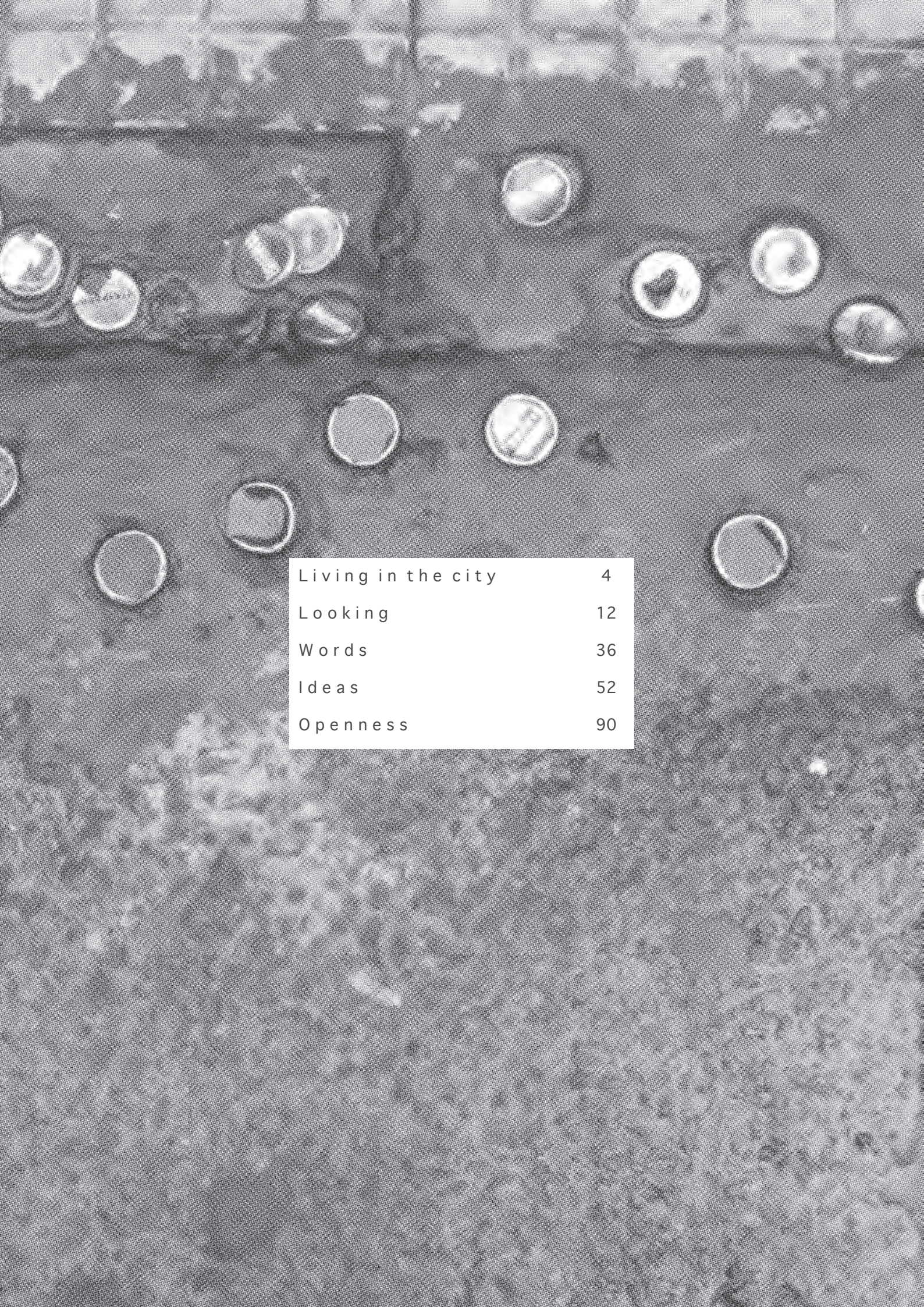


U n e v e n n e s s





Living in the city	4
Looking	12
Words	36
Ideas	52
Openness	90



Living

in

the

city

The Brazil Programme at the Cass

Visiting and working in São Paulo since 2011 the Brazil Programme has been exploring transformative processes for a fresh approach to the city. We are researching opportunities for how the city can be carefully adjusted to strengthen a sense of *generosity*. As a strategy for the city the search for generosity aims to identify ways for enhancing existing qualities of the city as well as radical change to make the most of investment into places in ways that strengthen a sense of 'common ground', city as *public realm*.

We are seeking to collaborate with stakeholders that hold a long-term view of the quality of the city by working into complex urban situations over time; building on and building up shared interests. In this way the programme is seeking to influence the development of the city on the ground as part of the live project tradition at the Cass.

This year was the third time that a group of Diploma Unit 3 students took a trip for two weeks to São Paulo - to immerse themselves into the complex city fabric and explore urban situations through observation and involvement with processes of urban change.

Though we work each year with a different student cohort, our students contribute to a shared expertise and an overall body of work which accumulates over the years. Design projects are developed from this joint live experience, where our students take on a unique role, acting between residents of a city and professional architects and planners. The information, which is jointly gathered this way, is used as part of a briefmaking process for urban propositions.

In 2013-14 our students explored the latent opportunities for 'public-ness' and generosity within São Paulo's prevalent 'tower-on-plinth' urbanism, set in the context of the city's currently under-performing centre. Collectively, the proposals shown in this book have strong potential for influencing future attitudes towards development within the centre of São Paulo, and the potential role of these districts within the wider city, as they are part of an ongoing programme of discussion with professionals, academics and city authorities.

Every year, a series of lectures and exhibitions, both at the Cass and in São Paulo, further enhance the dissemination of these live projects beyond the Cass and our partner school in São Paulo, Escola da Cidade. In December 2011 a return visit by our partner school enabled a discussion of our work on regeneration projects identified with the Municipal Housing Secretariat in São Paulo (SEHAB). In May 2013 we discussed what the 'tabula non-rasa' approach to urbanism developed in London in recent years can offer São Paulo. In November 2013 we held a workshop with Cass and Escola da Cidade students in São Paulo and we showed Cass projects set in São Paulo in a well received exhibition at Escola da Cidade. In March 2014, this exhibition was shown at the Cass and accompanied by lectures by Ana Araujo, Tony Fretton, Heidi Svenningsen Kajita, and Paul Vermeulen.

These encounters have been very encouraging and offer students a chance to connect their research to a wider frame and build upon the strong link between the two schools and cities. We are looking forward to the programme developing further and would like to thank staff and students from the Cass and Escola da Cidade, as well as all the supporters, who are making the ongoing Brazil Programme happen.

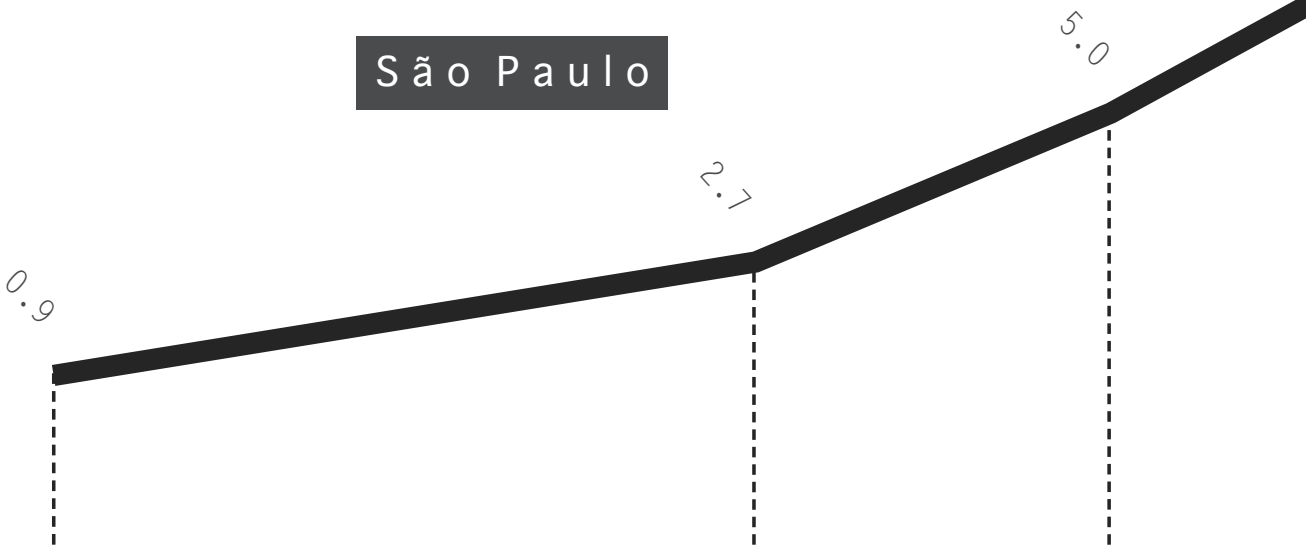
This publication is organised to reflect the unit's approach to working in the city; a process of careful looking as a basis for development of place specific ideas for the city across all scales, from strategy to detail.

Sandra Denicke-Polcher, Deputy Head of School of Architecture

Dann Jessen, East / Cass Diploma Unit 3

Unevenness

São Paulo



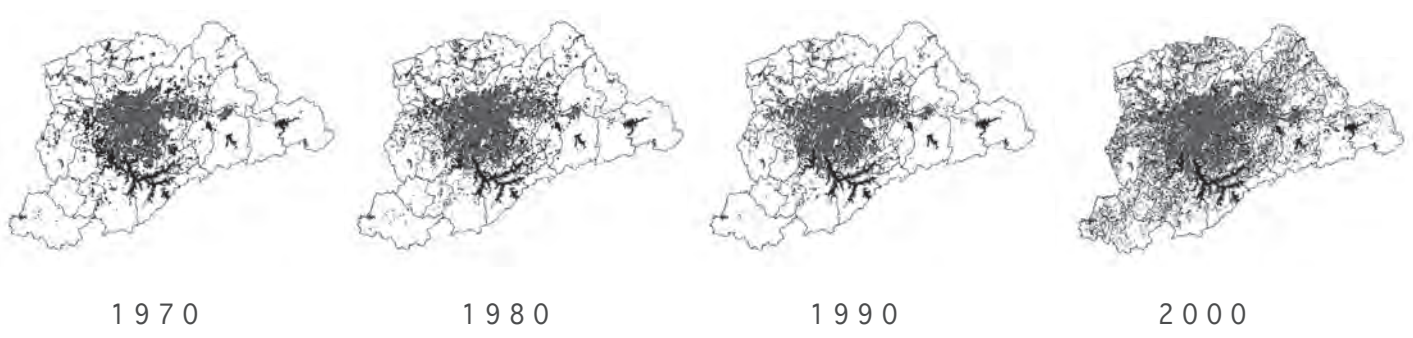
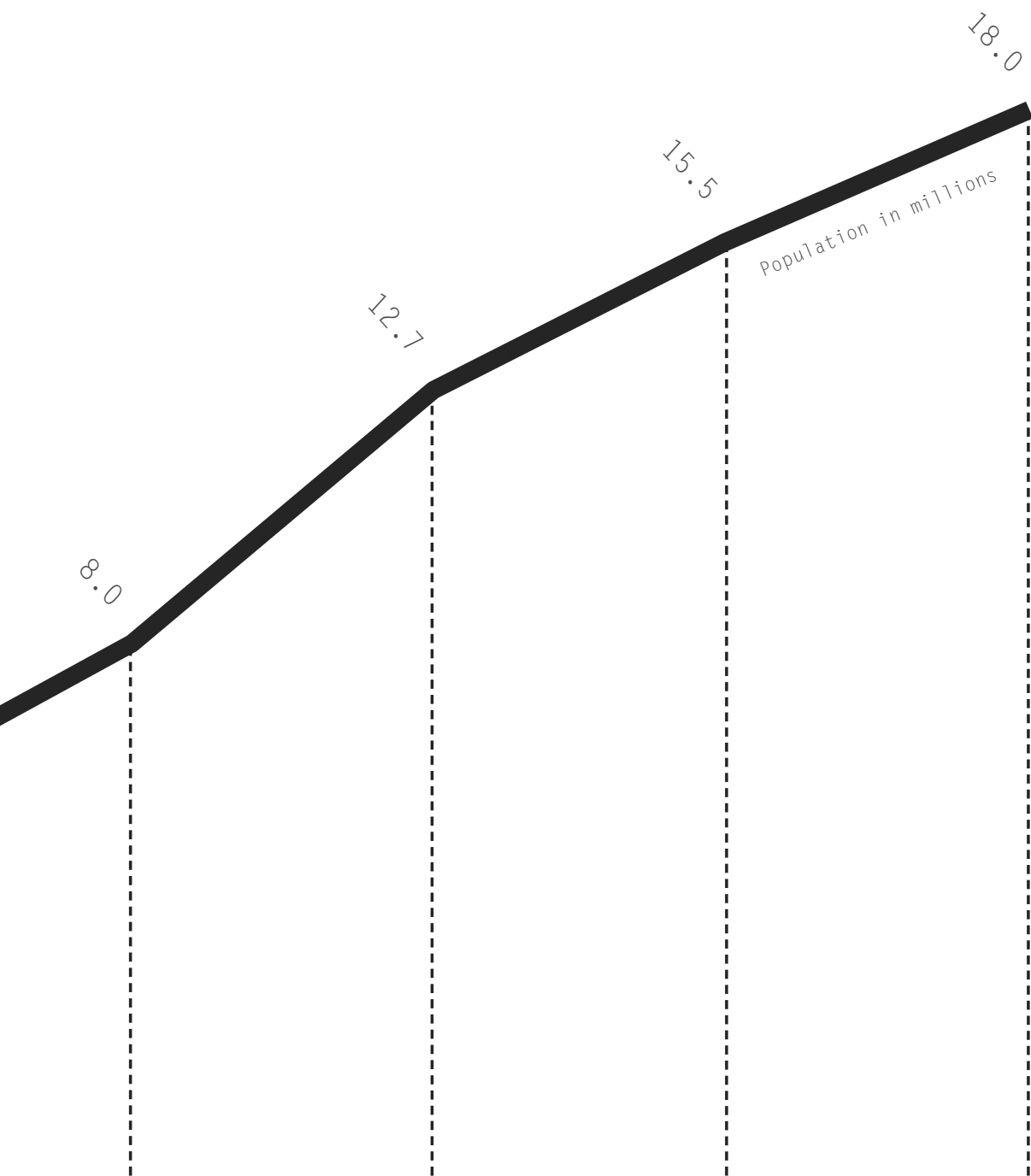
1930



1950




1960



Unevenness



The tower is at once one of the most exciting and problematic architectural and urban types



As a consequence of sheer scale and capacity the tower is inherently metropolitan, and yet this potential has become increasingly flattened to superficial gestures of surface and form, diagrammatic exercises in programmatic complexity, or pseudo-efficient acts of 'rapid' urbanisation. While the tower has always been deployed as an expression of socio-political, corporate or technical progress its spatial and experiential potential across scales has largely been ignored in recent architectural discourse.

The unit has been exploring architectural strategies that bring the tower close to the city; with decorum and intimacy.

We have continued to work between São Paulo and London in order to explore the latent opportunities for publicness and generosity possible within an increasingly prevalent tower / plinth urbanism. The unit has been examining the tower as an architectural project shaped by the specifics of the situation in which it is located. Students have developed projects that interact with the existing city - seeking ways to engage, negotiate and knit towers into complex situations.



Santa Cecilia

Minhocão

Escola da Cidade

Praça Roosevelt



Site

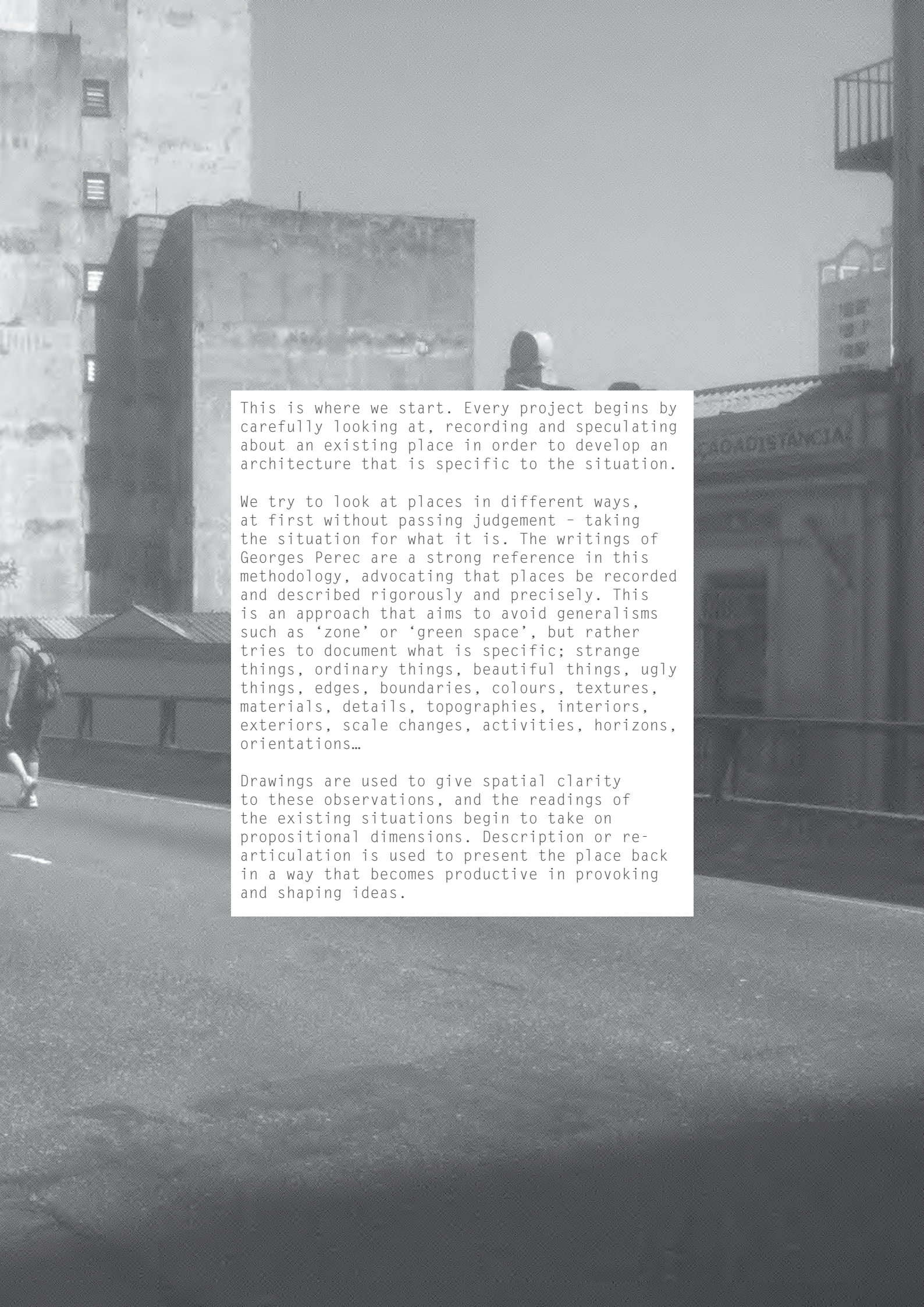
Downtown São Paulo

Praça da República

Edifício Copan



Looking



This is where we start. Every project begins by carefully looking at, recording and speculating about an existing place in order to develop an architecture that is specific to the situation.

We try to look at places in different ways, at first without passing judgement - taking the situation for what it is. The writings of Georges Perec are a strong reference in this methodology, advocating that places be recorded and described rigorously and precisely. This is an approach that aims to avoid generalisms such as 'zone' or 'green space', but rather tries to document what is specific; strange things, ordinary things, beautiful things, ugly things, edges, boundaries, colours, textures, materials, details, topographies, interiors, exteriors, scale changes, activities, horizons, orientations...

Drawings are used to give spatial clarity to these observations, and the readings of the existing situations begin to take on propositional dimensions. Description or re-articulation is used to present the place back in a way that becomes productive in provoking and shaping ideas.

Carefulness

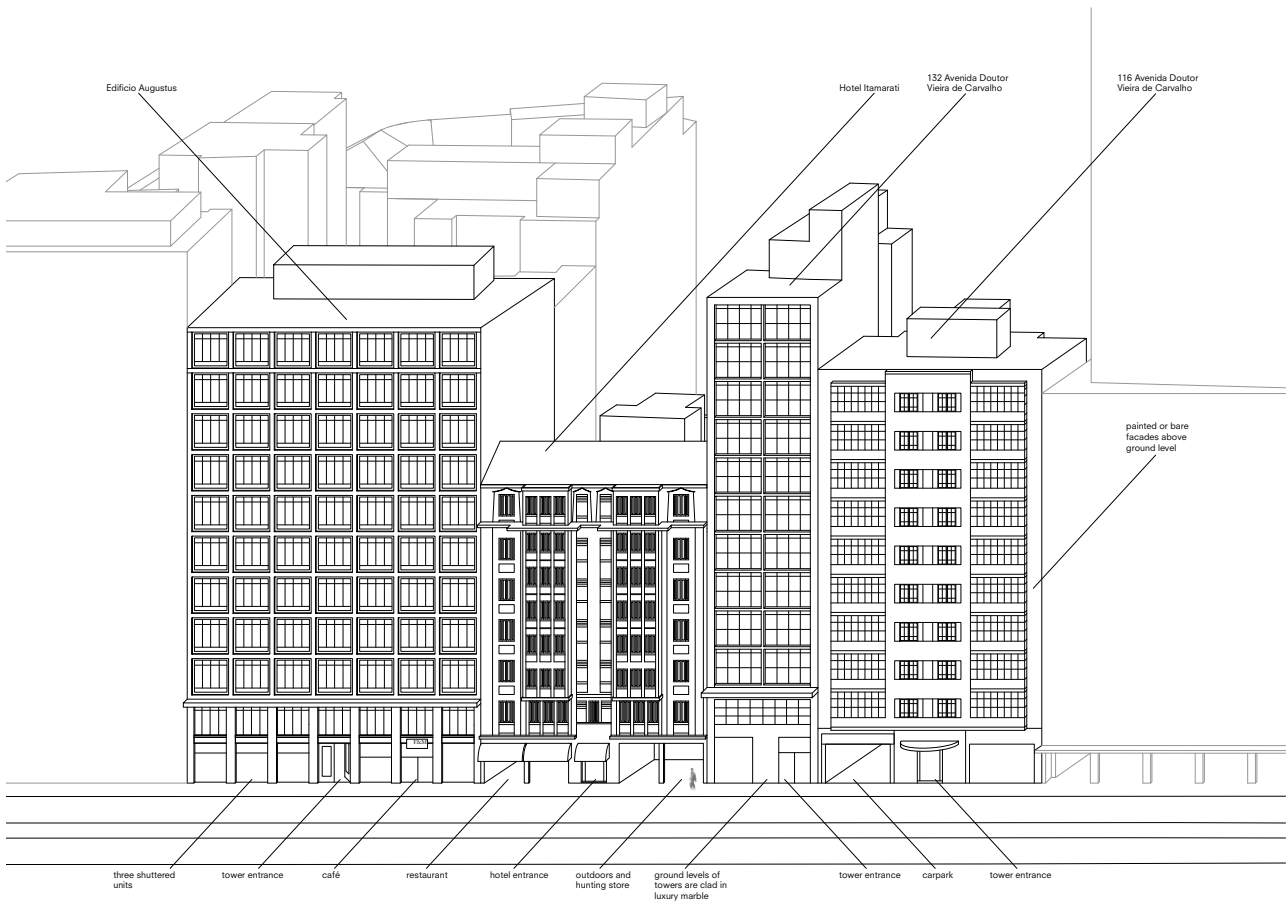


Unevenness

São Paulo doors Lise Vabo

Photographic documentary of the varied thresholds and entrance in central São Paulo. This study became instrumental in

informing a strategy for locating care, working across scales, and establishing a vocabulary for working with ground floors.



Occupation

Ricky Kwok



Oblique drawing of the block on Avenida Vieira de Carvalho:

The tendency in São Paulo is to build to the plot extents to maximise value. Buildings fit tightly against one another, resulting in a strong sense of street, grid and block, but also limited scope for public elements, aside from retail of varied depths. The public aspects are forced to the perimeters and on to the street.

This condition of maximum occupation restricts access to the interiors of the block, which is almost entirely private.

Generic specificities

Sarah Cook



The downtown area of República contains many exciting by-products and remnants of the growth of the metropolis. Many of these qualities are borne out of a haphazard attitude toward urban development, a degree of neglect and impulsive decision making. As the area is presently relatively neglected, these qualities haven't been erased but go uncelebrated and often unnoticed.

HUGE ROADS



1. MINHOÇÃO = SÃO JOÃO CARVING THROUGH THE REDEBUCA.



2. MINHOÇÃO (CRASHING) THROUGH (CITY FABRIC AT 1ST FLOOR).



3. JUNCTION AT LARGO DO BRUCHI.

DARK SPACES



36. UNDERCAST OF MINHOÇÃO



37. BASEMENT CAR PARK ACCESS PRESENTS UNEXPECTED CUTS INTO GROUND.
38. MECHANICAL CAR PARK OFFERS WIDE INTERIOR ATHLUM.

BIGNESS NEXT TO SMALLNESS



34. SMALL OLD RESIDENTIAL STREET WITH PAINTED FACADES SET AGAINST LARGE TOWERS BEHIND.
35. SMALL HOUSE SHOWN ON TOP OF TOWER.

MOTORWAY BUTTING UP AGAINST RESIDENTIAL BUILDINGS



4. MINHOÇÃO ENCRUACHING ON SMALL OLD HOUSE
5. MINHOÇÃO ENCRUACHING ON BALCONIES

SCALE OF ROAD NETWORK CREATING LARGE SPACES



6. BIG ROADS LARGO DO BRUCHI GIVE SPACE TO SKY



7. LARGO DO BRUCHI



8. ATTRACTIVE (DECORATIVE FACADE, QUIET ROAD, PARK)



TRANSIENT COMMUNITIES + SOCIAL GATHERING POINTS



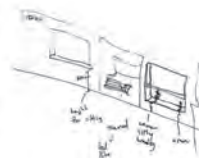
33. DOCUMENTING THE ACTIVITY AND GENERAL OBSERVATIONS IN A PETROL STATION OVER HALF AN HOUR (16:00)



32. STATION STAFF SIT AND CHAT UNDER SHADE OF CANOPY, RELAXED.



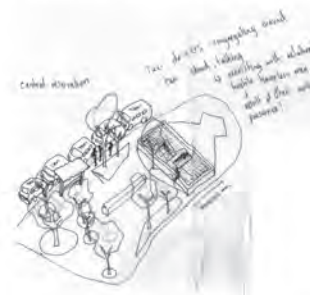
31. MOBILE STREET SELLERS MOVE TO FOLLOW TRAFFIC AND USE LEDGES TO REST



30. STUDY OF WINDOW SILL THAT PEOPLE WERE OFTEN USING TO REST ON.



29. PEOPLE GATHERING IN SANTA CECILIA SQUARE, SOME PLAYING DRAUGHTS



27. TAXI DRIVERS AND HOMELESS PEOPLE COEXIST ON CENTRAL RESERVATION.

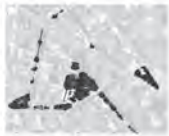


28.

LARGE OPEN SPACES



RAISED CANOPY AND VIEW OF THE



(ABOVE TOP) LARGE ROADS IN TERRITORY
(ABOVE BOTTOM) LARGE OPEN (OFTEN GREEN) SPACES THIS ALLOWS

FLANK WALLS



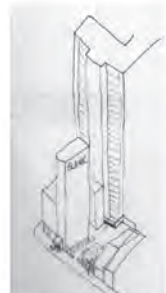
9. PETROL STATION CANOPY MEETS FLANK WALL EXPOSED ON END OF BLOCK



10. PAINTED FLANK WALL BLENDS INTO SKY AND CONTRASTS WITH ADJACENT TREE



11. PAINTED FLANK WALLS PRESENT STRONG ATTRACTIVE SILHOUETTE



12. View into block length of block - space + level clarity of block wall

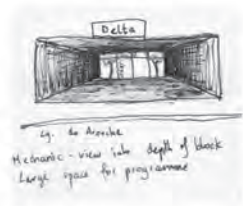
CUTS/VIEWS INTO THE BLOCK



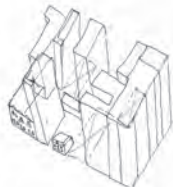
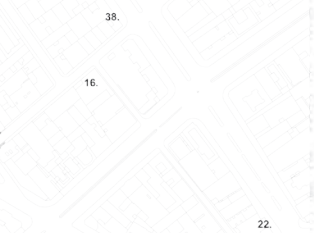
12. CAR PARK GIVES VIEW TO TOWER BLOCKS DEEPER IN THE BLOCK AND EXPOSES FLANK WALLS



13. LIGHT SHAFT CONTRAST-DARK UNDERCROFT



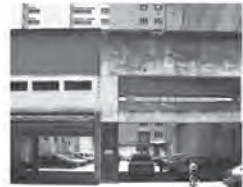
14. LARGE SPAN MECHANIC SPACE ALLOWS VIEW THROUGH BLOCK



15. BLOCK APPEARS VERY PERMEABLE BECAUSE OF NUMBER OF CAR PARK CUTS



16. PLANTING IN BLOCK, SMALL THEATRE AND LITTLE TRAFFIC MEAN CORNER FEELS CALM



17. ROOMS ABOVE ENTRANCE TO CAR PARK ACCENTUATE THE MOVE FROM DARK/SHY TO LIGHT/OPEN

COLLECTION OF DIFFERENT FACADES



18. DIFFERENT STYLE, SCALE AND PERIOD BUILDINGS SITTING SIDE BY SIDE CREATING STREETS OF GREAT DIVERSITY AND STORAGENESS

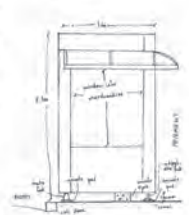
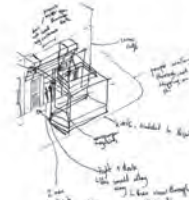


19. COLLECTION OF DIFFERENT FACADES, PLEASANT



20. CORNER WEDGE BUILDING WITH DOME SITS ALONGSIDE PHOTO ELEVATION AND FRONTS DIVERSE MASS OF ROADS

NEWSPAPER KIOSKS



21. MOVING BETWEEN KIOSK AND CORNER CAFE, FROM DARK AND ENCLOSED TO OPEN SPACE WITH A VIEW THROUGH THE CORNER CAFE

CONSTRUCTION OF KIOSK AND EASE OF RELOCATION



22. ENGAGING AND BUST FRONT FACE



23. TIGHT PASSAGE CREATED BY KIOSK OVERHANG AND CYM BUILDING WHICH HAS LARGE SLIDING WINDOWS AND LOUD MUSIC LEAKING OUT, PEOPLE LOITER



VERY BLANK AND UNENGAGING BACK FACE



24. KIOSK CREATES ENCLOSED SPACE, SHELTERED FROM LARGE HOSEY ROAD WHICH TABLES FROM CAFE SPILL OUT ONTO ON WIDE PAVEMENT

8.
2.
13.
32.
31.
24.

37.
38.
16.
9.
22.

Territory and topography

Unevenness



A clash of parts Nadine Coetzee

São Paulo is a clash of the organic growth of the city, the imposed grid and the road network carved between the two. This clash generates blocks large enough to accommodate wide ranging programs and morphologies which suggest distinct qualities of urban life.

The contrast of the confines of high-rise neighbourhood streets and the vastness of mainly infrastructural arteries can result in the unintentional segregation of communities sometimes separated by just one city block. Each corner of downtown Sao Paulo throws up a different character.



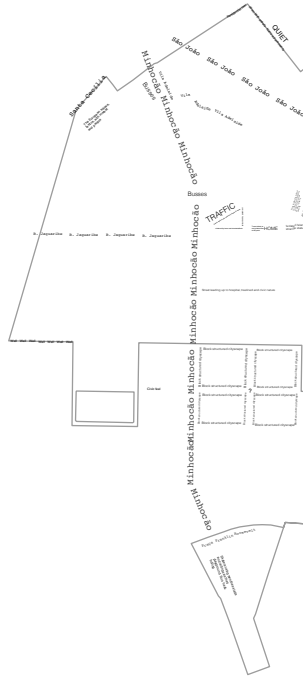
Dissolving the block

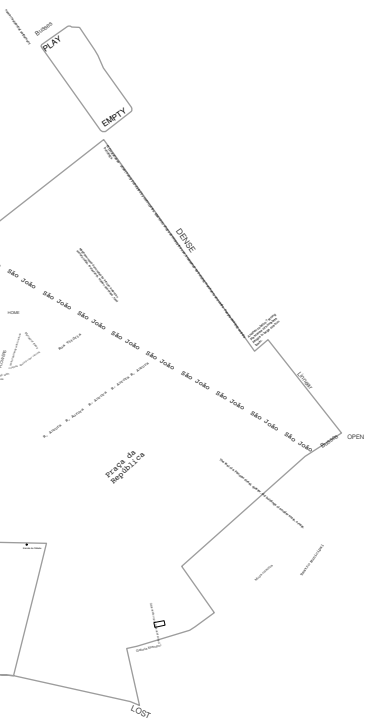
Megan McKeever

Mapping São Paulo gives little to explain the morphological structure of the block but it does elucidate the field of influences that shape and form it.

The dense, heterogeneous character of the block is felt within the city but only really expressed through the defensive street facade which hides the nature of the place within.

Unevenness





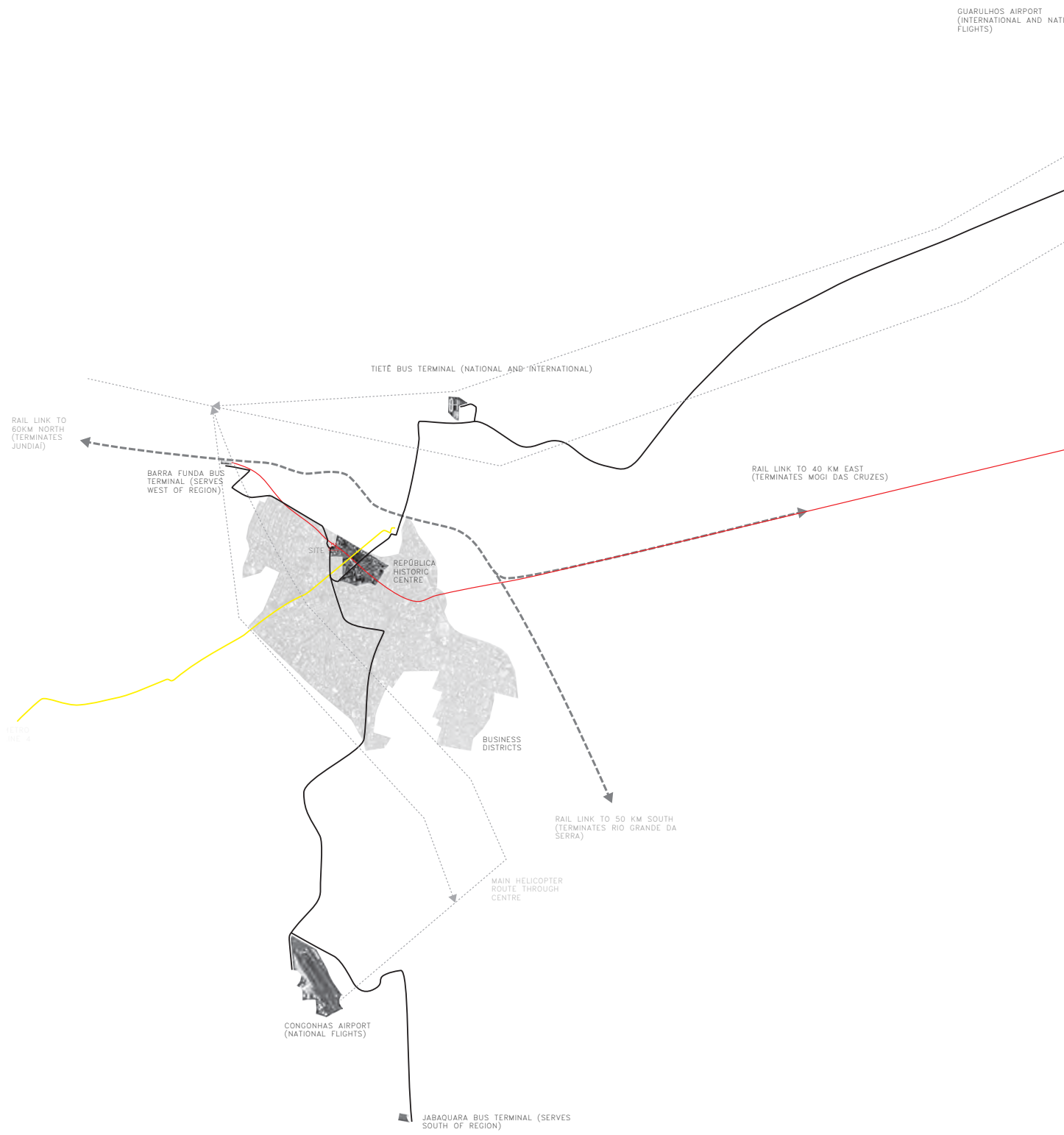
Unevenness

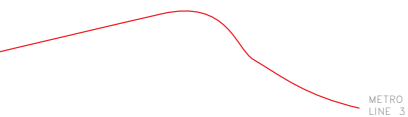
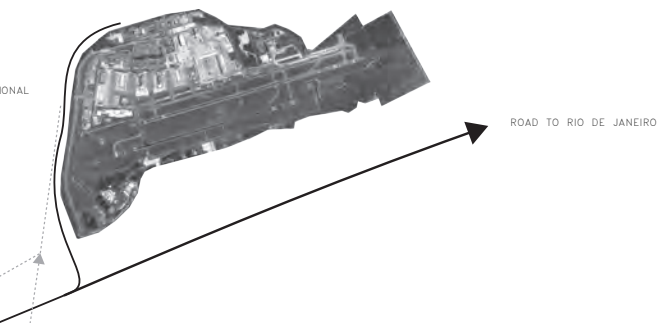
Mapping Lise Vabo

São Paulo was explored through various mapping exercises. They helped clarify a matter of interest.

The diagrams show an interest in the different characters of areas of the site, as well as the monuments/structure which differ or stand out amongst the many tall tower building.

Unevenness





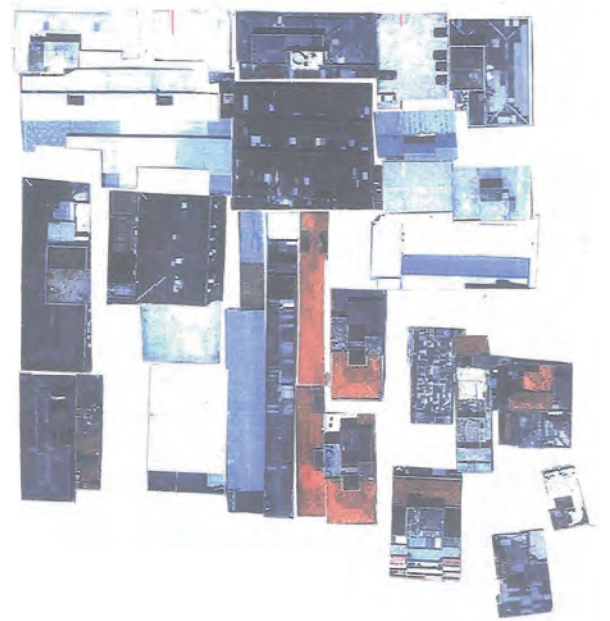
Connections

Sarah Cook



The site sits at the convergence point of many access routes into the city. There is potential for the site to operate at a geographical scale between its immediate context and the wider territory to which it is remotely connected.

This also allows time and speed to become important elements of the architectural strategy; the different paces at which the site is experienced from the pedestrian to the vehicular, and durations of stay ranging from an inhabitant, hotel guest or passing glance from a car on route to other places.



Unevenness

Dissolving the block

Jan Balbaligo



Collage exploring the content of a downtown block, erasing, consolidating and reshuffling what exists to gain a greater understanding of its structure and potential.

	PRIVATE DEVELOPMENTS		PUBLIC FACILITIES		
PLAN	<p>APARTMENT CONDOMINIUM, PINHEIROS</p> <p>WALL ENTRANCE BEHIND SMALL PERCEPTRAN ENTRANCE</p> <p>1:500</p>	<p>PRIVATE SUBURBAN HOUSING, MORUMBÍ</p> <p>SMALL PERCEPTRAN ENTRANCE CAR ENTRANCE</p> <p>1:500</p>	<p>PARK (BRASILEIRA, VILA MARIANA)</p> <p>ENTRANCE BEHIND OTHER ENTRANCE (CAR)</p> <p>1:2500</p>	<p>DESL. POMPEIA, POMPEIA</p> <p>1:500</p>	<p>HOSPITAL STA. ISABEL, REPÚBLICA</p> <p>PRIVATE ENTRANCE PUBLIC ENTRANCE (STREET) PUBLIC ENTRANCE (STREET) PUBLIC ENTRANCE (STREET)</p> <p>1:500</p>
EDGE	<p>WALL BEHIND WALL</p> <p>LITTLE NO STREET ACTIVITY</p>	<p>LONG STREET OF WALL PERCEPTRAN WALL</p> <p>CONTRASTS WITH WALL BEHIND TO OTHER SIDE OF STREET</p> <p>WALL BEHIND PERCEPTRAN WALL</p>	<p>LONG STREET OF WALL PERCEPTRAN WALL</p> <p>VIEW THROUGH TO PARK</p> <p>CONTINUOUS FROM CAR LANE TO FOOT PATH</p> <p>WALL BEHIND PERCEPTRAN WALL</p>	<p>INDUSTRIAL BRICK FACILITY</p> <p>WALL BEHIND PERCEPTRAN WALL</p>	<p>LONG STREET OF WALL PERCEPTRAN WALL</p> <p>WALL TAKES ON CHARACTER OF INTERIOR ARCHITECTURE (WALL BEHIND PERCEPTRAN WALL)</p>
ENTRANCE	<p>UNATTRACTIVE FENCING</p> <p>WALL BEHIND WALL</p> <p>SECURITY GUARD POST</p>	<p>WALL BEHIND WALL</p> <p>SECURITY GUARD POST</p> <p>CLOSED PERCEPTRAN GATE</p>	<p>WALL BEHIND WALL</p> <p>SECURITY GUARD POST</p> <p>SECURITY GUARD POST</p>	<p>WALL BEHIND WALL</p> <p>SECURITY GUARD POST</p> <p>SECURITY GUARD POST</p>	<p>WALL BEHIND WALL</p> <p>SECURITY GUARD POST</p> <p>SECURITY GUARD POST</p>
INTERIOR	<p>SECURE SAFETY</p> <p>SECURITY GUARD POST</p>	<p>SECURE SAFETY</p> <p>SECURITY GUARD POST</p>	<p>SECURE SAFETY</p> <p>SECURITY GUARD POST</p>	<p>SECURE SAFETY</p> <p>SECURITY GUARD POST</p>	<p>SECURE SAFETY</p> <p>SECURITY GUARD POST</p>

INVERTED DEFENSIVE + DISCONNECTED. EVERYTHING CONFIGURED TO BENEFIT THE INTERIOR. LITTLE ATTENTION GIVEN TO STREET OR ENTRANCE.

FUNCTIONAL, BUT ADDRESSES SURROUNDINGS. SMALL EFFORTS MADE TO ADDRESS CONTEXT. HINTS OF INTERIOR QUALITIES GIVEN BY EDGE/ENTRANCE BUT IS NOT RESPONSIVE.



Neighbourhoods Lily Dowse



Identification of neighbourhoods and their boundaries within and the centre of the city. Icons categorise the programmatic character of each, along with specific activities and uses. The 'manifold' space has been identified in order to strengthen the connections, relationships and shared resources of each neighbourhood; strengthening their existing qualities and bringing them into closer proximity.



Unevenness

Edges and thresholds
Sarah Cook

Analysis looking at the connection between interior and exterior in selected São Paulo developments.

Praça da República
Nadine Coetzee

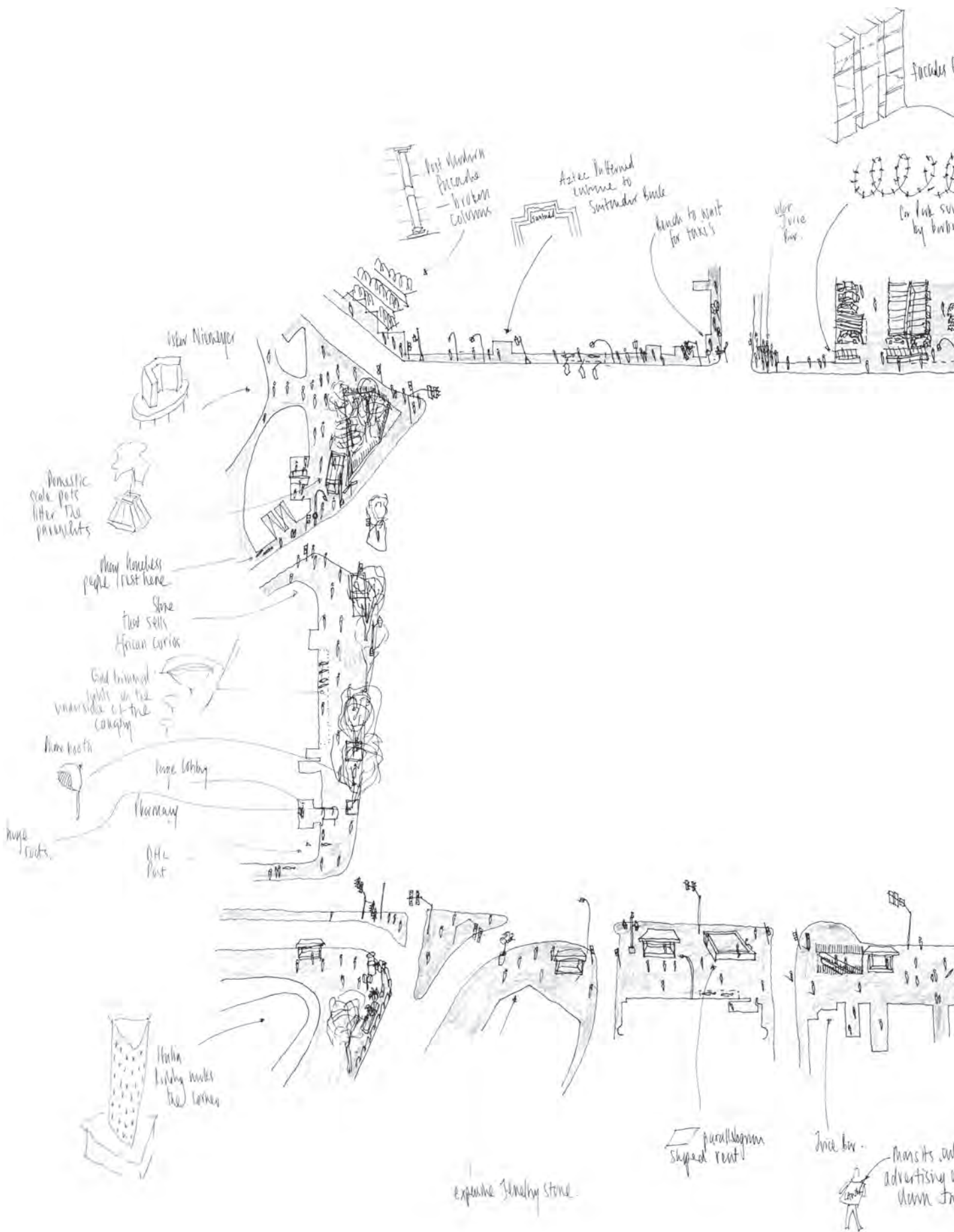


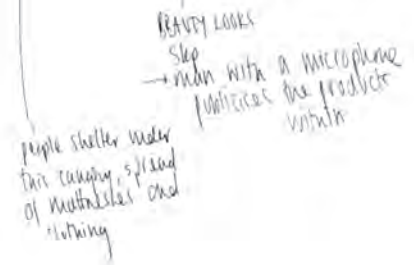
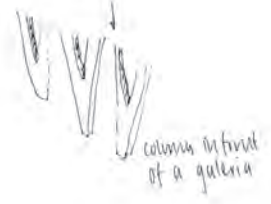
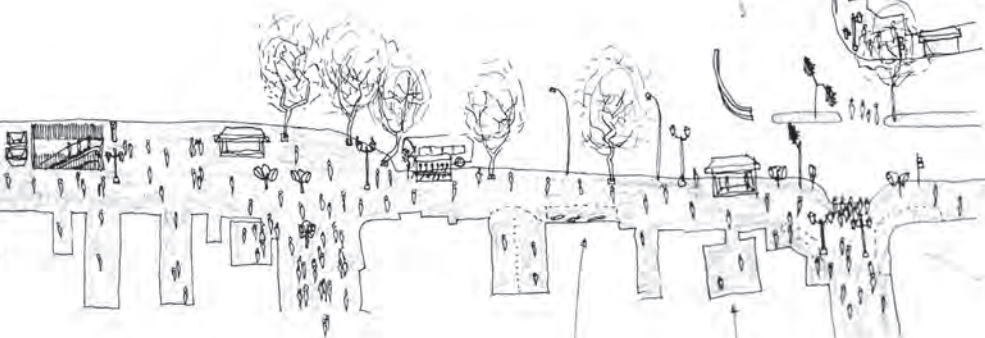
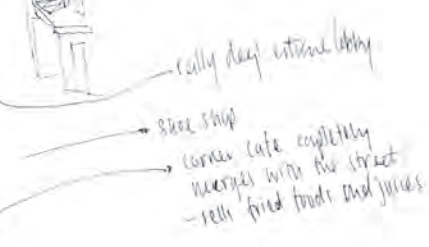
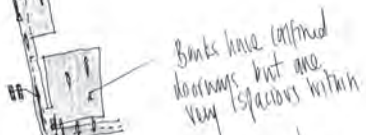
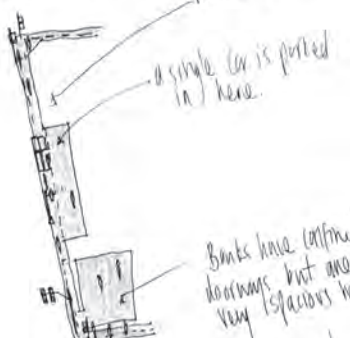
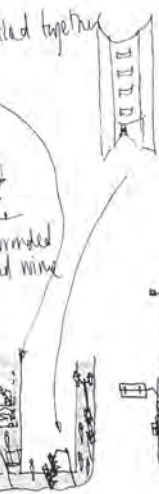
Defining the edge of the square.

Work carried out as part of a week long workshop in downtown São Paulo.

This drawing defines the zone between the built edge of the facades around the praça and the road that cuts it off from these facades.

This drawing maintains the detail of annotation and observation from the initial studies yet describes the edge in great detail through inhabitation and annotation.

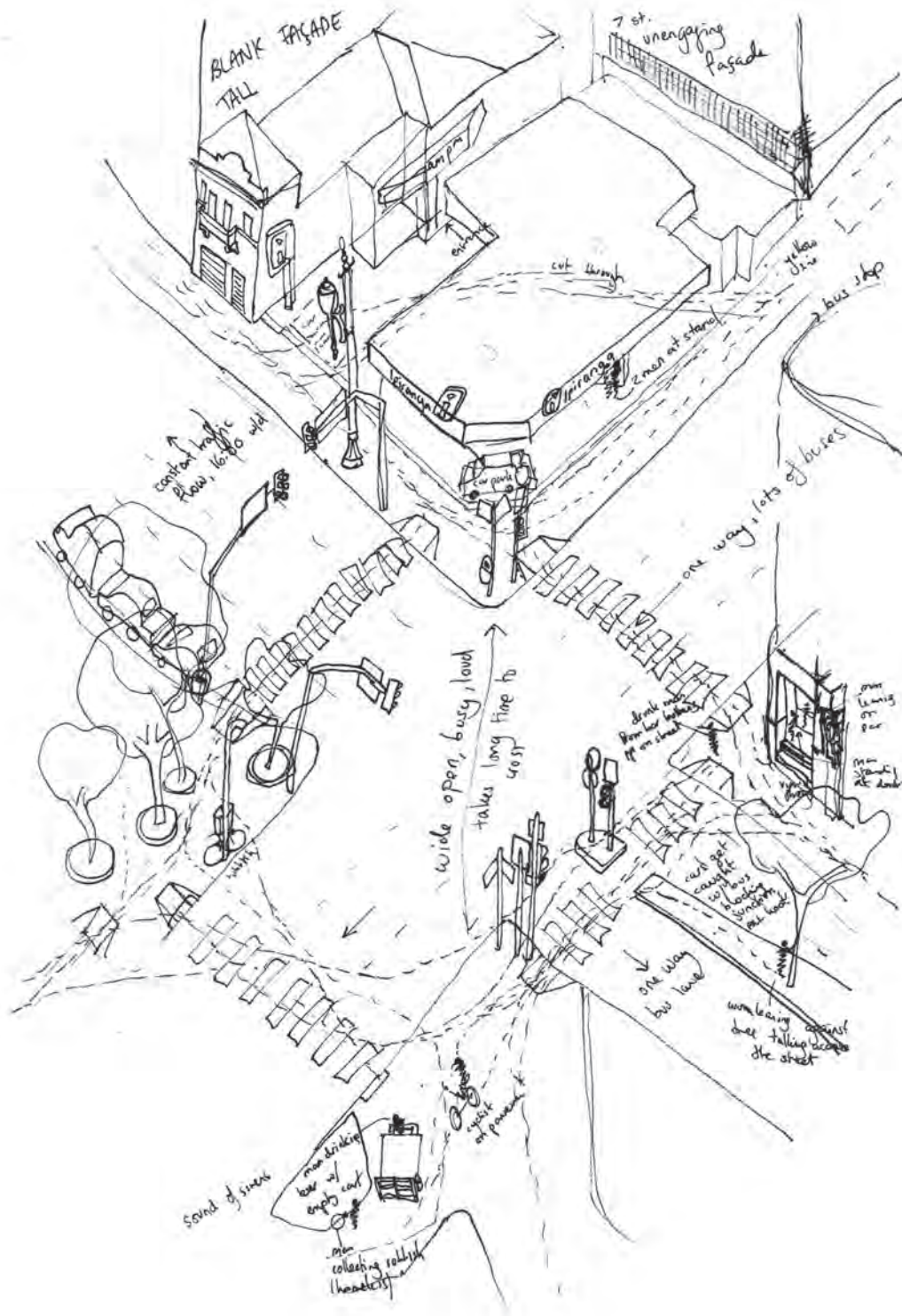




inside
lounge
road

Corner, edge and depth

Unevenness

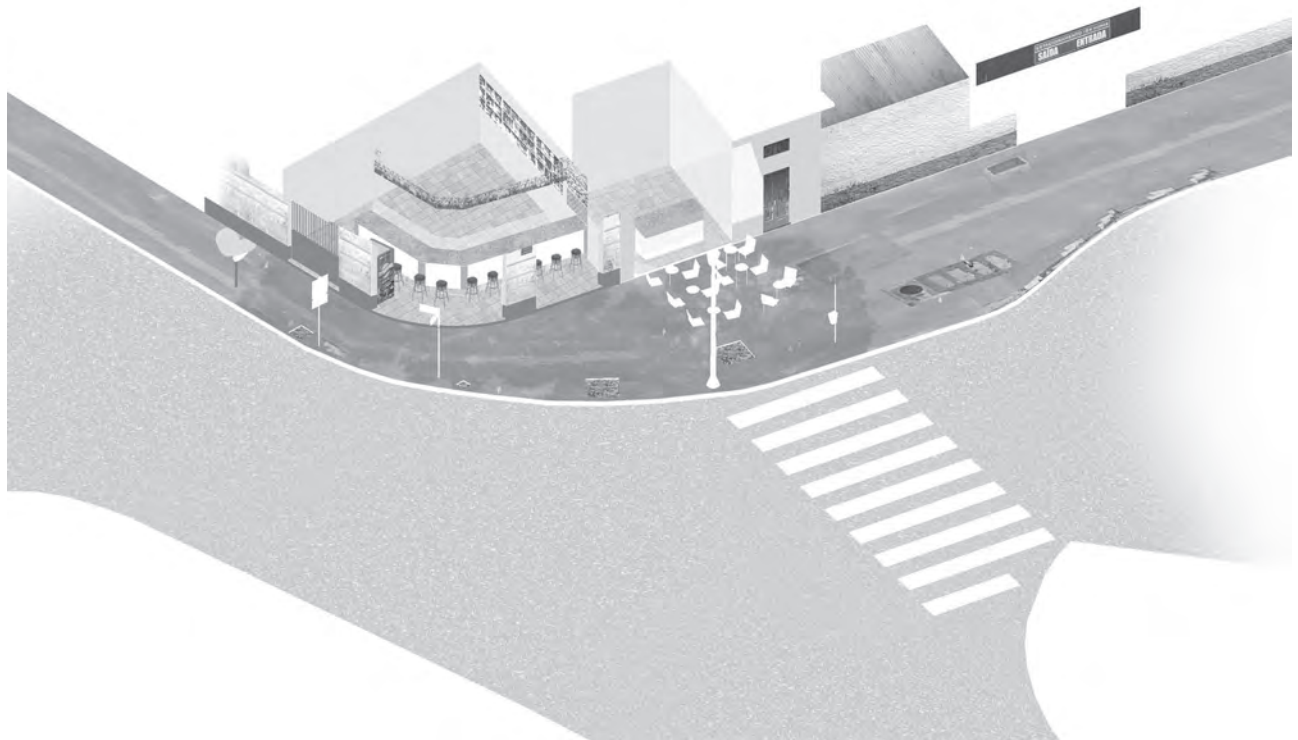


Junction

Gemma Holland, Sarah Cook, Nadine Coetzee, Wing-Shun Tang

When walking around the periphery of the site, observations were recorded through sketches.

This sketch explores the relationship between pedestrian and vehicular movement at a busy road junction.



Roadside
Joe Crawford

As a city that is largely based on a grid, the corners of São Paulo's many junctions become a significant typology in defining the city block. The rare instance of a

double aspect lends itself to more public programmes, the most common of which is the corner café.

The collage explores the relationship between the ground floors of the corner buildings and the adjacent public realm, showing the interiors of these spaces as a continuation of the pavement.

The threshold between building and street is blurred by an open facade and outdoor seating.

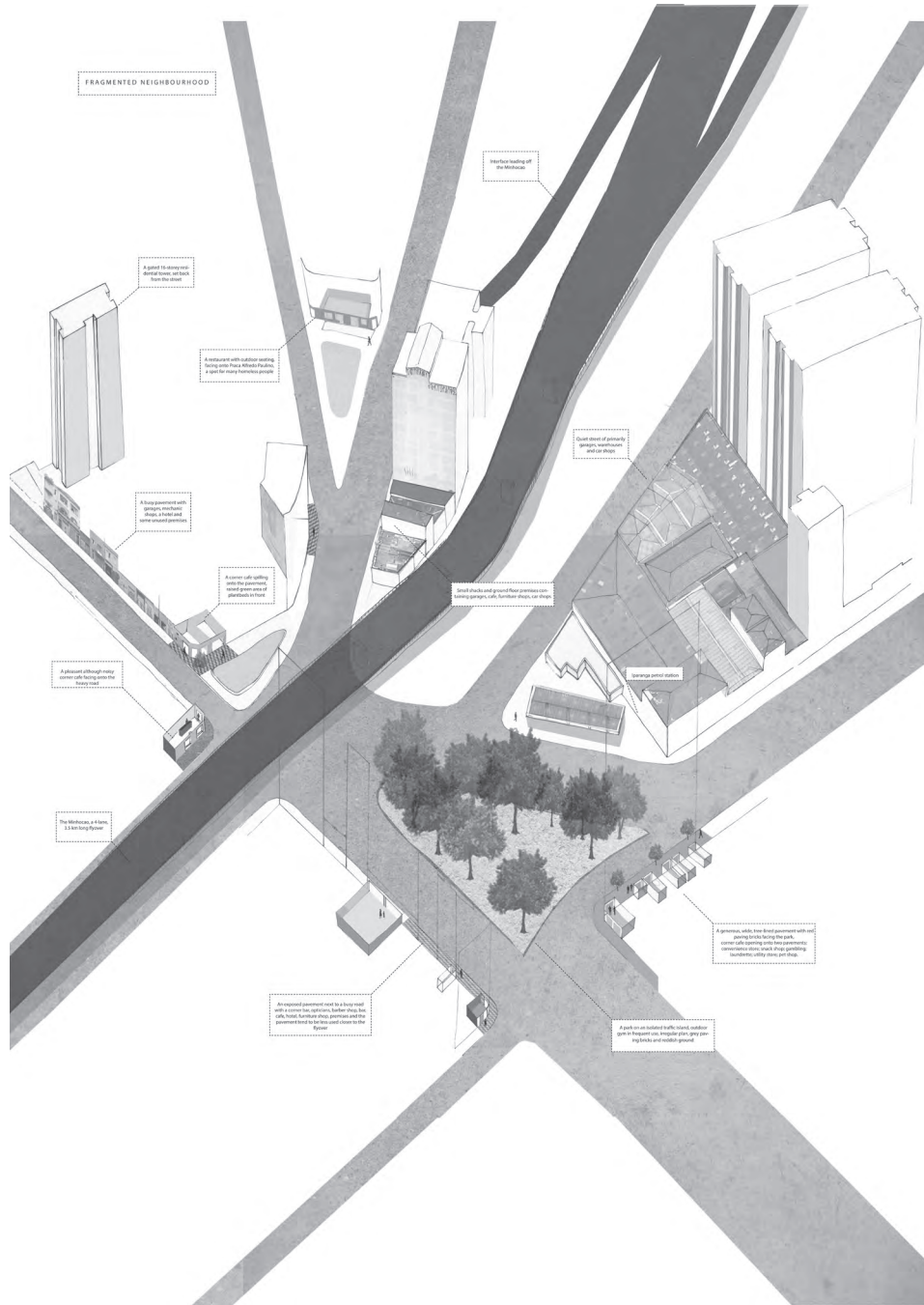


Base
Oliver Joyce

A corner of an individual blocks was selected and indiscriminately documented in as much detail as possible. This corner was capped with two 22 storey residential tower blocks that sat above a commercial ground floor. In doing this we could begin to discover details that ordinarily might be overlooked.

Unevenness

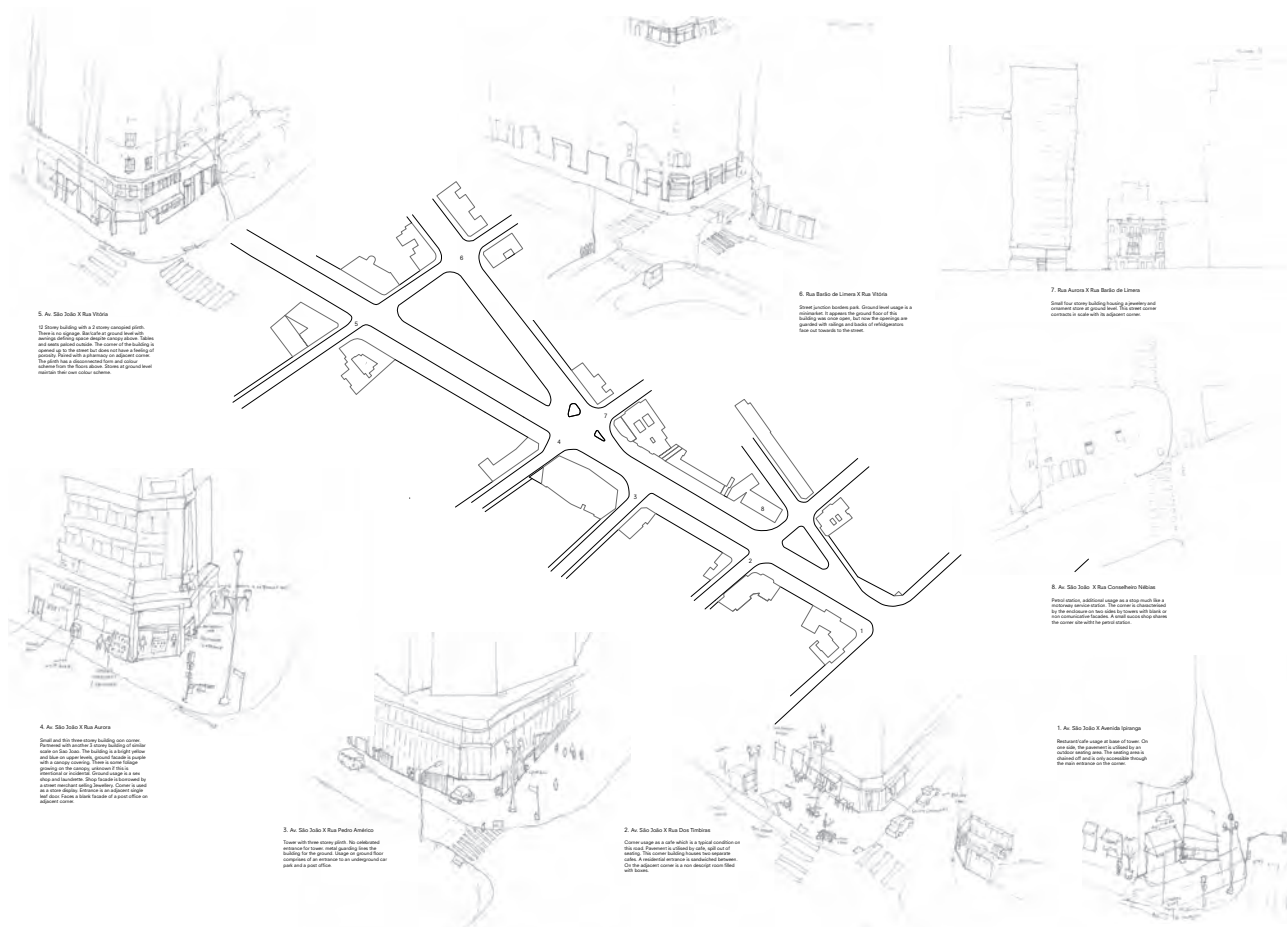




Fragmented neighbourhood Helmi Valkola

The Minhocão and the large junction area right beside/underneath it serve as a dividing force disconnecting the area of Largo do Arouche from the neighbourhood of Santa Cecilia to the north.

The drawing explores the spatial qualities of the areas on the fringes of the junction.

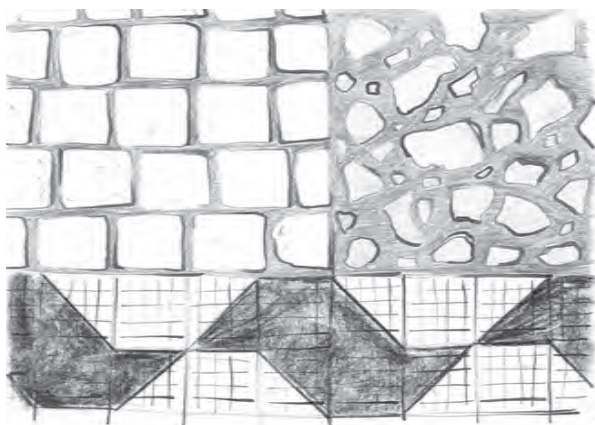


Corners
Ricky Kwok

Sketches drawn on site observing corner conditions on Avenida São João.

Many of the corners present unique conditions where the main road meets with

the different culture of the side street. These drawings catalogue the changes of these corners as well as the variations between corners.

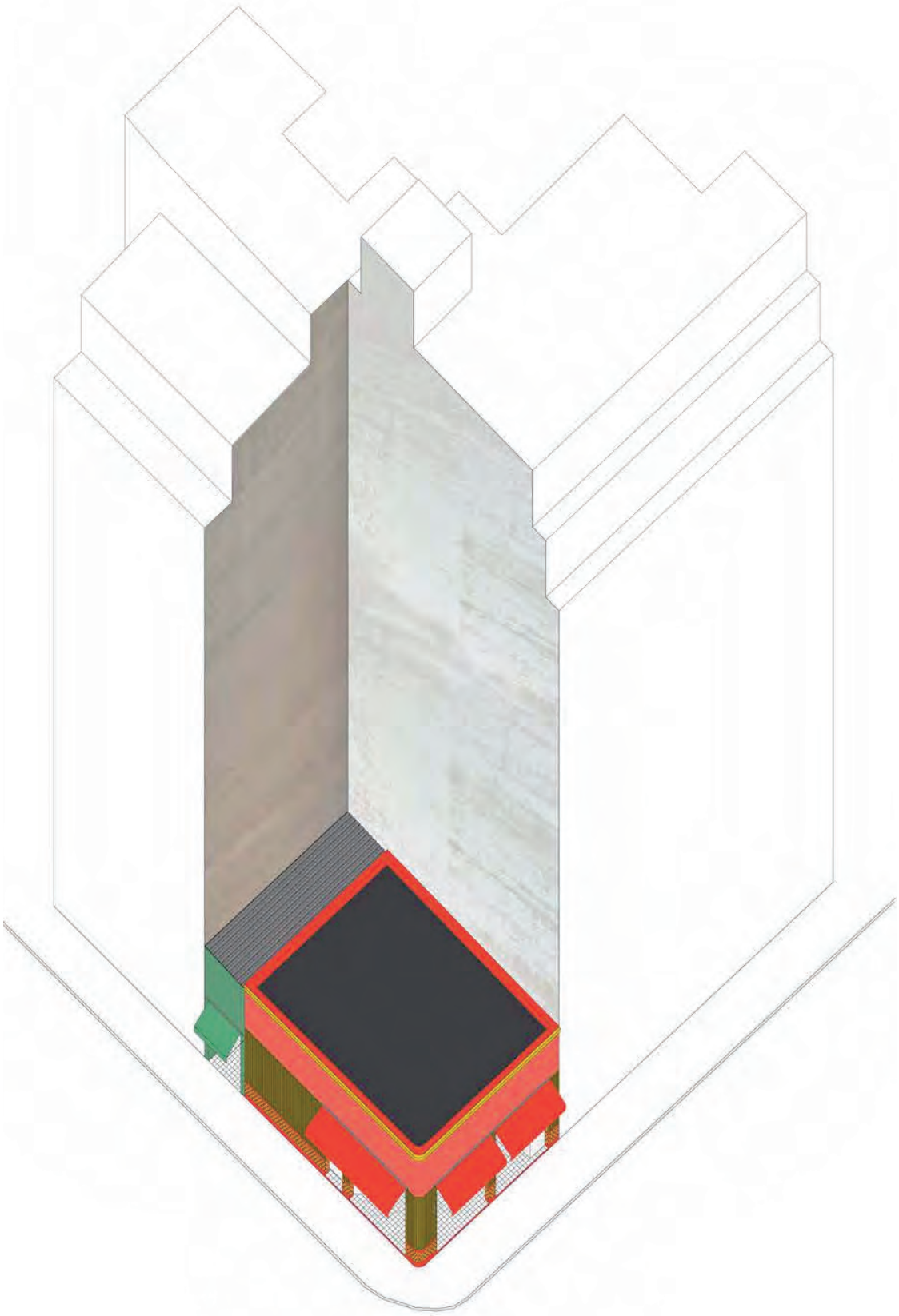


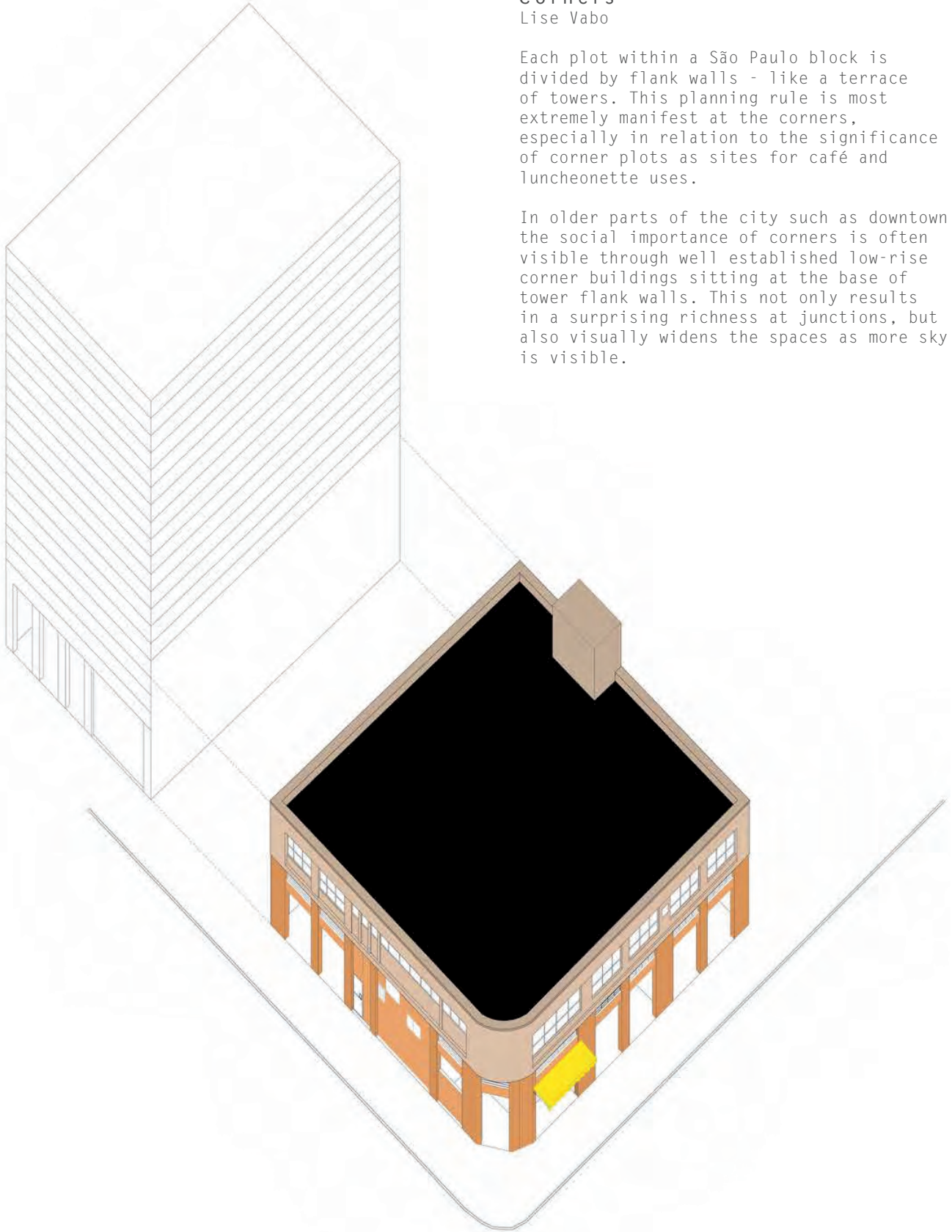
Grounds
Lise Vabo

The footways in São Paulo are owned and maintained by the adjacent building plot. While there is a standard municipal paving common to the city, each owner is free to finish their footway as they please, leading to a surprising, often awkward, collage of materials in the public realm.



Unevenness





Corners

Lise Vabo

Each plot within a São Paulo block is divided by flank walls - like a terrace of towers. This planning rule is most extremely manifest at the corners, especially in relation to the significance of corner plots as sites for café and luncheonette uses.

In older parts of the city such as downtown the social importance of corners is often visible through well established low-rise corner buildings sitting at the base of tower flank walls. This not only results in a surprising richness at junctions, but also visually widens the spaces as more sky is visible.

Praca Santa Cecilia - 5000m²

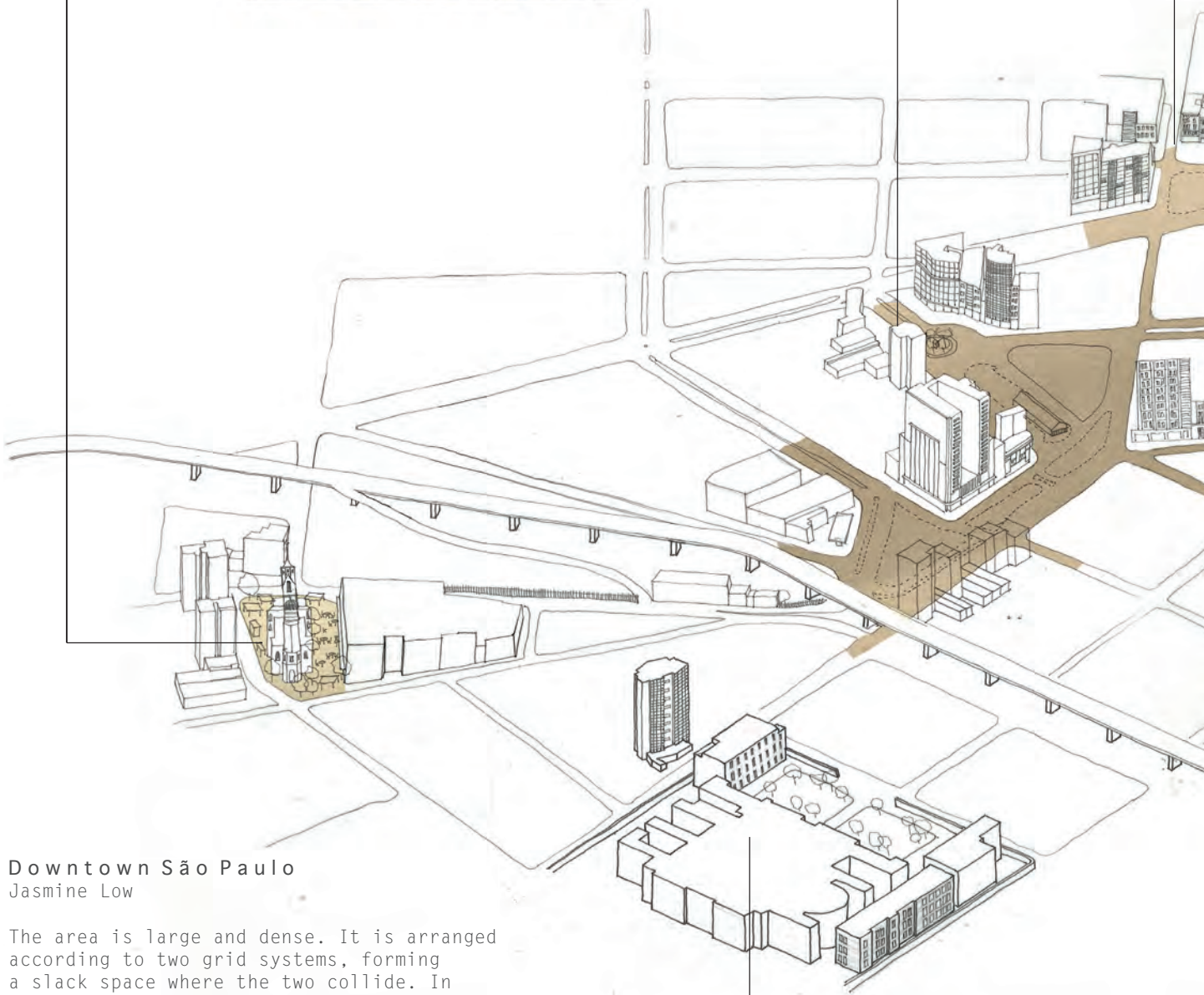
- Intimate
- Building faces relate to space - cafes spill out, open ground
- Square is attached to one side, creating pedestrian street.
- Feels comfortable, want to spend time here
- Church splits up space, creating 4 different conditions - spaces are not huge, but still used
- Surrounding roads are narrow - lots of pedestrian movement across

Praca Princesa Isabel - 19000m²

- Peripheral park - not used
- Had a strong civic intention - but monument and grand name doesn't match character
- Big park - but oversized. Trees and wide paths overdefine routes
- Playground at one end suggests nearby residential areas
- See a lot of sky - makes park feel bigger
- Buildings around the park have evolved over time - but never to address the space.

Largo do Arouche Roundabout

- Enclosed and sweet. Quiet - buildings face onto roundabout. Several cafes and restaurants.
- Wider pavements



Downtown São Paulo
Jasmine Low

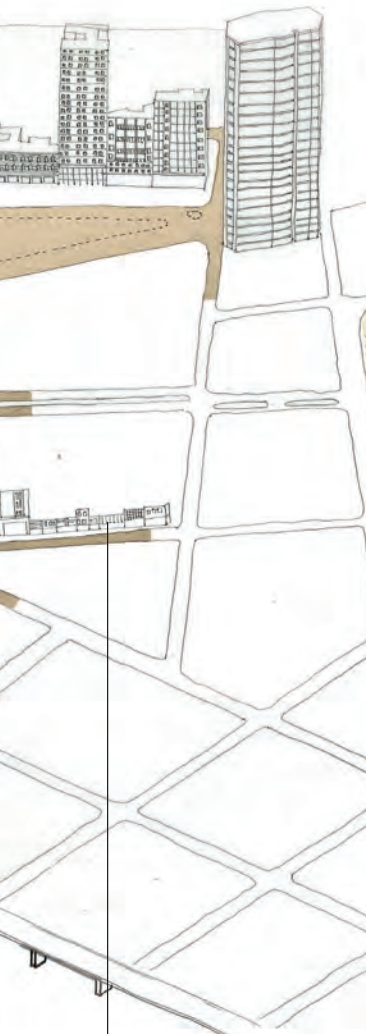
The area is large and dense. It is arranged according to two grid systems, forming a slack space where the two collide. In a landscape of towers, the city can be difficult to navigate, with the iconic towers along Av. São Luís appearing infrequently. Around the edge of the city centre there are a number of parks of varied quality. The Minhocão, a raised highway, cuts through the area and acts as a point of reference.

Hospital Santa Isabel

- Walled-off block, looking inwards to entrance courtyard, surrounding pavements are narrow, slow pedestrian movement.
- Lots of traffic in front of private hospital (tower), security guards stand in front

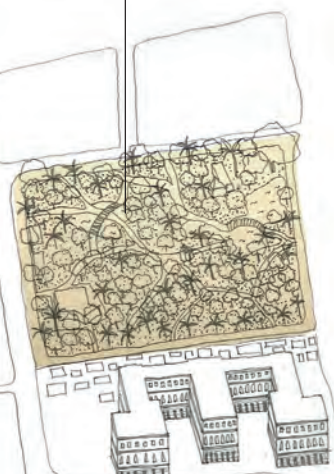
Sao Joao

- Varying levels of activity
- Many commercial buildings
- Tall and ornate facades - very civic.
- View East ends in vista to Altino Arantes Building (Empire State Building look-a-like). Processional.
- Shape formed by 2 grids colliding
- Pavements well kept by their commercial owners



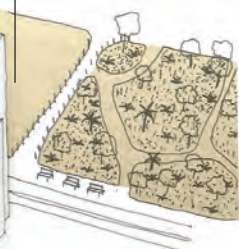
Praca da Republica - 41000m²

- A quarter of the park is a hard surface - this area is anchored by the school. This area is much more heavily used than the green space. Market occurs every Sunday.
- Green space feels like a jungle. Big trees and windy paths. Dotted with landscaping elements - pavilions, lakes and bridges.
- Very cut off from surrounding buildings due to sheer size of park - impossible to see out from centre - disorienting
- Feels unsafe, don't want to linger.



Praca Jose Gaspar - 5720m²

- Very enclosed, many trees - strong link to Galleria Metropole entrance
- Benches on wide pavements along one side of park, people sit around - park feels more accessible and safe
- Many people walk through even though it is unnecessary and there are no defined routes
- Looked after by the municipality
- Green spaces maintained by companies - advertising happens on plaques



Rua do Arouche

- Local shops, smaller buildings
- Busy pedestrian area
- Collage of shop frontages - some are very modern, others are classical - some are complex, others are simple.
- Feels claustrophobic at ground level - shop windows are filled with objects all vying for attention

Av. Sao Luis

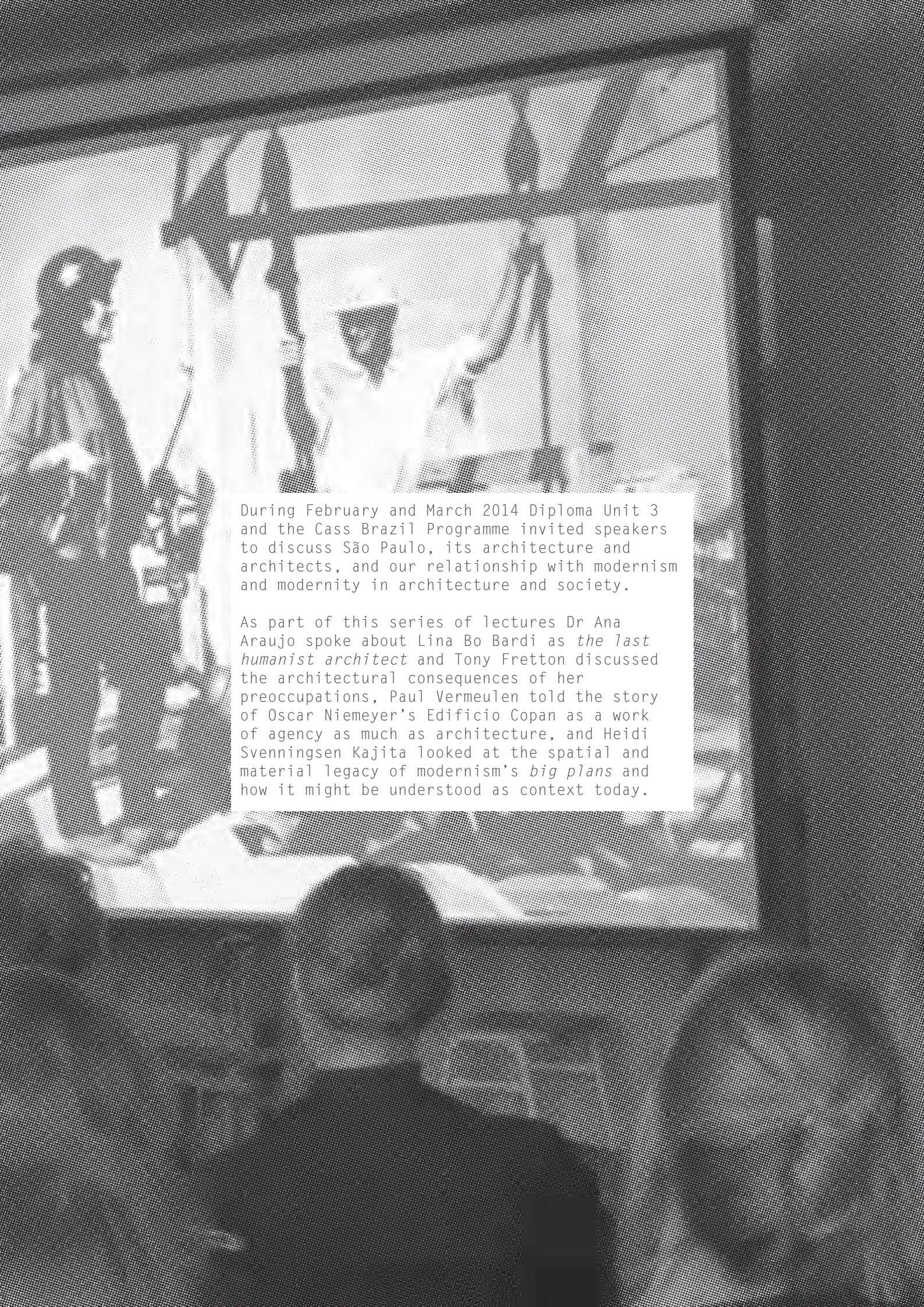
- Tall, monumental buildings - Edificio Copan, Edificio Italia
- Wide pavements and tree-lined boulevards
- Lots of offices in area - lots of people walking rapidly wearing suits

Galleria Metropole

- Completely open building with a planted courtyard. Shops and restaurants at ground and basement are busy; spaces on the upper floors are empty - being rented by offices.
- Very successful complex for the area - main hub for lunch. Hard surface in front of entrance used at night for performances and live music from the bar.



Words



During February and March 2014 Diploma Unit 3 and the Cass Brazil Programme invited speakers to discuss São Paulo, its architecture and architects, and our relationship with modernism and modernity in architecture and society.

As part of this series of lectures Dr Ana Araujo spoke about Lina Bo Bardi as *the last humanist architect* and Tony Fretton discussed the architectural consequences of her preoccupations, Paul Vermeulen told the story of Oscar Niemeyer's Edificio Copan as a work of agency as much as architecture, and Heidi Svenningsen Kajita looked at the spatial and material legacy of modernism's *big plans* and how it might be understood as context today.

Lina Bo Bardi: architetto umanista (1914-1992)



Umanista [05:08]

I would like to talk a little bit about Lina's work [...] to share with you some recent research I've been doing. It's pretty specialist so you may not agree with all of it - and that's actually fine - but I will tell you about my ideas, and see how they resonate.

The title of the lecture is 'Lina Bo Bardi: Architetto Umanista', using the Italian language because Lina was born in Italy and then she moved to Brazil - and [...] was naturalised Brazilian. Most of the people who talk about Lina's work talk about her very much as a Brazilian, and talk about the Europe she left behind - which of course is true - but my argument is that Lina kept a lot of her Italian roots, and this is why I use the Italian language here to describe her.

In this period of her life she was calling herself an 'architetto' because in Italian there is no word for a female architect, so architetto is the masculine. She had a little bit of a joke with that but she kept calling herself an architetto. For her it was always important to be called an architect rather than an artist, or rather than anything else. Her position was that everything she was doing was architecture - whether she was painting, whether she was creating, whether she was designing buildings, whether she was teaching.

The bit that I add - the idea of humanism; the idea that she was a humanist architect, that she would be considered in a tradition and that Lina can be considered as one of that kind - is my very short polemical argument. And, I'm going to try and convince you that I'm right.

This is the concept of humanism that I put together; it was 'a term used in the 15th Century in Italy to describe a scholar of Greek and Latin Literature. It defines an approach that emphasises the agency of human beings, aiming for a balance of their physical, spiritual, moral and intellectual faculties. Humanism is based on the belief that human dignity should be of primary importance, regardless of race, class or other differences. It draws on a knowledge of the past as a means to continuously (re)construct human histories and mythologies'.

The issues that I'm going to stress today are the relationship with history and with tradition that I think is very important in Bo Bardi's work; the importance of human dignity - if there is one thing that is consistent in Lina's work I'd say this is the obvious one, the fact she always tried to value human dignity; and then the other aspect that's important is the commitment to the continuous reconstruction of human histories and mythologies. So, Lina is a cultural agent who believed that we need to be grounded and we need to have identity, and this identity relies on history and relies on myth. So, therefore, the element of the myth is not a superficial element - is not an added-on element - it's a fundamental element that humanists would be working with in disseminating a Brazilian culture.

Myth and ritual [12:13]

This is Lina when she was a child, and these are some very early watercolours - she was fourteen when she did those - and we can see from this early period her interest in the idea of mythology. Here in her relationship with fairy tales, which are part of a mythical universe which we perhaps encounter in our lives.



Another interest of Lina's was the idea of ritual, and idea of what we would perhaps call vernacular celebrations; processions, parties. This is her drawing of an Italian traditional party in 1929, and we will see how fifty years later this would still be part of her work and part of her interests. This is an event that she organised in the SESC Pompéia factory in Brazil, and meant she could interpret this particular mythology of the bull.

becomes more serious. This is a study that she did for a book illustration and shows the move from the loose children's drawings to something that is more professional, and at this time she also worked quite a lot in [...] architectural [and] decoration magazines. This was a magazine that she edited called [A - Attualità, Architettura, Abitazione, Arte] in the early 40's, and she illustrated a lot in the magazine and she wrote a lot.



So, she committed to some things from her childhood and she kept reworking them. She was very frivolous about the observation of mythology, and how important they were to help construct an identity. This is a later drawing, and here we see there are lots of mythological or mythical elements [...], it shows again the these themes remain in her mind.

Drawings [15:00]

Right after Lina graduated she moved to Milan [...] and she keeps drawing in the same style, with the same sensibility, but it



The last humanist [16:16]

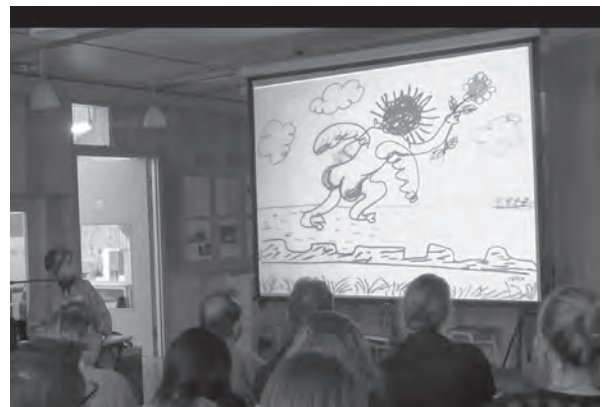
At this moment Lina was working a lot with Gio Ponti. Gio Ponti was already quite a famous architect in Milan, he was a founder of Domus magazine, which still exists, and Lina was the chief editor [...] for a year when she was living in Milan. The idea of [the] humanist actually comes from this period, and from Gio Ponti [who] called himself 'The Last Humanist'. Lina tells that his enemies would say 'yes, hopefully, the last humanist', so it's an idea or mode of working that was very questioned at that time.



The enemies of Gio Ponti were the so-called 'Avant-Garde'. There was Domus magazine and there was the Casabella magazine, and Casabella was the anti-humanists. Humanism was also associated with a kind of reactionary position, and there were also polemics there as well; Gio Ponti had his connections with the regime of Fascism. Lina would always speak as if she was against it, but she was very connected with people involved in this regime, so it was again a very controversial issue, which I don't want to talk about in detail.

These are some drawings of Gio Ponti. We see a very similar drawing style to Lina, and these themes of classicism and mythology. You see here the figure of the angel - Gio Ponti was a bit obsessed with angels - and Lina took forward this obsession. This is a later drawing by Lina of an angel, and she always adds this touch of humour. Perhaps an inspiration for her here is the baroque tradition, so this quite a baroque angel. I find this very interesting, and it's a lesson for us to learn - especially students - the fact of how persistent she was and, if

you like, repetitive. Lina was someone who did it almost to the point of absurdity; there are themes that recur over and over again, and I think this is the origin of her originality and also of her self-confidence.



This is the last drawing I'm going to show from Lina's [time] in Italy - Lina's Italian phase if you like - and I think it very much summarises her position and, as I

argue, formalist tradition. The drawing is called 'La Sala dell'Architetto / The Room of the Architect' and it shows a selection of buildings from all traditions. It would suggest that an architect should know history, should play with history; should have this library in his or her mind. This is something, as we shall see, that will be part of her architecture [...]. There is a desire to be a thief with all of this vocabulary, with all of this repertoire.

Stones [23:00]

She writes in the text 'Stones Against Diamonds' - which is the title of the book with the English translations of her texts; *'This is a prelude to calling for designers in Brazil to start working with these gemstones ... consider it an ethical demand for 'ornaments' ... Ornament has been a constant in human history, since ancient times ...'*.

I like this quote because Lina's oeuvre is not usually thought of as ornamental, especially being part of a so-called modernist tradition she should be talking against ornament. I think Lina was interested in ornament, [but] she had a different take on it.

I will show you the Morumbi House, which was her first architectural project ever built. This is a house for her and for Pietro, and now it is the building of the Lina Bo Bardi Foundation. As you see it's a pavilion - it's a version of various modernist pavilions that you will be familiar with, Mies van der Rohe etc, but a very particular, unique version.

The way she describes it I find very beautiful, she says that *'The problem*



was to create an environment that was 'physically' sheltered, but at the same time remained open to everything that is poetic and ethical, even the wildest of storms'.

So it's a house where one feels very exposed to this nature - which was much more exuberant than the nature she would find in Italy - and to be exposed to the weather. But why I'm interested in this quote is because of the relationship with this earlier drawing; a watercolour of 1928, and I think if we talk about this quote in relation to this watercolour they connect very well together. Obviously this watercolour is the image of someone who is in a very vulnerable situation, so I think what I'm suggesting here is that the house can be read as a biographical piece; a piece of architecture where Lina tells her story, or a version of her story, but tries to find an identity for herself in this new country through reinventing her history. So I'm really proposing the idea of an architectural building as a biographical piece.



This is another image of the house and, for me, one of the most remarkable elements in this house is the blue floor. It's the colour blue in general, but I think the blue tiled floor is very powerful. Here's another quote by Lina where I think there is a clue to this choice of blue and this choice of material. So, I'm talking about her collection of stones and how it started; *'While I was still very young I remember something momentous happened in the form of a chicken my mother was preparing for our Sunday roast. In its stomach was a collection of glass and pebbles worn smooth by water, in shades of green, pink, black, brown and white,*

and that was the start of my collection ... Then P M Bardi appeared on the horizon. An interview for Domus came with a lovely surprise - a necklace of dark coral cameos and gold that I had admired platonically on the Ponte Vecchio in Florence ... In 1940 we were invited to come to Brazil and P M Bardi, then my husband, gave me a collection of night-blue aquamarines ...'.



Unevenness

So I imagine that Lina was not aware of this, and I can even imagine that she would be quite angry with me that I am suggesting all of these very subjective connections, but I think it's important to review Lina's work using this more evocative - perhaps indirect - interpretation. And, of course, the house was the house of a collector - both Lina and Pietro are becoming collectors - where we find again reference to that 'Room of the Architect'. This is a house where you find objects that are from different cultures, that are from different periods in time, and that in each object there is a history or a myth embedded.



Freedom [29:39]

This is another house that she did in the same setting. The glass house was from 1951 and this is from 1958 [...] and we see that the style so-to-speak is not modernist at all - is nothing like a glass pavilion - and is not so far away from her previous design. What it suggests to me is that Lina was actually not that bothered about being modern and I think she wanted to work in various traditions, the vernacular being the one that she employed here. She was interested in reinterpreting and reinventing these traditions, very much like a humanist would do.



This is a drawing, very much in the same style as we've already seen. An assistant who worked with Lina said that [her] ultimate aim was to build her watercolours; this is what she wanted her assistants to help her with. So the architecture is in the watercolours as much as in the buildings. Again this is a provocation; why does she want to build the watercolours? What is the character of the watercolours?



This was another house [from the] same time that was demolished unfortunately. We see again something that is not modernist - it has all the references to strange volumes and forms - but shows how free she was to play with these references, to play with these traditions.



career, and something in which she was very successful. If you want to see evidence of this the best source is, I think, the film that was made in 1992 where they interview lots of builders who have worked with her, and they talk about their experience of working with her, which is very, very interesting.



Human hands [3 6 : 5 5]

I think it's important to understand the architecture of the MASP, which is one of the most iconic buildings that Lina made.



The image here of the building site is an interesting one, but I'm very intrigued about this image. This is again the building site of MASP, and what I see in this picture is the idea of the building site as a place for performance. It's a place of work, a place where something is happening not only to generate a product but as an activity in itself. But what I also find interesting in this image is that it has, for me, this nightmarish feel - it has a dark aspect to it. Here Lina is using this modernist language; this language she had an intuition would lead to arbitrariness, and that this arbitrariness was connected back to the lack of connection with the human hand. So what you see here is something that is almost on the cusp of being a romantic world, but it's also a little bit nightmarish.

This is MASP, the Museum of Art in São Paulo, and this is an image of the building site. Building sites were very important for Lina [because] she never had an office, she always worked at the building sites - she would move to the building sites and work there. She was extremely preoccupied with the wellbeing of the builders [and she was concerned] that the builders [should] enjoy themselves, and that they would do work that would be relevant for them - that would make sense for them. This is something she developed throughout her



I think Lina was very worried when she worked at MASP because it was a building site that had many risks for the builders. In all of her work she really considered this language, partially because she didn't want to put the workers at risk, and I think this is something that perhaps a lot of architects lost touch with, and is something that I think we can learn from her.

Presentness [40:20]

This is one of the watercolours that she made for MASP, and it's a classic Lina kind of childish drawing showing how suspending the MASP was a political, social gesture that generated a lot of space for people to go and play in, that is open and free etc. There is also, I think, this idea of pushing the technological limits; the space is massive, the void is massive, it's very hard to build and so on, and this drawing also expresses that. But then there is this other watercolour, which shows a suspended building, but it has a much darker feel, and I think it's something that Lina was very aware of in relation to the MASP.

Another thing that recurs in her work is that in all architecture there is an element of nature that the architecture reveals, so she talks about this at the Glass House and it comes back again here when you stand underneath the space at the MASP you can see the amazing garden.



This was the very controversial display that she invented for the MASP. The idea here is that all the art work is displayed not necessarily in chronological order, but more an arbitrary way, and that you wander through this art work as if you were in a garden. There is an idea of this immediate fruition - as if the work could approach you, could attack you. This was something that Lina was very hopeful about; this idea that the artwork should [not be tied] to the building, it shouldn't neutralise the work, it should actually maximise the potential of the work to shock you, to move you. And, of course, an aspect of this display is that you can see the back of the paintings which is something that we wouldn't normally do.





A quote, which I think more-or-less clarifies this; *'... you have to approach the past as a historical present, as something living, something that helps you avoid the pitfalls. In face of the historical present, our task is to forge a new present, a 'true' one. More than a deep specialist knowledge, this calls for an ability to understand the past historically, to determine what will work in the new situations that you're confronting today'*.

So it's this approach that the past is only worth its relationship with the current, and the relationship with it needs to be direct rather than neutralised by our own specialism, or a more cultured approach. So I think that what Lina is saying is that the past needs to be activated, and in this image she's literally activating the past.

Dr Ana Araujo

These are extracts from the lecture 'Lina Bo Bardi: architetto umanisata (1914-1992)' by Dr Ana Araujo at the Cass School of Architecture on 20th February 2014.

Dr Ana Araujo is a Brazilian architect based in London. She teaches at the Architectural Association. Ana has recently curated the exhibition 'Lina and Gio: the last humanists' and co-edited the book 'Stones Against Diamonds', the first ever anthology of Lina Bo Bardi's writings to be published in English. Ana is also a practising architect, and a researcher on Latin American Design and Culture.

The lecture has been transcribed and edited by East.



About Lina Bo Bardi



About modern architecture [02:00]

I think its time for the architectural profession [...] to look again at the modern movement. The modern movement was denigrated in the views of neo-liberalism; it was said that 'neo-conservatives consistently blame the failures of late capitalism on the experiments of modernism'.

Now, there was a reason for modernism; the root of modern architecture was an attempt to create a democratic condition. We can also think that beaux art classicism that preceded it - which was the major European style - was full of representations of social commerce, so the abstract choice - the choice of modernism, the choice of abstraction - was in part a way of abolishing those representations, and making an architecture that attended to social issues.

I know that there has long been a complaint that modern architecture lacked accessibility to the majority of people, and that is something that I engage with in my own practice - particularly in an essay that I wrote called 'Abstraction and Familiarity'. But today I want to show you [...] Lina Bo Bardi's architecture, that really used abstract motives with full confidence and made it communicative and socially rewarding. So now I'll talk about Lina Bo Bardi from that perspective.

Lina was in Italy during the end of the Second World War, [she] was very young and was, to an extent, engaged with partisans, and then left for Brazil. Brazil at the time was very susceptible to modernism. It was a society with a leadership of a kind of left-wing orientation, and of course Lina was wealthy and her husband was influential, so we shouldn't forget that.

I'll show two projects by Lina Bo Bardi in defence of the points that I opened this lecture with; that social architecture and an abstract architecture can be communicative and have a social relevance.

About MASP [05:00]

This is the front cover of a very beautiful A5 book which is published by the Lina Bo Bardi Foundation. It has beautiful drawings and very nice writing, and shows Lina Bo Bardi in the the Museum of Modern Art in São Paulo with a mock-up of a support for the paintings that she was envisaging, and the back cover shows the ground floor of the MASP - a drawing by Lina Bo Bardi - and her drawings really are wonderful.



The museum is on a ridiculously big structure; these columns and it spans this entire way. This level is a kind of piazza, and then above it is the exhibition space. The reason for that - although I'm sure there were other structures - is that there's a tunnel underneath there, but I think it's also a piece of bravura engineering which was common in Brazil at the time.



This is an original photograph of the gallery as it was installed. The paintings were on glass panels so you could see each painting in relation to the other - and the collection is extremely good, I was there and there are some fantastic paintings, there was obviously a serious number of collections donated - but what's striking is this art collection where you see every piece in relation to every other piece; you see the paintings and the people looking into the city. So there's a fairly large statement of wholeness - of the value of the majority of people - and that's very



different from the times we're now in which are more concerned with the individual or celebrity. So for me that's a fundamental statement.

In some of the other areas you can see the scale, and simplicity and directness of this architecture - and it's very common, if you look at the School of Architecture in São Paulo.



What's really interesting for me is how this building works as an object. When I first saw photographs of it I was unimpressed, but it's not an architecture that's meant to be photographed it's an architecture that's made to be experienced.



What strikes me with Lina Bo Bardi - and also with Siza - is this ability which they probably don't even know they possess, to make a building that can handle things happening around it, even after it's built. The relationship to these towers, and the way this very simple statement is given drama by the line of the valley - the fact that because of the tunnel there would always be sky behind the building - and so

she knew that the building could maintain its freshness and be accommodating of change.

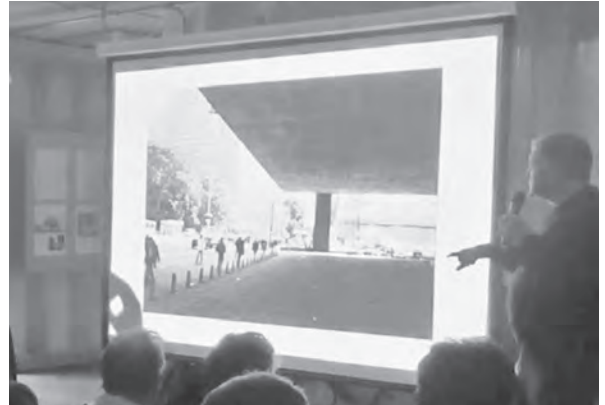


Here we have a view from the park. It's a building that is capable of handling things that occur around it. This is one of the aspects of material objects that interests me - gives me heart - which is that they are open to interpretation by people, and if they're very good they're both very precise and and very credible architectural statements - and very open and ambiguous.

Unevenness



Lina Bo Bardi was an architect who had a very capable eye. Most of us can see things, can notice them, but it's very rare to have an eye this good and an ability that similar to a painter or a sculptor to make visual connections almost automatically.



This is the piazza, and you'd think that it's a classic failure - the kind of failure we're led to believe only modernism can achieve. Lina's drawing may seem optimistic - maybe she was dreaming - not really; she knew what would happen, and this does happen.



I wouldn't say the detailing is rudimentary because she wants it that way.

This is what it's like now; the big space divided. I think it was very controversial, it's not very good - not as good as the original.



This gallery space is actually rather too large - I think the gesture only works with the paintings on glass.



About SESC [17:16]



The second project is also in São Paulo, it's an organisation called SESC - which is particular to Brazil - it's a social organisation supported by the government. The SESC that I'm showing has art spaces, workshops and even has a dentist, so it's a curious and rather interesting combination of things.

I think it was originally a tile factory. One comes in from the street and there is the yard space. Over here there's a café



and the tables are very small; people sit next to each other [which] has a role in the social function I suppose.



For me this is the most interesting part; this is a library and it has this really interesting furniture. People are taught and engaged.

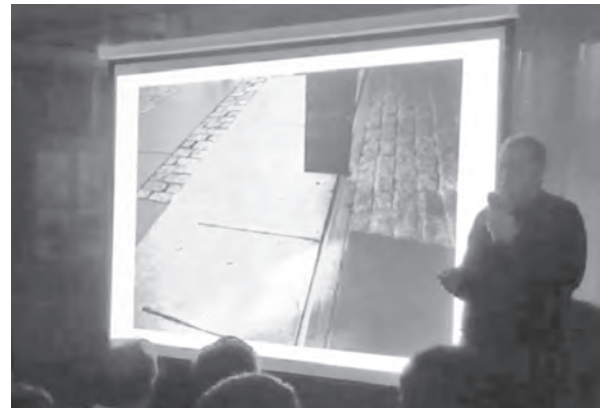
Unevenness



The cinema entrance is also a point where you can come in. Between the street - the



outside - and the foyer there's just this mesh screen. There's always this very beautiful sense of being part of the city.



Bo Bardi always worked on this building on site, within the existing framework, and there are some surprises because of that. There are some really great bits like these stones; it's the kind of thing that might occur through drawings, but occurs more easily by someone seeing what the light condition is, designing in this way; picking out little bits and making them special.





In some of the spaces there are these walled areas for workshops where people are taught to make things. And, there are some spaces that might seem redundant, but which are used in a particular way.



There are details here that are meaningful. This is an issue which I talk to my students about; when you detail a project there's an opportunity to continue the language of the architecture - sometimes in a consistent way and some times in a different way - it's small, sometimes incidental, but all adds-up.



This is the series of sports halls - small and large - with a rather interesting and beautiful façade. There are those windows, and there is this datum in the cement of the façade. In front of it there's a boardwalk - a beach - where people sunbath, and there's this very large shower. Everything is very copious and rewarding even though you're in the city.



When you cross over, again, you find yourself in São Paulo, and you have this powerful experience that you're still a citizen - you're still a part of society.



Tony Fretton

These are extracts from the lecture 'About Lina Bo Bardi' by Tony Fretton at the Cass School of Architecture on 12th March 2014.

Tony Fretton is an architect and founder of Tony Fretton Architects in London. He teaches Diploma Unit 2 at the Cass School of Architecture.

A black and white halftone photograph of a person sitting at a table in a cafe, looking out at a street with parked cars and buildings. The person is seen from the back, sitting on a chair at a table. The background shows a street with several cars parked along the side and buildings with windows. The overall image has a grainy, dotted texture characteristic of halftone printing.

I d e a s



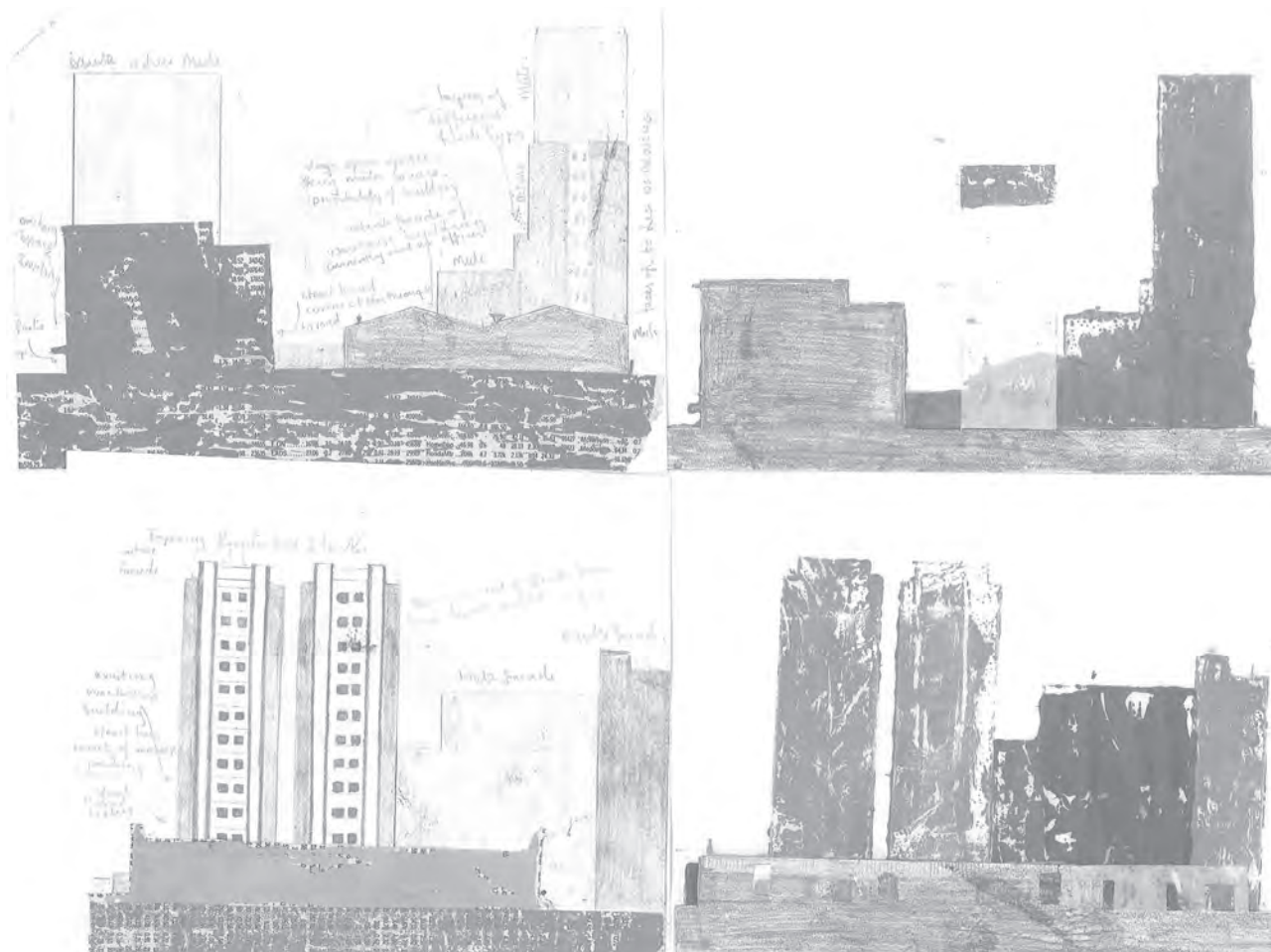
The unit advocates an architecture of ideas.

Drawings and models are used to explore, test and communicate these ideas. We are interested in how particular methods of representation and ways of working can be specific to an idea, and the role of productivity in refining, and often explaining or altering the trajectory of, an architectural project.

Whilst each project is instigated by individual interests and responses to a place a number of common themes have been explored across the unit.

Collectively the unit's work has engaged in the notions of *proximity and distance*, the dialogue between *strategy and detail* and their influence on developing an architectural *tectonic*, the role of *scenography and composition* in giving shape to places, and the possibility of *generosity* in architecture.

Proximities



Unevenness

Careful judgement

Megan McKeever

Careful judgement based on proportion, scale, tectonics and variety played a role in determining redundant and special existing moments. Radical and thoughtful intervention and partial demolition is proposed to reveal a variety of facades able to take on a public duty to frame and engage with the surrounding city.

A section through an empty car park plot shows a proposed tower with a public top of a similar nature to the existing warehouse base.



The object in the city
Gemma Holland



The vast quantity of tall buildings in São Paulo is often overwhelming and due to the homogeneity of the architectural expression, way-finding is a challenge. This repetitive, unvaried language leads to the use of distinctive tall buildings as points of orientation allowing you to navigate through the city.

This montage explored how a collection of towers as distinctive 'objects' within the city landscape can act as moments of clarity, and thus way-finding devices.

Metabolism
Ricky Kwok



Axonometric of proposal in city block. The proposal sat within its site as a 'metabolism' of its urban condition, reinterpreting and subverting conventions and rules.

Although interpreting the site in a different and subversive way, the new developments were intended to have a certain anonymity and the ground to be seen as public realm. The four towers were proposed with programmes that interrelate as elements of a community. A tower for work, a tower for sleep, a tower for community and the utilitarian parking tower.

Parking Tower

A tower with a utilitarian purpose. Housing 80 parking bays in a slim tower using a parking lift system, common to São Paulo. Highly efficient, liberating ground space from parking lots. The concrete frame of the structure is built with enough floor to ceiling height to accommodate future changes in use. 9 floors.

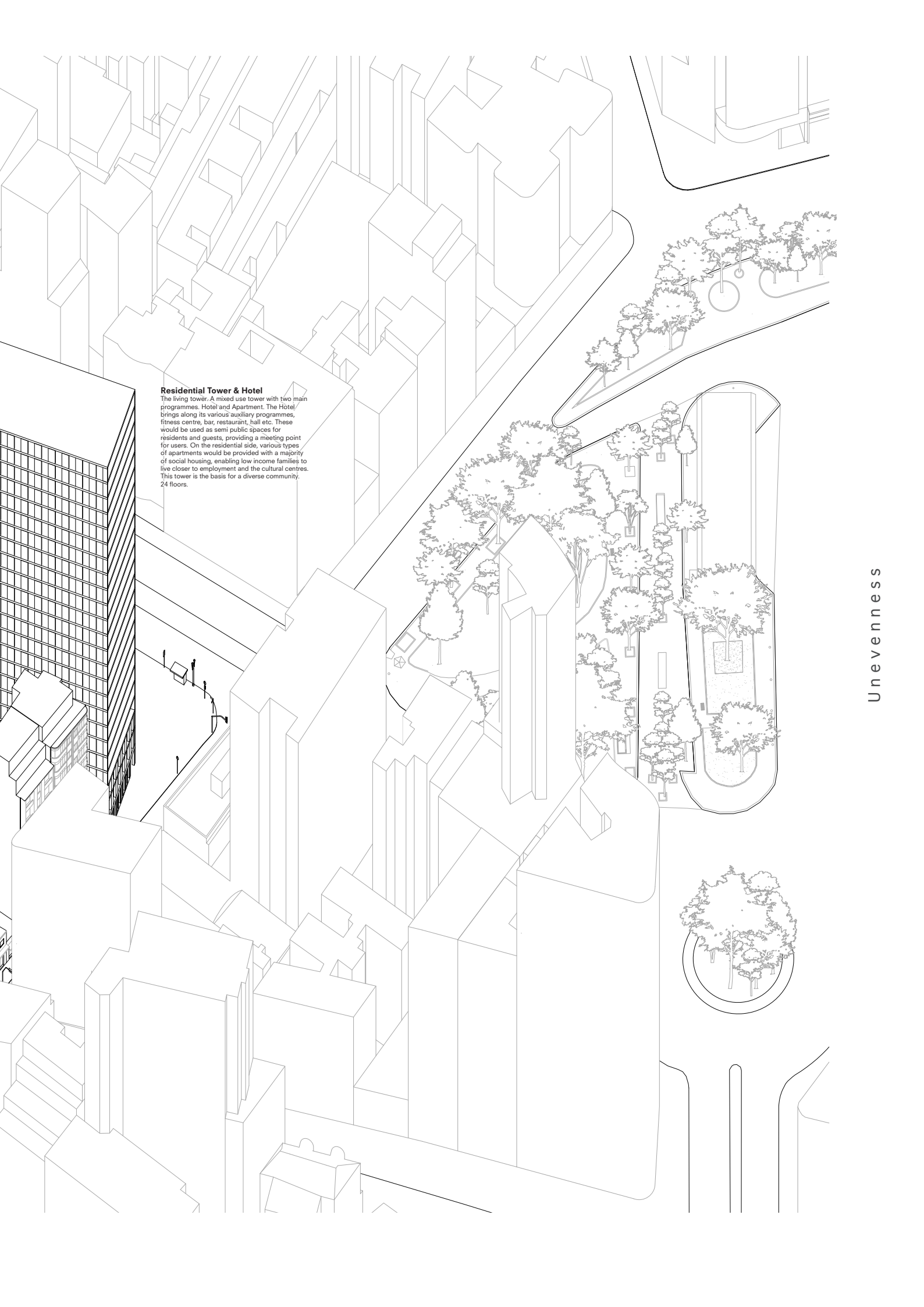
Community Tower

A small tower with a variety of flexible rooms, large and small. It is intended as a shared resource for buildings in the area, holding classes, events and exhibitions. Potentially it would host programmes in collaboration with NGOs such as the Instituto Ayrton Senna to improve local state of education, particularly those in low income families. 6 floors.

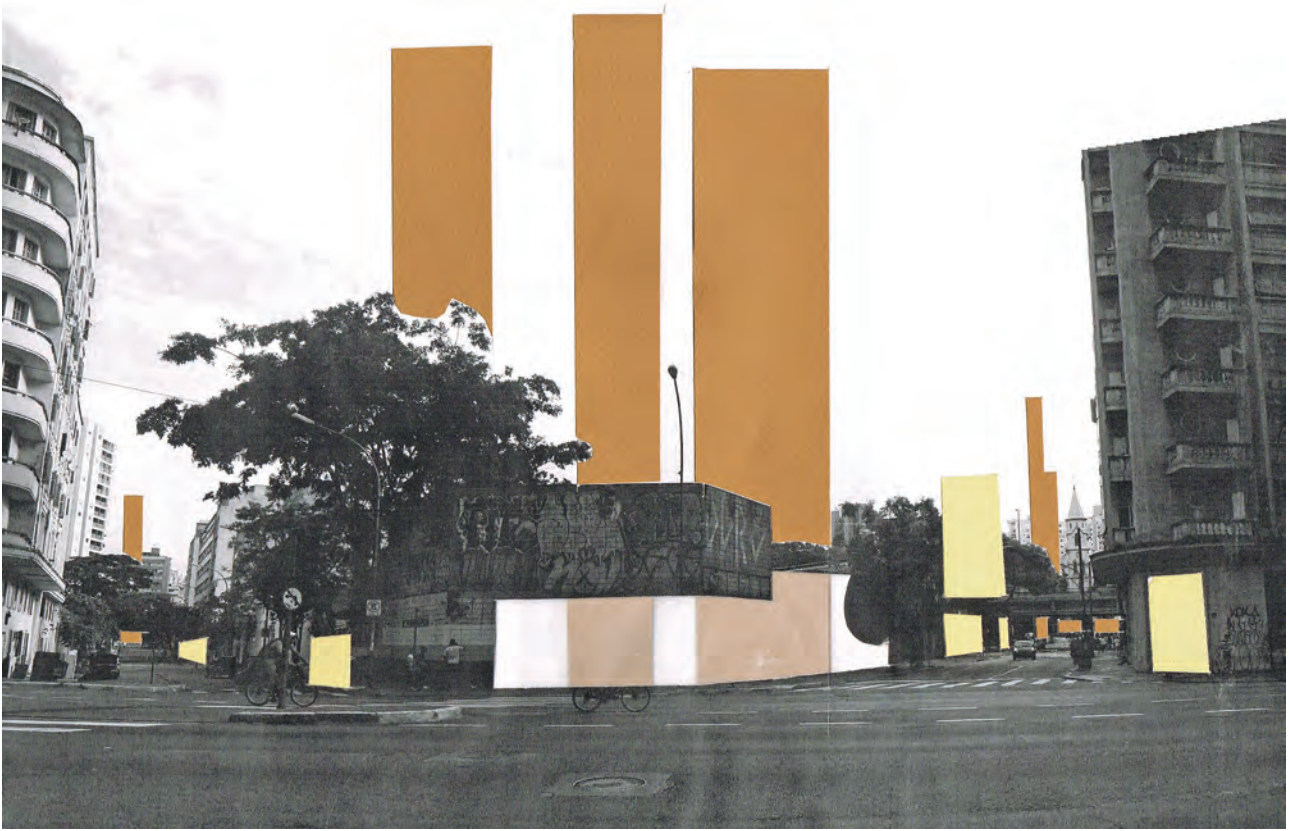
Commerce Tower

The work tower. A tower with programme focused on commerce and production. Open floor plates allow a variety of work-spaces to be established, from offices spaces to ateliers and studios. The ground level also hosts a significant amount of retail programmes. Its unique feature is a flank wall towards a street, as a device to promote activity within the block by placing the active façades facing the block interior. 8 floors.





Residential Tower & Hotel
The living tower. A mixed use tower with two main programmes. Hotel and Apartment. The Hotel brings along its various auxiliary programmes, fitness centre, bar, restaurant, hall etc. These would be used as semi public spaces for residents and guests, providing a meeting point for users. On the residential side, various types of apartments would be provided with a majority of social housing, enabling low income families to live closer to employment and the cultural centres. This tower is the basis for a diverse community. 24 floors.



Moments in the city
Gemma Holland



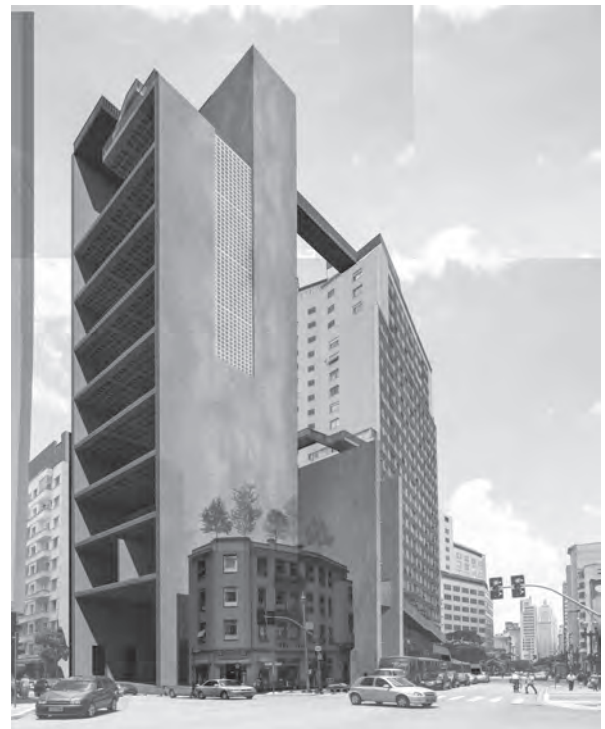
This propositional collage draws on observations made about the distinction between the tower (object) and ground (canopy) in São Paulo, proposing a collection of moments in the city landscape.

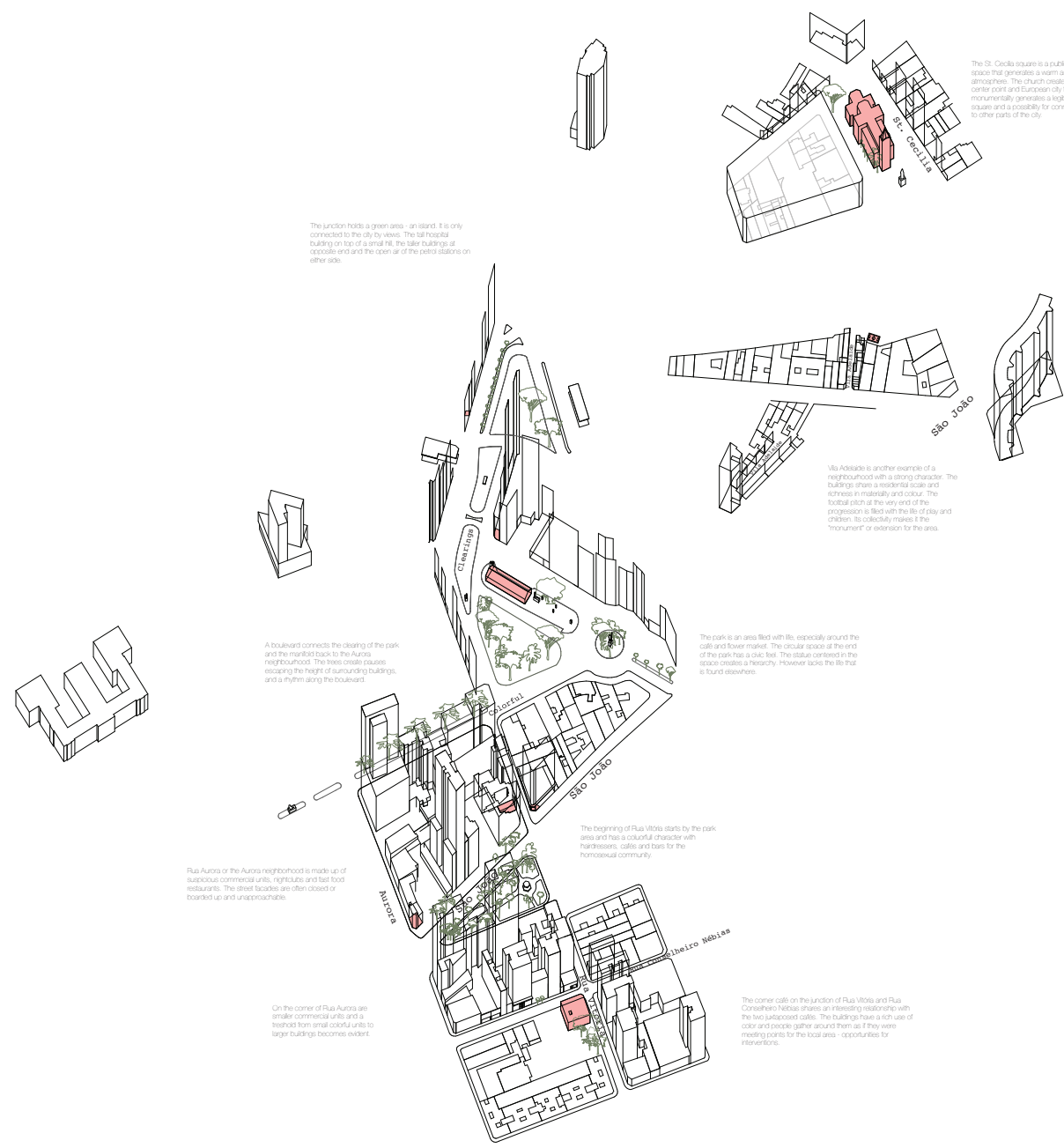
The collection of proposed objects are distinctive from a distance, creating moments where the city becomes more legible. The canopy at ground floor connects the Objects providing an extension to the shaded ground floor where the city residents were observed to congregate and socialise.

Revealing
Philip Wright



Two sides of the block are presented on arrival. The red-orange colonial building preserves its place on the corner; the historic fragment celebrating the importance of the junction to the block. A new sheer wall is located beside in dialogue with the city's observed metabolism.





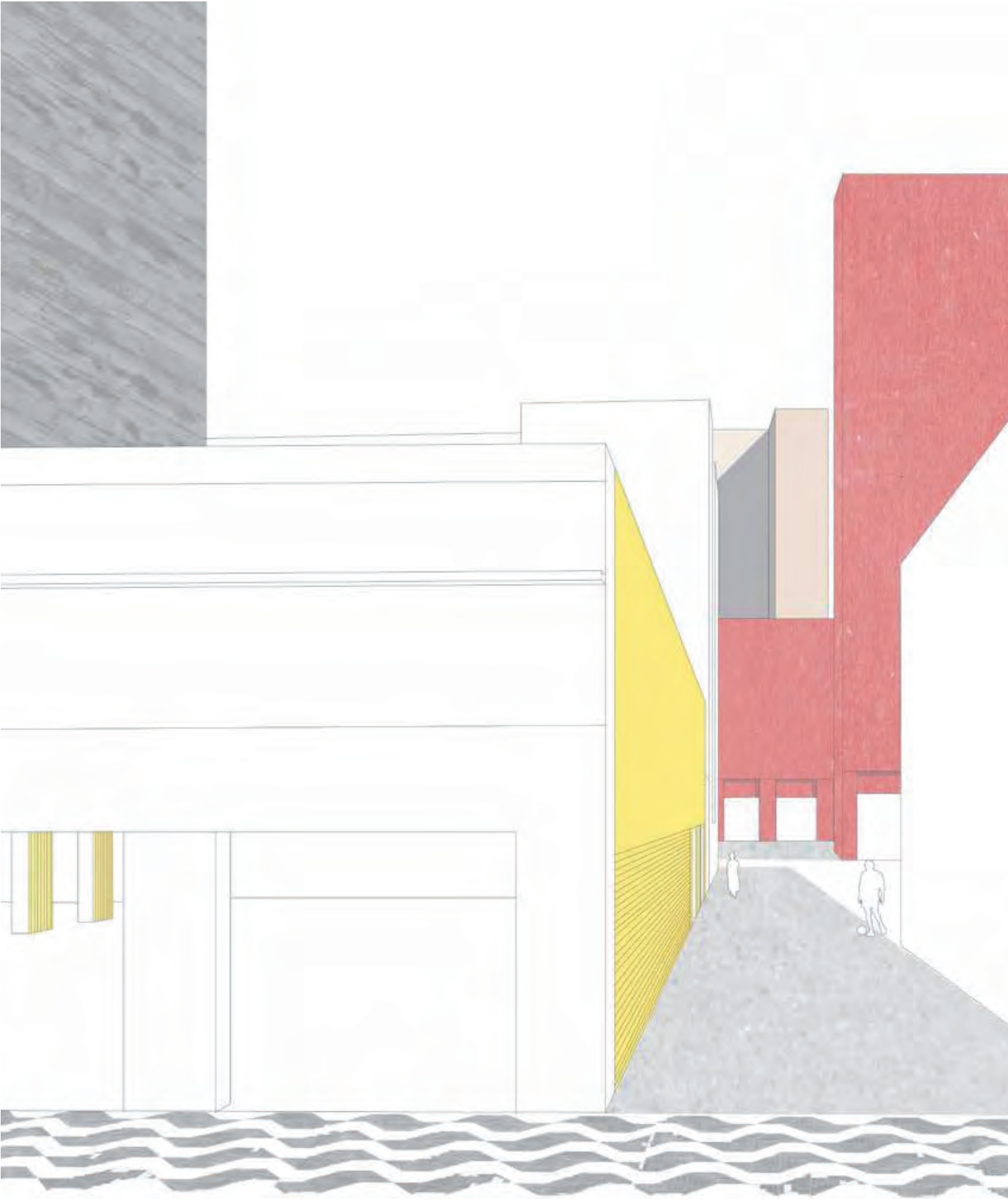
Monuments
Lise Vabo

Focusing in greater detail of the Avenida São João/Rua Aurora and the Rua Vitória neighbourhoods this drawing shows the different neighbourhoods and their relationship to each other.

The pink buildings suggest different monuments acting as, or having the potential to act as, extensions of existing neighborhoods.

Characteristic for all monuments is an active streetfront, as well as a richness in colour and/or materiality.

Unevenness



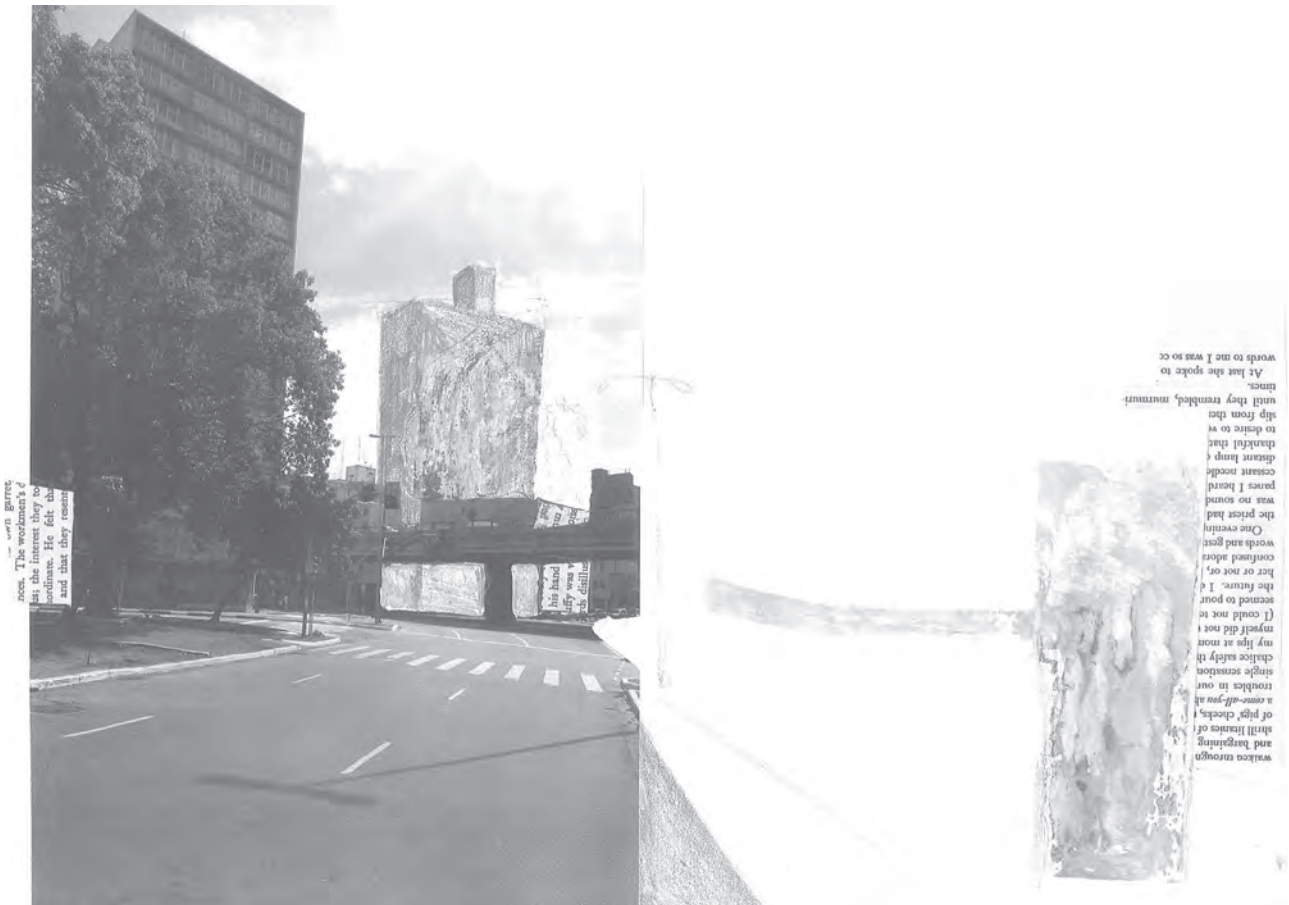


Scenography

Lise Vabo

The relationship between new towers and the yard space was explored between perspective and plan, allowing one to inform the other.

The idea of scenography was used to 'plan' the project from the level of everyday experience. Ideas about how the area would be seen and used informed the location, orientation and role of buildings, grounds, colour and texture.



Siting

Megan McKeever



Early collage exploring how to site towers in advance of having established a brief or programme. These speculations exposed intuitions and how and where towers might best contribute to this part of city spatially. The use of collage allowed for early judgements to be made about the proximity and relationship between things.

Motif

Jasmine Low



The pavillion in the landscape shares formal and spatial motifs with the public space at the top of the tower, communicating that both spaces are public. The new clearing in the park allows for views into the base of the tower from around the landscape.



Give and take
Sarah Cook

Each new building and its connected existing territory was understood as the site. In opposition to the predominating trend of 'condominio' development (where communal activity is internalised and privatised), communal facilities were proposed to be provided by the surrounding territory. The new buildings kept private communal areas to a minimum encouraging inhabitants out into the city.

The building and territory was linked not only conceptually, spatially and programmatically but also through investment. By reducing the amount of capital needed to invest in communal private facilities, capital could be made available to invest in and ameliorate the wider territory (understood as part of the development). This investment could engage with a whole range of scales of intervention and directly benefit the inhabitants of the new development as well as the wider city. The proposals for investment in the wider context were considered as a first wave of investments and to be reviewed as the area evolved. →

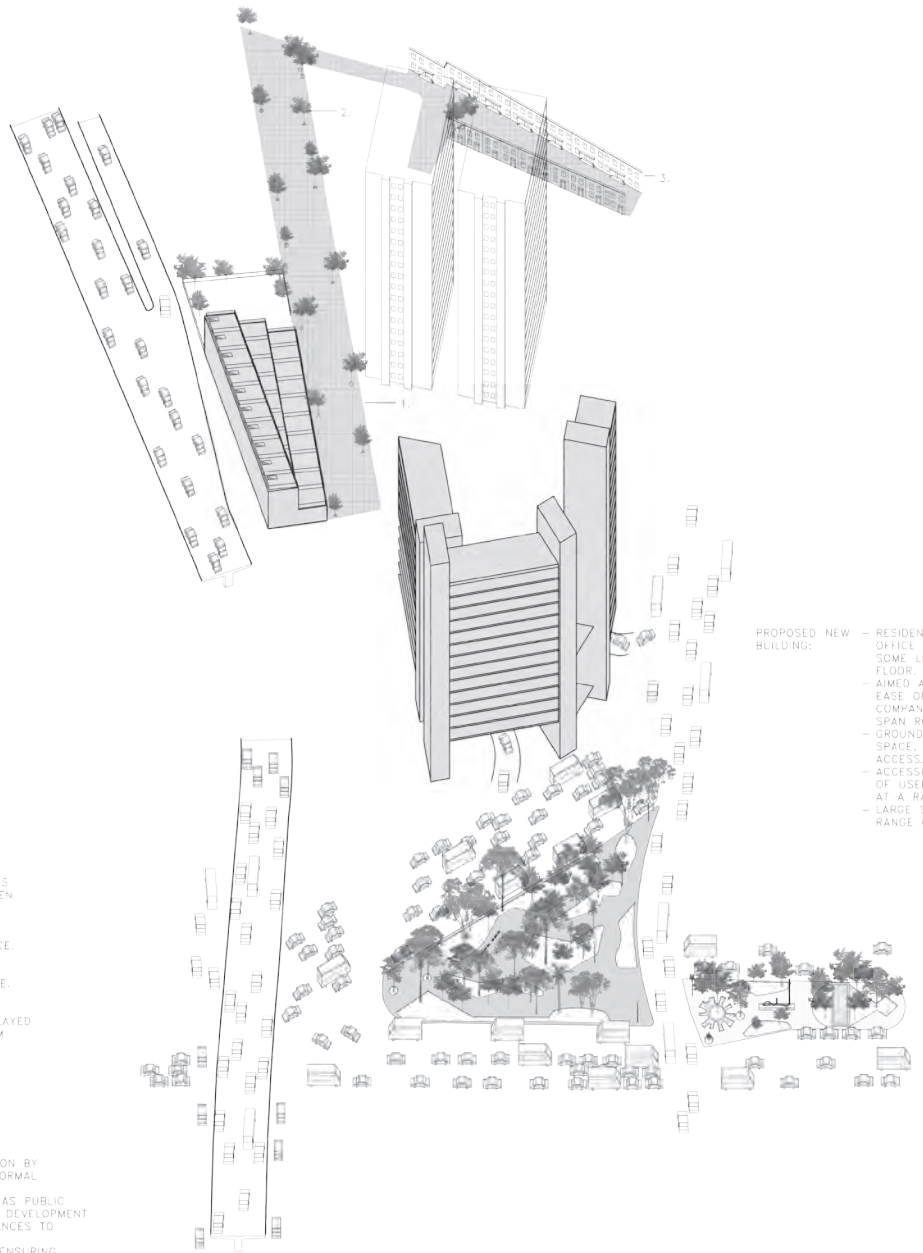
EXISTING VALUABLE PHENOMENA: - CLASH OF SCALES. - LOW RISE QUIET RESIDENTIAL 'LOCAL' STREET SET AGAINST - HUGE TOWERS AND MOTORWAY OF THE METROPOLIS. - EVIDENT STRONG COMMUNITY ACTIVITY.

PROPOSED NEW BUILDING: - RESIDENTIAL MAISONNETTES - AIMED AT THOSE INTERESTED IN LONG-TERM RESIDENCY (FAMILIES) - STEPPED FORM ORIENTAES AWAY FROM MOTORWAY TOWARDS QUIET STREET - CUT IN BLOCK FOR GARDEN EXAGGERATES CONTRAST OF LOCAL FINE GRAIN STREET WITH BIGNESS OF THE MOTORWAY. - MOMENTS WHERE ROOMS/ TERRACES ALLOWS VIEW OF MOTORWAY AND QUIET STREET, CELEBRATING THE JUXTAPOSITION

EXISTING VALUABLE PHENOMENA: -DRAMATIC ROADSCAPE, SINUOUS ROADNETWORK WEAVES BETWEEN BLOCKS AND LEVELS. -GOOD VEHICULAR AND PUBLIC TRANSPORT ACCESS. -HUGE EXPANSE OF 'OPEN SPACE' CENTRAL RESERVATIONS OFFER ESTABLISHED PLANTED OPEN SPACES IN DENSE CITY CENTRE. -WIDE VARIETY OF ACTIVITIES HAPPENING ON CENTRAL RESERVATIONS FROM MUSIC PLAYED AGAINST TREE TRUNKS TO GYM EQUIPMENT.

PROPOSED INVESTMENT IN WIDER TERRITORY: 1. GIVE DIGNITY TO ROAD CONDITION BY CELEBRATING ITS IMPRESSIVE FORMAL QUALITIES IN DEVELOPMENT. 2. TREAT CENTRAL RESERVATIONS AS PUBLIC 'FORE COURTS' OR GARDENS OF DEVELOPMENT BY ANGLING PEDESTRIAN ENTRANCES TO CROSSINGS. 3. MAINTAIN PEDESTRIAN ROUTES ENSURING PEDESTRIAN ACCESS DOESN'T SUFFER DUE TO CAR ACCESSIBILITY OF DEVELOPMENT. 4. INTRODUCE LIGHTING ON CENTRAL RESERVATIONS TO IMPROVE NIGHTTIME SAFETY AND USAGE AND IMPROVE PEDESTRIAN CONNECTIVITY OF DEVELOPMENT. 5. MAINTAIN SURROUNDING ROAD ACCESS, PRIMARILY ENSURING GOOD ROAD SIGNAGE/ ACCESSIBILITY TO SITE.

PROPOSED INVESTMENT IN WIDER TERRITORY: 1. SHARED SURFACE TO REDUCE DOMINANCE OF CARS USING QUIET STREET AS CUT THROUGH 2. MORE PLANTING FOR SHADE 3. SMALLER SCALE BUILDINGS WITH LONG-TERM RESIDENTS PROTECTED AGAINST IMMINENT REDEVELOPMENT



PROPOSED NEW BUILDING: - RESIDENTIAL APARTMENTS - OFFICE TOWER ON SOME LIGHT INDUSTRIAL FLOOR. - AIMED AT THOSE COMPANIES WHO EASE OF ACCESS SPAN ROBUST SPACE, THE RES ACCESS. - ACCESSIBILITY OF USERS WHO AT A RANGE OF LARGE SPAN RANGE OF PUBLIC

PROPOSED BUILDING

APARTMENTS, HOTEL AND
COMPLEX WITH CAR PARK,
INDUSTRIAL UNITS AT GROUND

WHO BENEFIT FROM
(MIDDLE INCOME) AND
BENEFIT FROM LARGE
SPACES.

HAS MINIMISED FOYER
SPACE IS GIVEN OVER TO CAR

ENCOURAGES A WIDE RANGE
OF THEN USE CITY AMENITIES
AT TIMES.
SPACES CAN BE USED FOR A
WIDE RANGE OF ACTIVITIES.

EXISTING VALUABLE PHENOMENA:

- FORMAL EUROPEAN STYLE BOULEVARD.
- ESTABLISHED TREES.
- ORNATE CAST IRON LAMPS.
- UNIFORMITY OF STYLE CONTAINED IN ONE STREET, VERY DIFFERENT FROM MIXTURE OF STYLES SEEN ELSEWHERE
- MARBLE ART DECO GROUND FLOOR FACADES

PROPOSED NEW BUILDING:

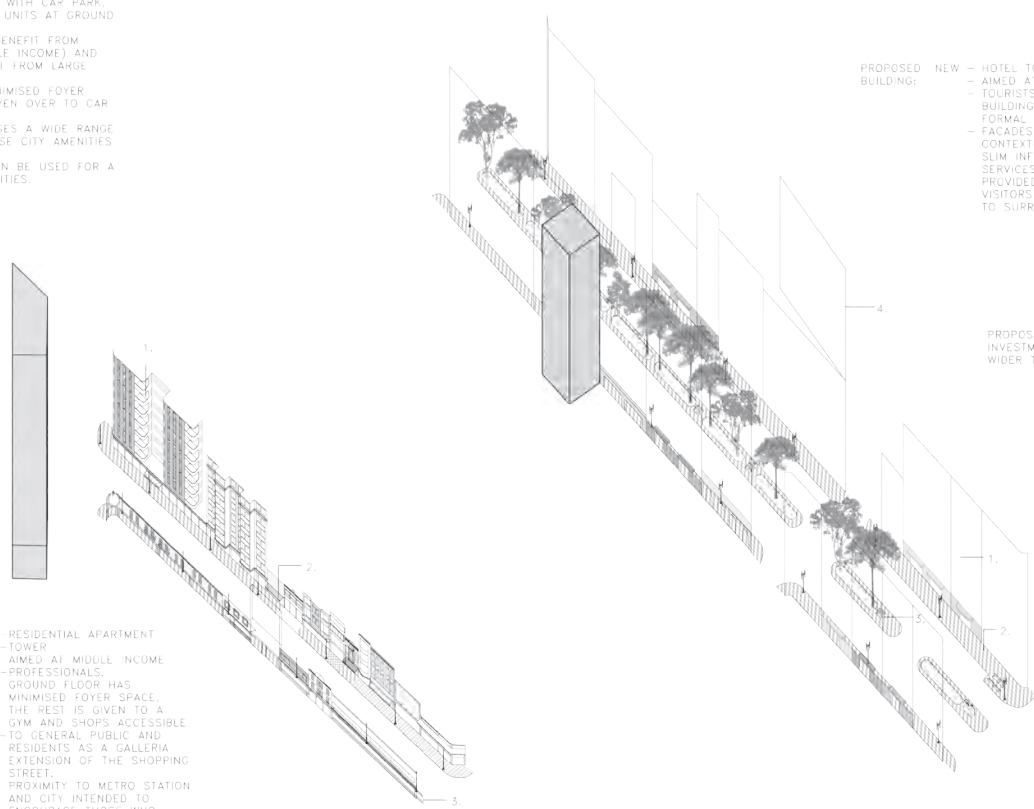
- HOTEL TOWER
- AIMED AT MIDDLE INCOME TOURISTS.
- BUILDING "COMPLETES" FORMAL BOULEVARD
- FACADES, IS RESPECTFUL TO CONTEXTUAL STYLE
- SLIM INFILL RESTRICTS SERVICES THAT CAN BE PROVIDED ON SITE, INSTEAD VISITORS ARE ENCOURAGED TO SURROUNDING AMENITIES.

PROPOSED INVESTMENT IN WIDER TERRITORY:

1. CONTRIBUTE TO COMPLETION OF COMPLETE BOULEVARD CHARACTER
2. CLEAN UP FACADES, IN PARTICULAR GROUND FLOOR (MANY MARBLE CLAD) ENTRANCES
3. PROVIDE MORE SEATING.
4. IDENTIFY BUILDINGS ON STREET THAT SHOULD BE REDEVELOPED PARAMETERS FOR FUTURE DEVELOPMENT

PROPOSED NEW RESIDENTIAL APARTMENT

- TOWER
- AIMED AT MIDDLE INCOME PROFESSIONALS.
- GROUND FLOOR HAS MINIMISED FOYER SPACE, THE REST IS GIVEN TO A GYM AND SHOPS ACCESSIBLE TO GENERAL PUBLIC AND RESIDENTS AS A GALLERIA EXTENSION OF THE SHOPPING STREET.
- PROXIMITY TO METRO STATION AND CITY INTENDED TO ENCOURAGE THOSE WHO WILL USE CITY AMENITIES AT EVENINGS AND WEEKENDS.



Edges

Unevenness



Rua Vitória Nadine Coetzee

The elevation on Rua Vitória ties into the distinct yet loose character of a back street in downtown. The modest yet open facade and orientation of entrances aims to encourage inhabitants of these offices to

engage in the street life and yard space behind. The choice of cladding materials has similarities to that which existed before, however it is given more permanence and continuity through the treatment of the ground and structure that supports it.



Unevenness

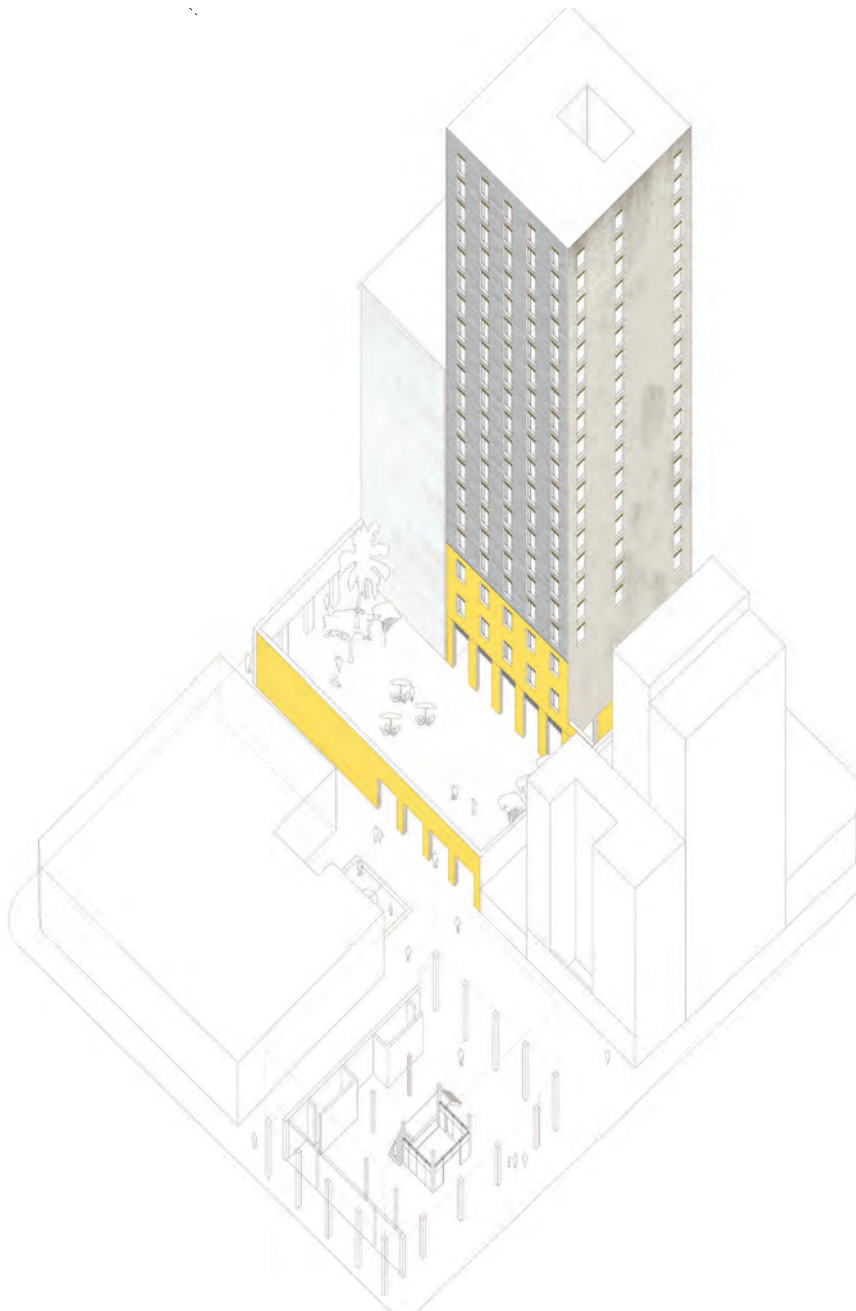
Proximity

Ricky Kwok

View looking out of an apartment in the residential tower. This collage depicts a situation where the adjacent building comes into close proximity.

The proximity of surrounding buildings presents a layered spatial situation. This

problematic condition is embraced and the characteristic is carried through into the apartment space, with the concrete screens acting as personal flank walls. The full height glazing presents walls to be read as free standing planes, enhancing the idea of layered space.



Depth

Lise Vabo

The residential tower is en-caged by the existing structure of a warehouse. The different planes of the existing structure and lower floors of the tower are tiled with yellow terracotta tiles. They create a rich materiality on ground

level, increasing the contrast between the monotone upper floors and the active ground floor. In addition revealing the contrast of the depth of the structure.

The existing structure on the ground floor holds a garden space for recreation, gym equipment and possible café facilities.



Opening
Ricky Kwok

Paper collage; imagining the potential of flank walls and block corners in opening the block.



A journey into the block

Megan McKeever



Engaging with the the homogenous nature of the urban block in São Paulo, revealing an existing inner world of development and defining a series of public spaces which prioritise the pedestrian. Provoked by the imposing presence of highways and multi-lane roads, the proposal offers an escape and a chance to discover, at ease, a scattered layer of amenities wrapped within the existing, revealed fabric of colonial houses and warehouse developments.

Analysis of existing uses inform the proposal for a public language centre, in connection with the existing Academia Paulista de Letras. In addition, the proposal offers a yard space and communal gardens which seeks to strengthen existing workshop and residential dwelling forming a relationship with a new residential community, speculating upon an alternative urbanism for the area.

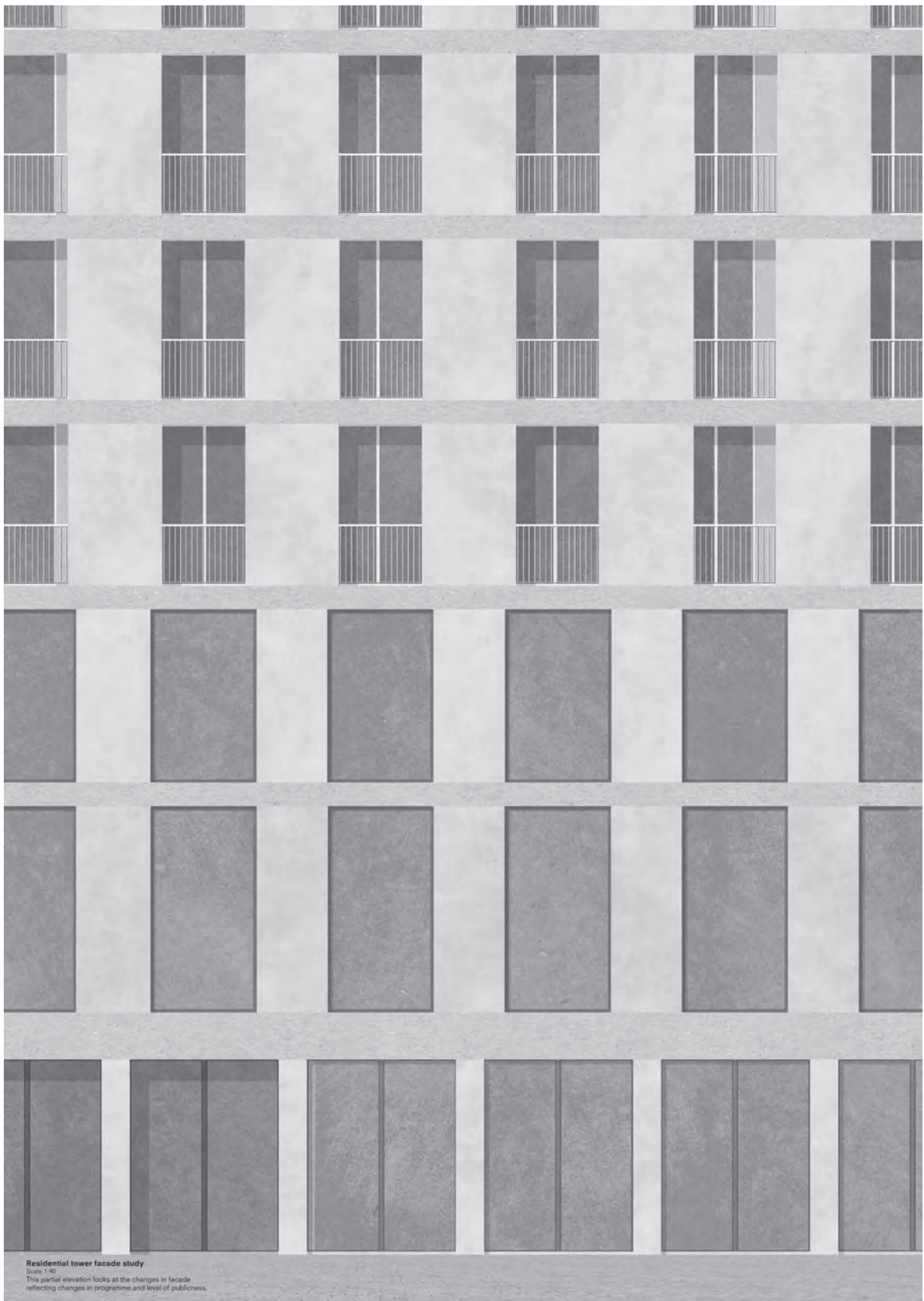
Facade study

Ricky Kwok



This partial elevation looks at changes in facade, reflecting programme and level of publicness at different levels.

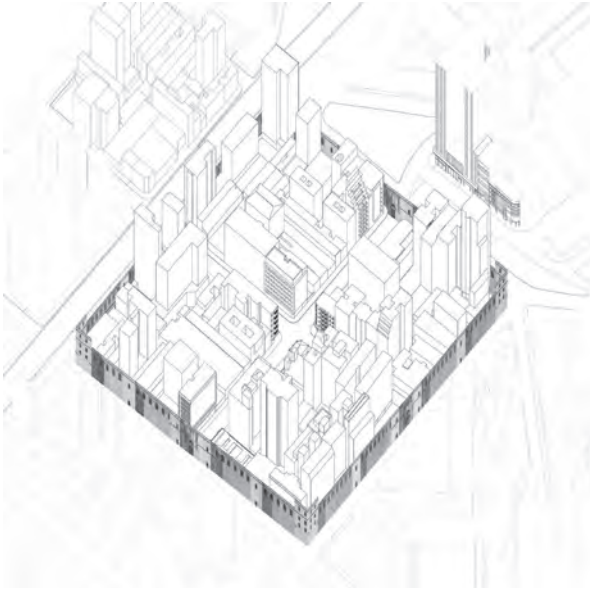
The crop of this drawing is representative of how the building elevations would be typically perceived in the narrow spaces in between. The nature of the site fragments the experience of the buildings within the block.



Residential tower facade study
Scale 1:40
This partial elevation looks at the changes in facade reflecting changes in programme and level of publicness.

Unevenness

Tectonics



Unevenness

Palace walls

Wing-Shun Tang



Superimposing Diocletian Palace walls in Split onto the existing São Paulo blocks. Looking into creating a habitable wall using a mixture of existing and proposed building.

The wall wraps the four blocks, entrances will be created through designated gate points much like the palace typology.

Delicate and massive

Nadine Coetzee



This sketch sets up an ambiguous relationship between delicate and massive - the rough treatment of the external adorns seemingly thin walls, yet somehow alludes to a depth of construction. However the kerb that runs along the corner suggests a vulnerability to this rough exterior.

The openings and the off-the-peg elements in the sketch present a domestic scale yet the treatment of the exterior and its apparent 'bigness' give a sense of something much more monumental.

The rough exterior trails in through the doorway as an invitation inside, the building seems to be cloaked in a camouflage of pavement. The glimpses of a smooth interior suggest something of the spaces within.

The banal is dramatised by the contradictory relationship between the monumental and domestic. This sets up the basis for a language able to define a new type of space for São Paulo.



Unevenness

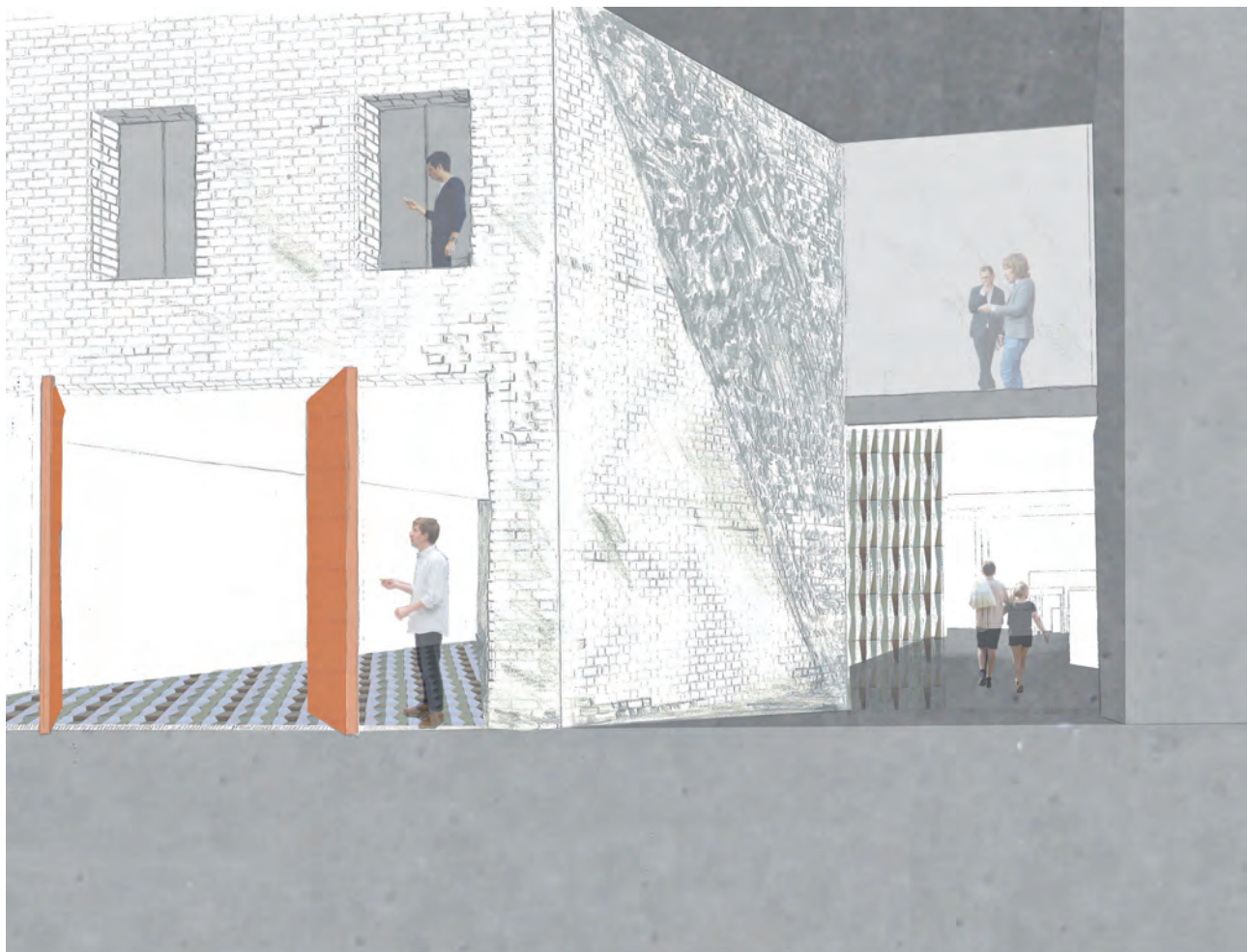


Textured ground
Nadine Coetzee

The textured ground surfaces mark common surfaces across the four projects.

This plan displays this strategy at a city

scale - however in each proposal this texture manifests in a different way to merge or contrast with existing ground textures.

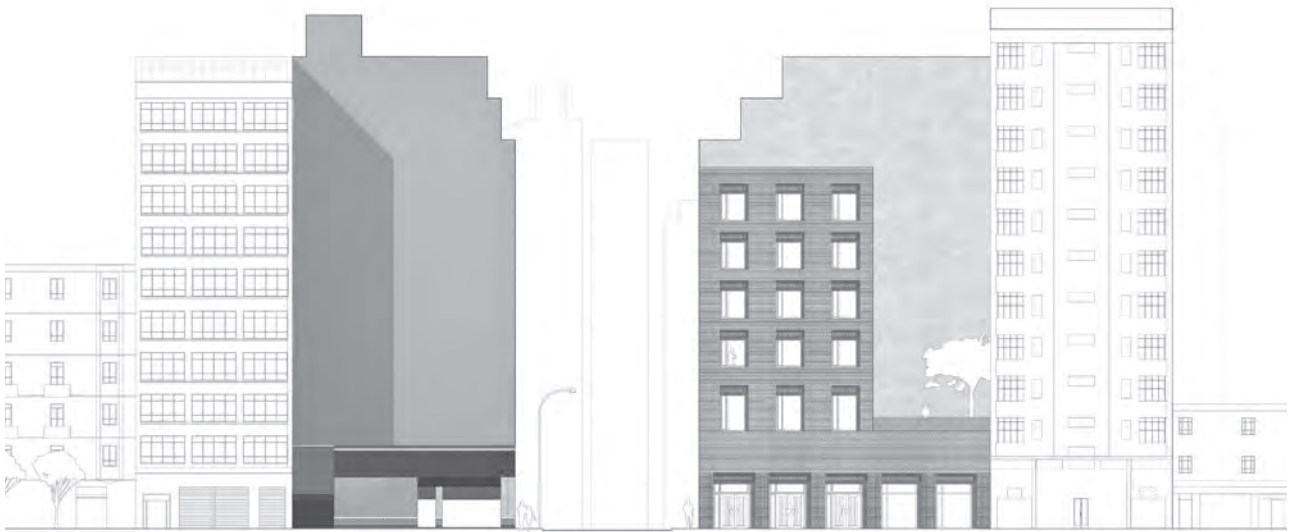


Connecting
Megan McKeever

Mixed media image: collage, pencil and photoshop, and plaster cast model.

A private concrete bridge connects to the existing Academia Paulista de Letras on the

second floor allowing the passage of books and goods in a controlled environment. The passing under the bridge marks a threshold between the communal gardens and the civic patio.



Face

Lise Vabo



The gallery building is a proposed extension upon an existing derelict cultural building. The gallery sits against two blank flank walls, and its front elevation is completely tiled. The tiles create a contrast between the flank walls, and the proposed.

The narrow side elevation of the gallery has a board marked concrete surface adding to the dialogue between background and foreground. At ground floor a smaller tile is used. The same tile is repeated over every window opening.



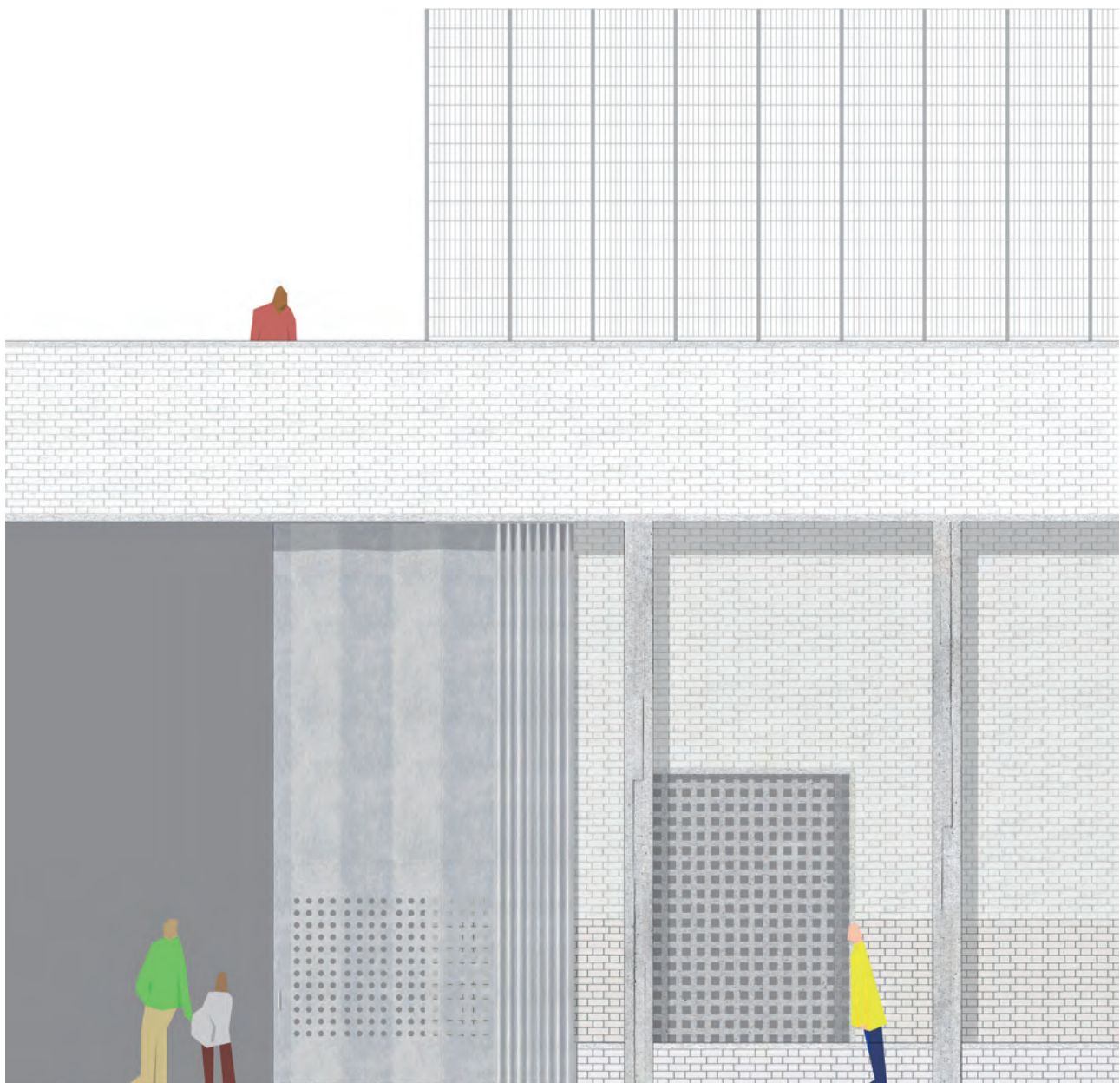
Presence

Gareth Robert Price



The proposal aims to add richness rather than replace or copy. It is defined by observing and understanding the area and making adjustments that join-in with and add a new layer to the place.

In this instance the new layer is concerned with adding a degree of silence, or calmness, to the main street in order to help strengthen the urban role of the adjacent buildings. Through materiality and tectonics the architecture will create a sense of familiarity through association. Allowing the user to relate to each building as one collective experience.



Unevenness

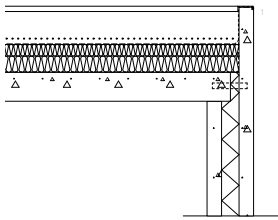
Park entrance
Joe Crawford

A wide entrance is located on each of the proposals three street facades. Whilst open, the doors are folded back to expose a long stretch of the buildings interior to the street.

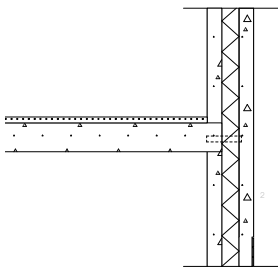
The seamless paving threshold allows the interior of the block to be read as a

continuation of the surrounding park, and a further level of generosity is afforded to the street with a bench built into the depth of the external wall.

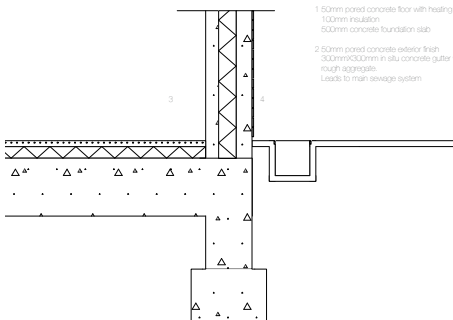
Regular perforations in the walls and doors give passersby the opportunity to glimpse the public activity behind the facade.



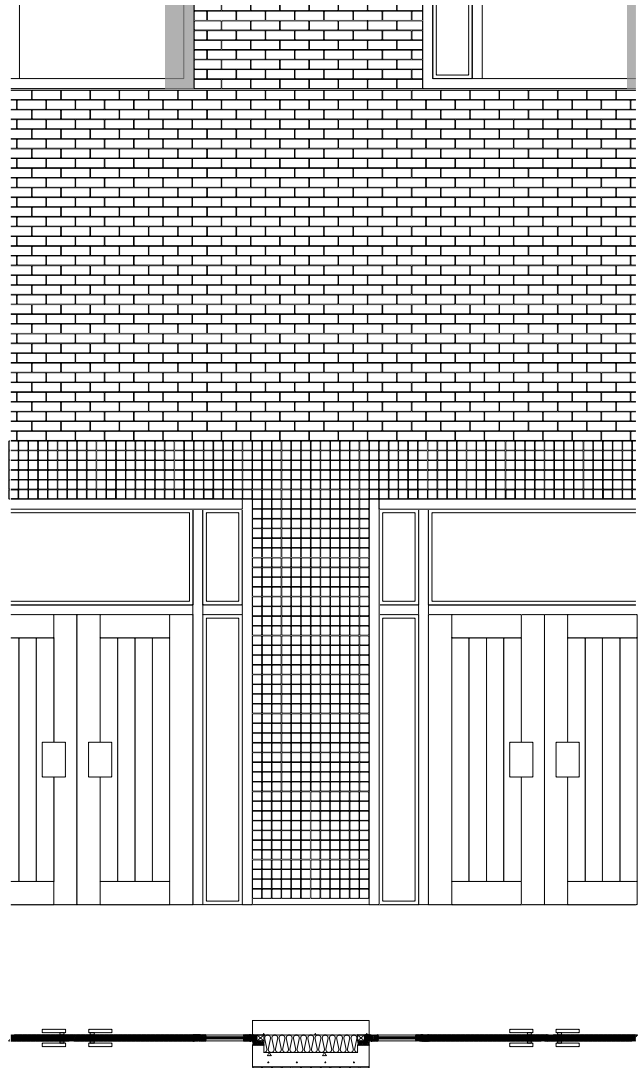
1 60mm gravel B
 Waterproofing
 100 mm polystyrene insulation
 140 mm EPS insulation to slab
 floor finish
 250 mm reinforced concrete slab



400mm in-situ concrete wall
 with 100mm rigid insulation
 notch for 80mm x 80mm tiles



1 50mm porous concrete floor with heating
 100mm insulation
 600mm concrete foundation slab
 2 50mm porous concrete exterior finish
 300mm x 500mm in-situ concrete gutter with
 rough aggregate
 leads to rain sewage system



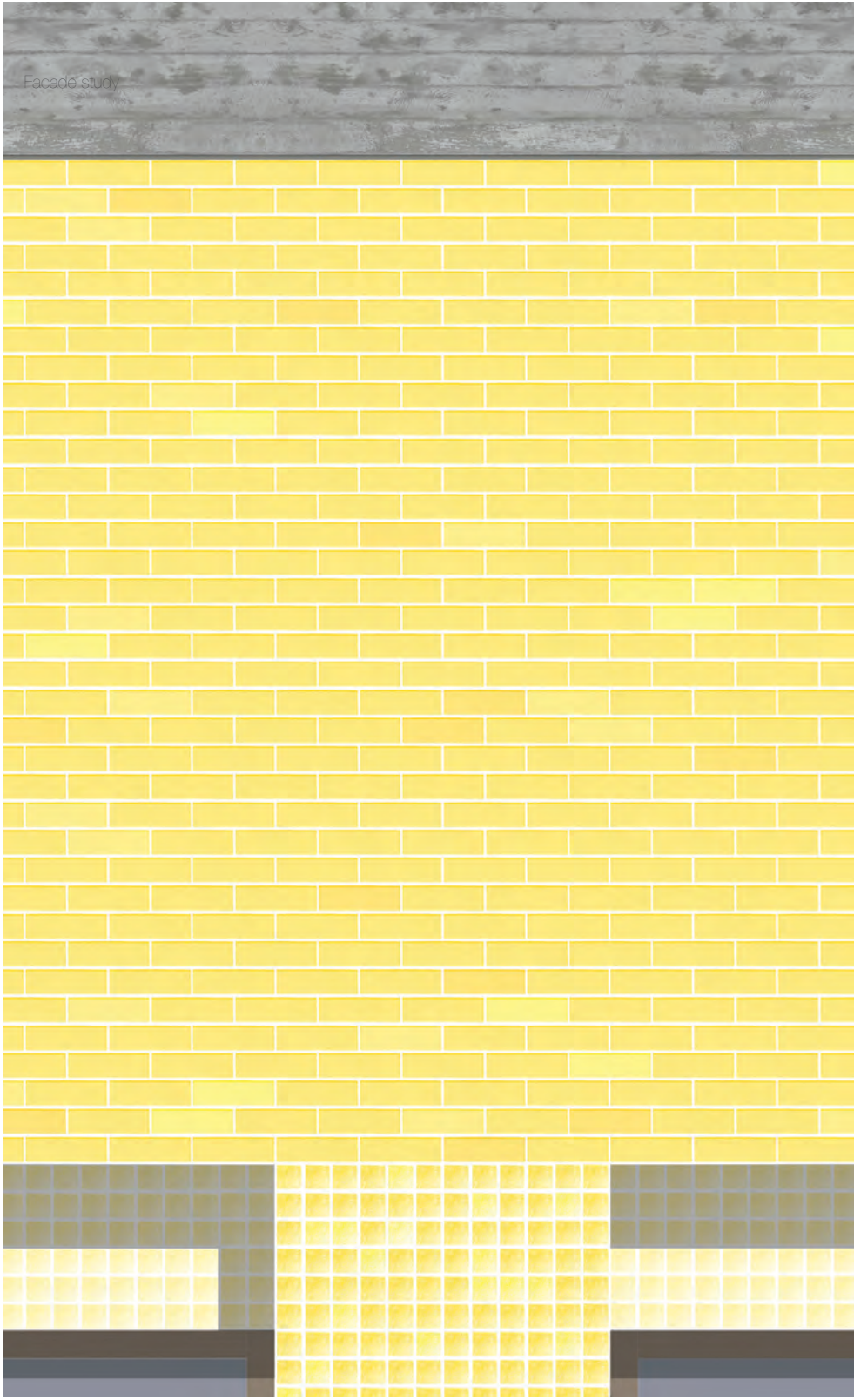
Tiles

Lise Vabo

The detailing of the proposal complies with the richness of the São Paulo ground floor elevations - normally colourful, tactile and a result of time.

Yellow glazed tiles create a transition from the active ground floor to upper floors. They are handmade and vary in tactility and colour tone creating a rich facade.

The lower floors are met by a boardmarked concrete, generating a contrast, but retaining the handmade aspect which will add to the areas existing atmosphere.



Unevenness

Interiors

Unevenness



Jarda

Nadine Coetzee



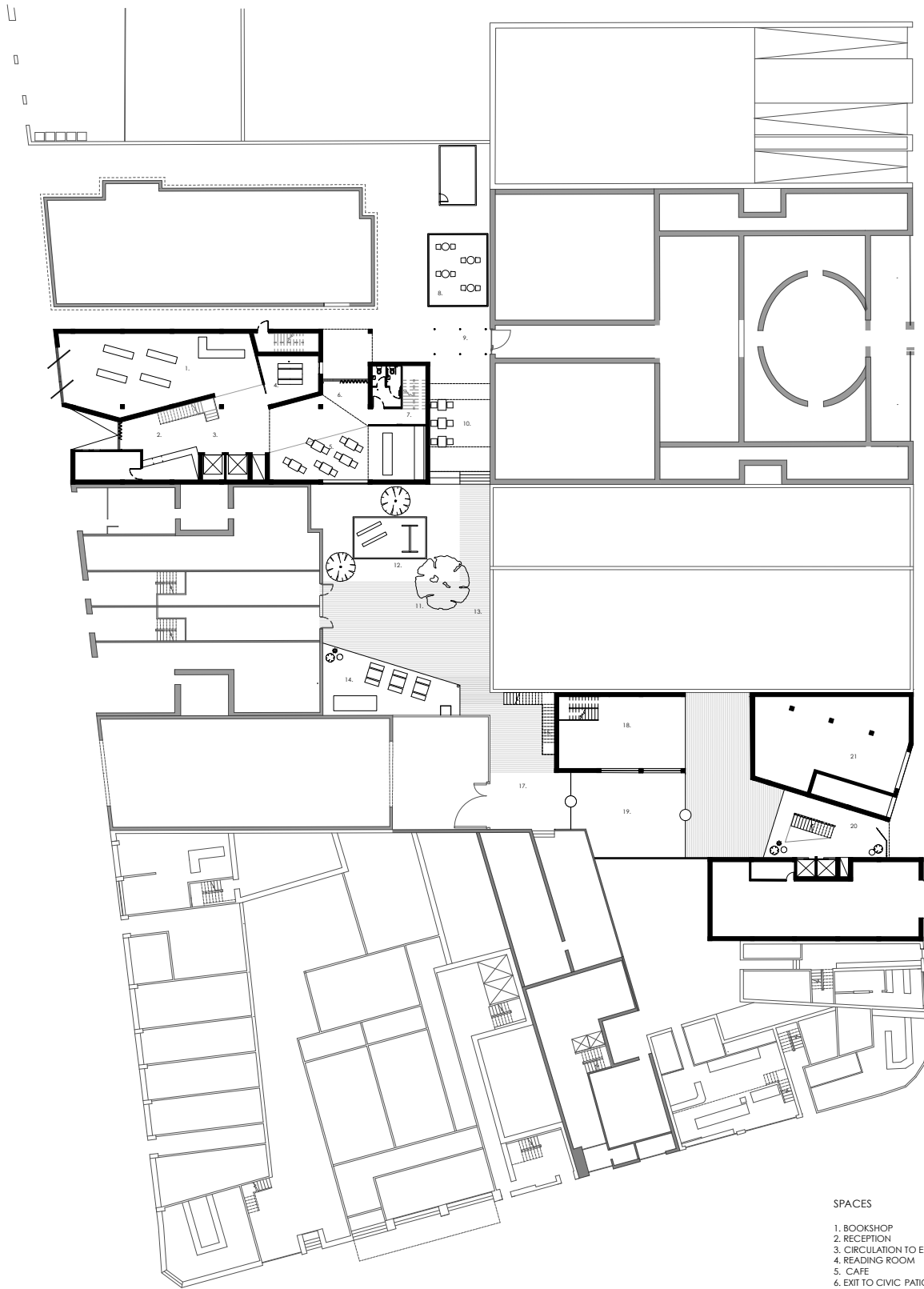
The yard (jarda) is overlooked by the tower and surrounding blocks - it offers both moments of intimacy and expanse for those within it and above it.

Composite collection

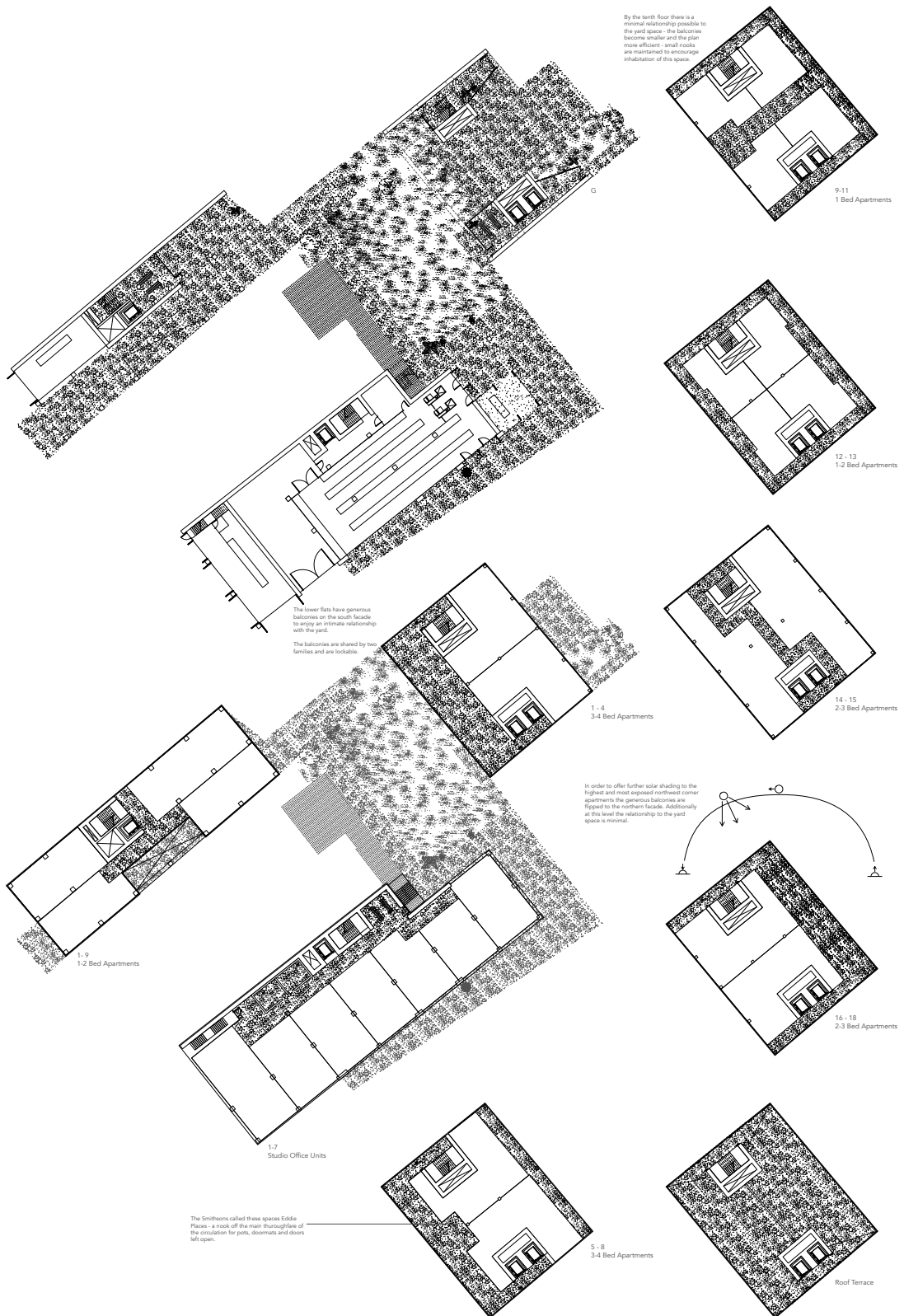
Megan McKeever



The existing block has been carefully understood both in terms of physical content and uses. The proposal aims to add to this collection; selectively working its way into the block, making connections and relationships with adjacent buildings. The whole block begins to be collected together as a composite plinth for the development, adding to and unlocking its existing heterogeneity.



- SPACES
1. BOOKSHOP
 2. RECEPTION
 3. CIRCULATION TO EXHIBITION
 4. READING ROOM
 5. CAFE
 6. EXIT TO CIVIC PATIO
 7. CIRCULATION TO LIBRARY FLOORS
 8. SHELTER FOR CHESS TABLES
 9. CONNECTION TO ACADEMIA PAULISTA DE LETRAS
 10. EXTERNAL WORKING/LUNCH TABLES
 11. COMMUNAL GARDENS
 12. PLAY AREA
 13. BARBEQUE AREA
 14. PUBLIC PATHWAY
 15. CONNECTION TO ROOFTOP RESIDENTIAL GARDENS
 16. EXISTING WORKYARD SPACE
 17. SPILLOVER WORKYARD SPACE
 18. LIVE/WORK UNITS
 19. SHARED YARD SPACE
 20. RESIDENTIAL
 21. COMMERCIAL



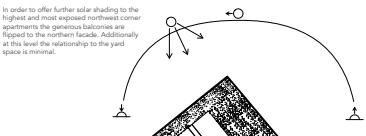
By the tenth floor there is a minimal relationship possible to the yard space - the balconies become smaller and the plan more efficient - small nooks are maintained to minimize relationship of the space.

9-11
1 Bed Apartments

12-13
1-2 Bed Apartments

The lower flats have generous balconies on the south facade to enjoy an intimate relationship with the yard.
The balconies are shared by two families and are lockable.

In order to offer further solar shading to the highest and most exposed northwest corner apartments the generous balconies are flipped to the northern facade. Additionally at this level the relationship to the yard space is minimal.



1-4
3-4 Bed Apartments

14-15
2-3 Bed Apartments

1-9
1-2 Bed Apartments

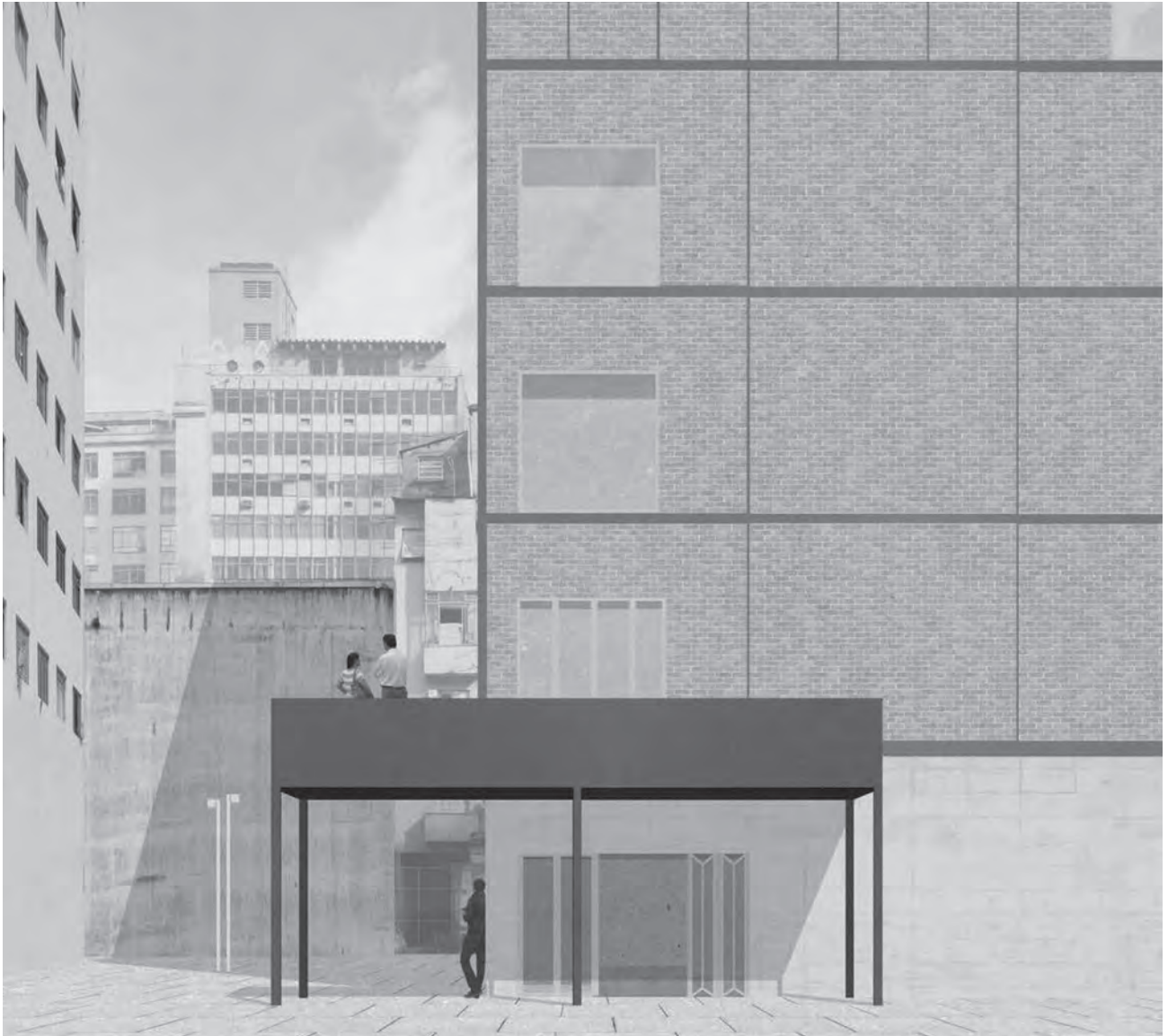
16-18
2-3 Bed Apartments

1-7
Studio Office Units

The Smithsons called these spaces Eddies
Flies - a knock off the main thoroughfare of the circulation for pots, doormats and doors left open.

5-8
3-4 Bed Apartments

Roof Terrace



Unevenness

Shared ground
Nadine Coetzee



Ground surfaces are an important tectonic language of ownership and maintenance in the city of São Paulo.

A language of common ground that rises into the cores of the towers is proposed,

These towers are adorned by three different 'hats' that address three different parts of the city. There is a common space in the centre.

Figures
Ricky Kwok



Collage of the portico at the entrance to the community building. This offers a figure to the public space in the form of a habitable element. It attempts to shape the exterior yard space to provide a sense of place.



Tapestry
Lise Vabo



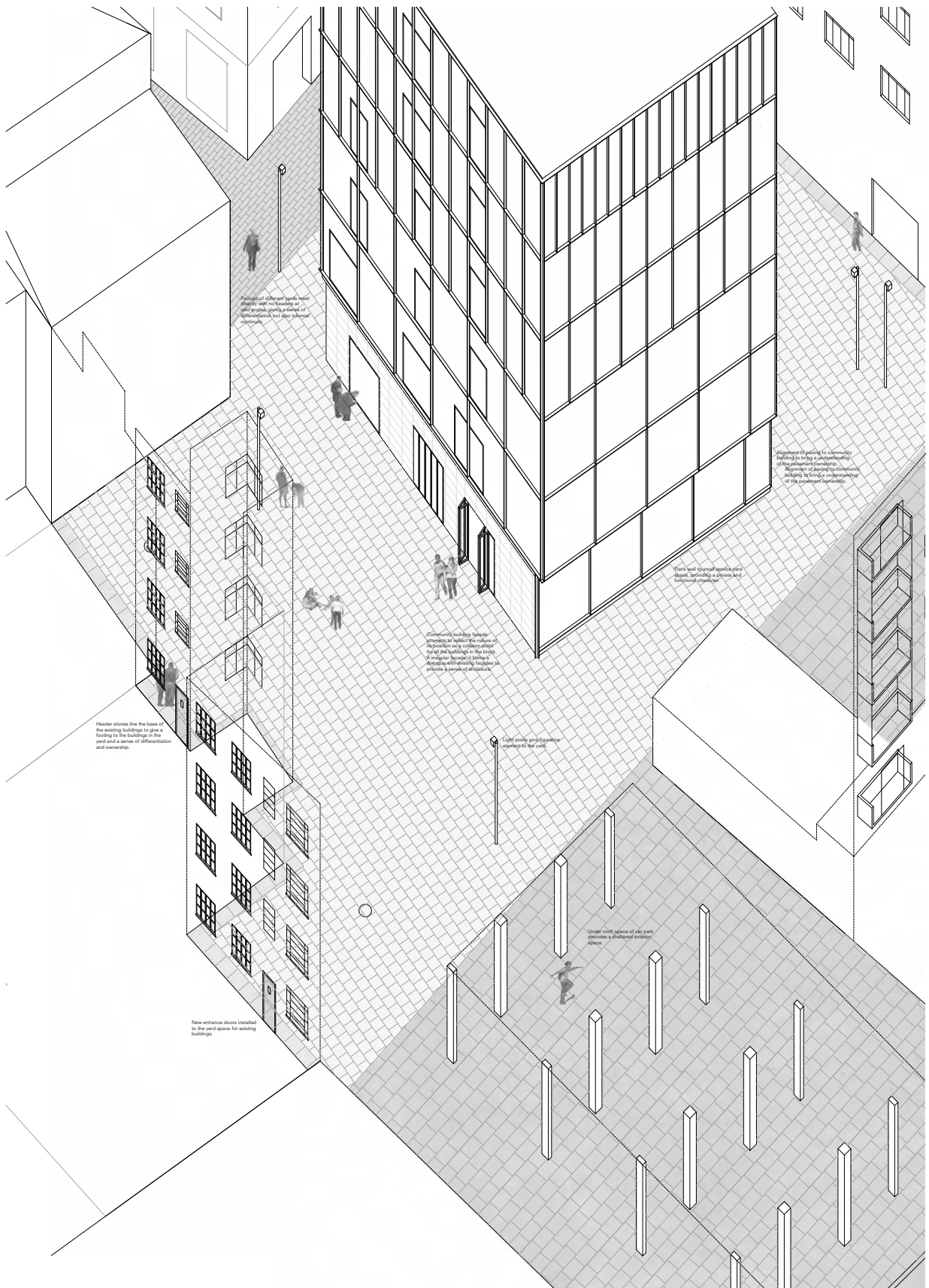
As a result of the scenographic design approach the yard space is understood as a series of situations relating to the faces and uses on each side. As one progresses through the block a tapestry of grounds react specifically to their context.

Yard space
Ricky Kwok



Axometric of public yard space. The yard links several spaces and aspects of the site. It offers a sense of generosity to the existing buildings by instilling a sense of pride to the spaces allowing the buildings another face.

The drawing depicts the jigsaw of paving materials as well as lampposts as the main place making elements of the public ground. The various facades enclose and further define space, hints of adjacent spaces are seen through bottle necks in the yard space.



Placement of different types of trees along with the building as well as various types of outdoor furniture and planters to create a sense of community.

Integration of parking for community members to bring a sense of convenience to the neighborhood. Placement of bicycle racks and other amenities to form a sense of community.

Form and material selection of the building, providing a classic and functional character.

Community building facade designed to reflect the nature of the location as a collection of people and buildings in the area. A unique facade design is designed to provide a sense of atmosphere.

Header stones line the base of the existing building to give a feeling of continuity in the yard and a sense of differentiation and ownership.

Light entry and lighting fixtures for the yard.

Under each space of the yard provides a different ambient effect.

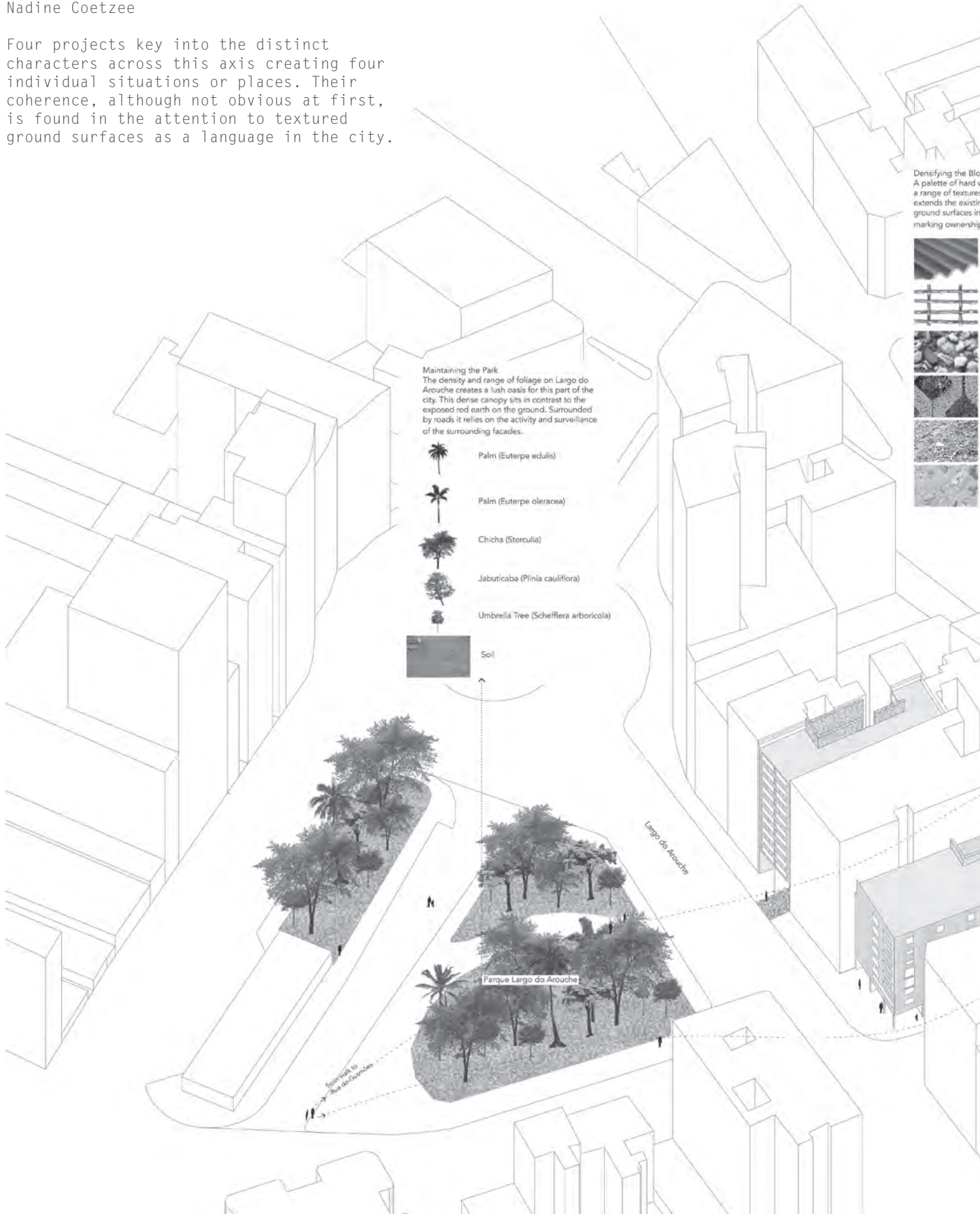
New entrance doors installed to the yard space for existing building.

Four spaces in downtown

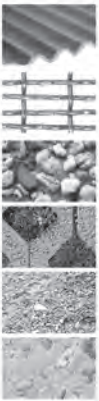
Nadine Coetzee

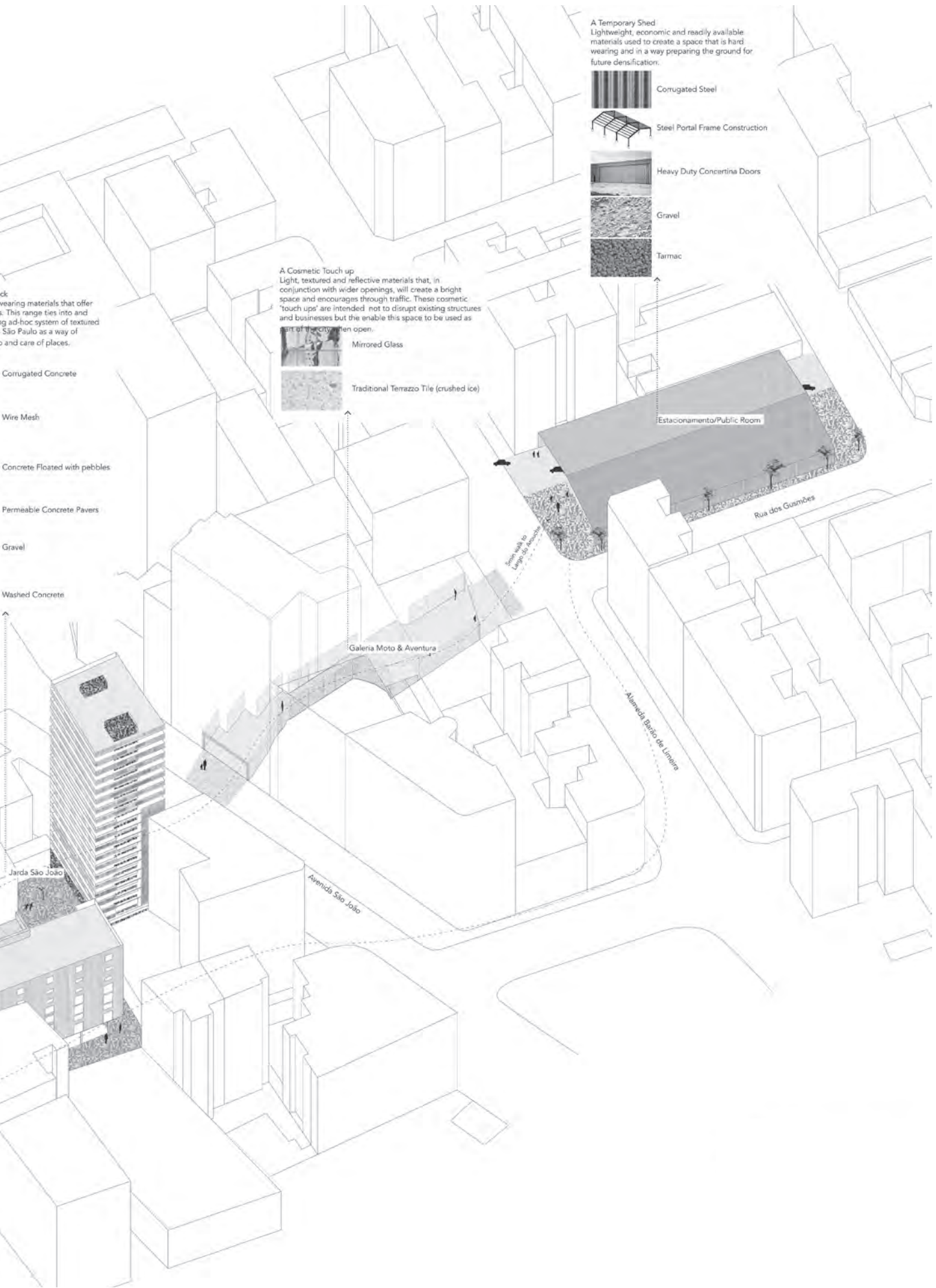
Four projects key into the distinct characters across this axis creating four individual situations or places. Their coherence, although not obvious at first, is found in the attention to textured ground surfaces as a language in the city.

Unevenness






Denaturing the Block
A palette of textures
extends the existing
ground surfaces in
marking ownership







A Temporary Shed
 Lightweight, economic and readily available materials used to create a space that is hard wearing and in a way preparing the ground for future densification.

-  Corrugated Steel
-  Steel Portal Frame Construction
-  Heavy Duty Concertina Doors
-  Gravel
-  Tarmac

A Cosmetic Touch up
 Light, textured and reflective materials that, in conjunction with wider openings, will create a bright space and encourages through traffic. These cosmetic 'touch ups' are intended not to disrupt existing structures and businesses but the enable this space to be used as part of the city when open.

-  Mirrored Glass
-  Traditional Terrazzo Tile (crushed ice)

Wearing materials that offer... This range ties into and... São Paulo as a way of... and care of places.

- Corrugated Concrete
- Wire Mesh
- Concrete Floated with pebbles
- Permeable Concrete Pavers
- Gravel
- Washed Concrete

Estacionamento/Public Room

Rua dos Gusmões

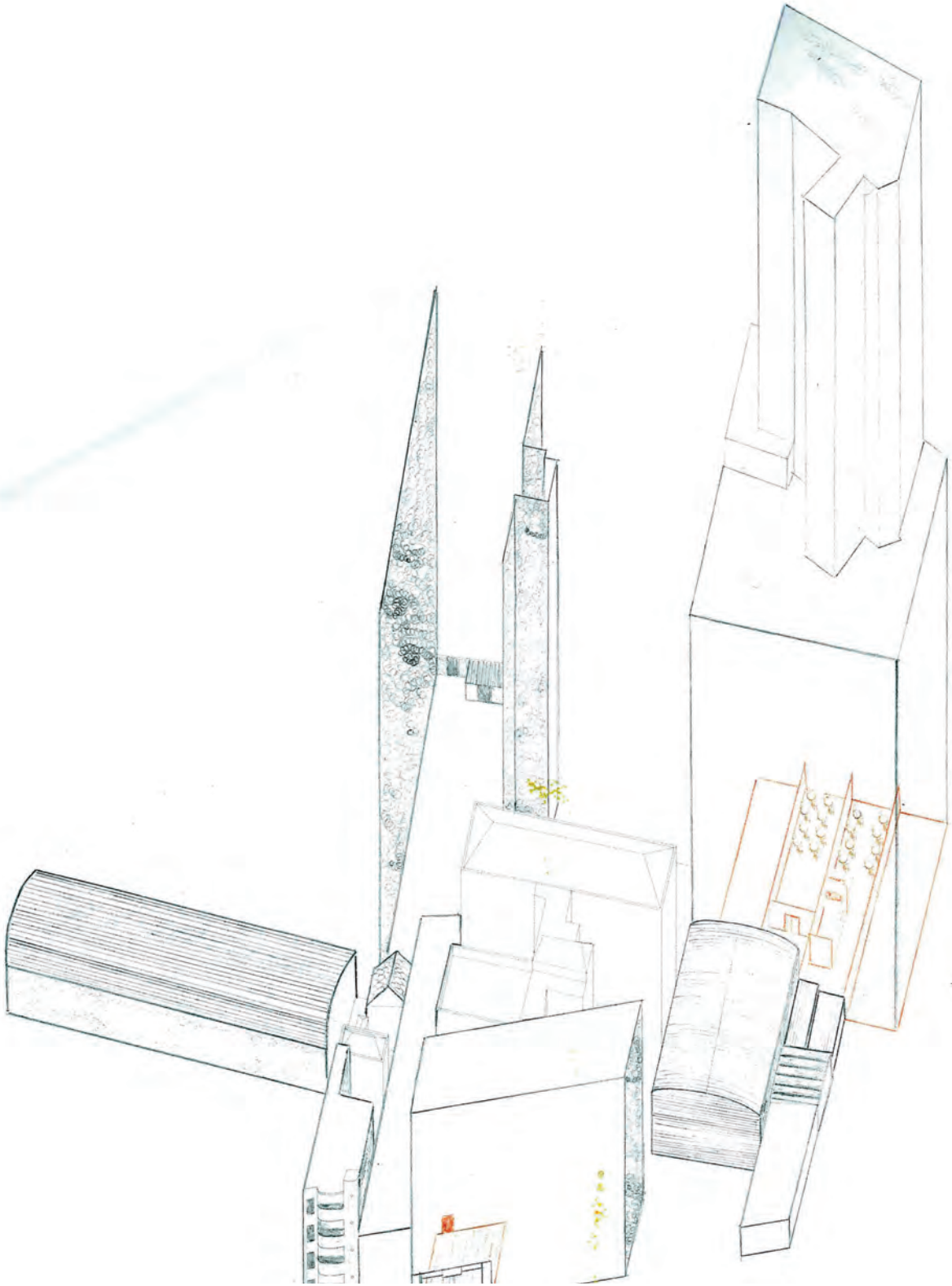
Proposed to... long... spaces

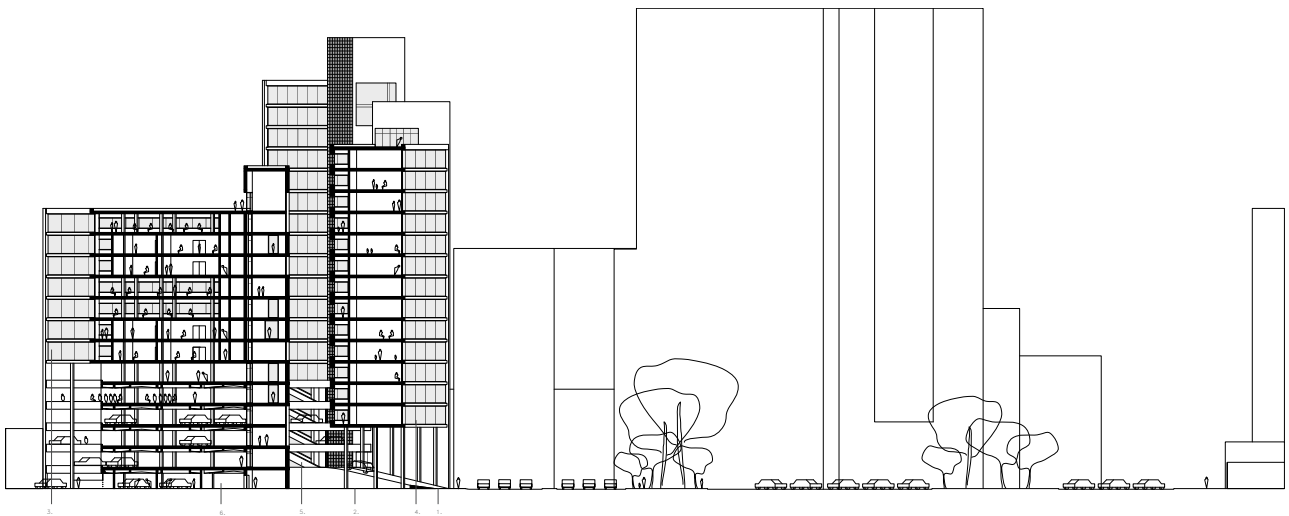
Galeria Moto & Aventura

Alameda Baixo de Limora

Avenida São João

Jardim São João





Composite situation

Megan McKeever



The warehouse represents a modern type of temporal space. These spaces are constructed rapidly to provide workshop or garage space. These buildings often extend right back to the centre of the block which provides opportunities for connection spaces.

The tower takes advantage of air space within the city. It is a type of topographical space, bound by the rapidly evolving physical conditions within the city.

The colonial building represents a moment passed in time where economical values were very different. They stand as witnesses to an era of monumentality and different values. In modern society monumental buildings are more likely to be built as economic edifices or public arts buildings. These colonial buildings stand out as jewels within a rapidly changing modern landscape.

The variation of these buildings form a landscape with dappled and varied spatial conditions. The project engages in the language between these.

Topography

Sarah Cook




Rather than attempting to 'civilise' the vast road spaces adjacent to the site, the project strives to translate the reality of this situation into an asset. The scale and orientation of roads shaping the form, while the finer ground floor uses across the street are mimicked in the language and delicacy of the cores landing within the forecourt.

The road is drawn up through the building to a car park block on the north of the site, while the forecourt space below the main structure engages in 'romantic' connotations of arriving at a hotel by car and the various rituals that are associated with this privileged sense of arrival.



Openness



We like openness. It's about looking at things in a non-judgmental way, but making choices about what is important. It's about valuing flyovers, verges, factories and cafés - the banal - as much as monuments as part of our inherited architectural context. It's about joining-in - celebrating the ordinary and the extraordinary, and bringing them into closer proximity. It's about moving (in a somewhat schizophrenic way) between scales and levels of resolution - allowing them to inform each other.

In openness we find space for freshness and specificity; and sometimes a positive awkwardness and generosity that only situations evolved over time, and revealed with intent, can hold.

Places in the shadow of modernity

Complex

Why do architects find it harder to think of the space between buildings as architecture than to think of buildings as architecture? And why should it be even harder to think of uses in space as part of architectural praxis?

The complexity of any city is a condition that resists easy definition, whilst presenting themselves as familiar; the historic, material, productive and cultural components of any city are part of an inventory we have seen elsewhere. But it is not the inventory that amounts to the city; it is the place that arises, and matters.

This complexity, full of richness and heterogenous qualities, uses and buildings never planned together, has become problematic rather than interesting for the developers and collective landowners who seek change. New developments in recent years have often targeted rich conditions of place with dismayingly simplistic aims, causing the city to become increasingly homogenised, and our experiential relationship with the built environment and urban situation to become neglected. Entire territories of our cities, streets, open spaces and increasingly the home have been commoditised as devices of consumption, marketing, and perhaps worse, as carelessly delivered necessities of the planning process. The city has disappeared behind a suite of individual projects, each taking advantage of the city location but at the expense of the urban opportunity for its inhabitants.

Shadow

Historic cities have been changed over the last sixty years in a way that is both sublime and shocking. From Croydon, to Rotterdam, to Sao Paulo, to London, the process by which modern architects and their public clients threw a layer of infrastructure and idealist structures across and into the city fabric was propelled by a profound disregard, in some cases justified, of context. From flyover, to concert hall, the idealism that accompanied these bold and often well funded gestures may be seen today to have an enviable clarity of purpose; a single minded aim to improve and update the city as a whole.

But the city was not improved as a whole, merely worked on, fiddled with and displaced, creating urban structures, economies and social fabric so diverse and compromised, that descriptions fall short of reality. Today, with less money and a fractured idea of what improvement even means, we not only need to relate to this consequence of acontextual change, we need to validate it, perhaps even to like it.

Empty

Space, even in a city, is an empty concept until described as something that provides value. To have meaning, it needs shape, or at least physical scope. In other words, it is necessary to have an idea about space. And of course to understand what is significant or meaningful about space in the city, it is necessary to understand the place. Not as a concept, but as itself. It does not need to be invented, but described; presented. To do this means looking at places that exist; with documentary and footwork. This is a creative and propositional activity.

For years, artists have made the challenge of presenting objects meaningfully in space a rich source of investigation. Donald Judd took care in measuring perceived space with objects at a human scale within the Texan desert. Giacometti made sculptures that seemed to reveal the weight and human significance of space pressing in, on and around them. In Ed Ruscha's 'The sunset strip', the photographs of a series of building elevations when rendered in their equivalence say more about the nature of the high street than the buildings themselves.

In all these examples, the artists did not invent space, but they did invent an idea of the space that existed.

Elusive

In planning terms, the idea of space has seemed less well rendered, and often misunderstood, relegated in value, or even abused. Frequently the language used to describe city spaces has become obstructive in considering the nature of public space in cities. Words such as landscape, brownfield, boulevard, plaza, piazza, or even 'open' and 'green' are just so much

jargon. The effect is not only that these spaces remain hermetic and underused, they also become disengaged from the more actively designed parts of the city formed by the buildings.

The nature of the relationships between buildings and spaces in cities across the world has remained elusive as a design method. And yet space is almost all cities have, or need. So what is the idea of city space, and how can we use it to plan well?

Holy grail

The public realm is imagined to be the holy grail of social inclusion; a state of play that is safe, exciting, quiet, of high quality and a delight to be in, together. This high ideal requires the public realm to transcend the status of space defined by mass, and to go deeper into the buildings and streets. Not just a courtyard and fountain, but more an ecology of city planning.

The public realm is a product of negotiation, change, and belief in what can happen. Each place is different, and the specifics of the place will influence the outcome of any design that is to remain meaningful to those who use it.

Ecology

One idea is to ensure that space always has a public role, whether publically accessible or not. This way, a generous territory can come into play that is about proximity and relationships; visual and physical, experienced and remembered collectively. In this reading, cities don't just have spaces in them, they are spatial. And complex.

If we can imagine that an ecology of city planning has to do with an idea of re-use, joining in, opening up and revitalising when planning, then it is through the open management of complex physical and social relationships that this kind of city ecology can start to become possible as a method of change. By reflecting the opportunity of the place we can design not the city of the future but deliver the city that exists.

Designing the city that exists means designing into the city in a way that cultivates social interaction; providing places where you do not have to spend money to reside. Through adjustment and involvement, it is possible to find ways of enriching our collective human relationships with the spaces, objects, infrastructure and programmes that make up the urban landscape.

Designing the city involves presenting a measure of urban relationships able to transcend scales from the intimate to the geographical. These then become, productively, inextricably linked to our collective engagement with the city, and our ability to live within it.

Doorhandle and blank wall

It's time to get excited about what we have already got, and how to add to it. Significantly, the city exists at all scales; in proximity and distance, from the doorhandle to the skyline. The city can not remain a monolithic fact; a second hand entity one step removed from people. It must become available for use, present invitations to engage.

Julian Lewis, East / Cass Diploma Unit 3
September 2014

A black and white halftone photograph of a modern building with a grid of windows and a central tree. The building has a prominent horizontal line across its facade. A large, dark tree stands in the center, partially obscuring the building. The foreground shows a paved area with a white line.

Credits

Diploma Unit 3/East 2013/14

Julian Lewis, Dann Jessen, Judith Lösing,
Richard Hall

Students

Nadine Coetzee	Jan Balbaligo
Sarah Cook	Mark Henderson
Joseph Crawford	Ricky Kwok
Lily Dowse	Megan McKeever
Aidan Hall	Lily Nicholls
Gemma Holland	Wing-Shun Tang
Oliver Joyce	
Dominic Kilbey	
Jasmine Low	
Gareth Price	
Lise Vabo	
Helmi Valkola	
Philip Wright	

Brazil Programme co-ordinator

Sandra Denicke-Polcher

Critics, guests and collaborators

Escola de Cidade, Ana Araujo, Peter Carl,
Tony Fretton, Rod Heyes, Robert Mull, Peter
St John, Heidi Svenningsen Kajita, Paul
Vermeulen and Martin Waters.

A b o u t

Published:	September 2014
ISBN:	978-0-9563532-5-2
Design:	East
Edited by:	Dann Jessen and Richard Hall
Images and text:	Unit 3 and East
Print:	London Metropolitan University Print Centre
Published by:	CASS Projects, London Metropolitan University
With thanks to:	Cass School of Architecture

www.thecass.com

www.east.uk.com

