indeterminacy he finds the promise of liberation from the formal coerciveness of architecture, "a kind of erasure from all the oppression, in which architecture plays an

important role.”⁸ In his hands however, the notion of form in flux is misread and radicalized as absence of form. Thus he describes Central Park in particular, and the non-urban (and here he includes street grids and other infrastructure), as “voids” or “nothingness.”

The danger of such reductivist essentialism becomes clear with Koolhaas’ treatment of sprawl. In peripheral metropolitan areas where elite architectural capital is usually at its minimum, the cycles of the economy precipitate fast changes in the formal make-up of entire districts. The constant metamorphosis of form in time is understood by Koolhaas as the sprawl’s complete lack of formal presence. Through a questionable leap of logic, Koolhaas sets up a simple relation of equivalences between all entities that are voids. The sprawl is equal to, and can therefore be turned into, a park, or an infrastructure.

Koolhaas’ treatment of sprawl as a “void” is not entirely innocent. His sleight of hand is revealed when he describes his own projects as “voids” that resist formal stability, and thus grants himself the license to replace the existing with his designs. He caters to the highbrow rejection of sprawl as valueless and meaningless, and complies with conservative public opinion by acting as its willing executioner. Koolhaas’ urbanism cleanses the metropolis of what he likes to call “merde,” and substitutes it with Bigness. His 1991 competition project for the Mission Grand Axe, La Défense, Paris illustrates Koolhaas’ facile translation of public opinion into an endorsement of urban purges, as well as his belief that the void and the traditional city depend on each other for survival. He writes: “This is La Défense, the office-city that nobody really likes but that has one undeniable virtue ... Its presence has saved Paris; each ‘eyesore’ realized *there* has prevented an invasion of the center.” Although he singles out some “good” structures like the university or the future TGV station, “everything else is plankton—the typical accumulation of undeniably inferior buildings built between the fifties and the nineties that forms the index of 20th-century architecture.”⁹ The Sprawl is not replaced with nature, but with a ready made, idealized bigness structure—or infrastructure. In essence, he paves the newly bulldozed site with a version of the Manhattan grid.

Today, we are no longer dealing with the same problems that faced the nineteenth century. Cholera and diphtheria are not killing large sections of urban populations. What exactly are the diseases harbored by today’s metropolis? What does Bigness really solve? Some of Koolhaas’ descriptions of the city’s ailments have changed over the course of his career. His early condemnation of the dull complacency of bourgeois urban life has given way to a more abstracted discourse about freedom that has been emptied of inflammatory rhetoric. What remains strong however is his dissatisfaction with a loosely defined loss of reality in subjective experience, and a similarly ambiguous dissolution of social unity. Koolhaas runs through the canonical list of reasons popularly understood to be the cause of these conditions: Rising world population, higher dependency on communications technologies, the impact of late capitalist forms of pro-

duction and consumption on social structures, and the “sabotaging” of the classical city by modernization. His objective is to produce an architecture that will resist the alienation of life experience and the demise of collectivity. In defense of Bigness he states:

[...] in a landscape of disarray, disassembly, dissociation, disclamation, the attraction of Bigness is its potential to reconstruct the Whole, resurrect the Real, reinvent the collective, reclaim maximum possibility.¹⁰

By placing the possibility of authentic and wholesome life strictly inside of Bigness, and thinking of the city not as a whole, but as a series of mutually exclusive “good” and “bad” parts, Koolhaas breaks with a major aspect the City Parks movement. For Olmsted, the non-urban was a piece inserted into the metropolis to ameliorate the whole. In Bigness, the non-urban replaces the whole with a new totality, a new reality, which co-exists, but is fundamentally independent of its outside. This insistence on projecting the model of the decontextualized fragment onto the existing blinds Koolhaas from any discovery about the reality of the modern metropolis, and its forces of formation.

To move beyond the rhetoric of the canon, one must engage in comprehensive research. Specifically, one must not confuse designing, and instrumentalized observation with disinterested attempts to describe the complex temporal and material substance of the real and of its contexts. It is not possible to accept the view that the metropolitan life is “bad” in the absence of convincing evidence. It is still more dangerous to accept proposals based on false assumptions if we consider them in the light of their implications. There is an emptying out of history and specificity in the notion of Bigness that limits the right to live only to those willing to be equalized into sameness. Bigness is a broad metaphysical view about history and about how society works, which is derived from vulgar Marxism, and which depicts society as a bad system that must be overthrown by attacking the language, values, culture, history and ideology of bourgeois culture. It is interesting that today this rhetoric drives the homogenizing commercialism that Bigness appeals to. It plays on the erroneous diagnosis of reality as doomed, and on the nonsensical promise of liberation along the single path of Bigness.

It is still valuable to remember that through research Olmsted and Vaux had rebuffed the prevailing assumptions regarding city growth as inversely related to quality of life. To do so they engaged a complex number of planning issues from transportation, to expansion, to infrastructure, and housing costs. By analyzing the evolution of street plans from medieval towns to contemporary metropolises they came to embrace the accelerated enlargement of cities. Olmsted and Vaux explained that growth should not be feared because the growth of nineteenth century metropolises induced major advances in urban conditions. The expansion of cities had precipitated public health reforms and the delivery of urban services which were previously unavail-

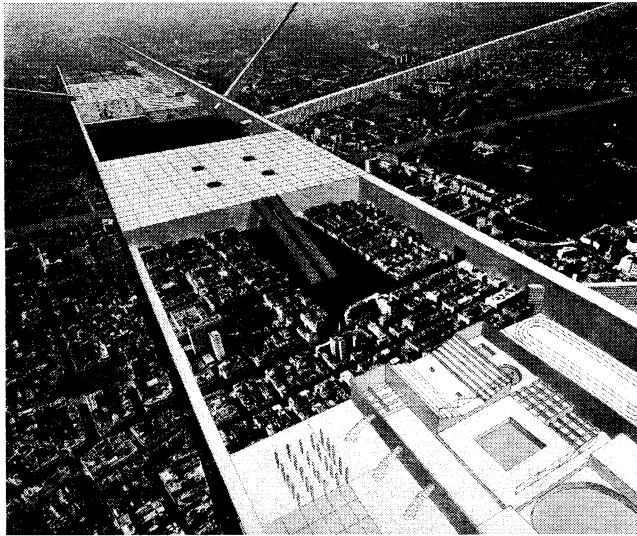


Fig. 3. *Bigness closes itself off from the urban and seeks to replace it: Rem Koolhaas' photomontage of "Exodus" (1971). From Rem Koolhaas and Bruce Mau, S,M,L,XL, ed. Jennifer Sigler (New York: The Monacelli Press, 1995), p. 206*

able, and which greatly diminished epidemic diseases. The abandonment of compact buildings in favor of more open, light and air filled arrangements had indeed made cities larger, but it had also contributed to making them more salubrious. Unfortunately these historical conclusions, along with equally relevant contemporary studies, are stamped out by Bigness' one-dimensional view of reality.

One World

Bigness is the ideal singularity. It is Stephen Hawkins' model of the universe, bounded but without edges. It is a seamless interiority. Koolhaas finds in Bigness a guarantee for uniqueness because, like the walled city, it is chaotic but at the same time establishes a boundary which contains that very chaos. For Koolhaas, each large scaled architectural project "acquires the pretension and sometimes the reality of a completely *enveloping* reality, and an absolute autonomy."¹¹ To the degree that these mega-projects separate us from the world "out there" they also liberate us from it. They are worlds-in-themselves. Thus, Koolhaas proposes bigness as an index of possible new freedoms, and taints mega-projects with the power to transform culture or, better yet, to create new forms of culture.

Bigness permits the reformulation of the idea of singular place, of stable identity, and of traditional community, and serves Koolhaas as a tool to battle the forces of dispersal that he feels are eroding today's society.¹² In relation to his proposal for a library for the University at Jussieu, Paris, he states:

I find that one of the most pregnant and provocative elements of the library program in Paris was to re-formulate the idea of a "communal facility", an "entity" in the midst of a complete collapse of the public realm, —and certainly of its classical appearance. *Against* the obvious homogenization of electronic media, *against* the erasure of the necessity of place, *against* the triumph of fragmentation...¹³

But Bigness is a place that floats above reality. It is an alter-

native world. A complete enveloping virtuality where the horizon of the real is a man made bubble. Voids after all are entities (either architectural or urban) that have clear boundaries but that are internally unstable. They determine autonomous worlds that can pose as the Real and feign totality. Bigness is, to quote Koolhaas, "the final, most radical break: Bigness is no longer a part of any urban tissue. It exists, at most, it coexists. Its subtext is *fuck* context."¹⁴ Once inside, the outside becomes not only irrelevant but also inaccessible.¹⁵ Koolhaas reasons a world where nature has expired. It can no longer operate as the mythic locus of Spirit. Inside his library project for Jussieu he envisions a network of boulevards creating a "new public realm," a more "concentrated" city where visitors drift along a hyper-urbanized environment.¹⁶ Architecture is the only ship capable of containing humanity and of saving it from the technological flood.

We must insist on asking however who is being excluded from the ark, and why. No matter how one depicts it, the reality is that Koolhaas' projects are not for everyone. They are not the porous Republican Institution of Olmsted. They have walls, they have gates, and they are owned by selective constituencies. Koolhaas is always deliberately vague about precisely what kind of community he envisions inhabiting Bigness.

The Russian Doll

"Bigness no longer needs the city;" proclaims Koolhaas, "it represents the city; it preempts the city; or better still, it *is* the city."¹⁷ Read in the light of the American city this break liquidates the progressive, democratic function of the non-urban. What gave the parks of the nineteenth century their revolutionary power, that is, the power to contest and to transform the conventions of authority operative through the traditional city, was that they stood in for that which was beyond human control and design —i.e. nature. The paradox of course is that the parks were manicured environments. They can and should be read as highly constructed ambiances. Yet, we cannot overlook that they are alive, and that this brings them close to effacing their own artificiality. They have a life of their own. At the very least Olmsted's parks speak a formal language that is completely antithetical to the architecture of the city. In this sense, the parks keep open the possibility of a different life and social reality. They are not simply compensatory environments. Bigness, on the other hand, folds the city back onto the city, thus foreclosing on one important possibility of imagining resistance to the establishment.

We are in effect faced with a complete internalization of metropolitan life behind a new kind of city wall. Instead of non-urban pockets in an urban field, Koolhaas gives us islands of urbanity in a sea of non-urbanity. On this count, Koolhaas fails to carry out his project to a successful conclusion. He challenges the existing by calling it "nothingness," but instead of really taking a fresh new look at it, instead of investigating the rich potential of sprawl as the source for a new kind of urbanity,¹⁸ he replaces it with an idealized view of the city and its indetermi-

nacy. Bigness internalizes urbanity and demotes the contemporary metropolis to “un-city.”

This attitude towards the city has been a constant in Koolhaas’ work from the start, and not the result of some prolonged study of the city. His 1972 thesis project at the Architectural Association entitled “Exodus or the Voluntary Prisoners of Architecture,”¹⁹ depicts London as a sick city, “a behavioral sink”. The problem of the city is really the problem of the subject’s apathy. Urbanism meets psychology. Borrowing heavily from Superstudio’s “Continuous Monument” project (1969), Koolhaas designs a linear megastructure in which the subject is forced into action and denied his or her historicity and specificity. Everything must be created anew: feelings, social and sexual mores, family structure, health care, types of community, kinds of livelihood, aesthetic forms, and personal identities. Individuals are forced into group experience. Koolhaas’ new city stands inside a double wall meant to “enclose and protect this zone to retain its integrity and to prevent any contamination of its surface by the cancerous organism that threatens to engulf it.” Outside stand the menacing forces of power politics, the bourgeois home, and the Protestant work ethic. The new city offers Londoners “collective facilities that fully accommodate individual desires.” For those “strong enough to love it,” the city makes individuals “ecstatic in the freedom of their architectural confines.” The building is not just a “social-condenser,” as Central Park is for Olmsted. It is the promise of infinite confinement that Bigness delivers. Resistance is futile.

Status Quo

Koolhaas’ claim that he is resurrecting the Real and the Whole is false. In his model the particular stands in for the universal. His Bigness is an attempt to replace the world as the ultimate horizon of life with miniature cities. Inside Bigness is a program of the classical city that has been aestheticised, cleaned up, made safe, varnished, and ultimately impoverished. It proposes a “germ-free” world that is not contaminated by the same social ills of the world outside. Koolhaas’ urban theory plays the game of naïve socialism, but fails to account for socialism’s failure. The refusal to address history and context leads Bigness down the double path of a bureaucracy of authenticity doomed to self-destruction, and of a pure mirror of the world it replaces. Bigness confuses its myopic understanding of sprawl with a license to obviate the real. Just as the nineteenth century urban park acquired moralistic proportions through the writings of the transcendentalists and the combined efforts of planners and landscape architects, Bigness is polished with the wax of virtue by Koolhaas. Where morality was once measured against nature, freedom is now held up to the standard of a new synthetic nature: Bigness.

But what is at stake in this freedom? Freedom from what, and for whom? Koolhaas’ projects, and how he describes them, provide the answers. The freedom that Koolhaas values most in both Bigness and capitalism is the freedom to exclude. As such

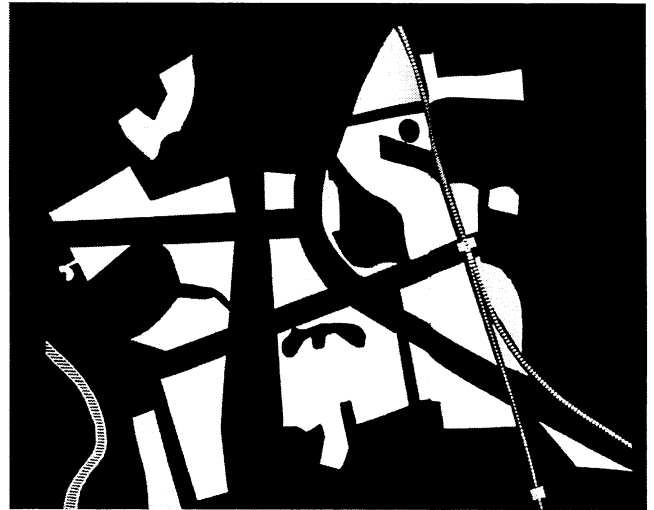


Fig. 4. White urban islands float in a sea of black “nothingness”: Figure/Ground diagram of Rem Koolhaas’ competition entry for Melun-Sénart (1987). From S,M,L,XL, *op. cit.*, pp. 982-83

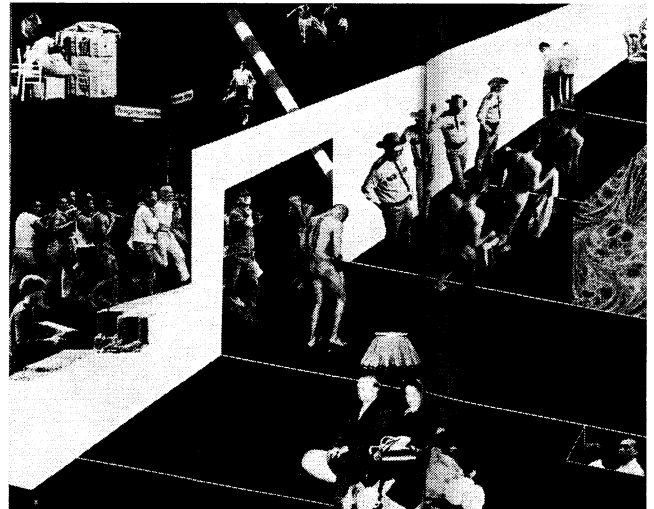


Fig. 5. Bigness as infinite confinement. The outside becomes inaccessible: Photomontage of Rem Koolhaas’ “Exodus” (1971). From S,M,L,XL, *op. cit.*, pp. 8-9

it can claim to effect connections to all that is outside, because, once you are in, there is no outside, only the semblance of exteriority in a perfect interiority. His Bigness is a representation of urbanity that lays claim to reality in the name of consumer culture. By appealing to the old rhetoric of the new, Koolhaas liquidates its very possibility.

NOTES

- ¹ “The irony is that the obsession with history and specificity has become an obstacle in the recognition of these new realities.” Rem Koolhaas, as quoted in Alejandro Zaera Polo “The Day After: A Conversation With Rem Koolhaas,” in *El Croquis*, n. 79, (1996), p. 19
- ² “To disentangle the resulting landscape requires the combined interpretative ability and 19th-century classificatory stamina of Champollion, Schliemann, Darwin, and Freud.” See Rem Koolhaas, “The Terrifying Beauty of the Twentieth Century,” in Rem Koolhaas

- and Bruce Mau, *S,M,L,XL*, ed. Jennifer Sigler (New York: The Monacelli Press, 1995), p. 206
- ³ See Ildefonso Cerda's *Teoría General de la Urbanización*, (Madrid, 1867), Vol. 1, part 1., Introduction, p1.
- ⁴ Rem Koolhaas, "Imagining Nothingness," in *S,M,L,XL*, op. cit. p. 201
- ⁵ Alejandro Zaera Polo "Finding Freedoms: Conversations with Rem Koolhaas," in *El Croquis*, n. 53, (1992), p. 24
- ⁶ Rem Koolhaas, "Field Trip: A (A) Memoir (First and Last...)," in *S,M,L,XL*, op. cit. p. 226
- ⁷ David Schuyler provides a convincing argument that what resulted from Olmsted and Vaux's work was really an entirely new urban form that is typically American. It integrates nature and urbanity over large expanses of territory, and re-organizes city life in accordance. See David Schuyler, *The New Urban Landscape: The Re-definition of City Form in Nineteenth-Century America*, op. cit.
- ⁸ Rem Koolhaas, *Conversations With Students*, (New York: Princeton Architectural Press, 1996), p. 63
- ⁹ Rem Koolhaas, "Tabula Rasa Revisited: Mission Grand Axe, La Défense, Paris, France, 1991", in *S,M,L,XL*, op. cit., p. 1090-96
- ¹⁰ Rem Koolhaas, "Bigness," in *S,M,L,XL*, op. cit., p. 510
- ¹¹ Alejandro Zaera Polo "Finding Freedoms: Conversations with Rem Koolhaas," op. cit., p. 20
- ¹² Bigness must be read in the context of the many critiques of the contemporary metropolis circulating inside the AA in the late sixties when Koolhaas was a student there. Bigness plays on the idea of the building as a city that, according to Peter Cook (an AA professor, a member of Archigram), had crystallized by the mid sixties into numerous theories and built projects. Cook argues that the concept captivated theorists because of its clarity and homogeneity, and because it combined the compact character of the much treasured Italian town with the heroism of the Unité d'Habitation. The concept came with a whole supporting stratum of ideas: The development of the multilevel environment, and the study of the building as container for random development. Bigness also addresses the sixties debate, especially central in British urbanism, about how to insert the new into the old. There were those at the AA who argued for improving the existing through the careful insertion of new elements. Alison and Peter Smithson were researching how to introduce new large structures into cities without disrupting existing use patterns of association. On a smaller scale, Michael Webb's experiments with mobile inflatable systems for individual habitation, were attempts to resolve the deficiencies of the city through punctual insertion of new elements at the level of the user. See Peter Cook, *Experimental Architecture*, (New York: Universe Books, 1970), p. 97
- ¹³ Rem Koolhaas, as quoted in Alejandro Zaera Polo, "Finding Freedoms: Conversations with Rem Koolhaas," op. cit., p. 17
- ¹⁴ Rem Koolhaas, "Bigness," op. cit., p.502
- ¹⁵ Koolhaas quoting of Frederic Jameson to define "Bazaar" is particularly telling in this regard: "The Blade Runner syndrome is the interfusion of crowds of people among a high-technological bazaar with its multitudinous modal points –all of this sealed into an inside without an outside, which thereby intensifies the formerly urban to the point of becoming, or being analogous to, the un-mappable system of late capitalism itself. The abstract system and its interrelations are now the outside, the former dome, the former city, beyond which no subject positions is available so that it cannot be inspected as a thing in its own right, although it is a totality." Koolhaas' understanding of Bigness in terms of capitalism denotes his desire to design a totality so perfectly autonomous that it erases its own boundaries. See *S,M,L,XL*, op.cit., p. 16, and Alejandro Zaera Polo, "Finding Freedoms: Conversations with Rem Koolhaas," op. cit., p. 21
- ¹⁶ "Through their scale and variety, the effect of the inhabited planes becomes almost that of a street; this boulevard generates a system of supra-programmatic 'urban' elements in the interior: plazas, parks, monumental staircases, cafés, shops. [...] Also, the life span of the structure and that of the crust of the 'settlements' are not necessarily the same; the path and the public domain are analogous to the permanence of the city, the infill of the libraries to that of individual architectures. In this structure, program can change continuously, without affecting architectural character." Rem Koolhaas, *S,M,L,XL*, op. cit., pp. 1326-1329
- ¹⁷ Rem Koolhaas, "Bigness," op. cit., p. 515
- ¹⁸ Other architects around the globe are proposing new methods to visualize the existing, to map even non-visual elements, in order to make their projects arise from a fresh discovery of the site, and a deep understanding of the forces that shape it. The work of UN Studio in Holland uses parameter-based computer technologies to visualize the correspondences between the various elements of the site and the program to be inserted. Then they generate a situation-specific organizational structure out of their research. Shayne O'Neill in the United States is less dependent on technology and more resistant to giving the program priority from the start. His projects draw on mappings of the site from various disciplines (from geology to air traffic) in order to produce a composite picture of the forces of formation of the site from which a site-specific response to a program may be modeled. See Patrik Schumacher, "UN Studio: Arnhem Central," in *AA Files*, (Spring), n. 38, 23-36.
- ¹⁹ See Rem Koolhaas, "Exodus, or the Voluntary Prisoners of Architecture," in *S,M,L,XL*, op. cit. pp. 2-21