6 pages

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ETH Zurich, Marc Angélil Chair, 2017

“For us,
a book is a small building.”
(Smithsons 2005, 15)

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Rossi, Aldo. 1984. *The Architecture of the City*. Edited by Aldo Rossi and Peter Eisenman. Published for the Graham Foundation for Advanced Studies in Fine Arts, Chicago, Illinois, and the Institute for Architecture and Urban Studies, New York. New York: Oppositions books.

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intention

In order to address an urban morphology investigation focused in the space in-between the buildings, six main writings were selected in the time-space of the 19th and the 20th centuries in European cities. One of the biggest efforts here is to digest both their theoretical formulations and research methods to be finally applied to a different context: the city of Sao Paulo, Brazil, in its future to come.

This booklet is introduced by a structure borrowed from the Smithsons: intention + evolution + observation.

The writings are then inserted in a timeline, articulating the first and read editions.

Secondly, each publication is chronologically explored and presented following this structure: key concepts, keeping original quotations; summary, describing the author's hypothesis; and anthropophagy, developed as an exercise to re-contextualize and appropriate the absorbed knowledge, commonly supported by graphical experiments.

Ultimately some considerations are drawn about the approach experienced at the design studio and which would be the questions and possibilities to drive the following steps of the PhD research back to Brazil.

evolution

5.974 miles away

77 days

6.266 CHF financial support

3 different neighborhoods

123 new people

4 cities visited

4 exhibitions attended

3 studio reviews

8 lectures attended

1 lecture presented

1.001 read pages

11 kg of chocolate

+5 kg weight

9 sunsets at the lake

18 bottles of wine

15 liters of beer

1 hangover

6 pages per week

8 weeks left after research tutorial

48 pages in total

observation

This booklet was built as the final report regarding the Internship Abroad developed at the Swiss Federal Institute of Technology (ETH Zurich), Department of Architecture, Prof. Dr. Marc Angélil's Chair, from March to June 2017.

The research was directly supervised by Prof. Dr. Marc Angélil, in collaboration with Assist. Prof. Ciro Miguel, and supported by the Sao Paulo Research Foundation (FAPESP), which is also financing the scholar's PhD research in progress at the Faculty of Architecture and Urbanism of the University of Sao Paulo (FAUUSP), Brazil, supervised by Prof. Dr. Joana Carla Soares Gonçalves, Head of Technology at FAUUSP.

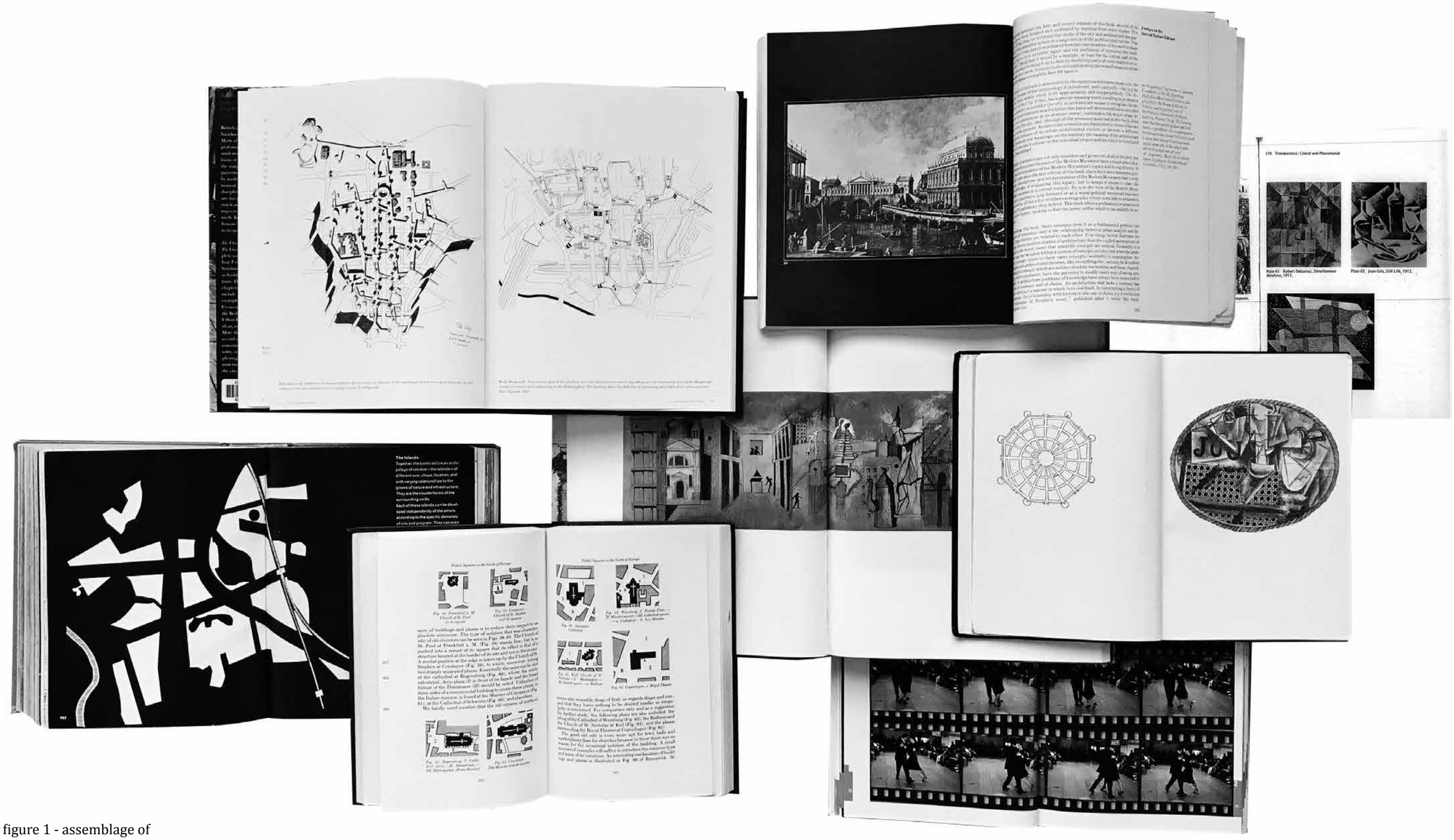


figure 1 - assemblage of publications consulted.
source: author, 2017.

timeline

Sitte, Camillo. *Der Stadte-Bau nach seinen kunstlerischen Grundsatzen*. 1889

Rowe, Colin and Robert Slutzky. *Transparency: Literal and Phenomenal* (written but not published). 1955-56

Rowe, Colin and Robert Slutzky."Transparency: Literal and Phenomenal." In Perspecta. 1963

Rossi, Aldo. *L'architettura della Città.* 1966

Rowe, Colin and Robert Slutzky."Transparency: Literal and Phenomenal." In *The Mathematics of the Ideal Villa and Other Essays.* 1976

Rowe, Colin and Fred Koetter. *Collage city*. 1978

Rossi, Aldo. *The Architecture of the City*. 1984

Sitte, Camillo."City Planning according to Artistic Principles." In *Camillo Sitte: The Birth of the Modern City Planning*, edited by Collins 1986

Koolhaas, Rem. *Small, Medium, Large, Extra-Large.* Edited by Jennifer Sigler. 1995

Smithson, Alison and Peter Smithson. *The charged void: urbanism*. 2002

Smithson, Alison and Peter Smithson. *The charged void: urbanism*. 2005

SITTE

Sitte, Camillo. 1986. “City Planning according to Artistic Principles.” In *Camillo Sitte: The Birth of the Modern City Planning*, edited by George R. Collins and Christiane C. Collins, 129-332. New York: Rizzoli International Publications.

key concepts

cubic building-block

plaza = agora = forum = open space

summary

Along his treatise, Sitte criticizes what he calls modern city planning. Taking into account Sitte’s temporal context, it’s important to highlight that this “modern city planning” refers to urban renovations designed and/or implemented by the end of the 19th century in European cities as Paris and Vienna and then it constitutes a modern city planning different than that developed by Le Corbusier and the CIAMs and discussed by posterior authors as Rossi and the Smithsons.

For Sitte, this modern city planning is struggled by technical matters, as traffic and hygienic improvements, and then its weakest points are: the cubic building-block, “building block, plaza block, garden block” (Sitte 1986, 242), conformed by straight and wide streets crossing in right angles; street junctions, triangular leftovers which are called “plazas”; regular parceling of lots; free standing buildings.

“In modern city planning the relationship between the built-up and open spaces is exactly reversed. Formerly the empty spaces (streets and plazas) were a unified entity of shapes calculated for their impact; today building lots are laid out as regularly shaped closed forms, and what is left over between them becomes street or plaza. Formerly all that was crooked and ugly lay hidden in the built-up areas; today in the process of laying out the various building lots all irregular wedges that are left over become plazas, since the prime rule is that ‘architecturally speaking, a street pattern should first of all provide convenient house plans. Therefore street crossings at right angles are an advantage. And it is certainly wrong to adopt irregular angles as a principle of parceling’ (Barumeister)” (Sitte 1986, 225)

In order to find solutions for that current way of planning cities, Sitte looks back in the Ancient Time, Middle Age, Renaissance, and even in the Baroque to find the fundamental elements, characteristics and logics which drove that urban planning. And here is possessed, in fact, the main aim of Sitte’s writing: a search on the artistic rules for placement of public buildings (as church, cathedral, baptistery, tower, town hall, marketplace, etc) and monuments (as statues and fountains) in public open spaces, the “plazas”. Some of the examples, or masterpieces stressed by the author are Piazza St. Peter in Rome, Piazza dela Signoria, Piazza San Marco.

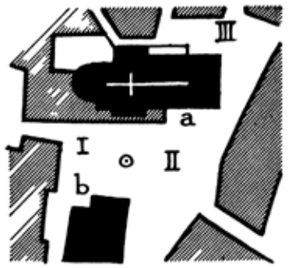


Fig 44 Perugia. I Piazza del Vescovato —II. Piazza IV Novembre —III. Piazza del Papa (Dante) —a. Cathedral b Palazzo Comunale [From Martin]

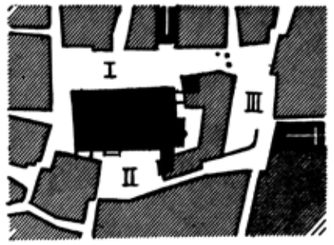


Fig. 45 Vicenza. I. Piazza dei Signori —II Pescheria (Piazza delle Erbe) —III Piazza della Biava. [From Martin Cf I l XXVII]

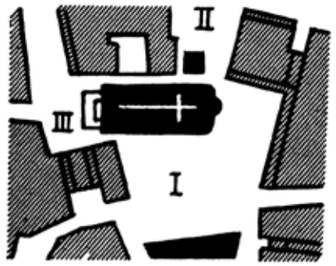


Fig 41 Modena I Piazza Grande (Maggiore) — II Piazza della Torre — III Piazza della Legna (Piazzale Duomo) [From Martin]

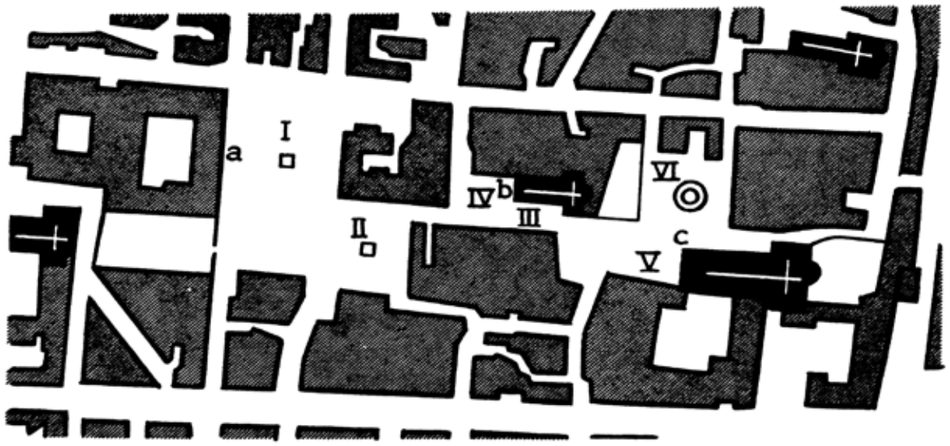


Fig. 42 Lucca I Piazza Grande (Napoleone).—II Piazza del Giglio —III Via del Duomo —IV Piazza S Giovanni —V Piazza S Martino —VI Piazza Antelminelli —a Palazzo della Prefettura —b S Giovanni —c Cathedral (S Martino) [G R C and Jaime Ardules-Arce]

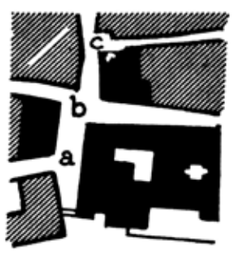


Fig. 51. Geneva

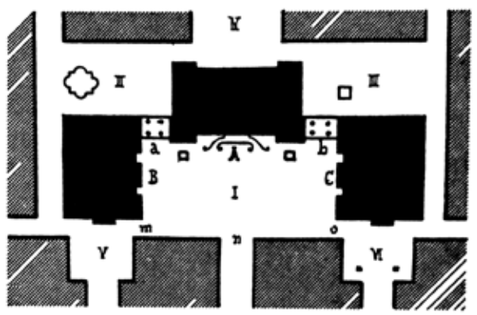


Fig 105 Camillo Sitte, model layout for a complex of public buildings

Sitte focuses in artistic principles but, in the end, he is theorizing about urban space in general.

Some of the principles stated by Sitte are: the center of the plazas should be kept free, in other words, it's not worth to randomly insert buildings or monuments in the center of open spaces as this could impact negatively the spatial experience itself; plazas should be enclosed entities, conformed by buildings or other urban elements as colonnades, loggias, portals, and interrupted streets, instead of mere empty spaces bordered by traffic lines; proportions between the public square size (length x with) and the main building height, with deep plazas related to a church and wide plazas related to a town hall, in order to create the most suitable impact in the spectator; irregularities of old plazas, which are pleasant and can just be noticed when looked from above; plaza groupings which provide an urban sequence, as in Piazza San Marco, in Venice.

According to Sitte, the external use of interior architectural elements, as galleries and staircases, is one of the responsible for the "charm of ancient and medieval designs" (Sitte 1986, 246)

Sitte's principles constitute some valuable contributions to urban planning in regarding to proportions to be kept between buildings and voids; physical, spatial and visual connectivity of open spaces. Nevertheless, Camillo Sitte's principles on one hand over romanticize the ancient plazas; on the other hand over depreciate modern open spaces.

Moreover, according to Aldo Rossi, Sitte lacks the totality of the city when focuses on the principles to guide the design of single squares and streets (Rossi 1984, 35).

In this writing, Sitte's biggest issue is the "plaza", the public square. However, most of the time, the plaza is interpreted as a necessary complement to the built mass, according to Sitte the plazas used to be designed to position a monument or to show a building off to advantage. In reference to the Piazza Grande, Piazza della Torre and Piazza del Duomo in Modena, Camillo Sitte states that "These and many comparable examples give the impression that the individual building façades had determined the formation of their adjacent squares, in order to render each one of them as effective as possible; one can hardly imagine it to have been the reverse – that two or three plazas had originally been located next to each other here, and subsequently the different parts of the church were made to fit between them as well as they do. […] " (Sitte 1986, 193).

It's exactly on this reversal way of thinking that my PhD is based.

figure 2 - some of Sitte's sketches of plazas and their principles.
source: Sitte, 1986.

anthropophagy

The author's context differs abruptly, in time and space, from mine: 19th century versus 21st century; ancient and baroque European cities versus Sao Paulo. Due to these conditions, the biggest contribution of Sitte's writing resides in its research method.

In Sitte's hypothesis and research method we find a pattern that has been driving other theoreticians: once the urban thinker adopts a critical position to the current urban conditions and perspectives, he searches for real examples and models (particulars) from which could be empirically extracted principles and rules (universal statements) to guide the future of the city. These examples use to be found in different contexts, temporally and/or geographically.

I assume a critical position to the way that the city of Sao Paulo has been planned: as an agglomeration of objects and lines where the space in-between the buildings is merely a consequence, a leftover. Now I should define a scenario from which to extract some hypothesis and principles to rethink the future of the city. It's unquestionable that Sitte's models don't fit directly the case of Sao Paulo. Perhaps some references to Sao Paulo could be found inside itself, in its outskirts and informal territories, where the urban settlement are determined by other logics.

Moreover, urban references to the city of Sao Paulo should be found in ordinary urban structures, instead of pristine or overly designed ones. Despite setting up valuable urban principles, Sitte's artistic concerns leave apart other important architectural elements in the city, as housing and infrastructural facilities. Perhaps nowadays, and mostly in developing cities, the ordinary life is the most demanding and then should be the main focus of urban discussion, planning and design.

Sitte's method also emphasizes the comparison between open spaces, with regards to their insertion, shape, dimensions and scale. The author states that "Every student of city planning would find it instructive to compare the true measurements of the smaller squares in his own town with those of the larger ones. This will demonstrate in every case that the apparent size bears no relationship whatsoever to actual measurement." (Sitte 1986, 180). It would be interesting, then, to develop a catalogue of the voids in the city of Sao Paulo, in the same manner that Sitte did, however with a different graphical language, in order to highlight the empty spaces (in black). The voids in this case are not exclusively public squares or streets, but also any other spaces in-between the buildings which are not exactly defined or categorized (figure 3).

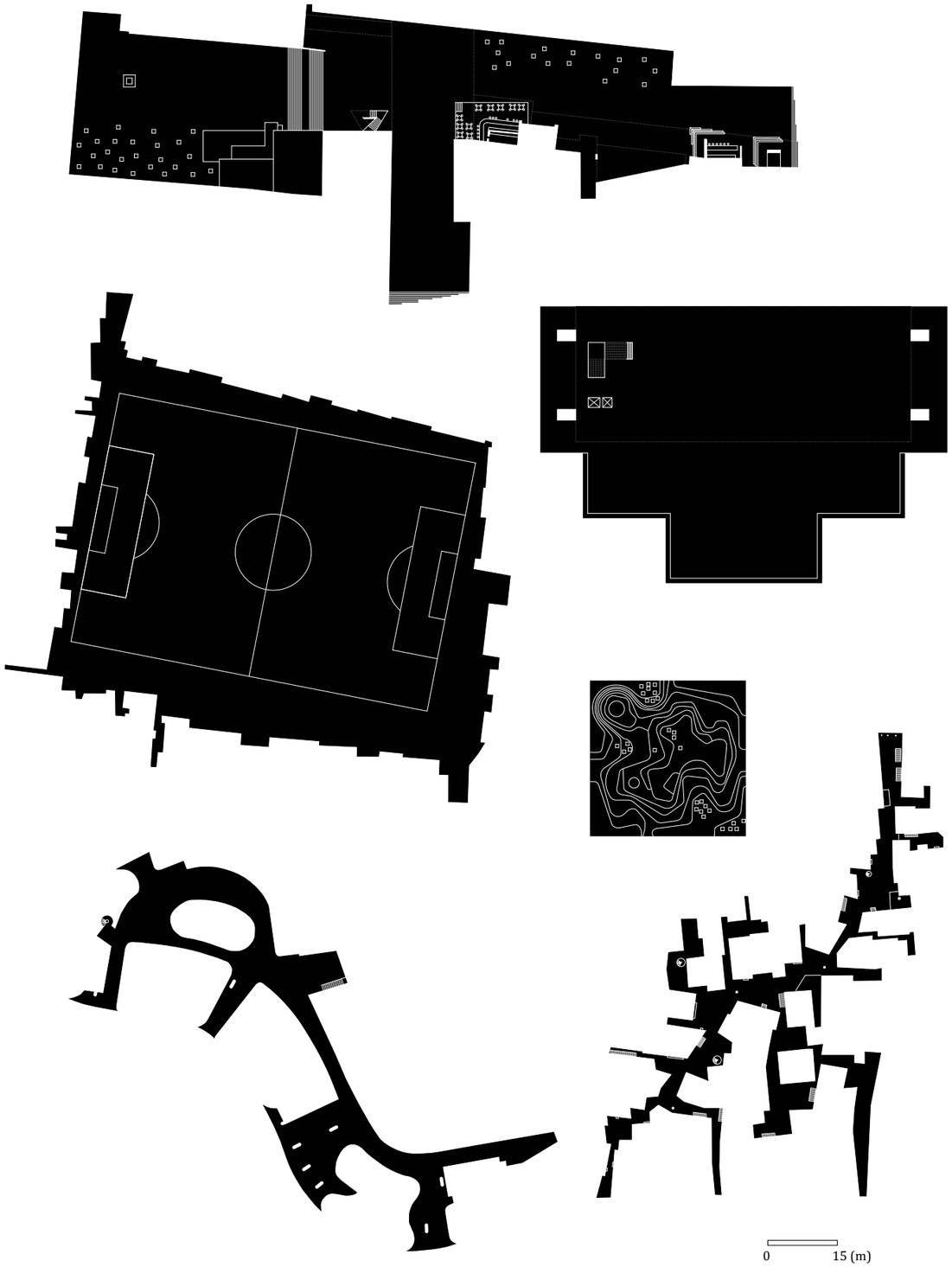


figure 3 - embryo catalogue of voids in Sao Paulo (from top to bottom, left to right): Praça das Artes; Favela de Paraisópolis' football pitch; Lina Bo Bardi's MASP; Burle Marx's Safra Bank rooftop; Niemeyer's Copan groundfloor; Favela de Paraisópolis' alley. source: author, 2017.

ROWE + SLUTZKY

Rowe, Colin and Robert Slutzky. 1976. “Transparency: Literal and Phenomenal.” In *The Mathematics of the Ideal Villa and Other Essays*, edited by Colin Rowe, 159-183. Cambridge: The MIT Press.

key concepts

“Transparent 1. Having the property of transmitting light, so as to render bodies lying beyond completely visible, that can be seen through. b. Penetrating, as light 1593. c. Admitting the passage of light through interstices (rare) 1693. 2. fig. a. Open, candid, ingenuous 1590. b. Easily seen through, recognized, or detected; manifest, obvious 1592. ” (Rowe and Slutzky 1976, 160)

literal transparency = real = quality of substance

phenomenal transparency = seeming = quality of organization

summary

This essay was originally written in 1955-56, first published in Perspecta 1963, and reprinted as Transparenz, edited by Bernard Hoesli, in 1968. The main objective of Rowe and Slutzky was to define the real meanings of the term “transparency” in contemporary architecture.

According to the authors, transparency could be literal or phenomenal.

The discourse about these differences starts being built through analogies with cubist paintings and finally in three dimensions, comparing Gropius’ Bauhaus workshop wing (figure 5), a case of literal transparency, to Le Corbusier’s villa at Garches (figure 6) and League of Nations project of 1927 (figure 7), cases of phenomenal transparency.

Most of the time, in architecture, transparency is reduced to a physical fact, to the quality of substance and materials,“associated with the trompe l’oeil effect of a translucent object in a deep, naturalistic space” (Rowe and Slutzky 1976, 166), which is called literal transparency.

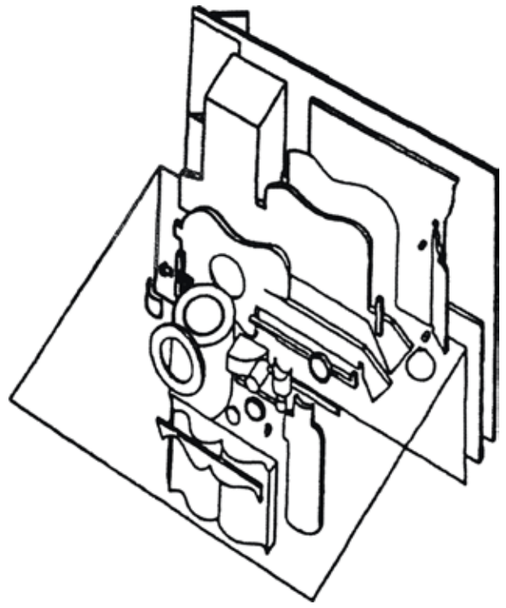
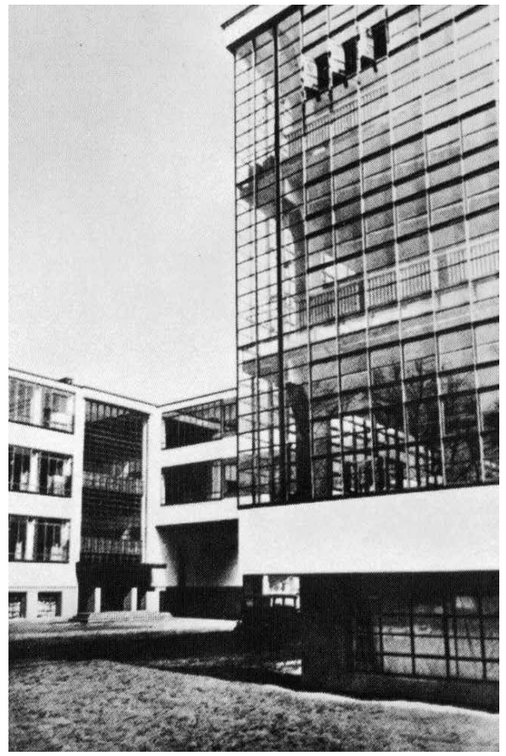
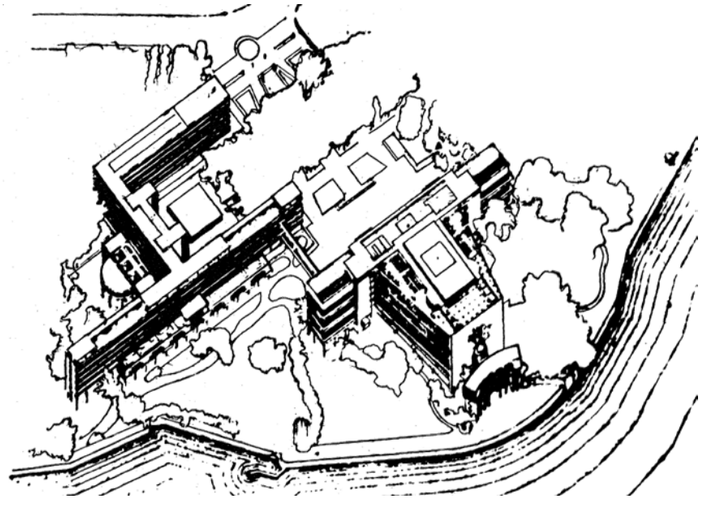


figure 4 - image built into strata according to the cubist tradition, in planes. The position of the planes is ambiguous, typical of transparency.
source: Rowe and Slutzky (Hoesli), 1989

More than visual order, transparency entails spatial orders, according to Gyorgy Kepes, in a way that transparent figures can interpenetrate without destructing each other, meaning "a simultaneous perception of different spatial locations" (Rowe and Slutzky 1976, 161). Here the proper term is phenomenal transparency, deeply associated with the quality of spatial organization.

"In the League of Nations project Le Corbusier provides the observer with a series of quite specific locations: at the Bauhaus the observer is without such points of reference. Although the League of Nations project is extensively glazed, except in the auditorium, such glazing is scarcely of capital importance. At the Palace of the League of Nations corners and angles, as the indices of spatial dimension, are assertive and definite. At the Bauhaus, Giedion tell us, they are 'dematerialized'. At the Palace of the League of Nations space is crystalline; but at the Bauhaus it is glazing which gives the building a 'crystalline translucence'. At the Palace of the League of Nations glass provides a surface as definite and as taut as the top of a drum; but at the Bauhaus glass walls 'flow into one another', 'blend into each other', 'wrap around the building', and in other ways (by acting as the absence of plane) 'contribute to that process of loosening up which now dominates the architectural scene'. But we look in vain for 'loosening up' in the Palace of the League of Nations. There is no evidence there of any desire to obliterate sharp distinction. Le Corbusier's planes are like knives for the apportionate slicing of space. If we could attribute to space the qualities of water, then his building is like a dam by means of which space is contained, embanked, tunneled, sluiced, and finally spilled into the informal gardens alongside the lake. While by contrast, the Bauhaus, insulated in a sea of amorphic outline, is like a reef gently lapped by a placid tide." (Rowe and Slutzky 1976, 175-176)





figures 5, 6 and 7 - Bauhaus workshop wing; Le Corbusier's Ville at Garches and Palace of the League of Nations.
source: Rowe and Slutzky, 1976

anthropophagy

Rowe and Slutzky discourse is basically about space, which is the main object of architecture itself. The point here is how to design space articulating full and empty volumes, in other words, buildings and voids, in order to create stimulating environments.

In the way that the architectural space, regardless to glazed windows, is “contained, embanked, tunneled, sluiced, etc”, it’s possible to compare Le Corbusier’s Palace of the League of Nations with a contemporary building complex completed in 2012 in the city center of Sao Paulo, the called Praça das Artes (Arts Square), designed by Brasil Arquitetura (figures 8 and 10). As shown in the sections and pictures, more than a random assemblage of concrete buildings (objects), the whole complex is articulated by a sequence of diverse open spaces which interpenetrate..

Phenomenal transparency could also be experienced in a complete different context, in a case of “architecture without architect”: the favela and similar informal settlements in Brazil. Without romanticizing the topic, it’s easily explained by the way that the favela is settled through alleys and lanes which, despite varying in level, shape, length, width, height, enclosure, materials, function, etc., genuinely keep a network of interpenetrated and transparent spaces (figures 9 and 11).

figure 8 - Praça das Artes in Sao Paulo, a case of phenomenal transparency.
source: Brasil Arquitetura, 2012.
figure 9 - alley in the Favela de Paraisópolis, Sao Paulo.
source: author, 2015.

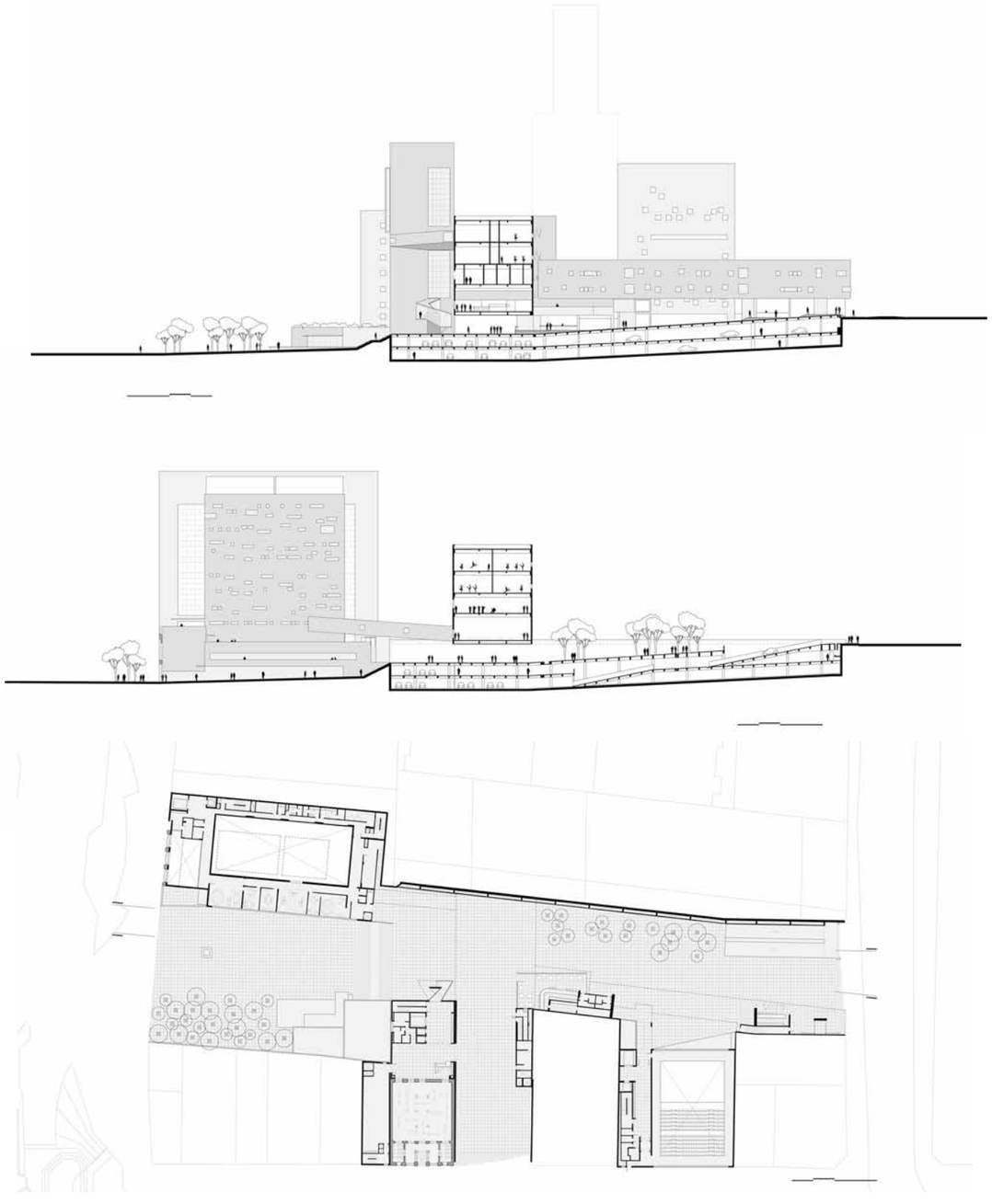


figure 10 - Praça das Artes, section and ground floor plan.
source: Brasil Arquitetura, 2012.

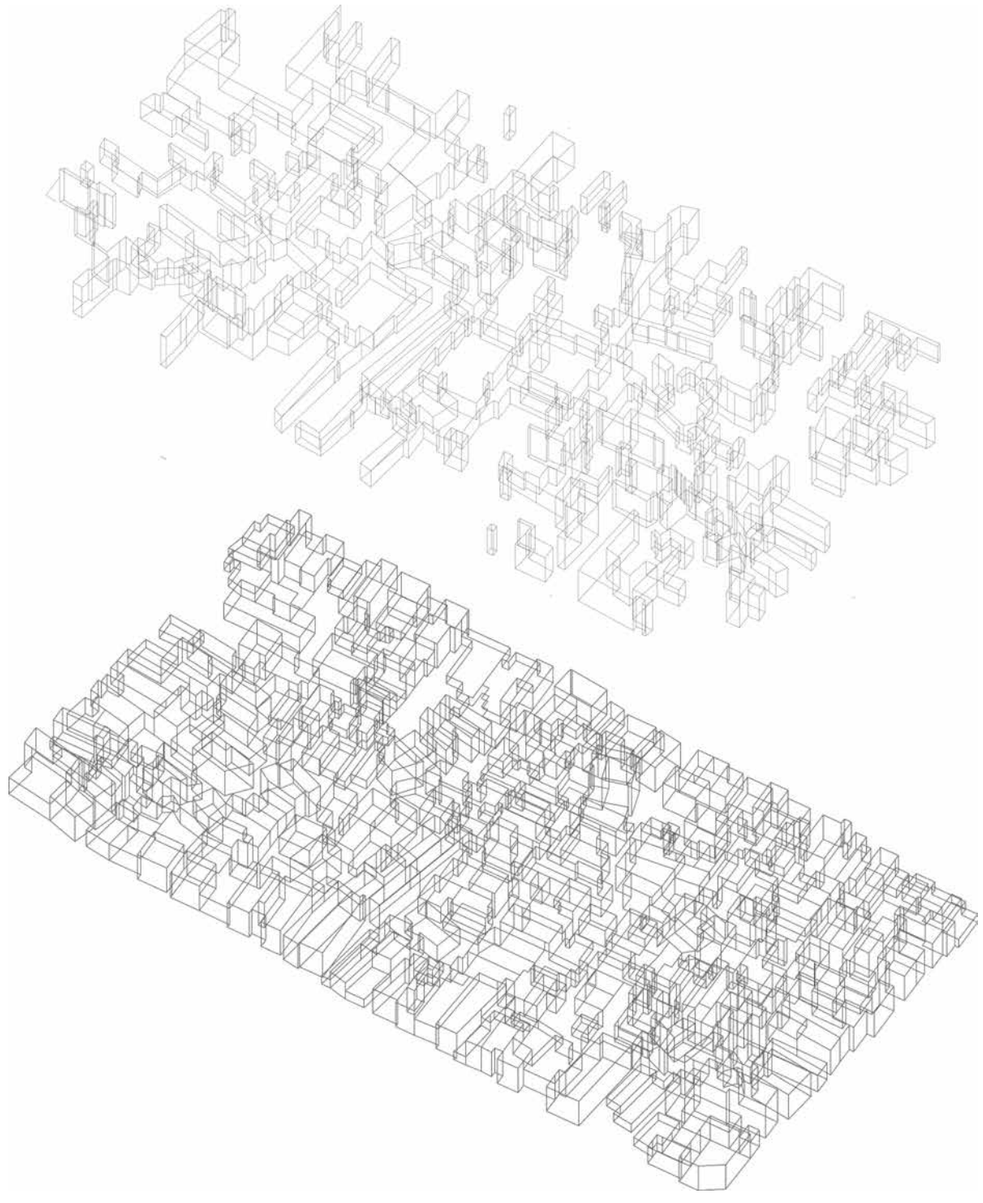


figure 11 - void versus solid in urban block in Paraisópolis, searching for transparency in the network of alleys and lanes.
source: author, 2017.

ROSSI

Rossi, Aldo. 1984. *The Architecture of the City*. Edited by Aldo Rossi and Peter Eisenman. Published for the Graham Foundation for Advanced Studies in Fine Arts, Chicago, Illinois, and the Institute for Architecture and Urban Studies, New York. New York: Oppositions books.

key concepts

city as man-made object / city as work of art

urban artifacts = site + event + sign

primary element: "[...] they participate in the evolution of the city over time in a permanent way, often becoming identified with the major artifacts constituting the city. [...] 'those elements capable of accelerating the process of urbanization' in a city, and they also characterize the process of spatial transformation in an area larger than the city. [...] Frequently they are not even physical, constructed, measurable artifacts;" (ROSSI, 1984, p. 86-87)

architecture of the city

time > history > memory > monuments > permanence + growth > primary element

skeleton = structure

type = apparatus = "I would define the concept of type as something that is permanent and complex, a logical principle that is prior to form and that constitutes it." (Rossi 1984, 40)

skeleton + type

analogous drawings

summary

The main hypothesis developed by Aldo Rossi in this book is that the city is a man-made object, a totality composed by parts, which are called urban artifacts. These artifacts are composed by ordinary elements, as dwelling structures, and primary elements, which have the capacity to retard or accelerate the urban process. An example of primary element is a monument, which is deeply related to the concept of permanence, meaning a past that can still be experienced - but not all primary elements are monuments. The urban artifacts possess a collective character and constitute works of art, in the sense that they condition and are conditioned at the same time, being associated to locus and time. The city is substantiated in form and space, but understood in time, through its memory. Therefore, in order to become real, the urban artifacts need form, and for this purpose we have architecture. Ultimately, the Architecture of the city resides on the way that individual projects are designed and structured to constitute an urban artifact within the totality of the city.

"By architecture of the city we mean two different things: first, the city seen as a gigantic man-made object, a work of engineering and architecture that is large and complex and growing over time; second, certain more limited but still crucial aspects of the city, namely urban artifacts, which like the city itself are characterized by their own history and thus by their own form." (Rossi 1984, 29)

"I repeat that the reality I am concerned with here is that of the architecture of the city – that is, its form, which seems to summarize the total character of urban artifacts, including their origins." (Rossi 1984, 32)

According to Peter Eisenman, Rossi's hypothesis is basically anchored on the concepts of history, memory and type.

While writing the book, Rossi is an architect in a moment of rupture. His architectural studies are not in praise of the humanists of Renaissance, neither of the Functionalism or the Modernism, which are criticized in "The Architecture of the City". Taking the city as object and the architect as subject, in opposition to their relationship established in the 16th century and their separation in the 19th and beginning of the 20th century, Aldo Rossi focuses in the process mediating both object and subject, highlighting the history of the city (analogous to a skeleton with the imprint of actions from past and future), memory (once the structure change its function, there has no history anymore) and typology (as instrument, apparatus of time's measurement).

The skeleton is both related to the urban plan and the material artifact itself, a collective artifact that brings the sense of the city as a man-made object.

Type is both process and object, an instrument of analysis and also of invention (design). Type is not a model, type is a principle prior to form, an element of architecture and of the city that cannot be further reduced, at the same time that it is not a reductive instance.

“The Architecture of the City attempts, through the apparatus of type, to place the city before us in such a way that, in spite of history, memory can imagine and reconstruct a future time of fantasy.” (Eisenman in Rossi 1984, 10-11)

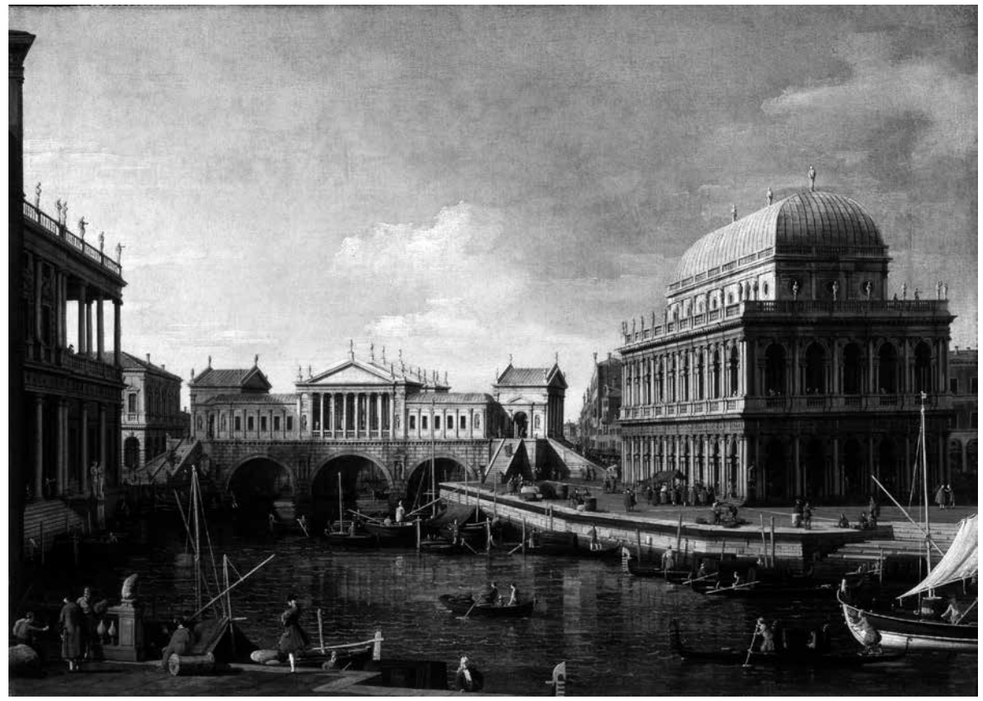
Through dislocation of place and dissolution of scale, Rossi applies the apparatus of Analogy. His analogous drawings are not simply representations of the reality, but a subversion of it, proposing the locus of another reality, detached from specific place and time. These drawings are not about the past nor the future, in this way they become architecture and part of the city itself. In regarding to Analogy it: “[...] expresses itself through a process of architectural design whose elements are preexisting and formally defined, but whose true meaning is unforeseen at the beginning and unfolds only at the end of the process. Thus the meaning of the process is identified with the meaning of the city.” (Rossi 1984, 18)

In the Preface to the Second Italian Edition, Aldo Rossi illustrates the concept of Analogous City through Canaletto’s painting named “Capriccio”, in which an analogous Venice is built through a formal association between specific artifacts which do not exist on reality (are simply projects) or belong to other spatial contexts (figure 12).

Another example is the Analogous City produced by Aldo Rossi for the Venice Biennale in 1976 as an articulation of different architectural references from personal and collective memories (figure 14).

The fictional proposal carried by Rossi and other 11 architects, including Colin Rowe, answering to “Roma Interrota” (Rome Interrupted), a design competition for a new Rome, in 1978, based on sections of Nolli’s figure ground plan (1748) perhaps constitutes other examples of analogous approaches to the city (figure 15).

“The analogous city meant a system of relating the city to established elements from which other artifacts could be derived. At the same time, the suppression of precise boundaries in time and space allowed the design the same kind of tension that we find in memory. In such an analogous system designs have as much existence as constructed architecture; they are a frame of reference for all that is real.” (Rossi 1984, 176)



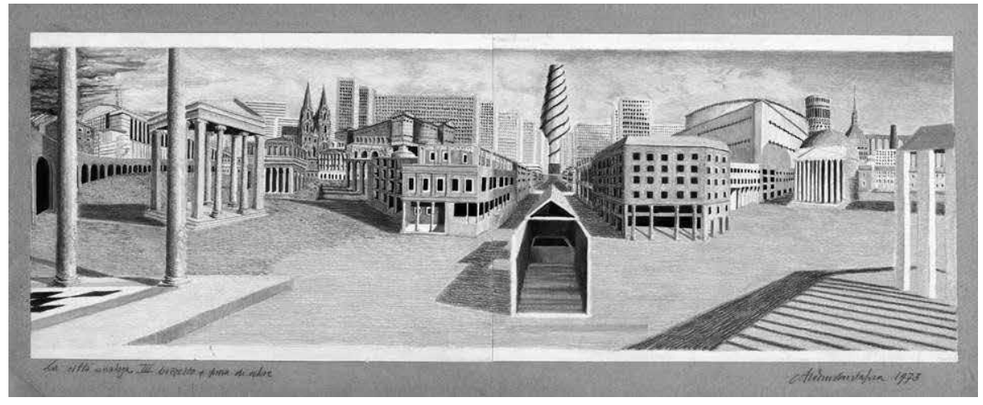


figure 12 - Capriccio by Canaletto.
source: Rossi, 1984.
figure 13 - Città Analoga (1973), by Cantadora and Rossi for the 15th Milano Triennale, as improbable justaposition of architectural icons.
source: Domus, 2012.

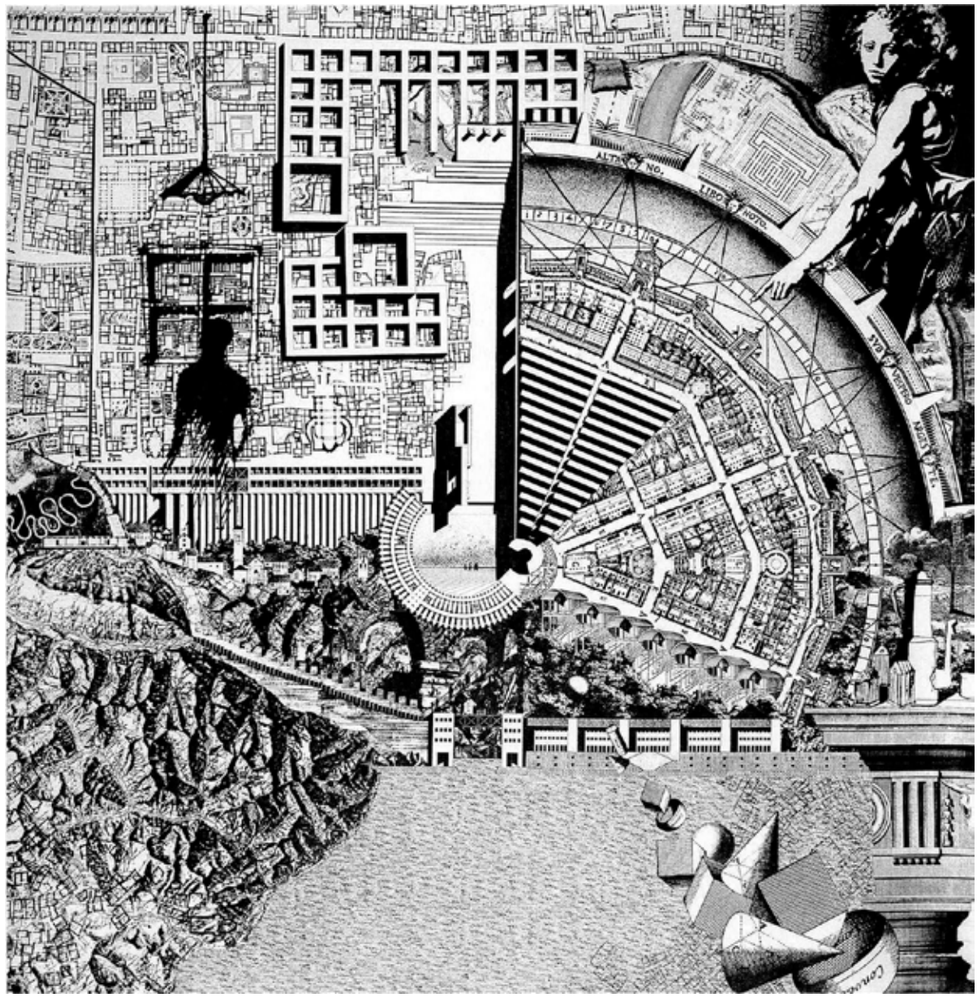
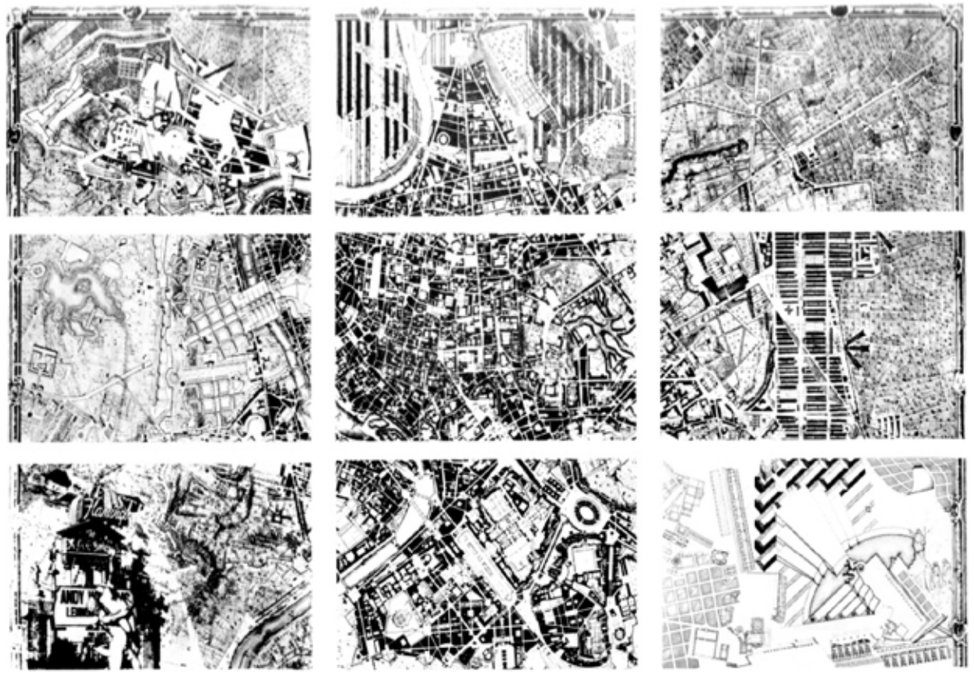


figure 14 - Analogous City,
source: Archizoom, EPFL, 2015.



Sartogo Dardi Grumbach

Stirling Portoghesi Giurgola

Venturi Rowe Graves

R. Krier Rossi L. Krier

figure 15 - Roma interrota, 11 proposals for the city of Rome.
source: Argan and Norberg-Schulz, 1978.

anthropophagy

“The Roman Forum constitutes one the most illustrative urban artifacts that we can know: bound up as it is with the origins of the city; extremely, almost unbelievably, transformed over time but always growing upon itself; parallel to the history of Rome as it is documented in every historical stone and legend, from the Lapis Niger to the Dioscuri; ultimately reaching us today through its strikingly clear and splendid signs.” (ROSSI, 1984, p. 120)

From this quotation, which would be examples of this type of primary element in the contemporary city of Sao Paulo?

One example could be the span of MASP (Sao Paulo Museum of Art, designed by Lina Bo Bardi), delimitated by four columns and a roof, and inserted in a singular topographic location (figure 16). It constitutes a collective sign in the history of the city, as open space for meetings, demonstrations, market, etc.

Another example would be the football pitch inside favelas, which is the most emblematic open space in such a dense settlement, being kept empty as a result of negotiation between the inhabitants over time (figure 17). Besides being used for sports, this primary element is also open for samba activities, street fair, meeting place, etc.

In these examples, the type of the forum - in its quality of void space - is highlighted as a fundamental urban artifact in the constitution of the city as a man-made object.

figure 16 - MASP span during political demonstration.
source: Folha de Sao Paulo, 2013.
figure 17 -football pitch in the Favela de Paraisópolis, Sao Paulo.
source: Helvio Romero for ESTADAO Journal, 2010.

ROWE + KOETTER

Rowe, Colin and Fred Koetter. 1978. Collage city. Cambrige; London: The MIT Press.

key concepts

city of modern architecture = modern city = city of object fixation

solid x void

poché

bricolage/bricoleur

collage

summary

This publication could be contextualized within the urban design studio lead by Colin Rowe at Cornell University since the 1960s. And perhaps its focus in the Roman case could also be related with Rowe's participation in the exhibition "Roma Interrota" (1977-78).

"Collage city" is built through a deep dialectic approach: classical utopia versus activist utopia; solid versus void; Unité versus Uffizi; "space occupier" versus "space definer"; hedgehog versus fox; complex house versus simple city; Versailles versus Villa Adriana; total architecture versus set-pieces in collision; utopia versus tradition; domesticated mind versus savage mind; "let's science build the town" versus "let's people build the down"; scientist or engineer versus bricoleur. But in the end, most of its dialectic issues are tackled with a proposed coexistence and balance between them. One could say that the authors take a long time to define a clear position.

The discourse is anchored in statements developed by contemporary theoreticians as Karl Popper, Claude Lévi-Strauss, José Ortega y Gasset and Theo van Doesburg.

In the Introduction, Rowe and Koetter build severe critiques about the modern city, here called as "city of modern architecture", which has not been built yet and "[...] has remained either as a project or an abortion;" (Rowe and Koetter 1978, 2) and has not even found an alternative model by that time.

Therefore, seeking an alternative way of understanding and designing cities in the post-war, Rowe and Koetter build their discourse.

As the present summary intends to feed the scholar's PhD research, instead of summarizing the whole political/ideological/formal discussion brought by Rowe and Koetter, here are selected two topics to focus in: the contraposition between solids and voids; and the bricolage/collage as technique.

The articulation between solids (buildings) and voids (spaces in-between the buildings) is discussed by the authors through their different applications in both theoretical models (traditional city versus modern city) and real examples.

On the one hand, the traditional city is "[...] an accumulation of voids in largely unmanipulated solid" (Rowe and Koetter 1978, 62); in which the buildings work as "space definer" (Rowe and Koetter 1978, 60); "[...] the solid and continuous matrix or texture giving energy to its reciprocal condition, the specific space; the ensuing square and street acting as some kind of public relief valve and providing some condition of

legible structure; and, just as important, the very great versatility of the supporting texture or ground. ” (Rowe and Koetter 1978, 62-63);.

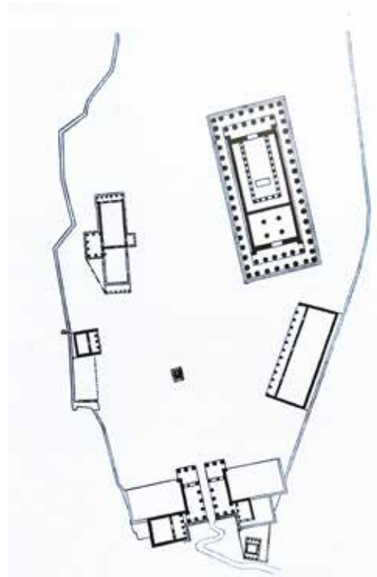
On the other hand, the city of modern architecture is seemed to have a “pride in objects” (Rowe and Koetter 1978, 58), free standing buildings (isolated objects) which work as “space occupiers” (Rowe and Koetter 1978, 60); as “congeries of conspicuously disparate objects” (Rowe and Koetter 1978, 58); a city of object fixation and interminable naturalist void; “[...] an accumulation of solids in a largely unmanipulated void” (Rowe and Koetter 1978, 62).

The authors also compare the modern free-standing building to a soap bubble, as it is something realized from the inside and the outside is a simple consequence.

According to Rowe and Koetter, the modern city is the inverse of the typical traditional city, as a kind of Gestalt diagram (figure 19) showcasing figure-ground properties, in which the modern city is almost all white, and the traditional city, black (figure 18). One step further, the authors compare these urban models to acropolis and forum (figure 20), respectively.

Following up in the contraposition solid versus void, the authors bring a few examples: August Perret’s versus Le Corbusier’s projects for the Palace of the Soviets (1931); Gunnar Asplund project for the Royal Chancellery in Stockholm (1922) versus Le Corbusier’s Plan Voisin in Paris (1925).

However the best example is the comparison established between Le Corbusier’s Unité d’Habitation in Marseille and Vasari’s Galleria degli Uffizi in Florence (figure 21): “[...] if the Uffizi is Marseilles turned outside in, or if it is a jelly mould for the Unité” (Rowe and Koetter 1978, 68). Both constitute pristine structures which represent the apex of solid and void, respectively, with similar proportions. Besides, Unité represents a more private and atomized configuration, in comparison with the collectiveness of Uffizi.



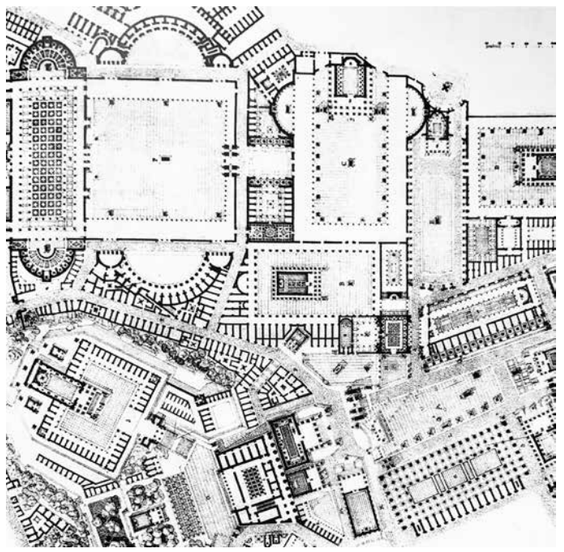


figure 18 - modern city versus traditional city, figure ground plans.
source: Rowe and Koetter, 1978.
figure 19 -Gestalt diagram.
source: Rowe and Koetter, 1978.
figure 20 -Acropolis and Forum.
source: Rowe and Koetter, 1978.

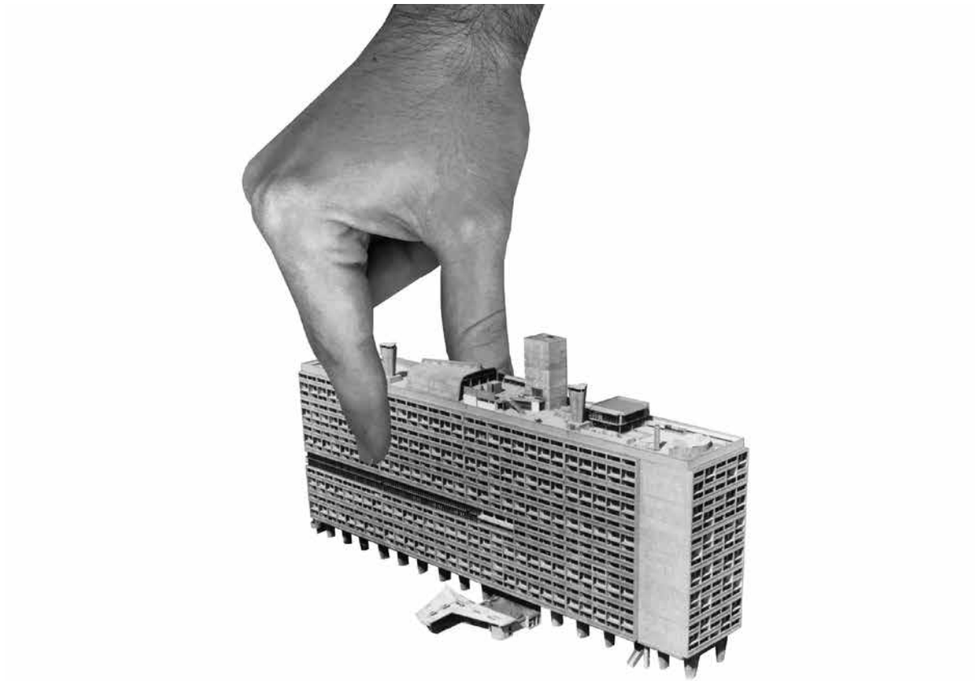


figure 21 - collage articulating Unité d' Habitation in Marseille and Galleria degli Uffizi in Florence.
source: author, 2017.

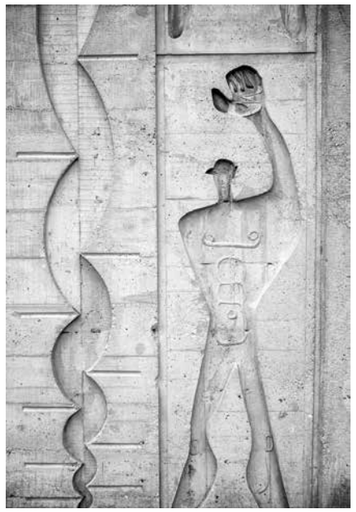


figure 22 - The Bith of Venus, by Botticelli (1480s), part of the art collection at Uffizi Gallery Museum.
source: Uffizi Gallery Museum.
figure 23 - Modulor, by Le Corbusier (1952) in Unité d' Habitation.
source: author, 2017.

Ultimately, according to the authors, Le Corbusier's project insists in the virtues of the isolated object (the building, the solid) meanwhile in Vasari's project the courtyard (the void) assumes the "directive role, becomes the predominant idea" (Rowe and Koetter 1978, 78), constituting a "charged void" (Smithsons 2005). On the latter, the building is reduced to the status of simple infill to create the space's perimeter. At this point, Rowe and Koetter add the term "poché", as a structure which assists the conformation and legibility of adjacent spaces, to act as figure or ground.

By the end of this topic, Rowe and Koetter position themselves against urban fixation for both solid and void, and state their equal existence, encouraging "the object to become digested in a prevalent texture or matrix" (Rowe and Koetter 1978, 83).

The case of Wiesbaden, despite being on the cover of several editions of "Collage City", is not properly addressed in the book. What was the authors' ambition then? Wiesbaden figure ground plan in 1900 does not refer exactly to the opposition between traditional and modern city, but could be perhaps a real example of city compounded by seemingly antagonistic fragments side by side, as a collage (figure 24).

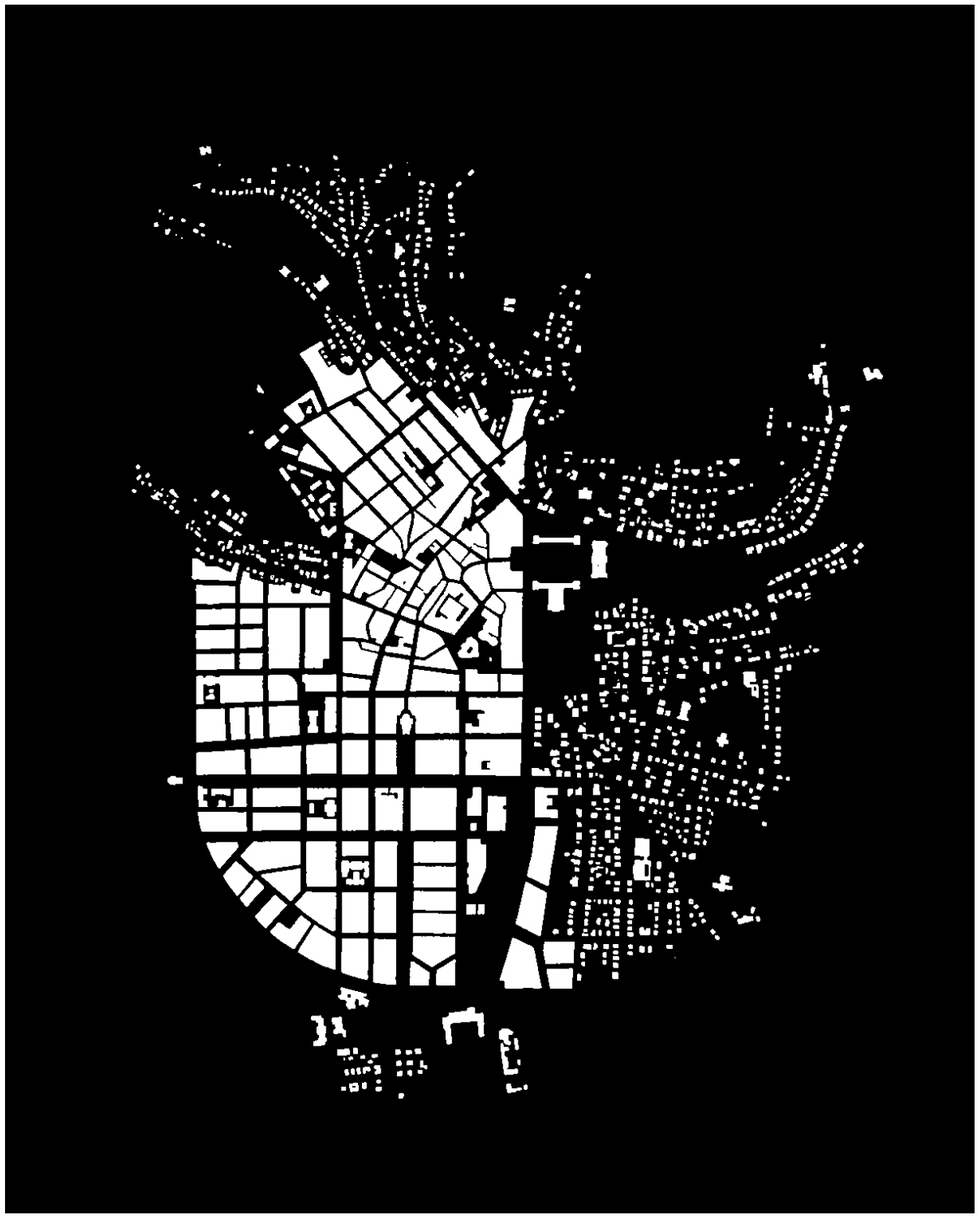


figure 24 - Wiesbaden Plan, 1900.
source: Rowe and Koetter, 1978.

Looking back to the contraposition between modern city and traditional city, the collage approach is assigned by the authors as “the only way of dealing with the ultimate problems of, either or both, utopia and tradition.” (Rowe and Koetter 1978, 144-145)

Similar to the Analogous City by Aldo Rossi, the collage transgresses cultural and temporal boundaries, as the “eternal present” stated by Pablo Picasso (Alfred Barr, Picasso, Fifty Years of his Art, New York, 1946). The collage is a technique in which disparate episodes and objects are imported, physically, optically and/or psychologically, to build a new context at the same time that some of their original and particular connotations are maintained.

The authors state utopia as metaphor and collage city as prescription within a strategy to tackle the modern city and its scientific basis. Moreover, through a collage permits us:

“[...] the enjoyment of utopian poetics without our being obliged to suffer the embarrassment of utopian politics. Which is to say that, because collage is a method deriving its virtue from its irony, because it seems to be a technique for using things and simultaneously disbelieving in them, it is also a strategy which can allow utopia to be dealt with as image, to be dealt with in fragments without our having to accept it in toto, which is further to suggest that collage could even be a strategy which, by supporting the utopian illusion of changelessness and finality, might even fuel a reality of change, motion, action and history.” (Rowe and Koetter 1978, 149)

In the appendix the authors bring a list of “found objects” which could be used in collages, crossing boundaries of time, space and culture. These fragments are grouped in: memorable streets; stabilizers; potentially interminable set pieces; splendid public terraces; ambiguous and composite buildings; nostalgia-producing elements; the garden;

anthropophagy

Digesting the figure ground plan comparison between the traditional and modern cities, developed by Rowe and Koetter, here the exercise is to interpose the Sao Paulo built by the standard urban planning regulations and the Sao Paulo built by other logics.

“For collage, often a method of paying attention to the left-overs of the world, of preserving their integrity and equipping them with dignity, of compounding matter of factness and cerebrality, as a convention and a breach of convention, necessarily operates unexpectedly.” (Rowe and Koetter 1978, 142-143)

The previous statement is deeply related with the main objective of the scholar’s PhD research, which is how to shift the way we plan and the design the city, paying attention to the left-overs which is the void, in the case of the city of Sao Paulo.

By the way, most of the graphical experiments developed within the anthropophagic sections of this booklet are based on collage as technic of questioning and envisioning alternatives to the city.

figure 25 - figure ground plans for different neighbourhood in Sao Paulo: Santa Cecília (city centre); Itaquera (east periphery); Paraisópolis (favela). source: author, 2017.

SMITHSONS

Smithson, Alison and Peter Smithson. 2005. *The charged void: urbanism*. Edited by Chuihua Judy Chung. New York: The Monacelli Press.

key concepts

cluster: "[...] meaning a specific pattern of association, has been introduced to replace such group concepts as street, town, city (group entities), which are too loaded with historical overtones. Any coming together is cluster. Cluster is a sort of clearing-house term during the period of creation of new types." (Smithsons 2005, 30)

connection / mobility / inverted profile / growth and change / green zones

pavilion + route

interval "In Paris, the boulevards now bear traffic other than that for which they were intended. In this century yet other traffic appears, but the space – the interval – remains." (Smithsons 2005, 104)

holes "Holes in cities are made by abandonment of sites and city centres, industrial dereliction, clearance by planners of historic centres, new connective systems that cut great swatches into the urban fabric." (Smithsons 2005, 172)

sun

signals "The signal or marker that architects can effect is not a sign, or piece of writing, or a change of colour, but a space." (Smithsons 2005, 312)

summary

"The charged void: urbanism" assembles projects and thoughts developed by Alison and Peter Smithson alongside their career, specifically between 1955 and 1996. This compilation started in 1980 and was completed in 2002, constituting a complementary publication to "The charged void: architecture".

It's important to read the Smithsons as part of the Team X, facing the four functions (living, working, recreation, circulation) inscribed in the Charte d' Athènes by Le Corbusier in the 4th CIAM (1933).

As stated right in the beginning of "The charged void: urbanism", it is focused in "[...] thinking of architecture's capacity to charge the space around it with an energy which can join up with other energies, influence the nature of things that might come, anticipate happenings [...] (PS, 1992)" (Smithsons 2005, 13). In fact, architecture and urbanism are inseparable disciplines for the Smithsons, and the space created by the overlap of both instances play an important role in their projects.

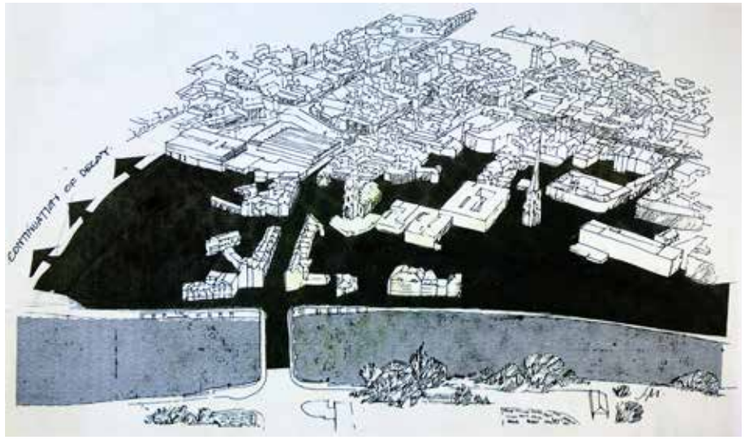
The Smithsons' works are presented chronologically and grouped by themes, as cluster, connection, pavilion and route, holes and signals. One of the common threads connecting the selected projects is how to deal with cities growth, providing mobility networks and different patterns of association.

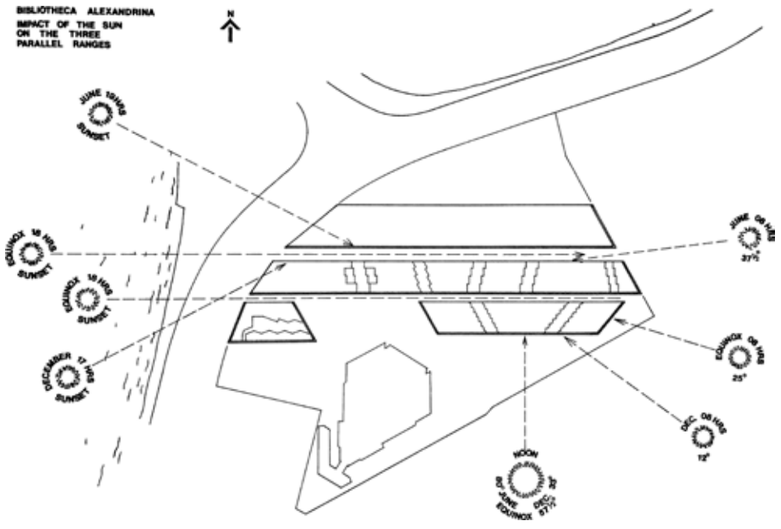
In urban scale, the Smithsons look for a balance between density, interval and measure. This interval is the space in-between the built mass which is associated with mobility and connectivity, for instance a road system or any other kind of transportation system, which bring cohesion to the city.

The urban void is read and proposed by the Smithson through both the concept of holes in the city and the pavilion and route, the most recurrent topic in their book.

According to the Smithsons, the holes in the city are spaces which were emptied, physically or functionally, representing a deprived instance that should be enhanced through a proper architectural language, avoiding a "developer" approach.

Once designed, the holes are intended to be "areas of quietude" (Smithsons 2005, 173) adjuncts or protected from the outside by the built mass, as in Sheffiled University (1953) and in Robin Hood Gardens (1966-72), figure 26.





figures 26, 27, 28 - Robin Hood Gardens (London), Mending of Worchester, Bibliotheca Alexandrina (Cairo), source: Smithsons, 2005.

In the project Mending of Worcester (1977), there was an existing big hole made by demolition and road insertion. The project aims to follow the existing grain, kept as "markers", to guarantee cohesion and insert various types of accommodation in the hole, besides extending covered pedestrian ways (figure 27).

The holes are also designed in bigger scale, as in West Berlin as an Island (1975-77), West Berlin Railway Yard (1975-88) in which holes are appropriated as open and connective places directed to the inhabitants and Greening of Glasgow (1976) in which the holes are "greened" according to a land-renewal programme for planting trees in abandoned territories.

In regarding to the topic pavilion and route, there is an emphasizes on the route as element of mobility - as we can see on Berlin Hauptstadt (1957), Wokingham Infants School (1958) and Langside College of Further Education, Glasgow (1958). Other remarkable example is the project for the Parc de la Villette in Paris, which is structure by a system of routes following a clear hierarchy:

"[...] ways passing through obvious gates into the park from the north and south, off main roads into Paris; paths passing either side of the existing pavilions; the route of the navette from the terminal at Ivry to the northeast of the park; west-filtering routes from the eastern protective parking-garage shield to the Périphérique; a pedestrian ring-route at points underlying, or accompanying, the route for bicyclists.." (SMITHSONS, 2005, p. 284)

Besides being guided through pavilion and route, the void is also designed avoiding leftovers, as for instance in the Economist Building, in London (1959-64):

"The space between that is consequent is more than the sum of the spaces that each of the buildings carries with it. We wrote in Uppercase 3: 'In the Economist years, the studies of 'association' and 'identity' led to the development of systems of linked complexes which were intended to correspond more closely to the network of social relationships as they exist. These freer systems are more capable of change and, particularly in new communities, of mutating in scale and intention.'" (Smithsons 2005, 66)

"It would seem as if a building today is only interesting if it is more than itself, if it charges the space around it with connective possibilities, especially if it does this by a quietness that, until now, our sensibilities could not recognize as architecture at all." (Smithsons 2005, 172)

In the Acropolis Place project (1990-92), one of the biggest concerns is to retain some of the neoclassical fabric that has been lost in Athens, so instead of walls and galleries and a new building, the fragments (sculptures, buildings, temples) are kept in a way that they "[…] speak across the air to the others." (Smithsons 2005, 338)

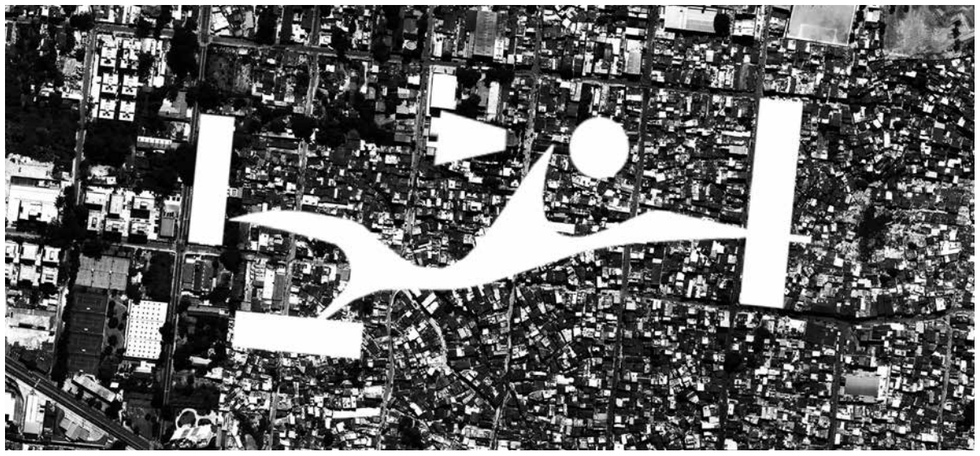
In Bibliotheca Alexandrina project (1988-91), in Cairo, there is the the notion of highly climate-controlled rooms organized around open-to-the-outside-air internal streets, as a covered street which became a building in the Souk al Radwan. The Bibliotheca Alexandrina (figure 28) is then an interesting example of in-between considered since the beginning of the building's design process.

anthropophagy

An emblematic example of “pavilion and route” in the city of Sao Paulo is the Ibirapuera Park (designed by Oscar Niemeyer) in which buildings as museums and auditorium (pavilions) are articulated by a concrete canopy (route) which use and appropriation, in fact, go beyond circulation.

Another example, extracted from an ordinary domain, would be the favela, in which alleys and lanes (route), connect different kinds of pavilions, from public buildings and facilities to the overlapped dwellings themselves.

The exercise here was to make a collage to bring together “pavilion and route” examples conceived in formal and informal contexts (figures 29 and 30). Ultimately the aim is to question how would it be a meeting between fixed-monumental-pristine-architecture and mutable-everyday-architecture-with-no-architect.



figures 29 and 30 - route and pavilion,
collage Ibirapuera Park + Favela de Paraisópolis.
source: author, 2017.

KOOLHASS

Koolhaas, Rem. 1995. *Small, Medium, Large, Extra-Large. Office for Metropolitan Architecture, Rem Koolhaas and Bruce Mau*. Edited by Jennifer Sigler. Rotterdam: 010 Publishers.

key concepts

bands – linear voids

archipelago of residue – islands

summary

From the compilation of projects designed by Rem Koolhass between 1972 and 1995, it's selected the one to the site of Melun-Sénart, in Paris, due to the way it transgresses the creation of spaces within architecture, in mega scale: from "what should happen" to "what should not happen", from "where to build" to "where not to build" (Koolhaas 1995).

The project starts defining the spaces to be kept empty, the so-called bands or linear voids (figure 31). Some of these voids are designed to preserve the existing landscape or historical fragments, or to provide a transitional space to the forests, or are even related to the project's programme.

"Instead of a city organized through its built form, Melun-Sénart will be formless, defined by this system of emptiness that guarantees beauty, serenity, accessibility, identity regardless – or even in spite of – its future architecture." (Koolhaas 1995, 981)

As a consequence, the voids create a series of islands (figure 32) with different size, shape and location, which can be developed independently, following public or private interests, and adopting the "average-contemporary-everyday ugliness of current European-American-Japanese architecture". Koolhaas define these islands as "residue" assigned to uncontrollable chaotic growth.

anthropophagy

As an anthropophagic exercise, to what extent does Koolhaas' project for Melun-Sénart dialogue with urban planning theories that also look at the city as an assemblage of fragments structured by a system of voids as Naked City, by Guy Debord (1957), and New Babylon, by Constant (1969)?

Based on psycogeographical background and intentions, Guy Debord, in his Naked City (figure 33), proposes the observation and experience of the city through metagraphs composed by fragments (islands) floating in an empty and liquid space which is explored through the dérive. Here the void is, in essence, a conceptual term, related to spatial experience and memory, unconsciousness, as an interval, a passional terrain to wander. Naked City is not exactly a prospective case and it deals with the existing city.

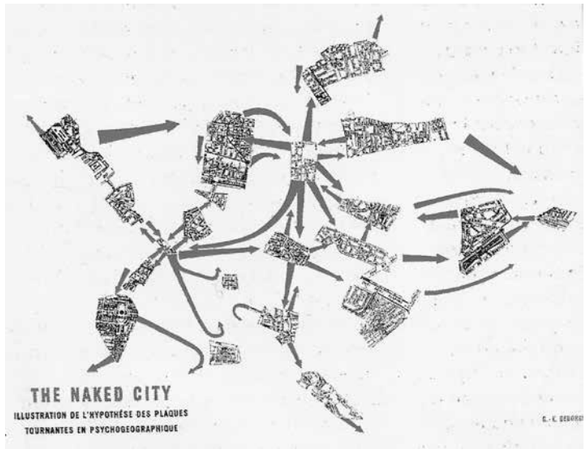
For both Koolhaas and Debord, the focus is given to the void, setting the islands to a secondary position. For Koolhaas, the bands are the spaces to be effectively designed, according to a few categories as band of connections, circulation band, programmatic band, landscaped band, band of voids and border bands; for Debord, the liquid space in-between the islands is the space to be experienced and, consequently, transformed (the act of walking the city is understood as a mode of intervention), but not physically designed, so it is represented as a blank space (a space with no definite design) which depends on the dérive.

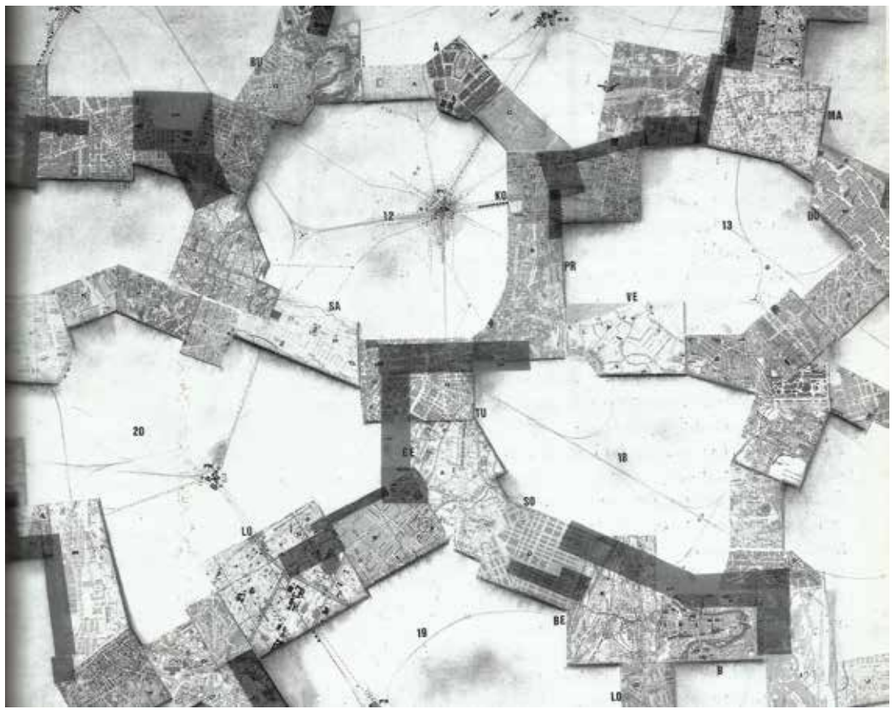
New Babylon (figure 34), an anticapitalist city inhabited by homo ludens, could be interpreted as an architectonic representation of the dérive, a city of going with endless bands. Differently than in Koolhaas project for Melun-Sénart, New Babylon is a proposed mega infrastructural network which is super-imposed to the existing city, which is left behind as an archipelago. The interaction between "islands" and "ocean" does not seem to be stimulated, anyway.

Taking in consideration that Koolhaas' project deals with an empty/rural site; both Naked City and New Babylon deal with the existing city; and the consolidated cities represent the biggest issue in Latin America; a simple question emerge: how would it be possible to propose an alternative system of voids in the city of Sao Paulo? How to redesign the voids in the existing city?

Based on this is developed the following experiment, imposing Melun-Sénart's bands to the city of Sao Paulo (figure 35), regardless to scale, and proposing new voids cutting through existing buildings (figure 36).

figures 31 and 32 - bands and islands diagrams for Melun-Sénart project.
source: Koolhaas, 1995.





figures 33 and 34 - Naked City by Guy Debord, and New Babylon by Constant.
source: Careri, 2005.

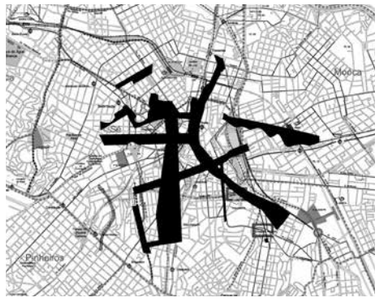


figure 35 - collage: Mellun-Sénart bands applied to the city of Sao Paulo.
figure 36 - collage: Copan + Grande Arche de la Défense + Gordon Matta-Clark inspired cut. How to redesign the voids in existing cities?
source: author collage, 2017.

in the studio

The design studio is structured by four clear steps.

In the first one, the students analyze a design case selected from the Seminar Week book (a broad catalog of design and theoretical references which opens up the context to the students) in order to identify and play with its primordial elements/types and languages. For instance, the case could be Burle Marx's Copacabana pattern, from which the different shapes and lines are translated from two-dimensions to three-dimensional fragments, casted in concrete.

In the second step, the students are assigned a real site in the city of Rio de Janeiro for which they are invited to develop an architectural concept. This concept should be based on the outcomes from the previous step, plus a theoretical reference and, at last, but not least, their architectural ambition.

In the third step, in order to create architecture, instead of sculpture, the students build the architectural programme. There are actually two different kinds of programming: the ideological programme, in other words, what's the role of this architecture, is it a congress for the world, or is it a mytho-poethic space for treating and worshipping water, for instance?; and the functional programme, as restrooms, deposits and any other facilities which are necessary to bring this architectural piece into full operation.

The forth step is focused in the condensation of the architectural discourse and the design of the process to communicate it in a final review with international invited guests, having as physical support a 8 meters long white wall.

Taking part in the studio brought me up to that traditional and unanswerable question and its derivations: what's the role of architecture? what's the role of the architect? what's the role of the architecture school?

This whole process showed clearly the very importance of exercising architecture outside of our own contexts. Once designing for a context to which you are deeply related, it is common to feel restrained by it and end up producing an architecture which, despite being responsive, is also "too nice", "too cute" and perhaps it is not real then.

Despite not being exactly real, the exercises developed by the students (mostly from the 3rd year) at the studio showcased bold alternatives of an architecture which is much more radical, much more visceral, an architecture made of concrete and blood.

Here is the point, where is the balance between "cute" and "bold"? The answer is another question: why balance? Perhaps it is enough to know your ambition, take your position and make architecture.

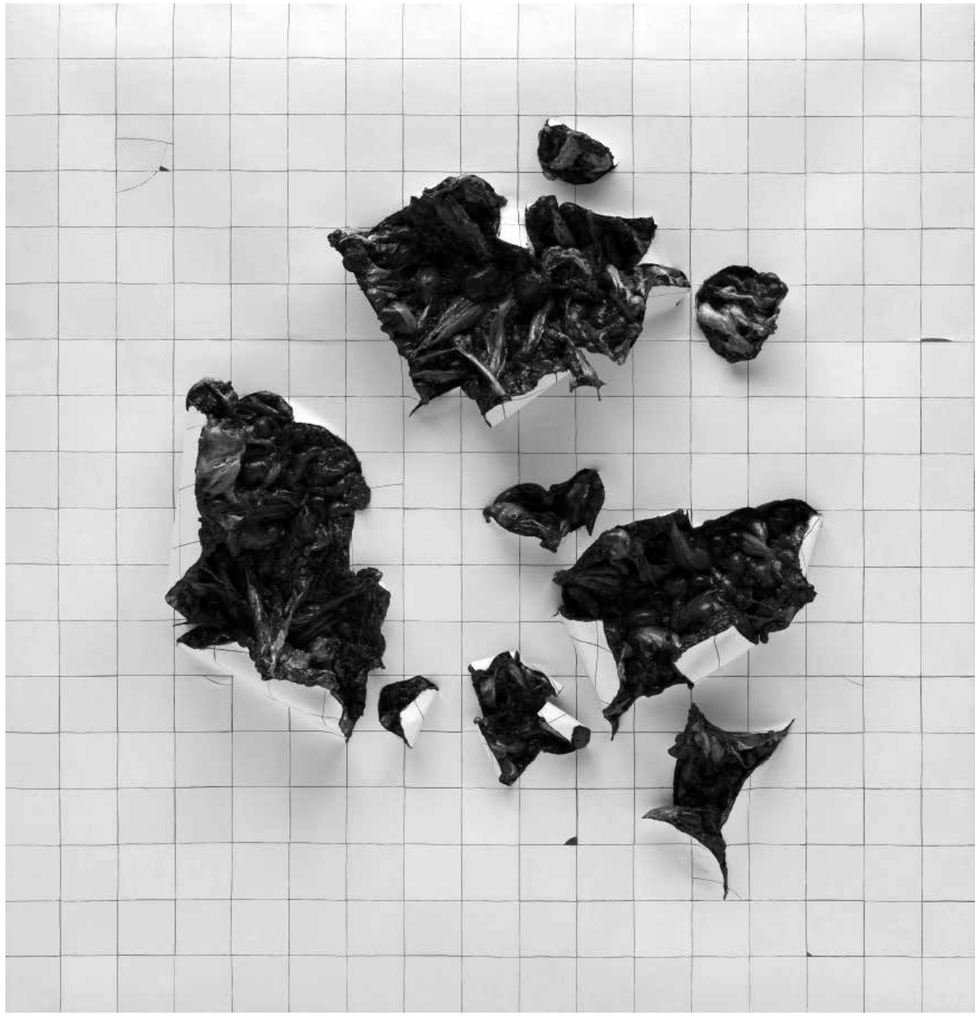


figure 37 - visceral architecture analogously represented by Adriana Varejão's painting "Folds 2", 2003.
source: Guggenheim Museum.

what’s next

Type. Analogy. Concrete.

This is the tripod which represents the biggest concepts absorbed during the research internship at the ETH Zurich, DARCH, Prof. Dr. Marc Angélil’s Chair. It will be applied to the PhD research in development in Sao Paulo, Brazil, through three main steps.

In the first step, the city of Sao Paulo’s urban morphology is analysed throughtout time and space, in different scales, as proposed by Sitte and Rossi. From this analysis, some urban voids are extracted from reality and reduced to their minimal/essential elements and logics - primary elements, or types, or fragments - regarding their spatial singularities and potentialities. This step has already been started in the embryo catalogue presented in the Sitte’s anthropophagic exercise, in this booklet.

In the second step, these types are analogously re-contextualized, re-scaled, re-combined - following Rossi, Rowe and Koetter’s theories - as an experiment to open new perspectives of change and to turn these fragmented pieces into an invisible infrastructure for the enhancement of the city. Or could we imagine, for instance, that all buildings in Sao Paulo are simply exploded and the spaces in-between are turned into one single megabuilding, a megainfrastructure?

In the third step, which are the logics and rules that drive this new insfrastructure? How to bring this theoretical approach to reality and make it functional? The term “concrete” is here applied both due to its meaning as something real, and also to its meaning as material (the concrete models’ method, broadly applied in Marc Angélil’s design studio, will be adopted in the PhD research).

Perhaps the process described means starting the PhD research over again from the beginning. Perhaps not.

One important consideration is that these urban morphology studies will definitely enter the final thesis as a fundamental layer, possibly as the main thread. At the same time, it also means that the environmental input will not be set apart. Therefore, the challenge will be on how to articulate these different layers, without choking each other, but taking the most valuable contributions of each one. Ultimately, the goal will be to push the boundaires of environmental design research in Brazil.

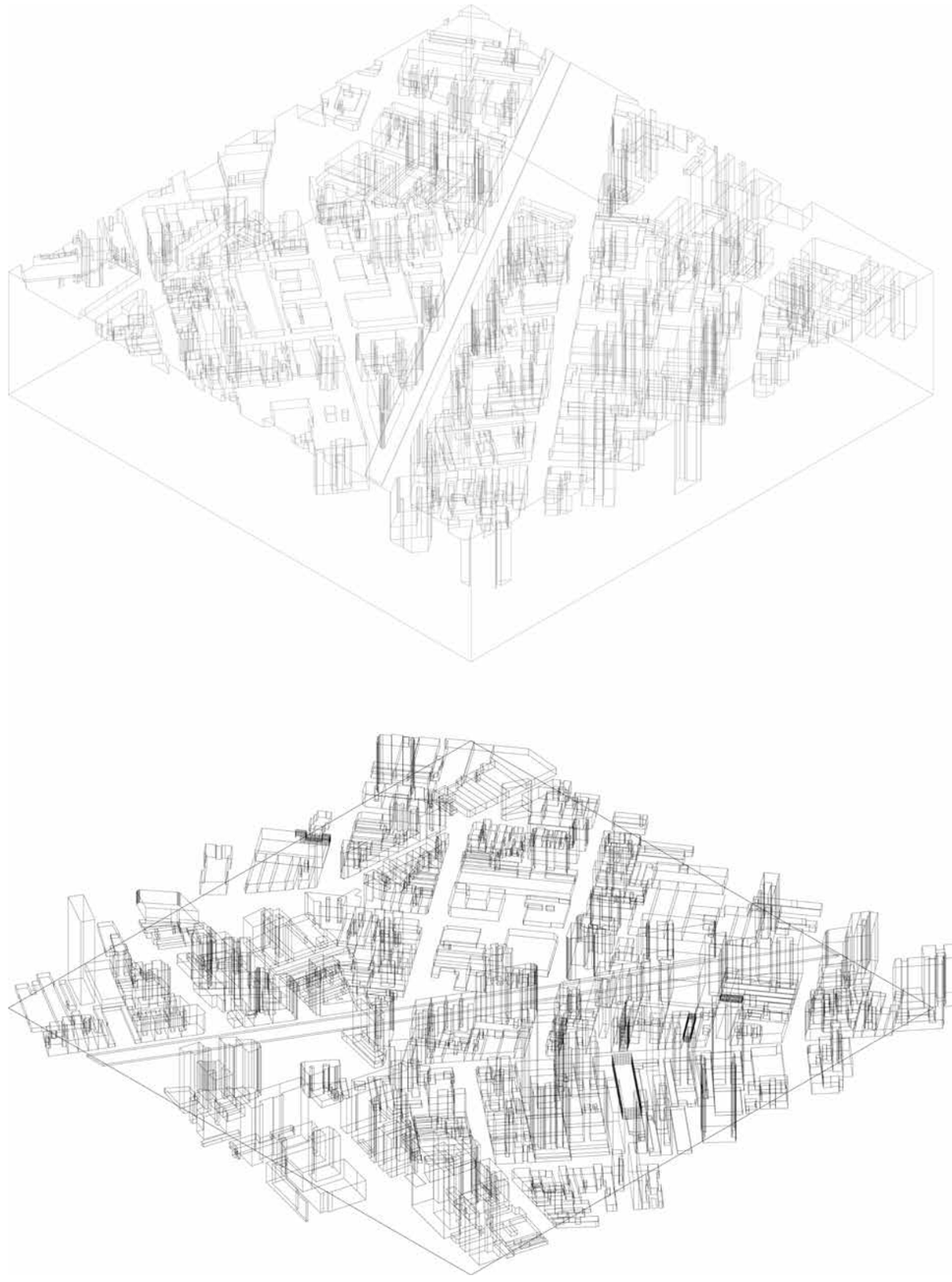


figure 38 - shifting solid and void, buildings and in-between, searching for alternative futures to the city of Sao Paulo.
source: author, 2017.

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