



# RECLAIMING LUXURY

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*an anthology of stories*

*volumes 1, 2 & 3: the complete collection*

*clare mckay*

*the neighbourhood luxury*  
*clare mckay*

# *contents*

vol 01 manifesto

vol 02 technology

vol 03 management

# overview

Dear reader,

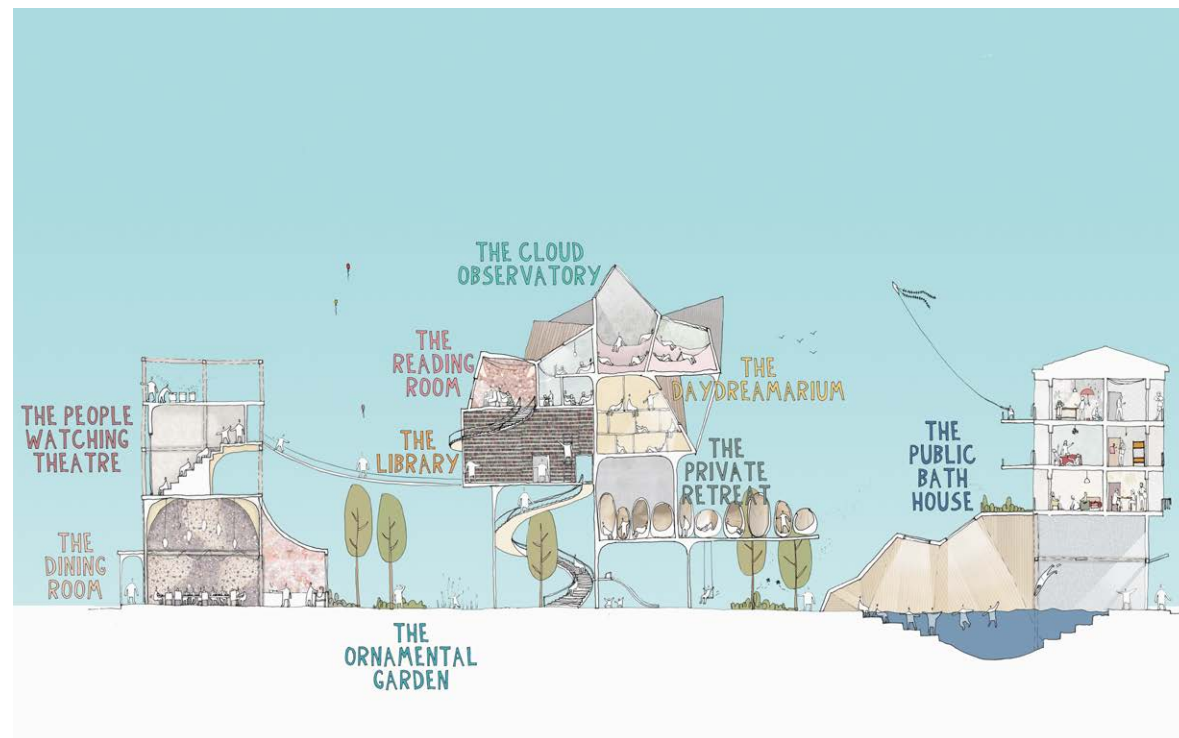
Luxury is nearly always understood in relation to materials and great expense, but here, we make the case for reclaiming the notion of luxury to be applied to space, time, inclusion, and beyond. This complete collection of anthologies follows the development of a proposal for a new 'neighbourhood luxury' in San Siro, Milan.

Volume 1 charts the genesis of the neighbourhood luxury, first examining the context of San Siro from afar, before using imagined stories and literary frameworks to examine the practice, performance and improvisation of everyday life against the rigid modernist fabric of the neighbourhood. As a response to the context - devoid of both private and collective space - a series of luxuries are proposed, each taking ordinary functions of the everyday and elevating them to become spatially and temporally luxurious.

Volume 2 examines the context of San Siro in more detail, studying the environment created by the modernist planning and exploring how the neighbourhood luxury might begin to address issues created by the rigid urban grain. The collective luxuries are expanded to include communal energy production, serving both the urban block and the new neighbourhood luxury, alongside the development of a number of strategies for both mitigation and adaptation in response to climate change, and in particular, rising global temperatures.

Finally, Volume 3 explores the management implications of delivering the neighbourhood luxury, advising client Public Health Italy of the challenges of deconstructing and re-inhabiting the existing buildings. Luxury is here expanded to build on and critique 'inclusion', at both a legal and practice level, but drawing on the multiple readings of space first proposed in Volume 1. Value beyond capitalist economics is explored, further building on the notions of collective luxuries for the people of San Siro.

So, read on, follow the musings behind the creation of the new neighbourhood luxury: a speculative proposal to reclaim luxury within San Siro; an experiment in collective wellbeing; an assemblage of luxurious spaces for everyday life.



*the new neighbourhood luxury*







# RECLAIMING **LUXURY**

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*an anthology of stories*

*volume 1:  
manifesto*

*“San Siro is not only a problematic district of Milan: it is a complex reality, a social laboratory that can help us understand where we are going”<sup>1</sup>*

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a homage to the everyday

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# *foreword*

This anthology is a collection of speculative stories, observations, and musings on San Siro, everyday practices, and notions of luxury. Presented as a chaotic bricolage of pieces, it is intended to reflect the author's experiences of everyday life in San Siro.

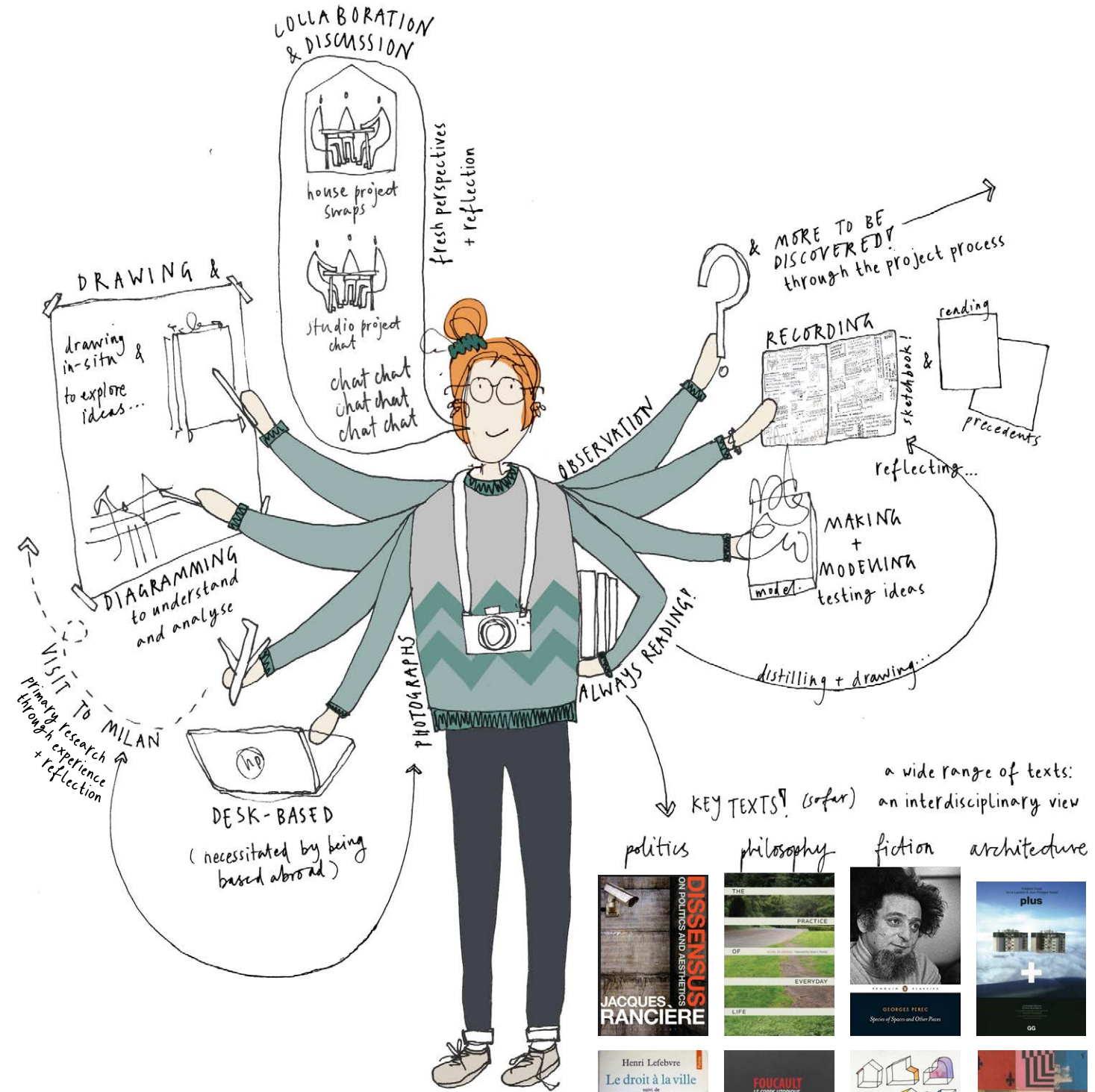
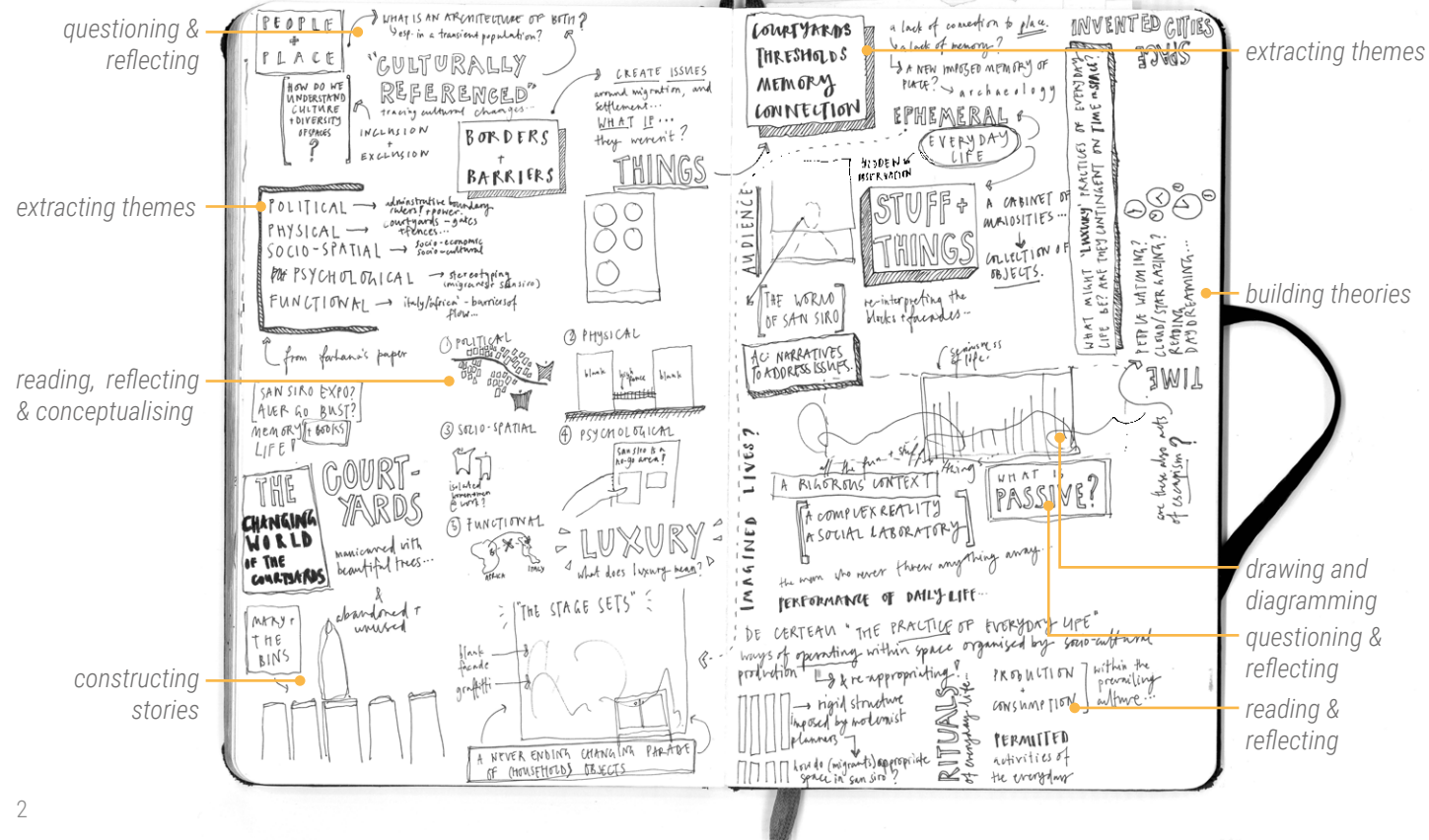
Collaborating with a number of other individuals, and taking Doug Saunders' writing on the 'Arrival City' as a point of departure, these musings follow the amblings of the author; from a visit to San Siro and short stories on everyday life, to unpicking theories and ultimately speculating on a proposal to reclaim the notion of luxury within San Siro.



# about the author

Both author and architect, I make use of a range of methods to understand, analyse, and respond to the context of San Siro. A multi-modal approach enriches this process,<sup>2</sup> which is distilled, recorded, and reflected upon in my sketchbook: playing host to mid-conversation notes, late-night musings, analytical drawings and diagrams, and reflections aiming to progress the project.

a page from my sketchbook



*previous works*



MATERIAL AMENDMENT

(Re)Occupy St Paul's, (as part of studio Material Amendment) worked within the grade I listed fabric of St Paul's cathedral to insert a proposal for the 'occupy' movement. Drawing on medieval land law to subvert the medieval City of London Corporation, new functions invade the triforium level and project onto the front elevation and roof voids, while negotiating the existing fabric.



I'm interested in an approach that goes further than this to transform existing fabric, which fits into a wider interest in the creative reuse of existing buildings.

DISSERTATION

'Towards Hypertrophy' explored a 'hypertrophic' approach to the regeneration of social housing estates. The premise is notionally that estates have not failed, rather our current value systems fail to value them.

I propose this value (in everything from embodied carbon to social structures) can be preserved not through demolition and rebuilding, but by transformation and adaptation. Hypertrophy deals with this through the addition of space rather than a more superficial refurbishment.

This drew from the work of Lacaton & Vassal, which I'm interested in exploring further; specifically their critical position "Never demolish, never remove or replace, always add, transform, and reuse"

Might this be applicable in San Siro?

towards hypertrophy



A study on hypertrophic refurbishment of social housing drawing on Lacaton, Vassal and Druot's manifesto 'PLUS'

clare mckay

RETROFIT

In practice, I've been involved in a number of retrofit projects. In a world where the construction industry contributes 45% of emissions<sup>4</sup> and resources grow ever scarcer,<sup>5</sup> it is imperative that we value existing buildings instead of demolishing and rebuilding them.

I'm interested in the creative reuse of existing buildings - beyond conversion or insertion and towards a more radical and transformational approach.



LISTED BUILDINGS

This has also involved working with a number of listed buildings, and developing an understanding of preservation and restoration as an approach to conservation.

I'm interested in the relationship of transformation and preservation, and where these might intersect.



NEW-BUILD

A number of the new-build projects I worked on have been designed to be 'sustainable', drawing on passive measures and low carbon materials to reduce impact.

I'm interested in the intersection of old and new to reduce impact environmentally and socially...





*chapter 1*

# *the collective*

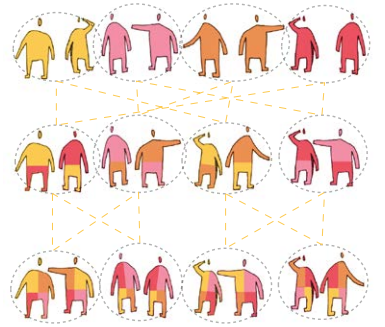
*detailing our approach*

a collective approach

November 2018

I joined a number of other individuals: together we have formed a collective named after Doug Saunders' book 'Arrival City'. We hope to collaboratively explore migration and the Arrival City, using a district of Milan known as 'San Siro' to focus, develop, and test ideas for architectural interventions. This is our story so far.

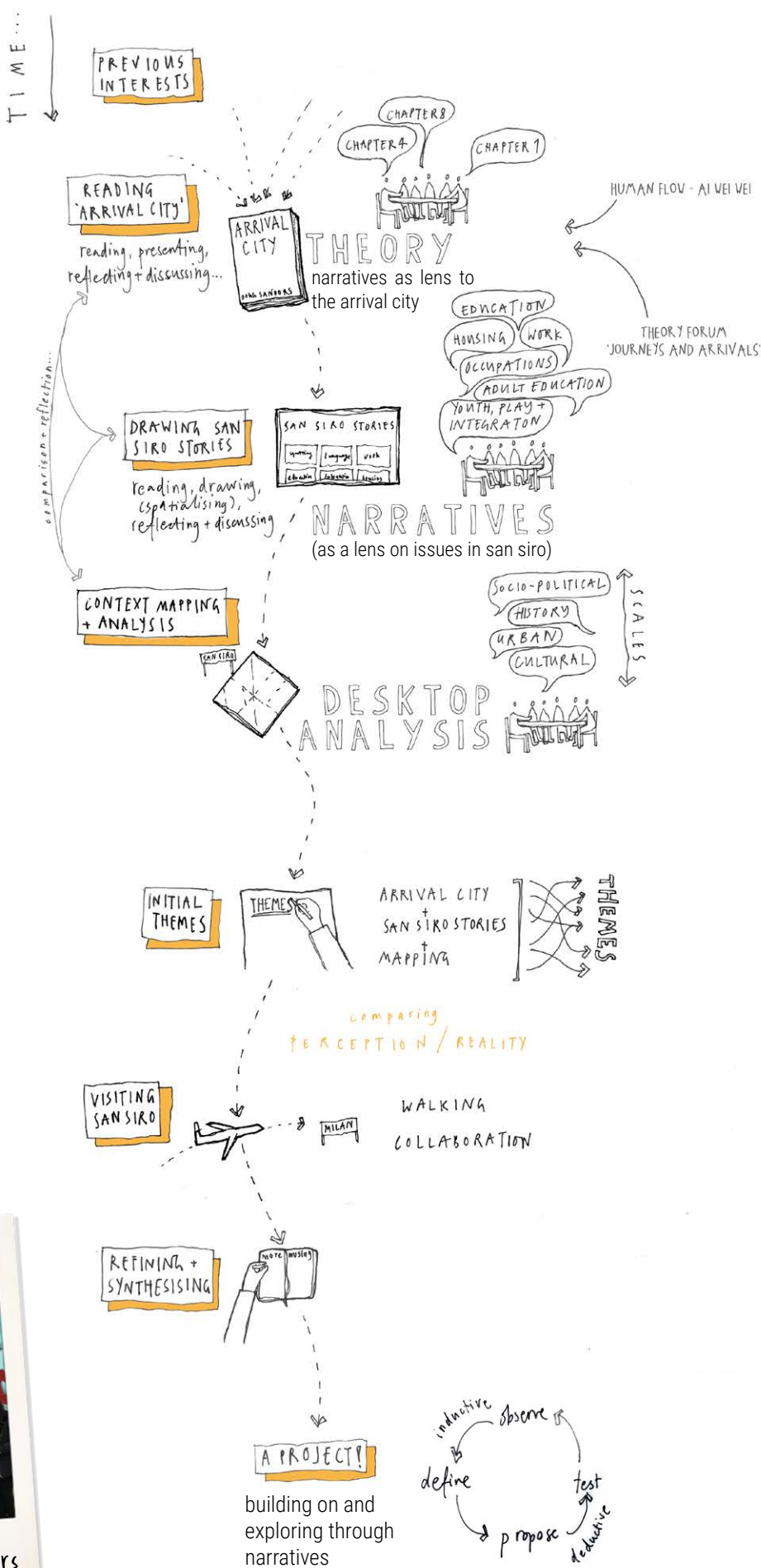
"The Arrival City is a place of transition... we call them slums, favelas, barrios... Such areas are poor and remain poor, but their turnover rate is high. Many people arrive, but don't stay permanently. They offer cheap rents, access to work, and ethnic networks that adopt new arrivals and facilitate their social advancement."



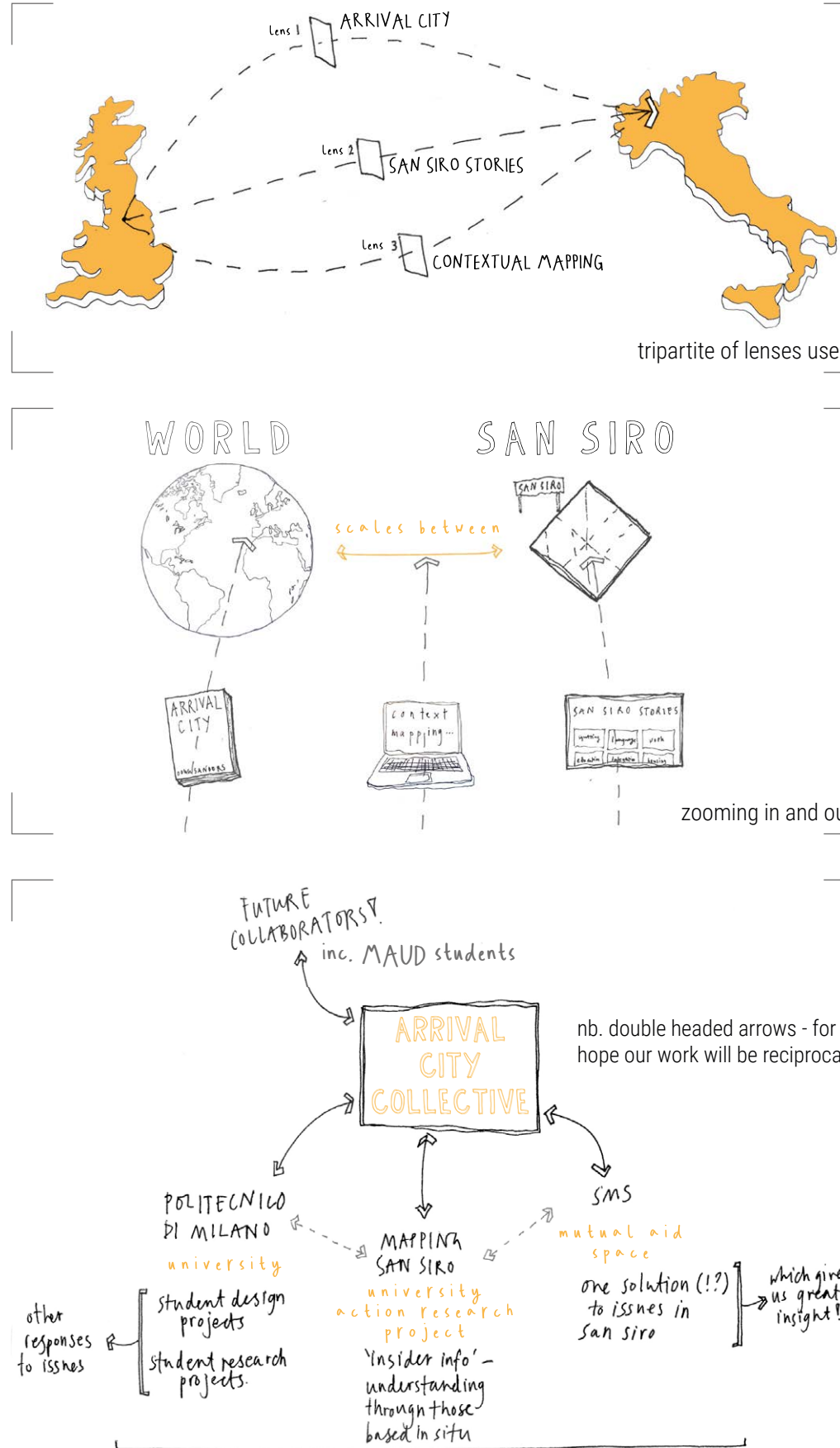
continually changing groups enables individuals to develop and share knowledge informally, in addition to group presentations



the collective + collaborators



REFLECTION, COLLABORATION, DISCUSSION...



Based in Sheffield, we are employing a number of different tactics and lenses through which to understand migration and San Siro. Being based away from our study area leaves us reliant on other actors to access and understand San Siro. Luckily we have contacts at the Politecnico di Milan, 'Mapping San Siro' and 'SMS' (a mutual aid space) who have helped us understand San Siro from afar, and will continue to collaborate with us when we visit Milan.

through these actors, we gain an insight into the issues facing San Siro. understanding these collectively builds up a more representative image than privileging one voice. adding these our own research and experience builds a richer picture still.

*chapter 2*

# *a view from afar*

*reading san siro from sheffield*

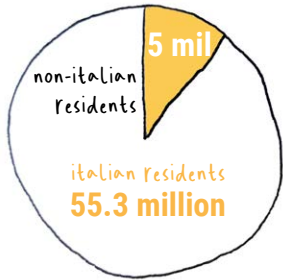


the san siro quadrangle

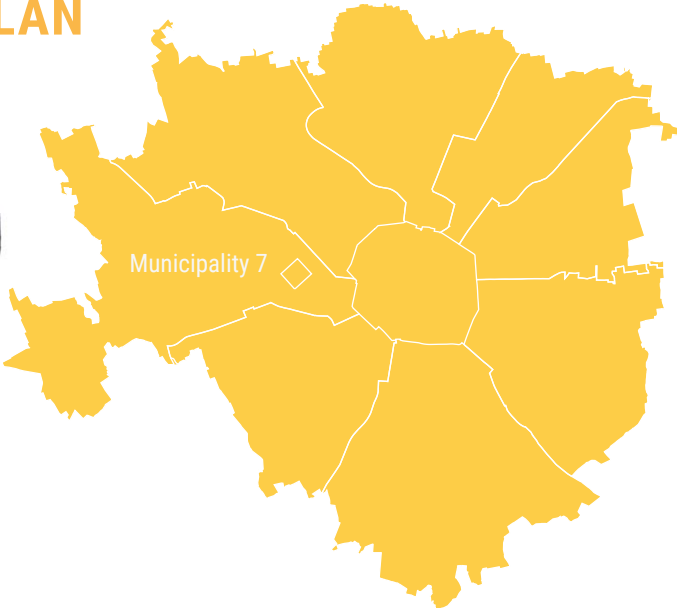
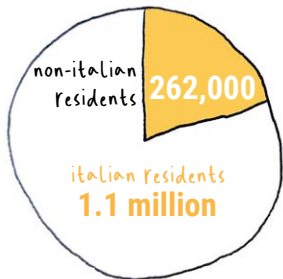
Beyond the historic centre of Milan, Italy, lies the striking form of the San Siro quadrangle. Conceived as a modernist 'model housing' project outside the city in the 1940s,<sup>7</sup> it has since been encompassed by the wider city.<sup>8</sup>

The public housing stock has seen little investment since its construction, falling into disrepair,<sup>9</sup> and the neighbourhood has become economically deprived.<sup>10</sup> In contrast to Milan, San Siro is 'super-diverse'<sup>11</sup> with 49% non-Italian residents,<sup>12</sup> compared to 18% in Milan<sup>13</sup> and 8% in Italy.<sup>14</sup>

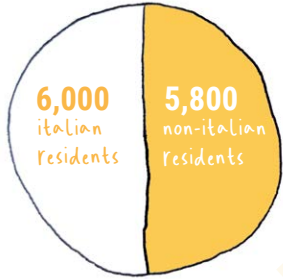
ITALY



MILAN

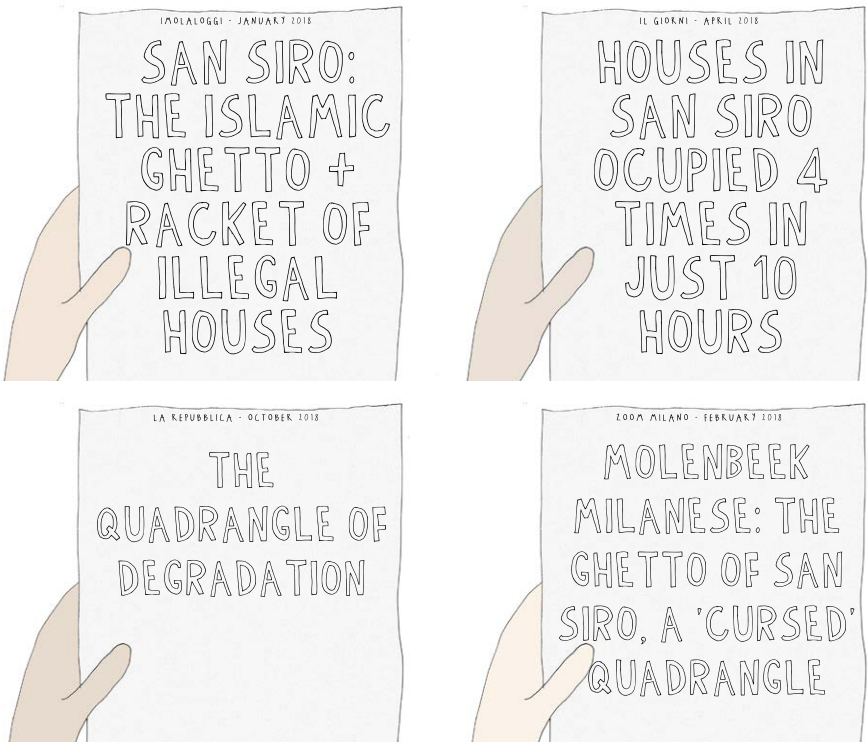


SAN SIRO



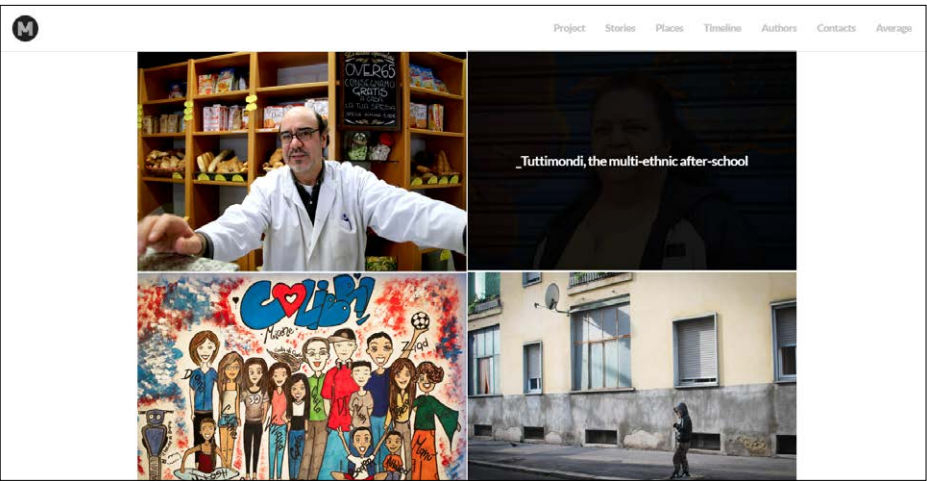
(changing) perceptions

The reputation of San Siro precedes it: newspaper headlines paint the neighbourhood as a hotbed of crime with racist undertones.<sup>15</sup> Positive stories of San Siro are hard to find.

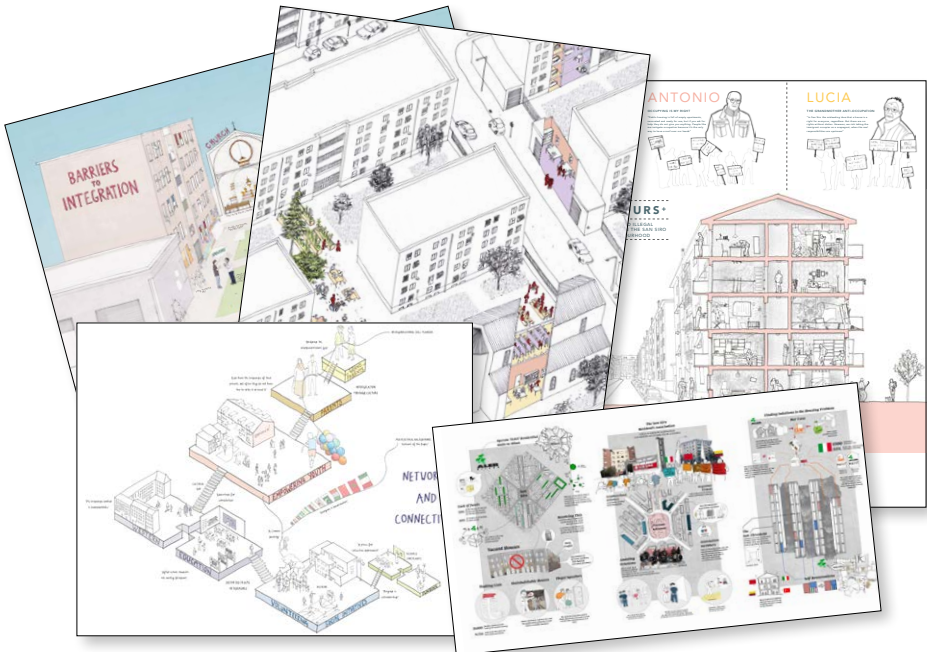


As a response to this, our collaborators Politecnico di Milan established 'San Siro Stories',<sup>16</sup> showcasing positive stories from the neighbourhood. We examined these stories, extracting 6 key themes:

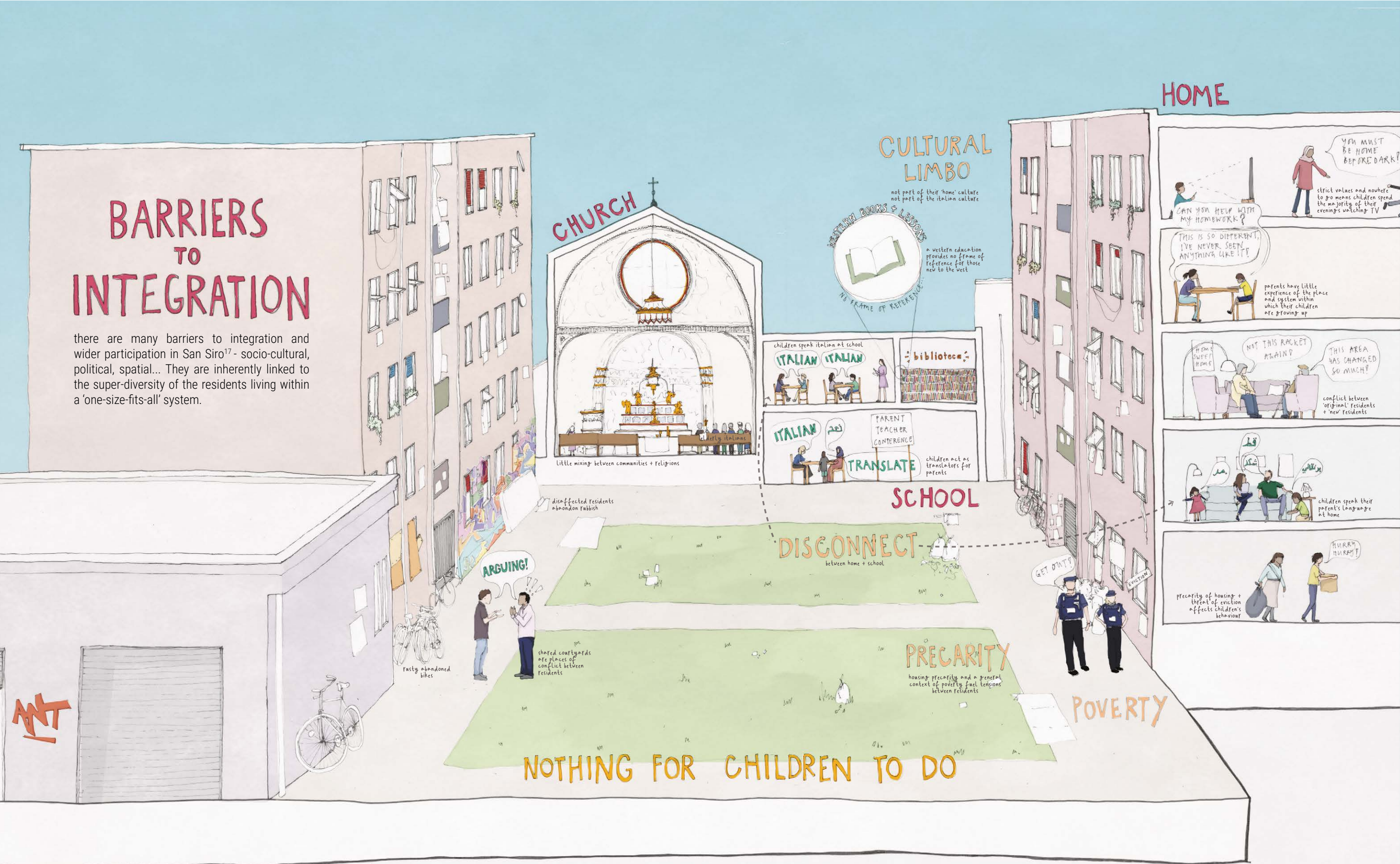
housing, adult education, occupations, education, work, and youth, play, and integration



Drawing these enabled us to analyse these insights into life in San Siro. A number of socio-cultural and spatial barriers to integration can be understood as the basis of many of the neighbourhood's issues.







A number of initiatives addressing these issues have emerged: homework clubs, basketball teams, and games in the courtyards. But there is little collaboration between them<sup>18</sup> and they can do little to address the precarity and poverty that many of the residents are living in which fuels the issues further.<sup>19</sup>



November 2018

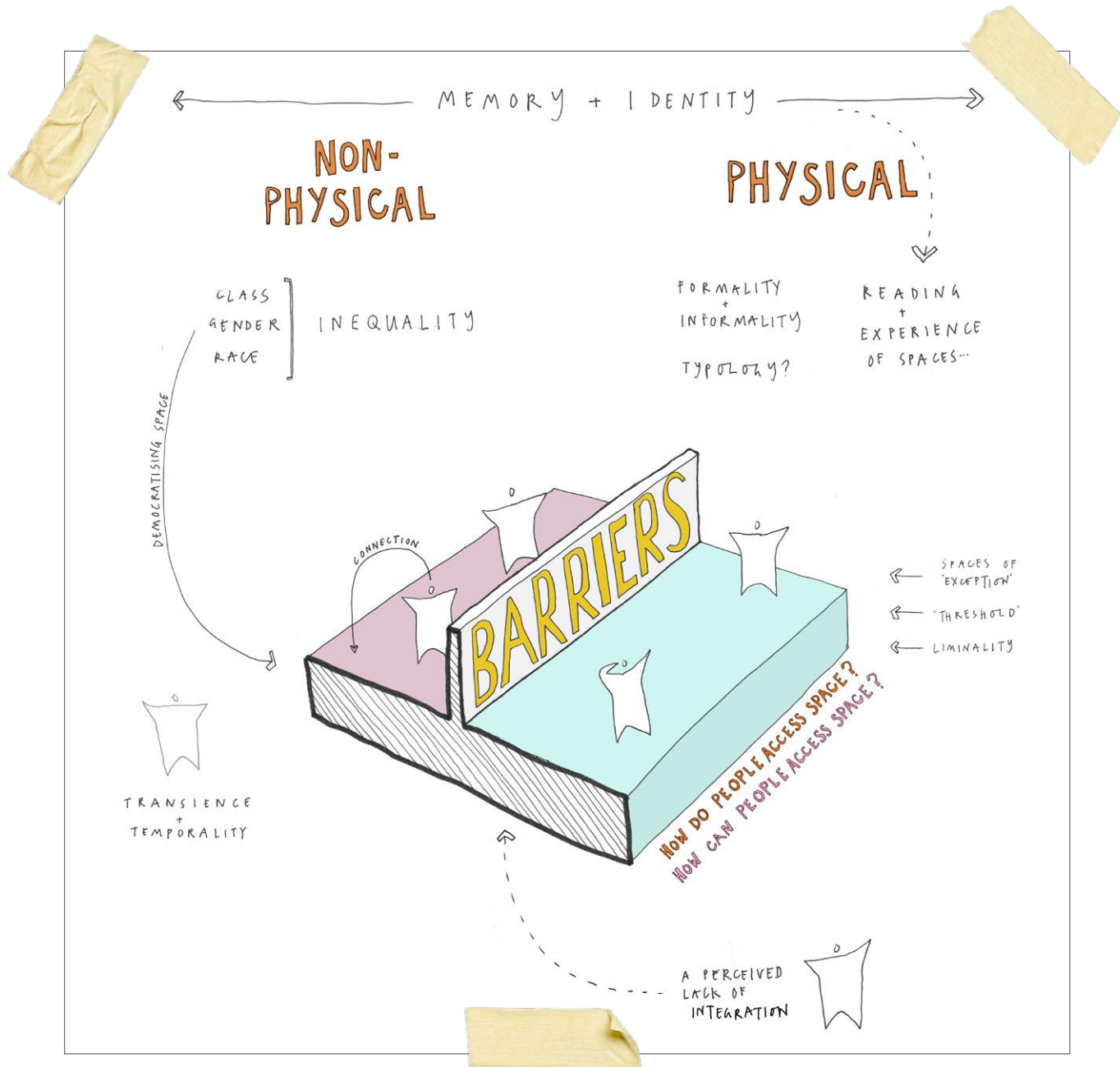
The collective has established a number of key themes, based on our work so far, which will evolve when we visit Milan.

One of the other members, Farhana, has similar interests to myself. We've united to explore ideas around borders, boundaries, and the 'right to the city'.

Bachelard posits that we understand space through past experiences,<sup>20</sup> so we conceived these as physical and non-physical barriers to space, underpinned by individuals' memories and identities. The diverse population of San Siro and cultural limbo<sup>21</sup> felt by many reinforce these barriers.

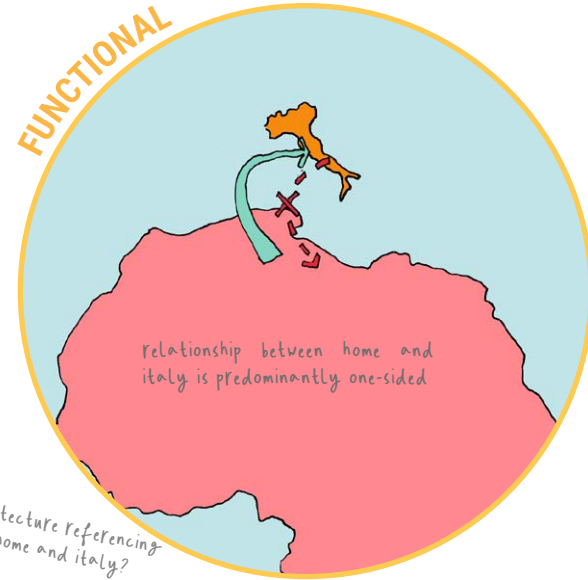
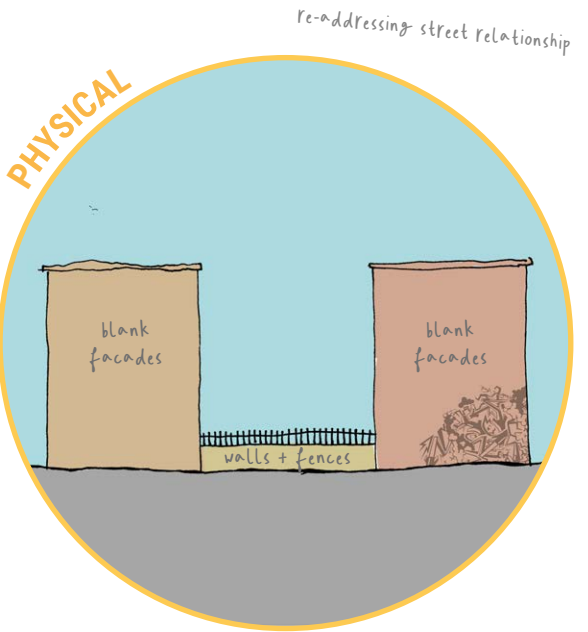
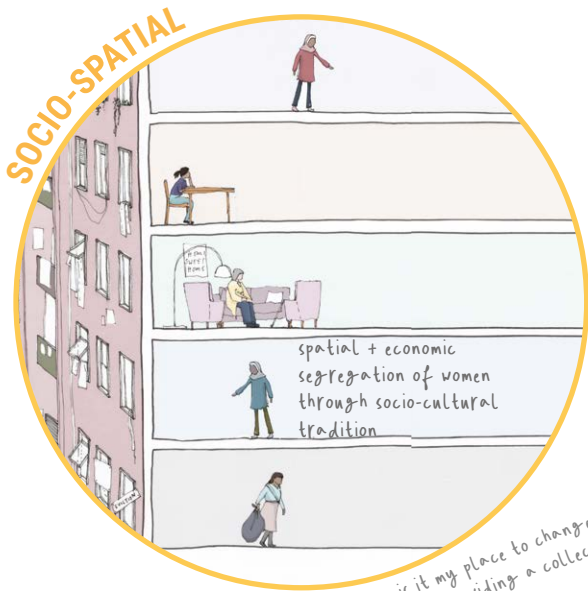
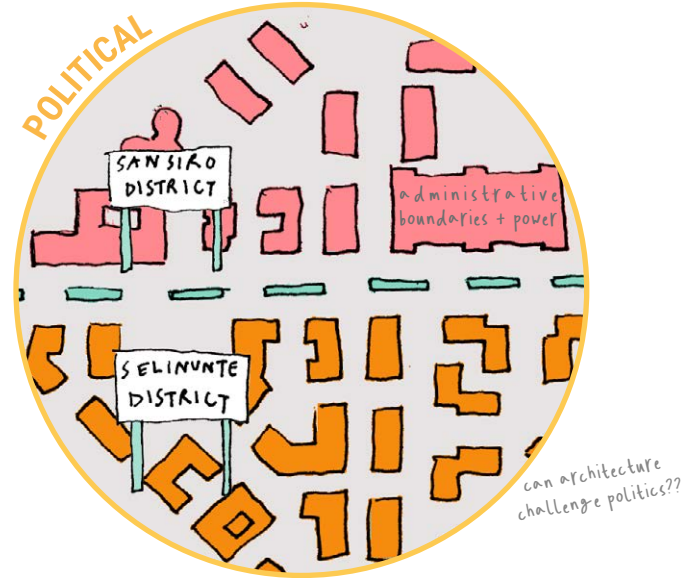
- identity & status
- political response
- borders & boundaries
- local economy
- perceptions
- temporality
- 'right to the city'
- movement & transit
- social space
- finance & economy
- collective activities
- destination/transition
- language
- participation
- formal/informal space
- domestic migration

emerging themes: underpinned by migration and the arrival city



We found a paper on 'borders and the city' by Werner Breitung, exploring intra-urban boundaries.<sup>22</sup> 5 forms of border are proposed, which we have conceptualised within San Siro, based on our knowledge so far.

how might an architecture challenge these borders?



*chapter 3*

# *a visit to san siro*

*reading san siro in situ*





# FIELD NOTES

initial observations:  
buildings in poor repair  
graffiti!  
emptiness and untidiness  
feeling like an outsider  
crossing thresholds  
barrier walls & fences

graffiti

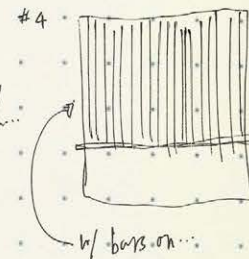
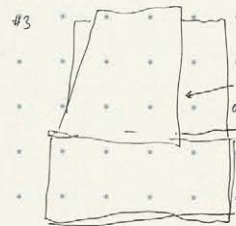


degradation



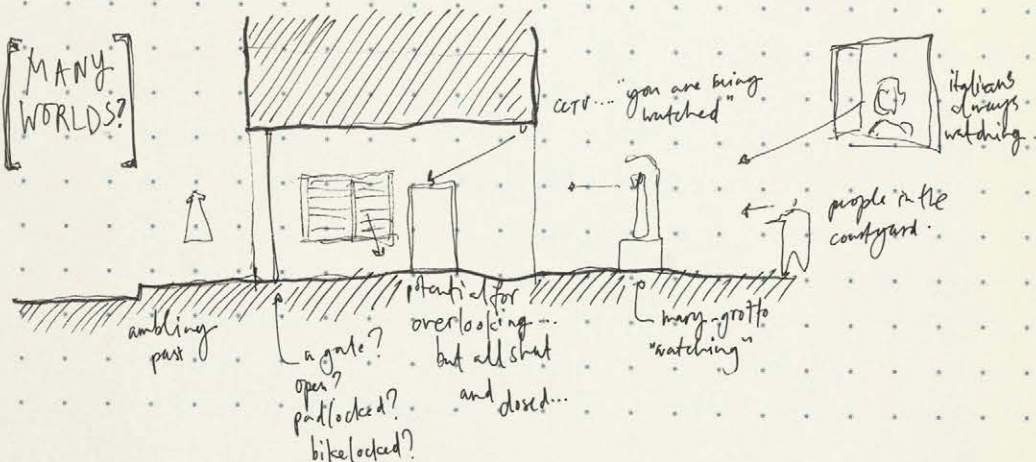
rubbish

## BALCONIES

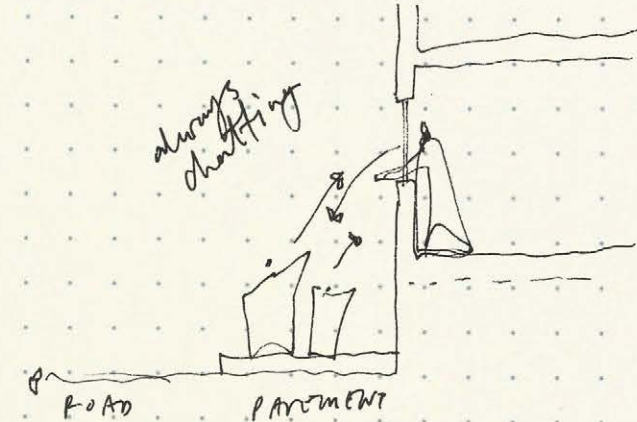
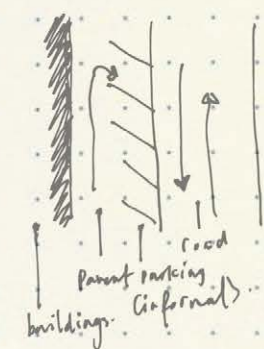
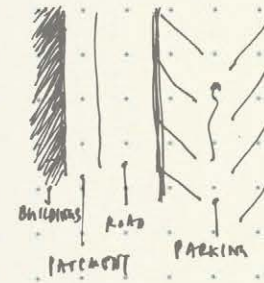


## IMPROVISATION

## MANY WORLDS?

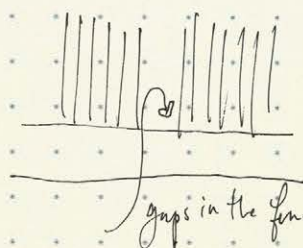
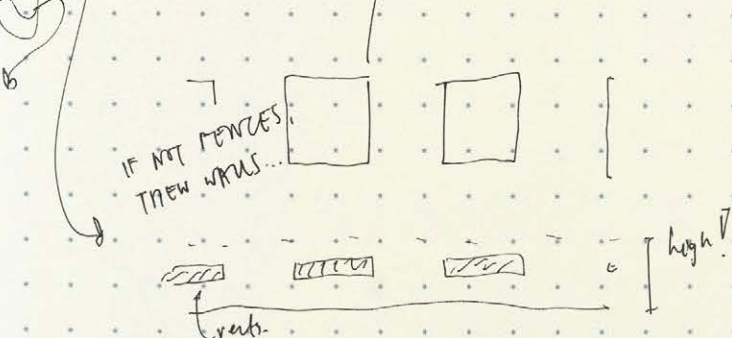
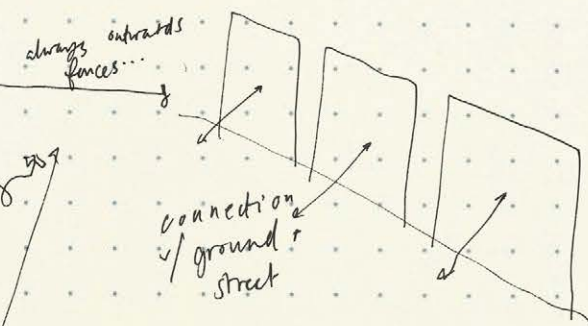
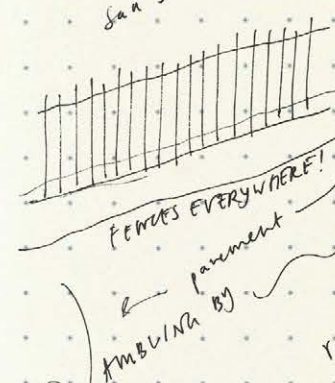


so many cars



why does everyone have trolleys?

## BARRIERS



There are so many physical barriers in the neighbourhood - walls, fences, blank façades... where can and can't I access???



December 2018

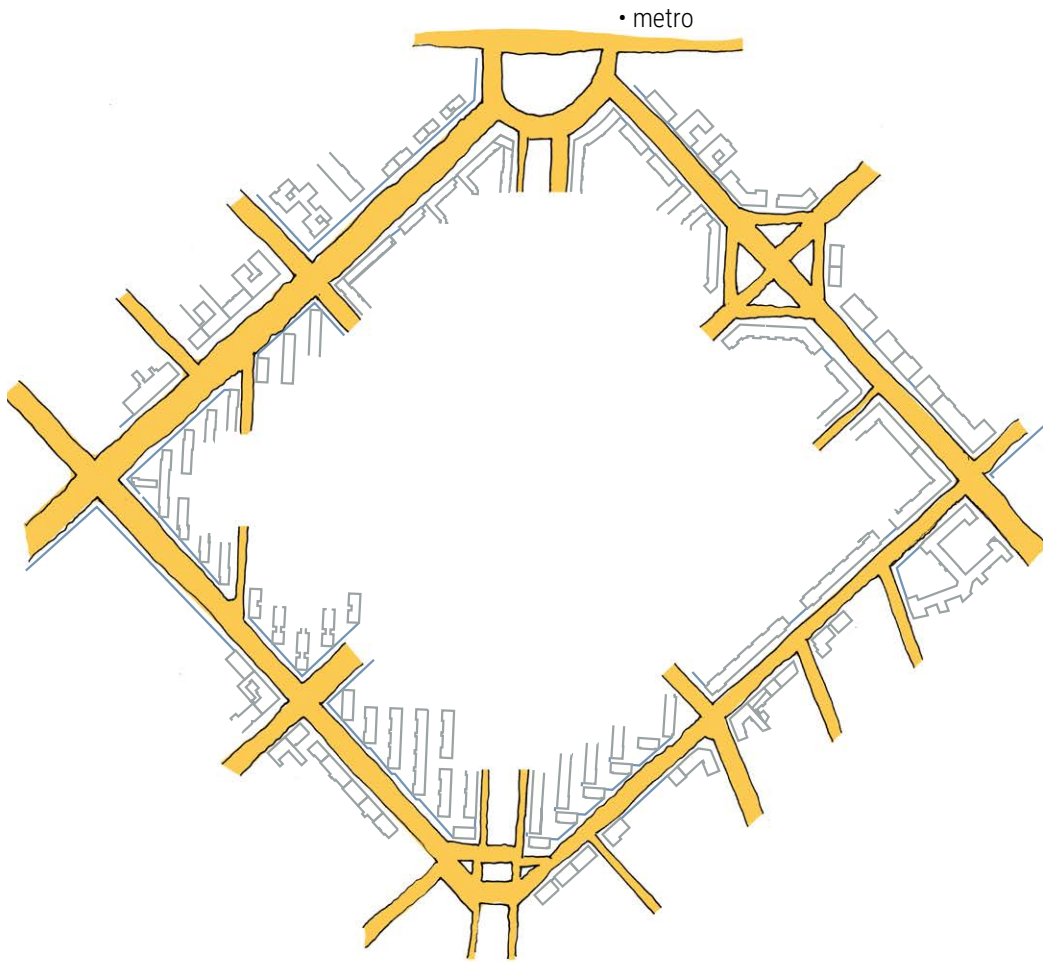
We're in San Siro!

We decided walking would be an interesting way to understand the neighbourhood better, as it enables us to experience everyday life first hand. Doing so is inherently personal, as each person picks out different fragments of the city to make sense of and build into a personal understanding of San Siro.<sup>23</sup>

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Emerging from the metro, the area seemed little different from any other peripheral neighbourhood. Crossing into San Siro revealed a different world, of peeling paint and endless walls and fences.

Given my earlier musings on borders and boundaries, walking the perimeter of the quadrangle seemed like a good place to start...



inactive



active



façades within the quadrangle are inactive, with little relation to street. In contrast, many of the façades facing onto the quadrangle are active with shops and cafés and connection with the street - enforcing the barrier-like feeling of the quadrangle.

In addition to the inactive façades, the borders take the form of walls, fences (sometimes concealed by hedges), and building corners. These barriers make navigating San Siro a lengthy and difficult process - there are no short-cuts.



01\_wall



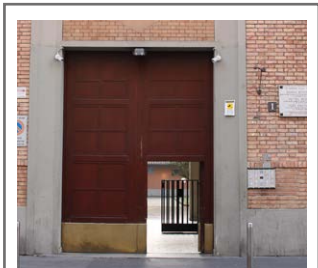
02\_fence



03\_fence + hedge



04\_fence + corner



a\_door in door in wall



b\_gate in wall



c\_gatehouse

Points at which to cross the border from street to courtyard are infrequent, taking three primary forms - doors, gates and gatehouses.

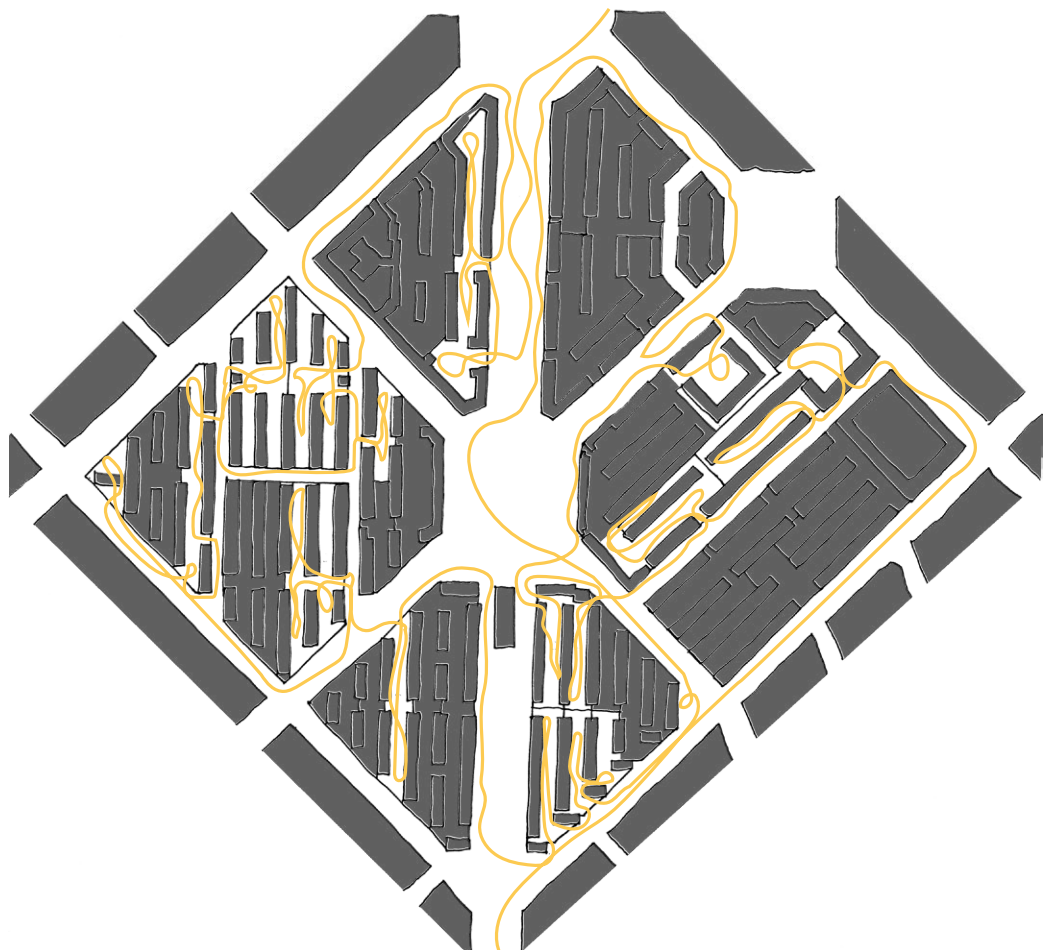
could these thresholds be drawn on in my proposal?



Although interesting to follow the boundary walls through the neighbourhood, I wondered how many I could cross, and what was beyond them.

Wandering through San Siro, Farhana and I attempted to access as many courtyards as possible. This deliberate meander drew on the 'dérive', as a way of thwarting the modernist grid<sup>24</sup> and "breaking the boundaries of planned zones in an unplanned way"<sup>25</sup> viewing [San Siro] as a disorderly arrangement of spaces.<sup>26</sup>

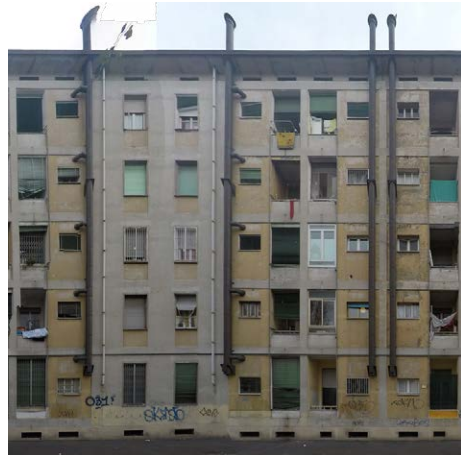
Many were not accessible, but each we entered was a different world, often hidden from the view of the street, with an eclectic mix of objects guarded by statues of Mary.





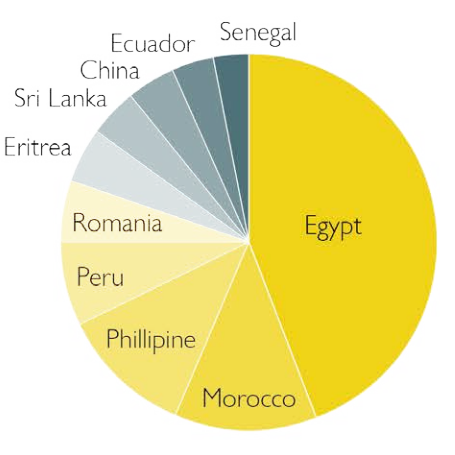
# 3 views of san siro SAN SIRO IS HOMOGENOUS

San Siro is homogeneous. A landscape of 4 and 5 storey residential buildings are arranged in a quadrangle, all with shared stairs accessed through courtyards. Regular rhythms of windows and balconies punctuate an unyielding palette of render in greys and beiges to oranges and yellows. To the street is presented blank facade, fences, walls, with little variation.



# SAN SIRO IS DIVERSE

San Siro is diverse. Behind the expanses of identical wall are residents from Egypt, Morocco, Peru, the Philippines...<sup>27</sup> Each with different experiences and approaches to occupying the neighbourhood. Ever changing graffiti interrupts the walls, and the appropriation of balconies hints to the changing uses of space within.





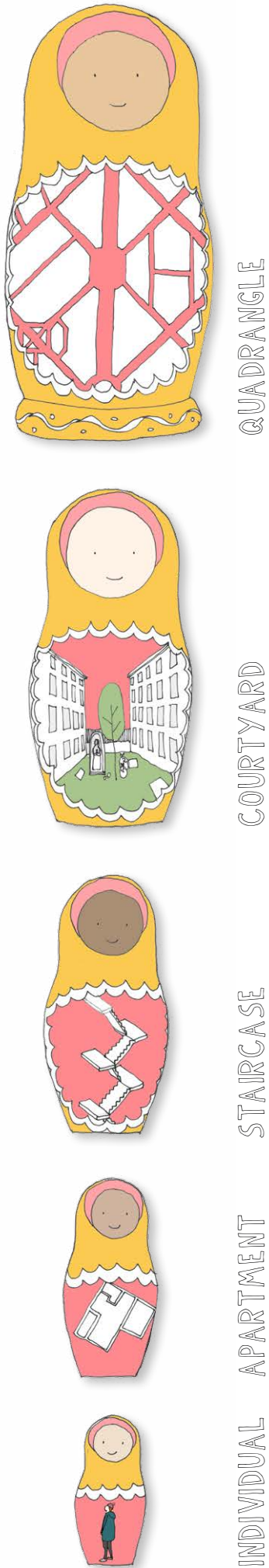
# SAN SIRO IS A HETEROTOPIA

A heterotopia is an 'otherly' space, a world within a world which reflects or is deviant from its context; disturbing, intense, incompatible, contradictory, or transforming... A utopia with place<sup>28</sup>

A heterotopia can be a 'utopia' with 'place'; San Siro was envisaged as a utopian model city, but exists within a real context as a world within Milan: we can understand San Siro as a heterotopia... deviant and contradictory to Milan.

Beyond, the worlds within worlds of San Siro can be envisioned in the same way. The individual within the apartment, around the staircase, within the courtyard, within San Siro...

The garden is a form of heterotopia, bringing together parts of the world in miniature.<sup>29</sup> Rugs were conceived as a representation of the garden,<sup>30</sup> and can therefore be understood heterotopian. Rugs air over many of the balconies, fuelling this reading.



*chapter 4*

# *imagined lives of san siro*

*constructed stories of everyday life*

Against the rigid modernist fabric of San Siro, daily life is performed and improvised. Objects are abandoned or stored in the courtyards, streets and open spaces. The blank façades fronting pavements (indicated right) form stage-sets to a never-ending cycle of furniture dumped, dismantled and removed. These are archived over the following pages.



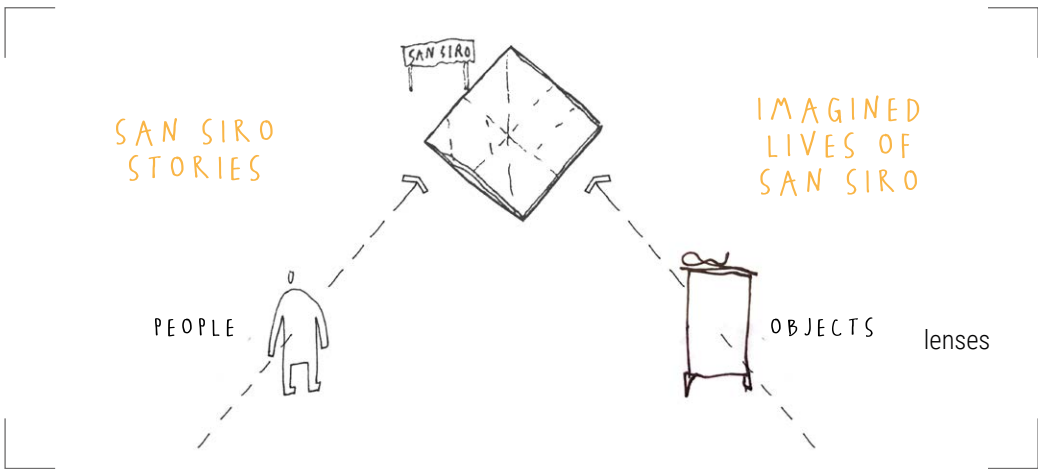
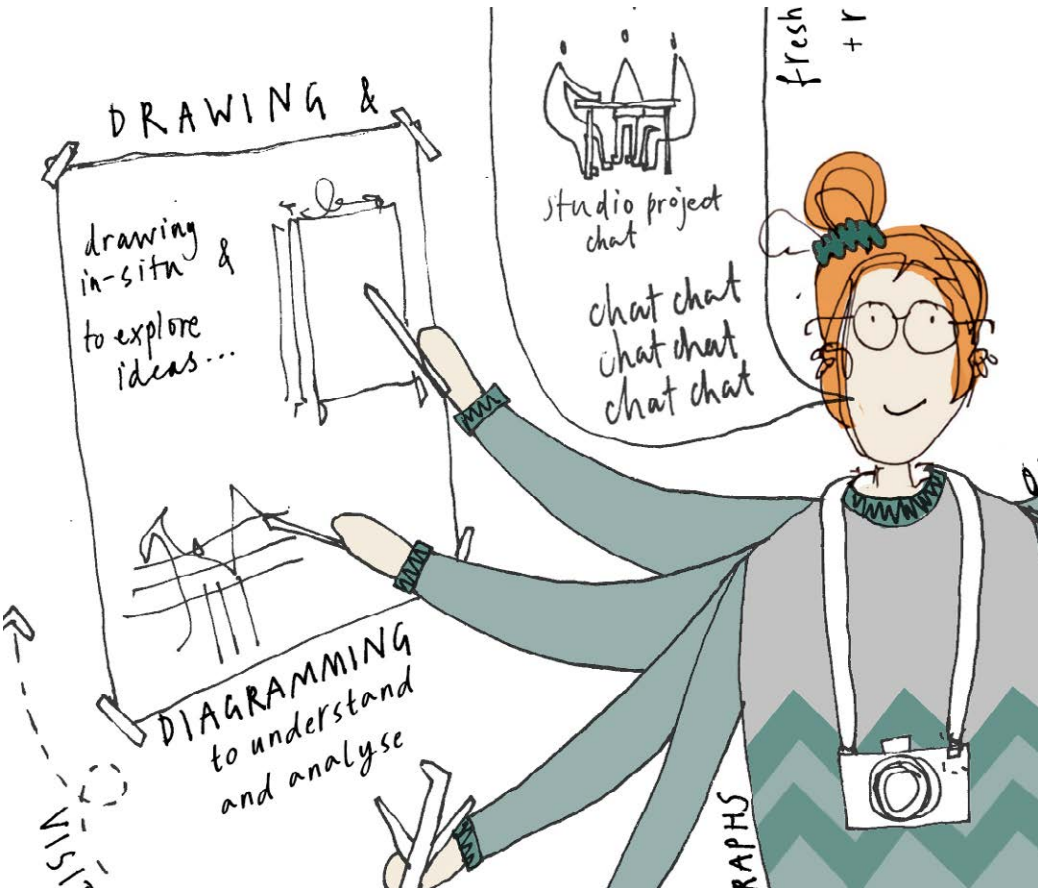
primary furniture dumping locations



sofa: enter stage left

San Siro stories utilises people as a lens on the neighbourhood; in contrast, I began constructing stories of my experience and observation through objects encountered. These build on discoveries from mapping San Siro to take them beyond passive observation and enable a personal dialogue about what they might reveal.

De Certeau posits that stories, rather than maps and statistics create a holistic view of place, narrating how everyday life occurs, as opposed to the strategic colonisation of space by maps.<sup>31</sup> Drawing on a constructivist and narrative approach, I create multiple readings of place<sup>32</sup> and multi-layered understanding,<sup>33</sup> reflecting the diversity of residents and their story-filled lives. Alongside maps, drawings and statistics, a more representative view of my reading of San Siro is revealed.







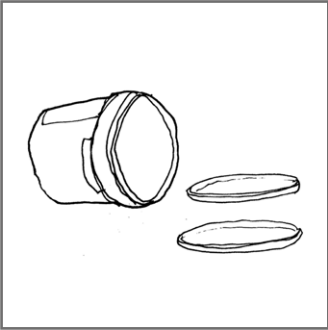
**01\_washing machine**  
description: abandoned, missing pieces  
frequency: 5-10



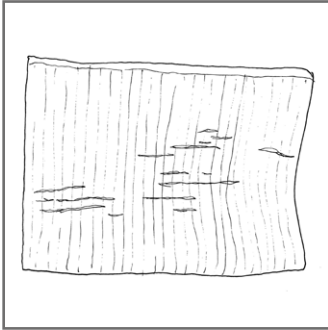
**02\_trolley**  
description: in use  
frequency: 10+



**03\_sofa**  
description: abandoned, missing cushions  
frequency: 5-10



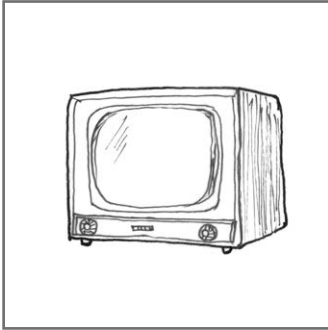
**04\_spilled paint**  
description: large tub, recently spilled  
frequency: 1



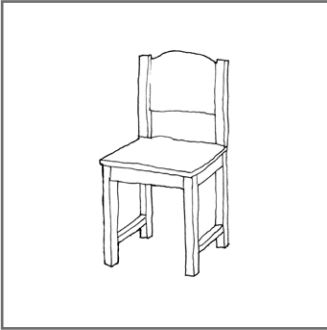
**05\_mattress**  
description: abandoned, broken, stained  
frequency: 5-10



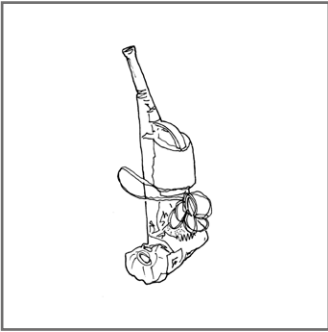
**06\_mary statue**  
description: watching over courtyard  
frequency: 10+



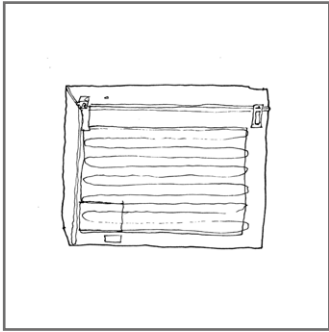
**07\_tv**  
description: abandoned, in pieces  
frequency: 10+



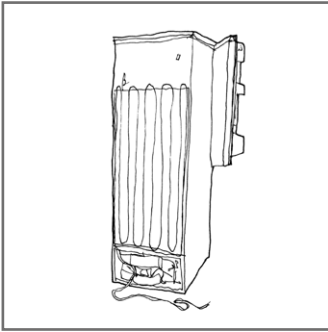
**08\_child's chair**  
description: green, abandoned?  
frequency: 2-4



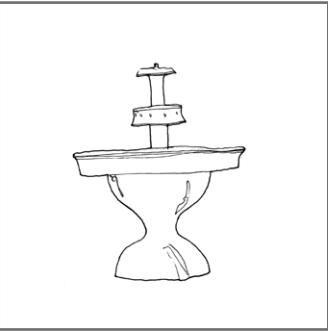
**09\_hoover**  
description: abandoned, broken  
frequency: 2-4



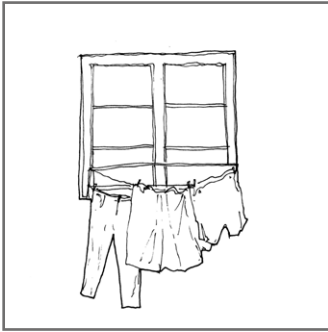
**10\_freezer**  
description: abandoned, missing pieces  
frequency: 5-10



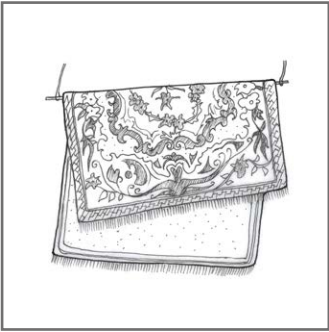
**11\_fridge freezer**  
description: abandoned, missing pieces  
frequency: 5-10



**12\_fountain**  
description: abandoned?  
frequency: 1



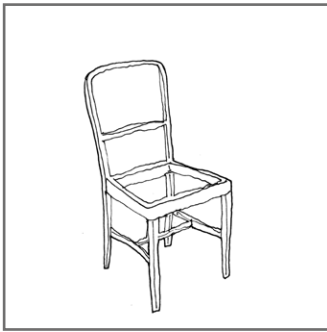
**13\_washing**  
description: hung out of the window  
frequency: 10+



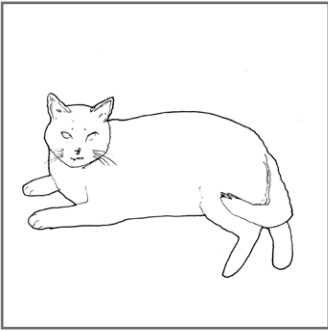
**14\_rug**  
description: airing, hanging on balconies  
frequency: 10+



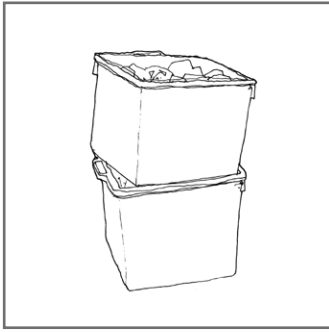
**15\_drawers**  
description: abandoned  
frequency: 2-4



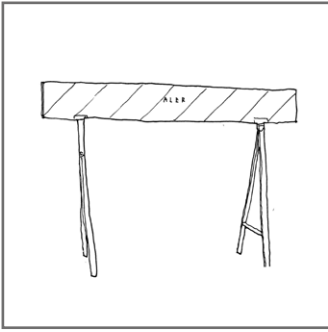
**16\_chair**  
description: abandoned, missing seat  
frequency: 10+



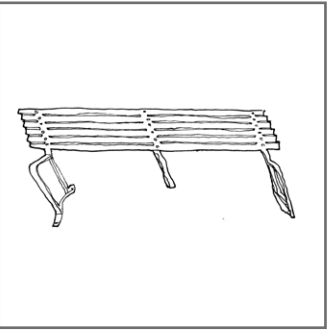
**17\_cat**  
description: sunbathing  
frequency: 5-10



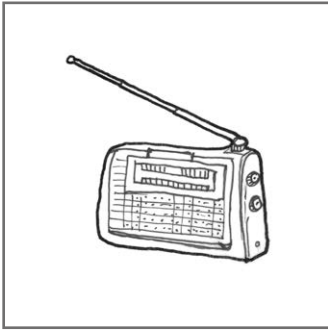
**18\_boxes**  
description: neatly stacked or strewn  
frequency: 10+



**19\_barrier**  
description: decorating  
frequency: 10+



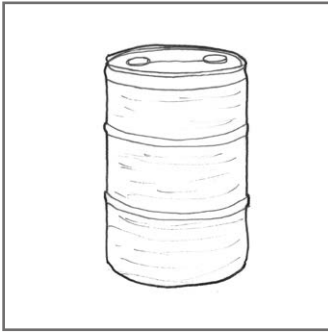
**20\_bench**  
description: broken, leaning  
frequency: 10+



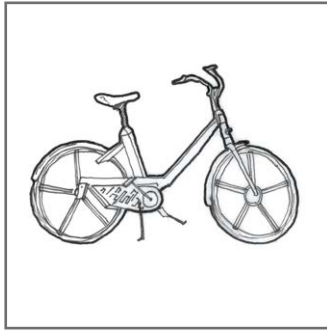
**21\_radio**  
description: abandoned  
frequency: 1



**22\_step ladder**  
description: abandoned?  
frequency: 2-4



**23\_drum**  
description: blue, abandoned?  
frequency: 5-10



**24\_bike**  
condition: locked, rusting  
frequency: 10+



**25\_trolley**  
description: abandoned?  
frequency: 2-4



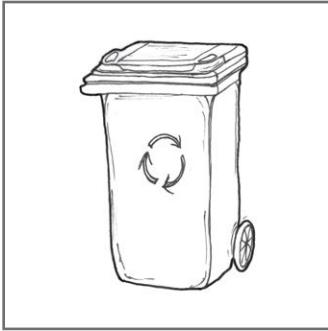
**26\_buggy**  
description: parked  
frequency: 5-10



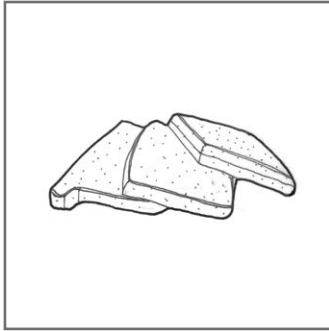
**27\_ladder**  
description: leaning  
frequency: 10+



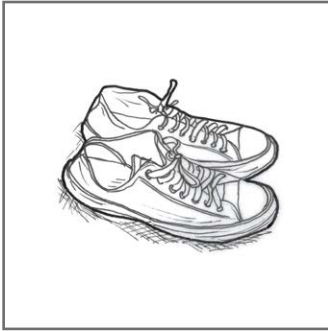
**28\_window box**  
description: filled with plants  
frequency: 10+



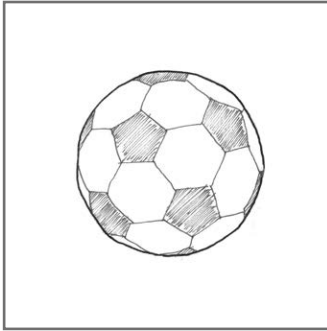
**29\_bin**  
description: blue, black, green... in use  
frequency: 10+



**30\_sofa cushions**  
description: abandoned, artfully stacked  
frequency: 5-10



**31\_shoes**  
description: abandoned, missing one  
frequency: 10+



**32\_ball**  
condition: in use  
frequency: 5-10

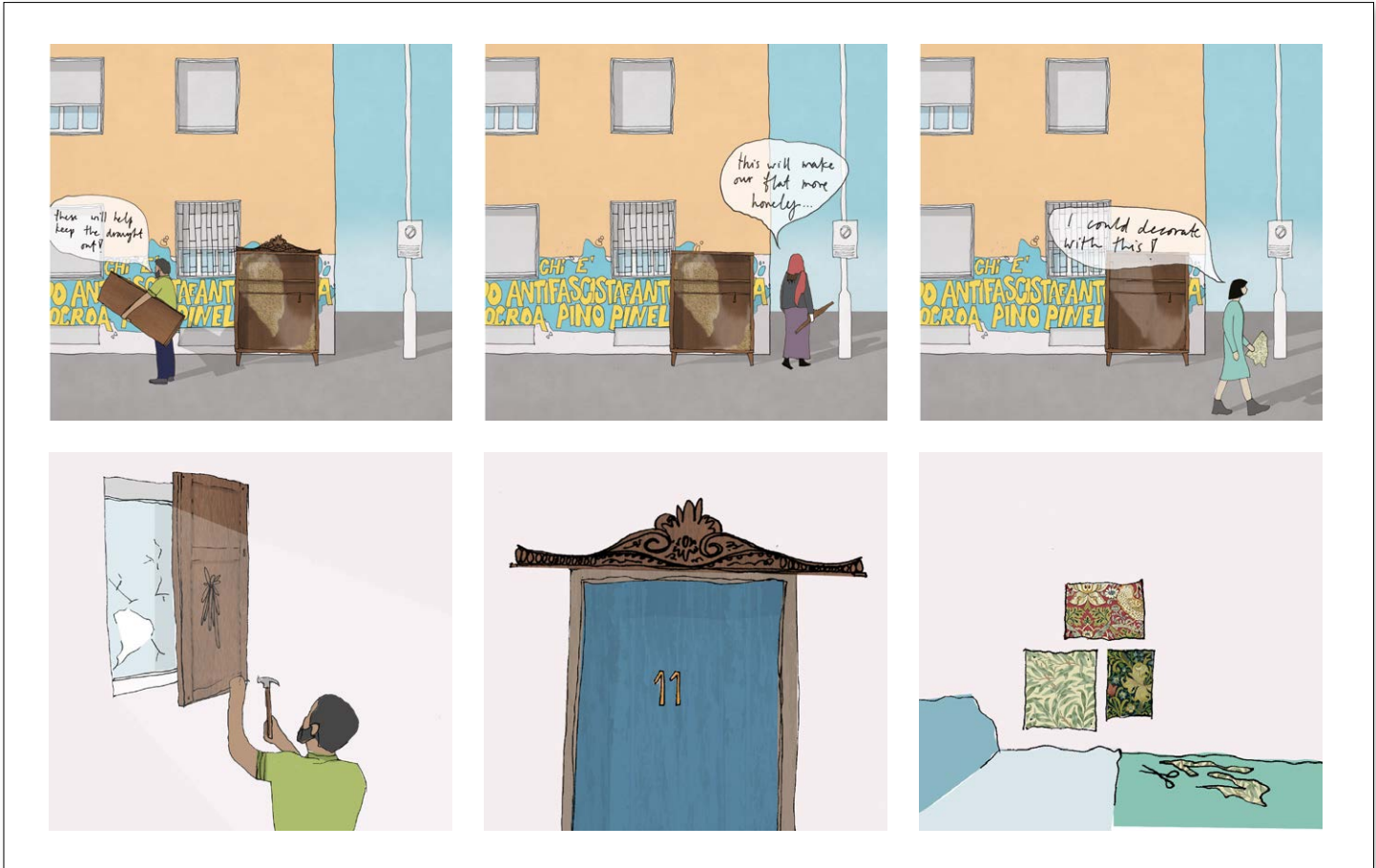


A series of stories constructed around my experiences of San Siro: these imagined lives are beguiling in isolation, but collectively build a vision of a neighbourhood filled with compelling everyday practices of improvisation and adaptation.

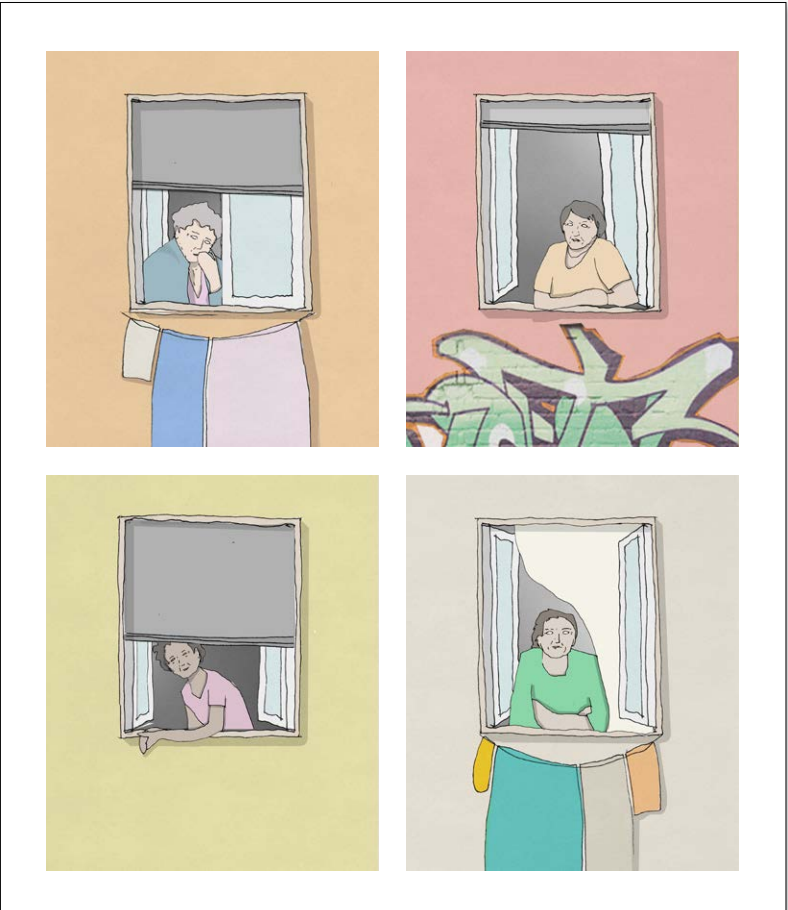
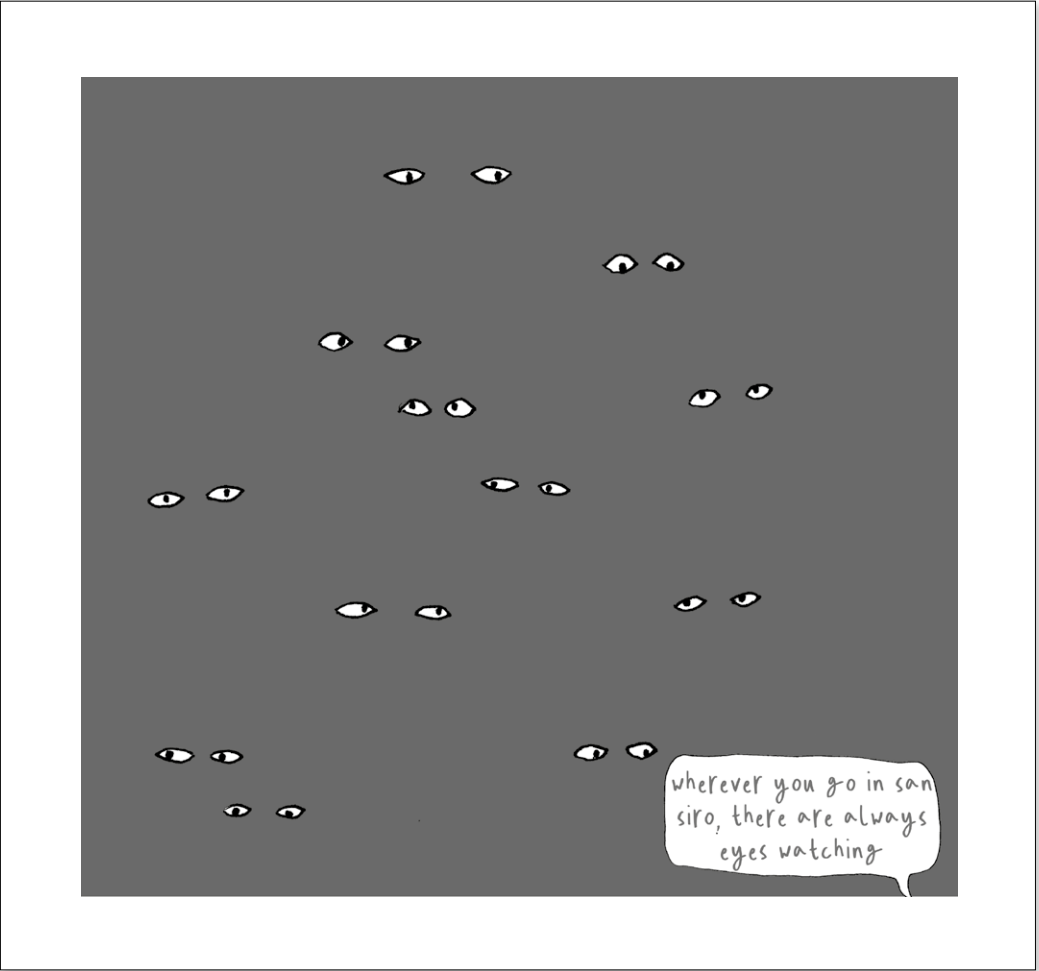




The wardrobe arrived by van to the southernmost tip of the quadrangle during a redecorating spree by it's previous owners. Dismantling followed - first the doors, used to block a broken window and protect against break ins. Next, the ornamentation was taken to adorn a recently painted front door, before the peeling wallpaper from the back was used to patch over an old and stained wall.

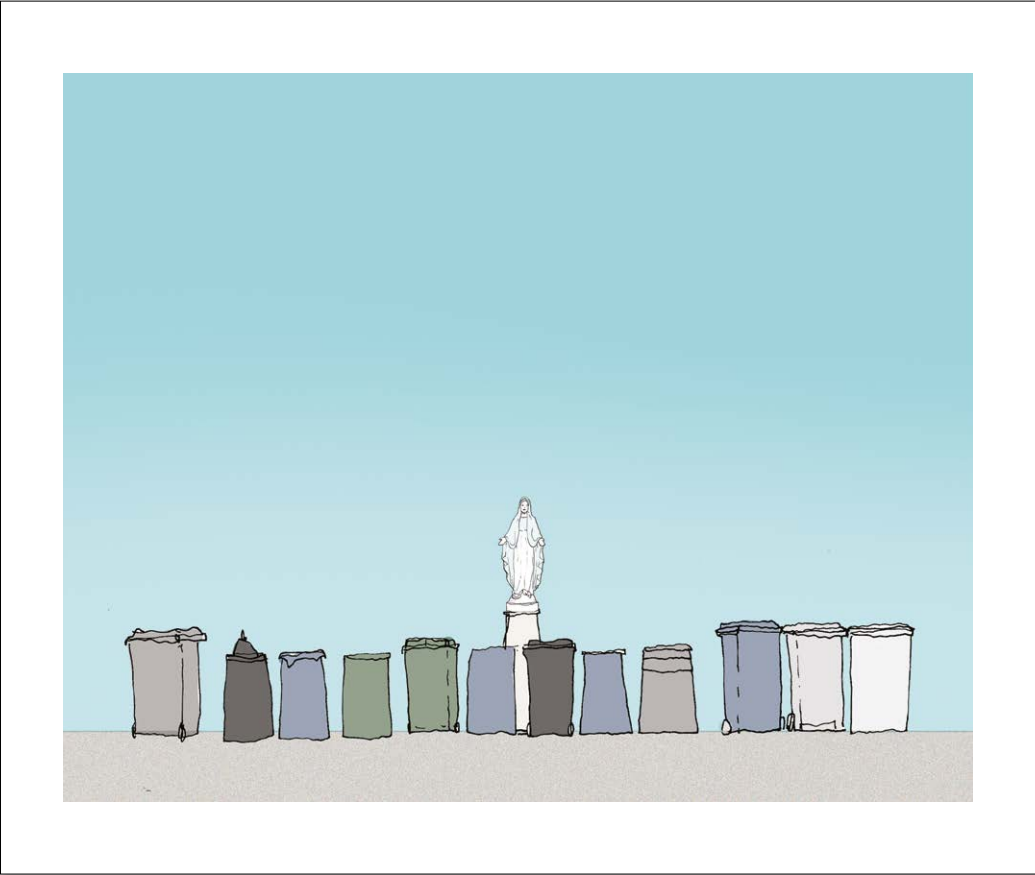


I became aware of the ever present watching eyes, peering from windows, sometimes hiding behind curtains and shutters, and sometimes out in the open, and nearly always belonging to elderly Italian women with little else to do but watch the world go by to gossip with their friends about, like the latest tv show.



*mary and the bins*

In a courtyard, a statue of Mary seemed to assert authority over the assembled line of bins, a watchful eye ensuring rubbish is thrown away.



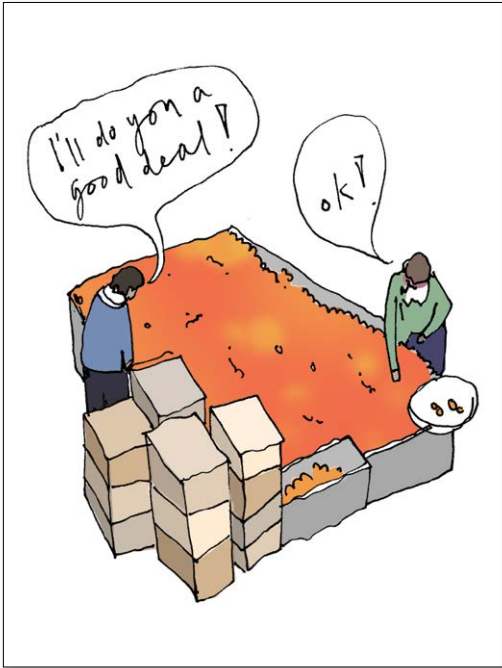
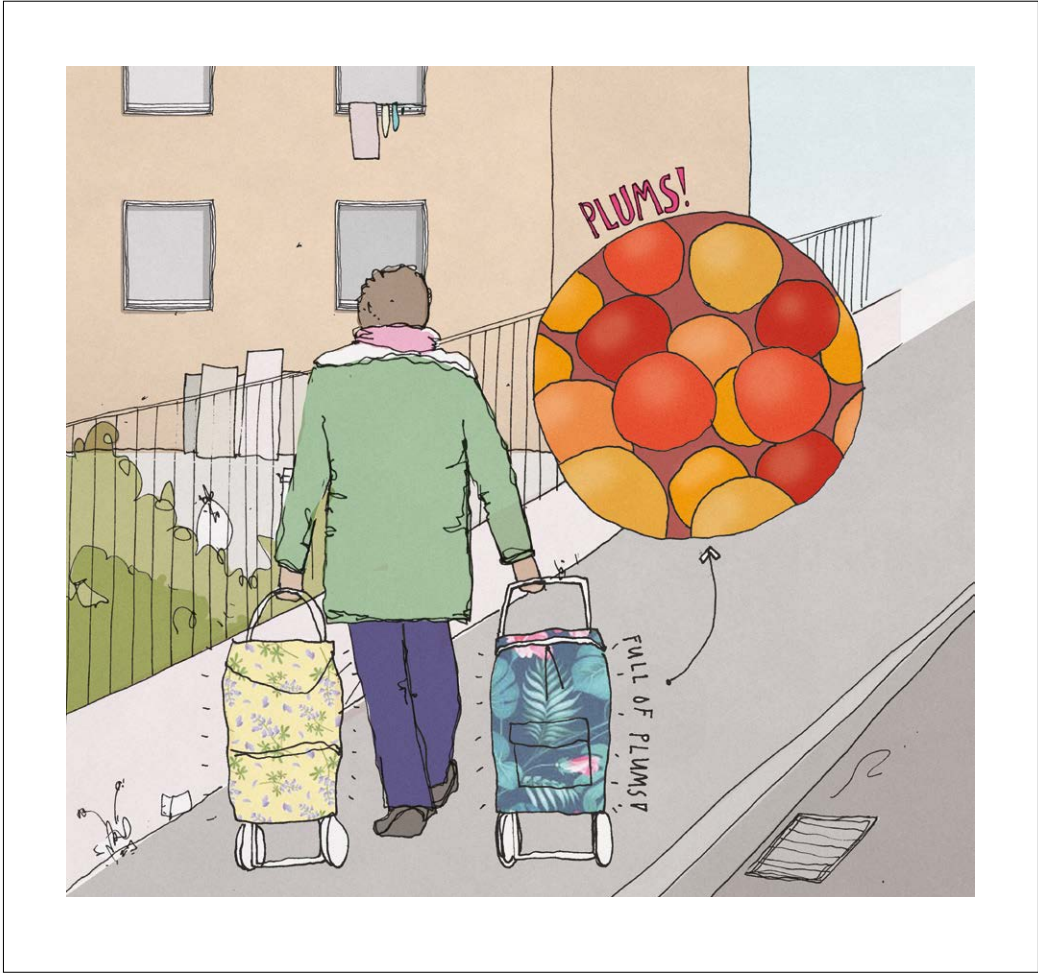
*the gap in the fence*

A break in the fence, and a chair leant against one side form a shortcut from one courtyard to another, used by friends to clamber through



*the boy and the plums*

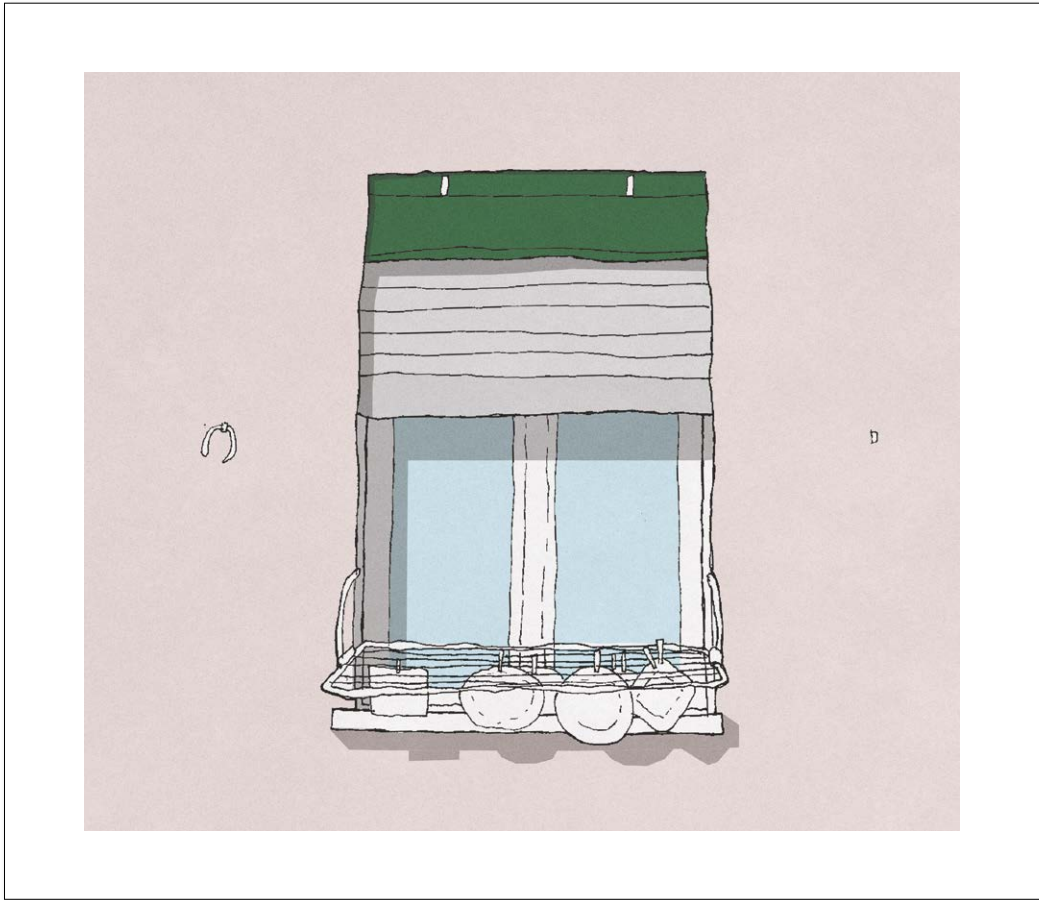
We passed by a boy with two trollies bursting full of plums, picked up cheaply on a deal from a friend, and off to be sold at the street market the following day.





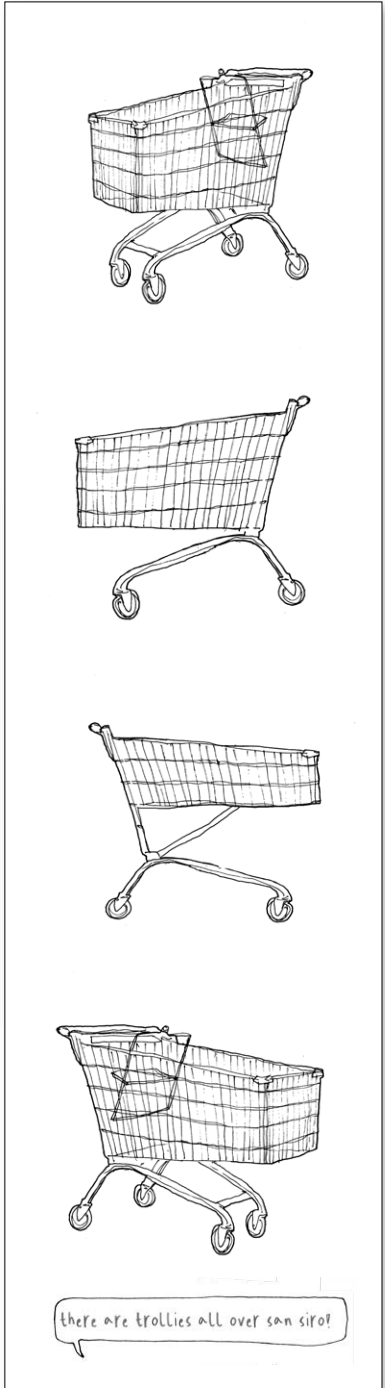
*hanging out the plates to dry*

Passing by a window I spotted a set up plates hung out to dry on a drying rack (How did they manage this?! ) in response to a lack of sink and drying rack, with poor ventilation causing mould to grow across the flat.



*trollies of san siro*

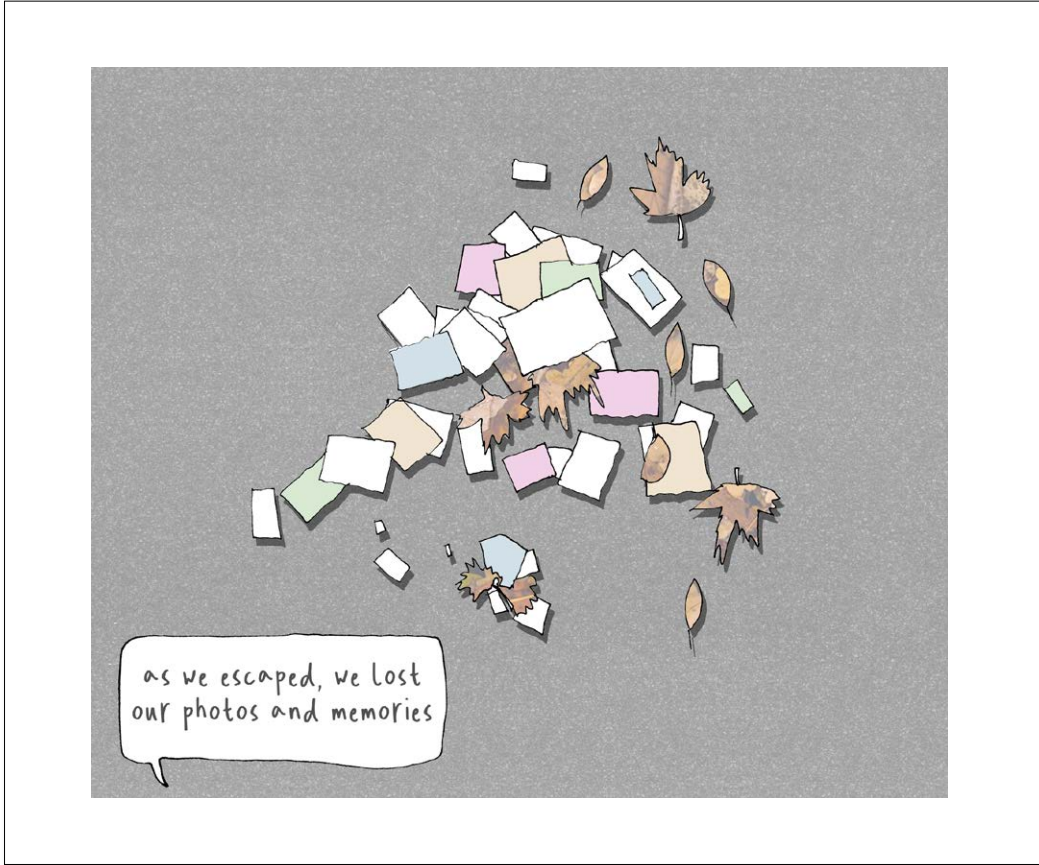
There are trollies all over San Siro, despite there being no obvious source. It seems everyone has access to a trolley, shared or otherwise, and taken out by individuals and families to be utilised for everything from shopping to collecting objects to moving rubbish.





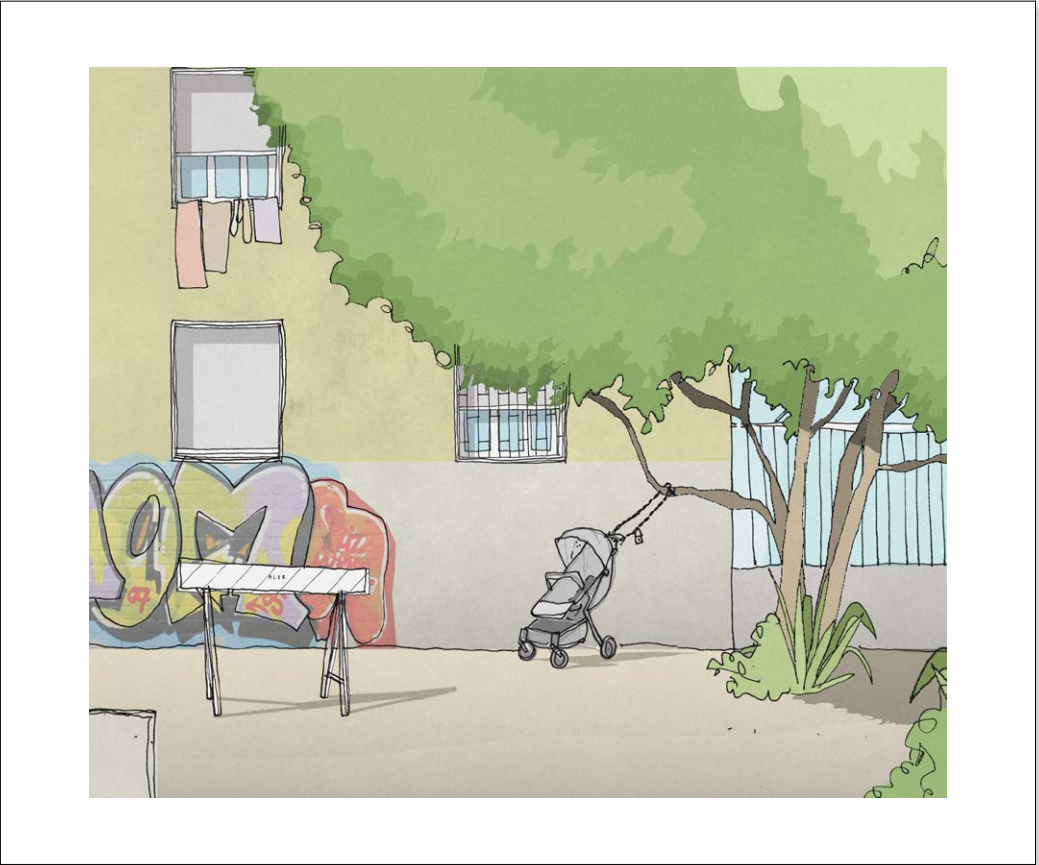
*abandoned memories*

A pile of abandoned family photographs of weddings and birthdays and trips to grandma's house were uncovered on the street edge, lost in the dead of the night during a hasty escape from impending eviction and bailiffs.

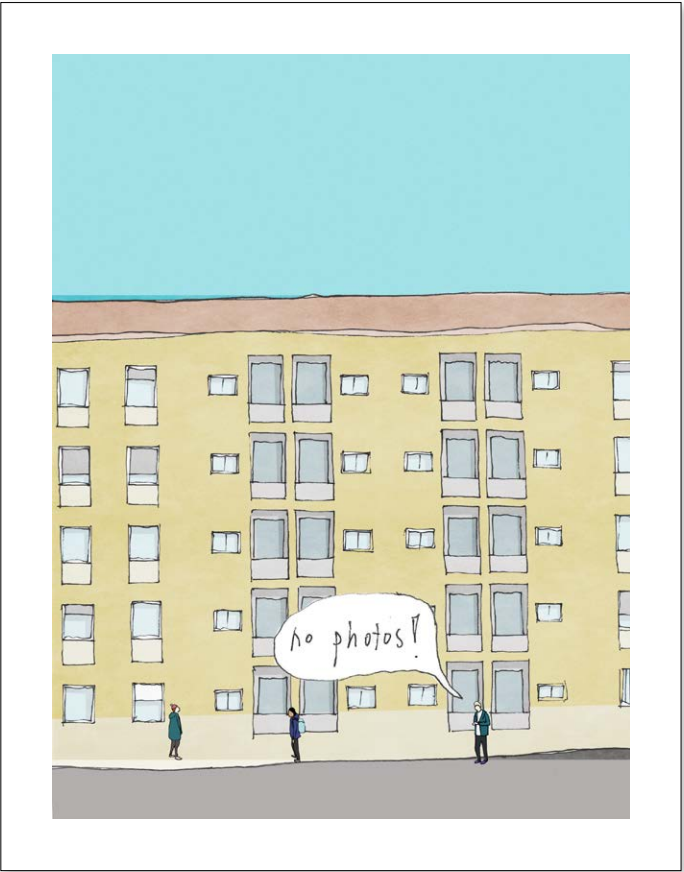
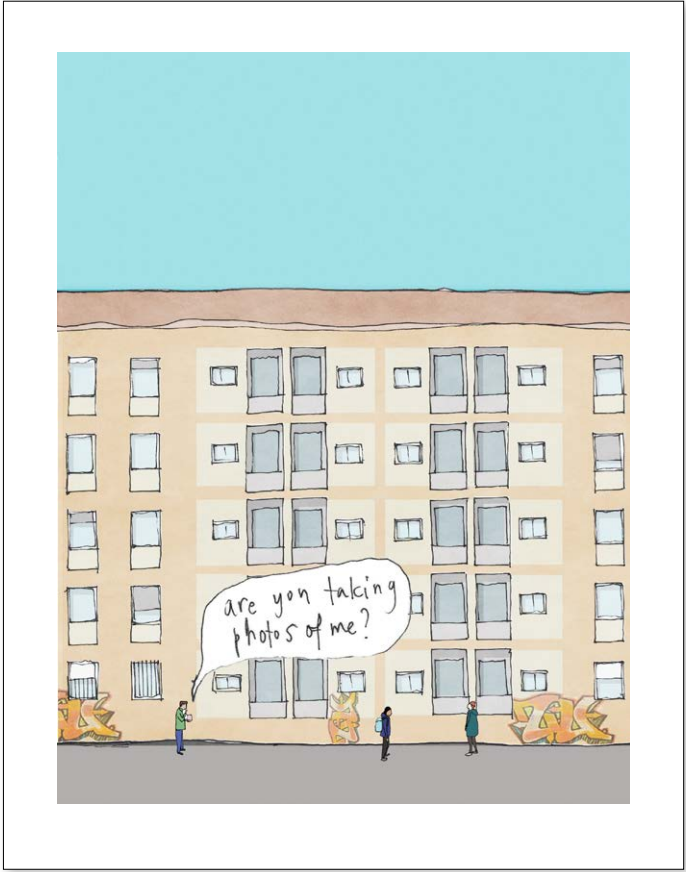


*the buggy locked to a tree*

I came across a buggy padlocked to a tiny tree branch in one of the courtyards for security. Apartments are too small to store any buggy that might be able to be dragged up 5 or 6 floors, and there are no lifts.





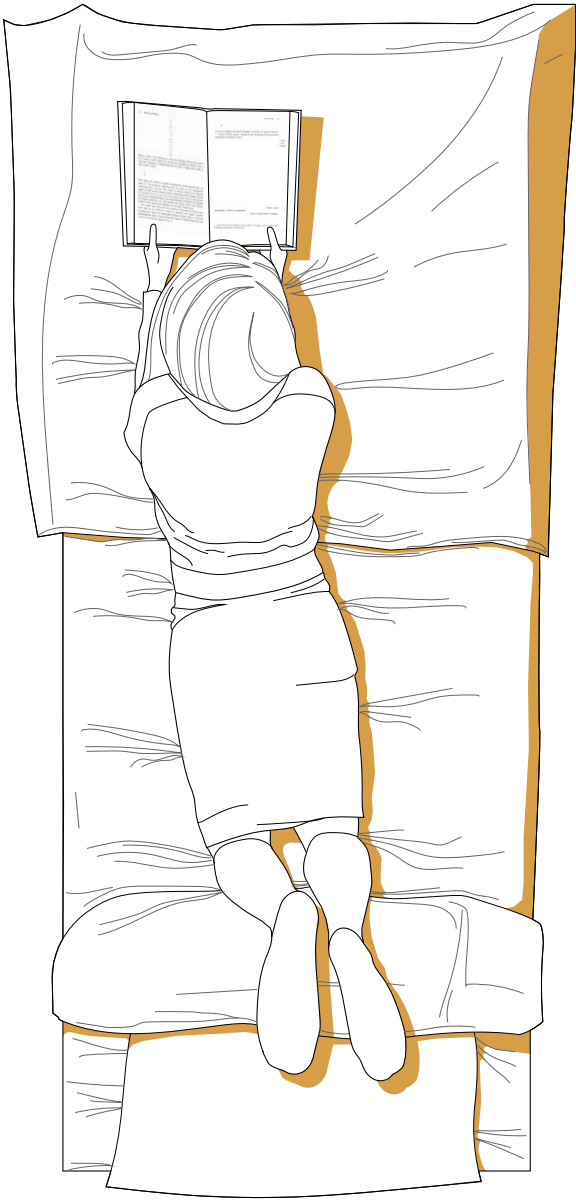
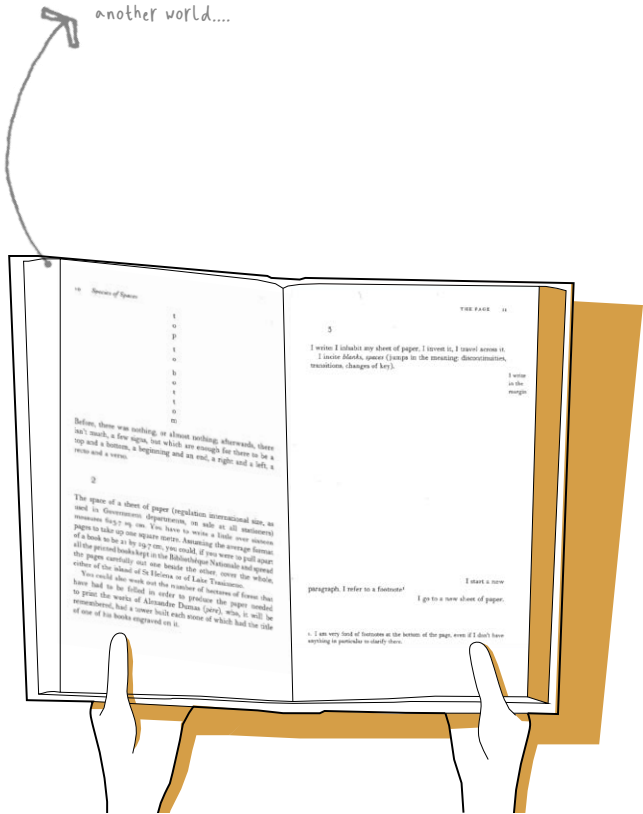
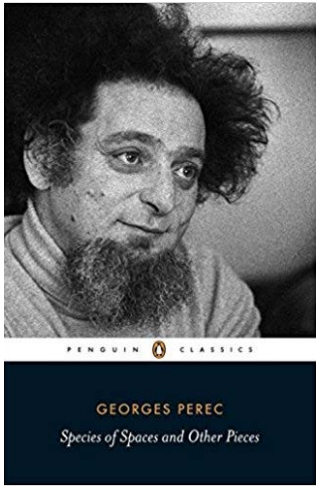




*chapter 5*

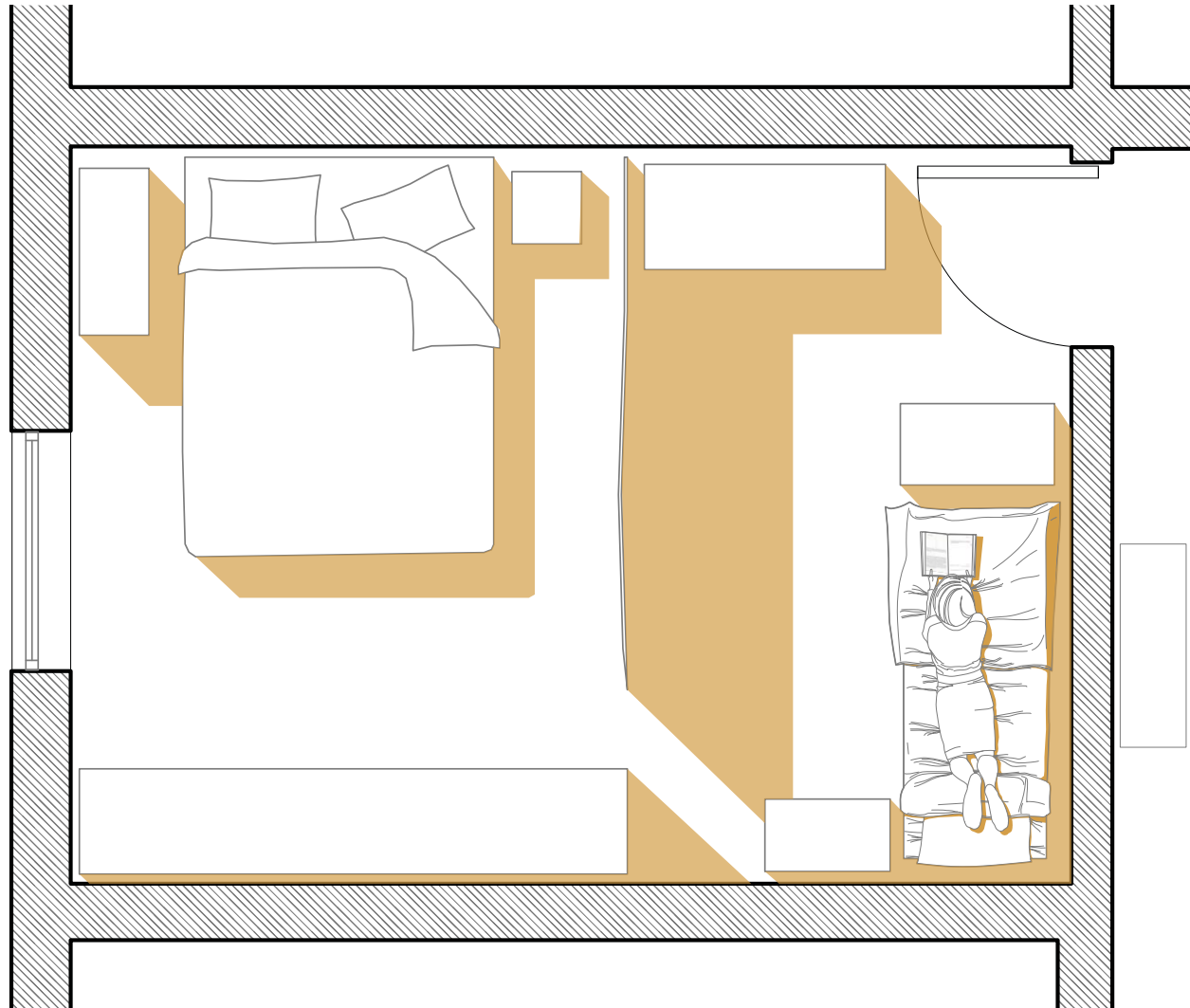
*a species of spaces*  
*the fabric of san siro*

One must understand the context within which the imagined lives of San Siro take place. George Perec's writing on everyday life and domestic space has been a great source of inspiration for me; therefore, I appropriated the structure from 'a species of spaces', applying it as another lens through which to understand San Siro. Tracing space from the micro to the macro teases out key issues and builds on the reading of San Siro as a heterotopia.

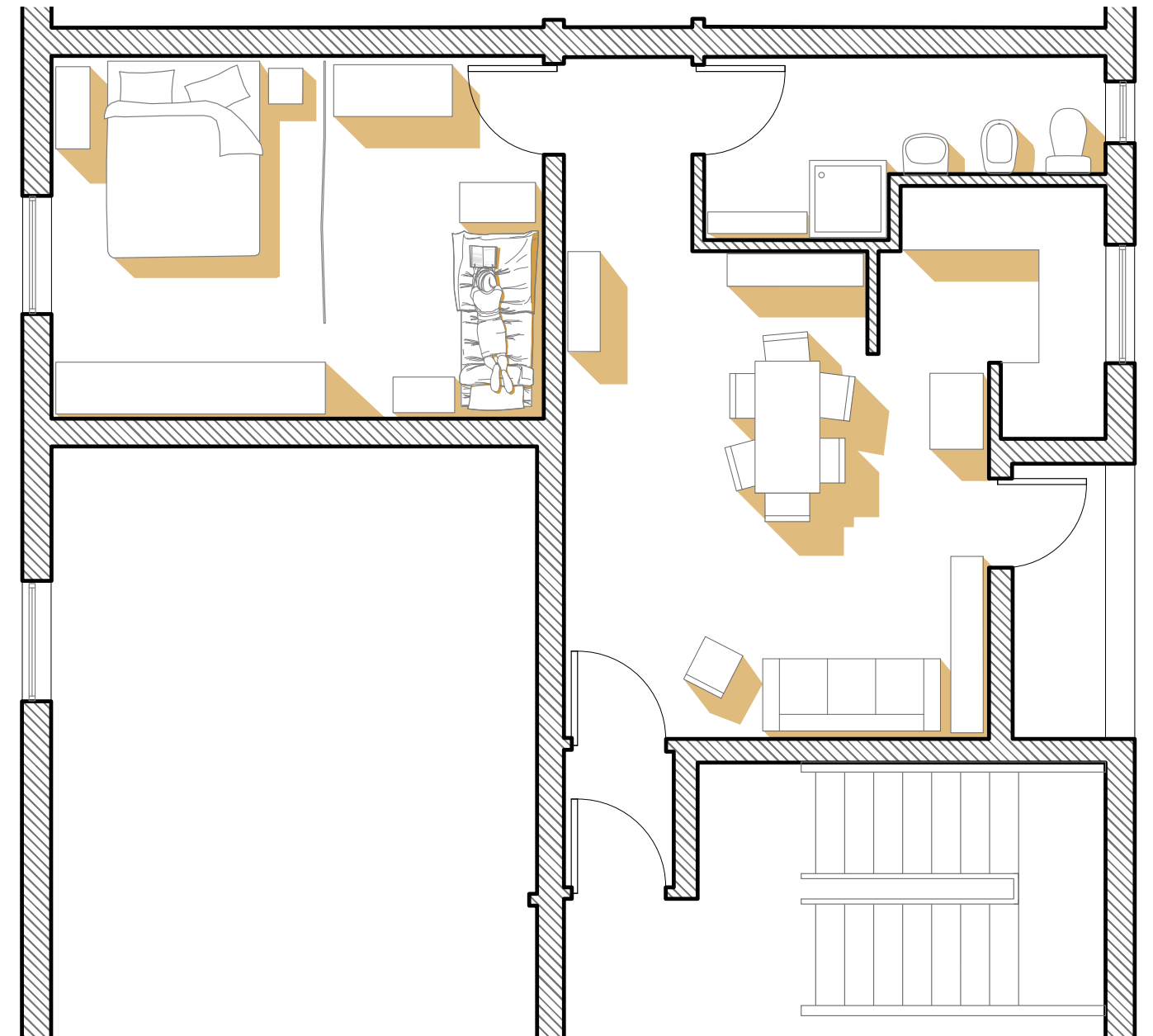


the page is spatial: words trace across a blank page creating forms and voids.  
the book is spatial: a portal to another world, an act of escapism, a veritable zoo of everyday practices

The bed is an island, from which one may travel through books, protected by blankets and pillows.  
We spend more than 1/3 of our lives sleeping,<sup>34</sup> and the bed is now the most used furniture.<sup>35</sup>

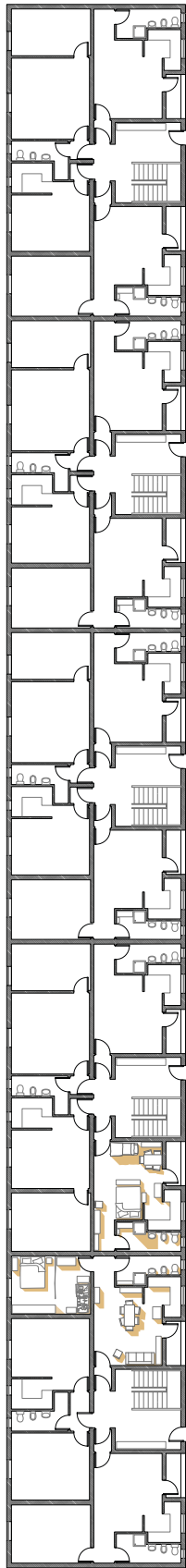


The bedroom is a place of retreat.  
The space is divided in two by a sheet nailed to the ceiling, providing separation to the small family of four who sleep here each night.  
Many of the apartments in San Siro do not have the luxury of a separate bedroom, with life taking place in one room.

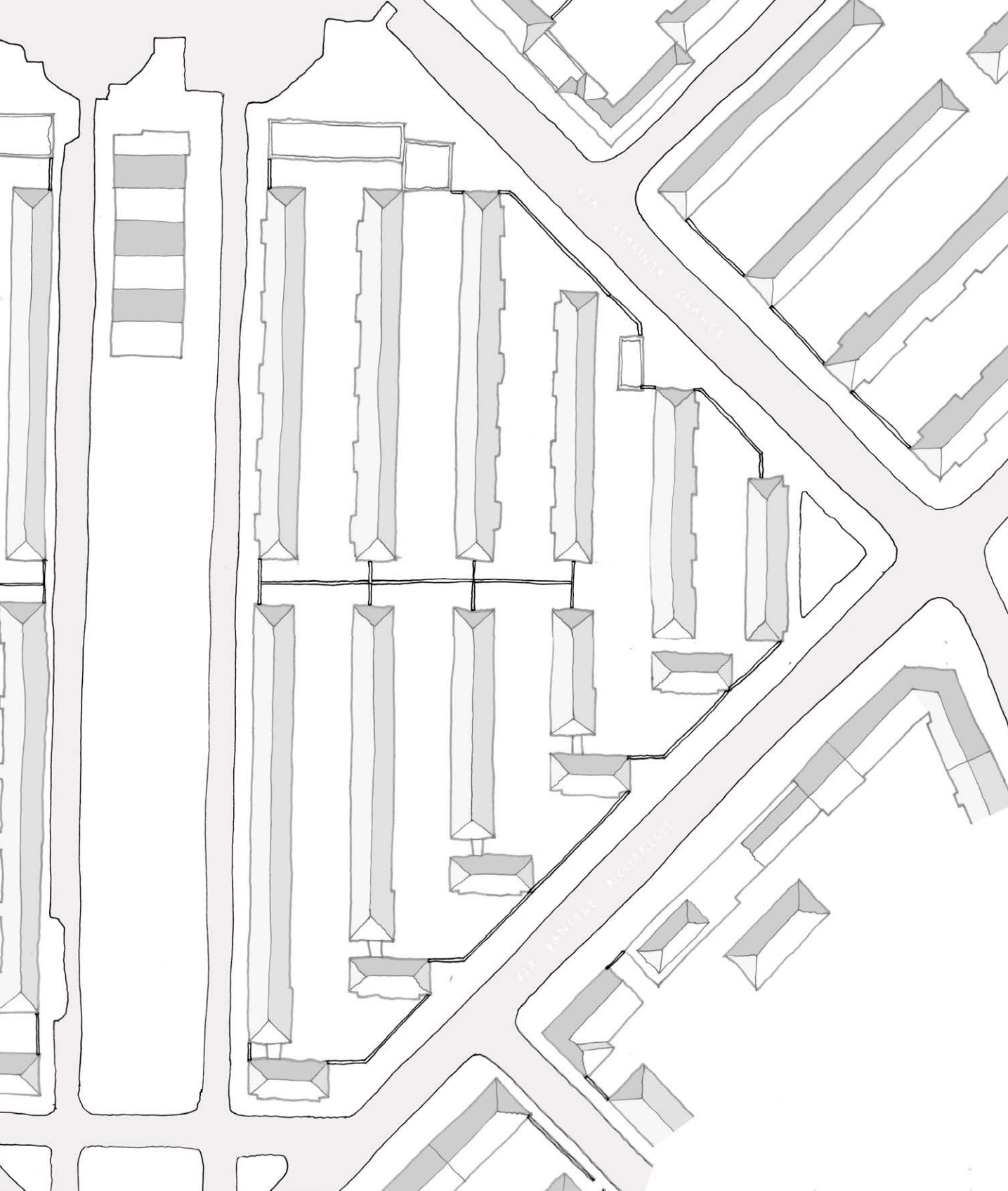
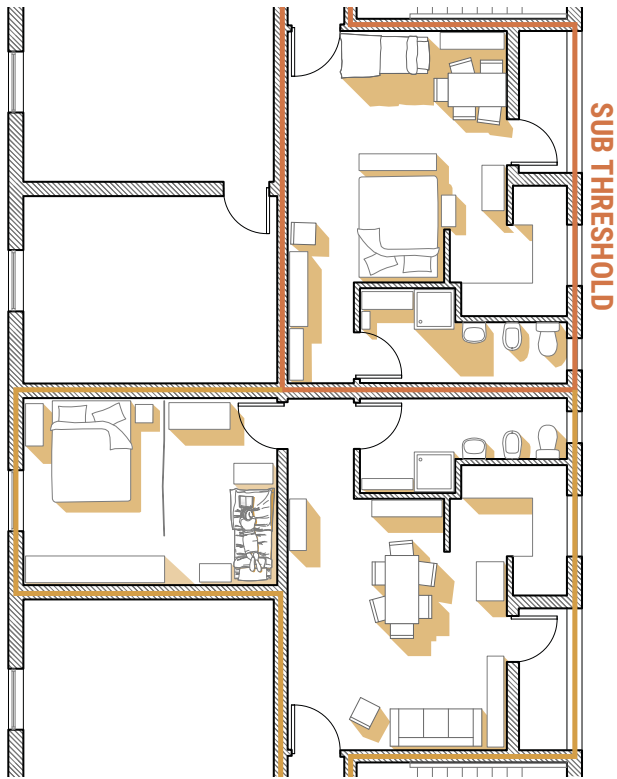


The bedroom is one of two main rooms in this apartment, alongside an 'everything room' where everything from cooking to drawing to relaxing happens. A tiny bathroom, kitchen and balcony offer escapes from this all-encompassing space.





more adaptation and improvisation - sheets hung as walls and a table acts as desk, dining, play thing, side board, den...



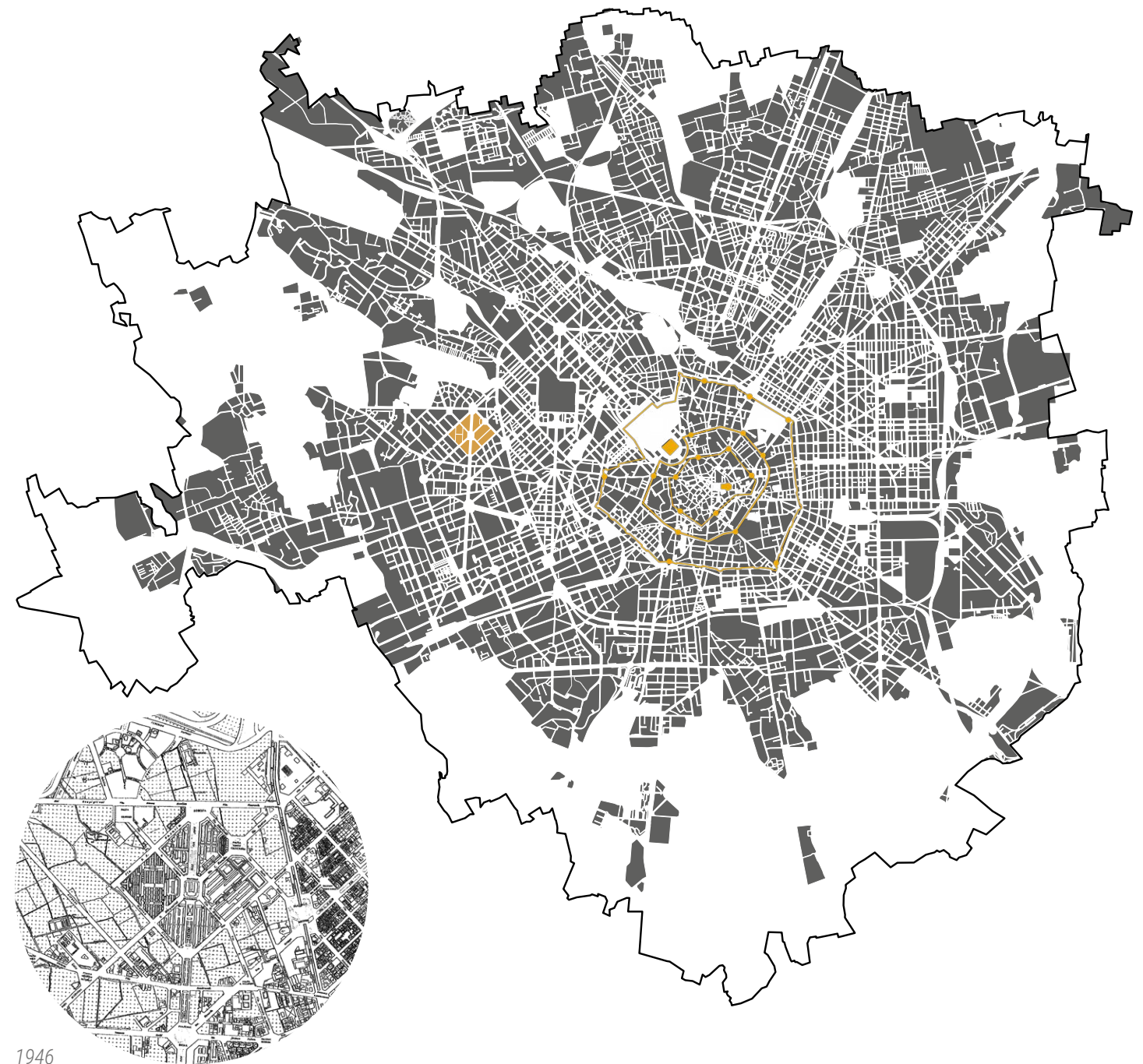
what makes life at 29m<sup>2</sup> better than life at 28m<sup>2</sup>??

The apartment is one of 18 on this floor, and 108 in this building... repeating units of one and two room apartments clustered around shared stairs. Many of the one room apartments are classed as sub-threshold: below 28m<sup>2</sup>, and prohibited to rent, leaving many empty or squatted.

The building is one of 16 in this urban block, of varying sizes. Accessed through the courtyards dissected by walls and fences, there is little space for collective life to happen. Expanses of wall and fence render the block impenetrable: an obstacle to be avoided, with little relation to the roads filled with seas of parked cars bounding it.



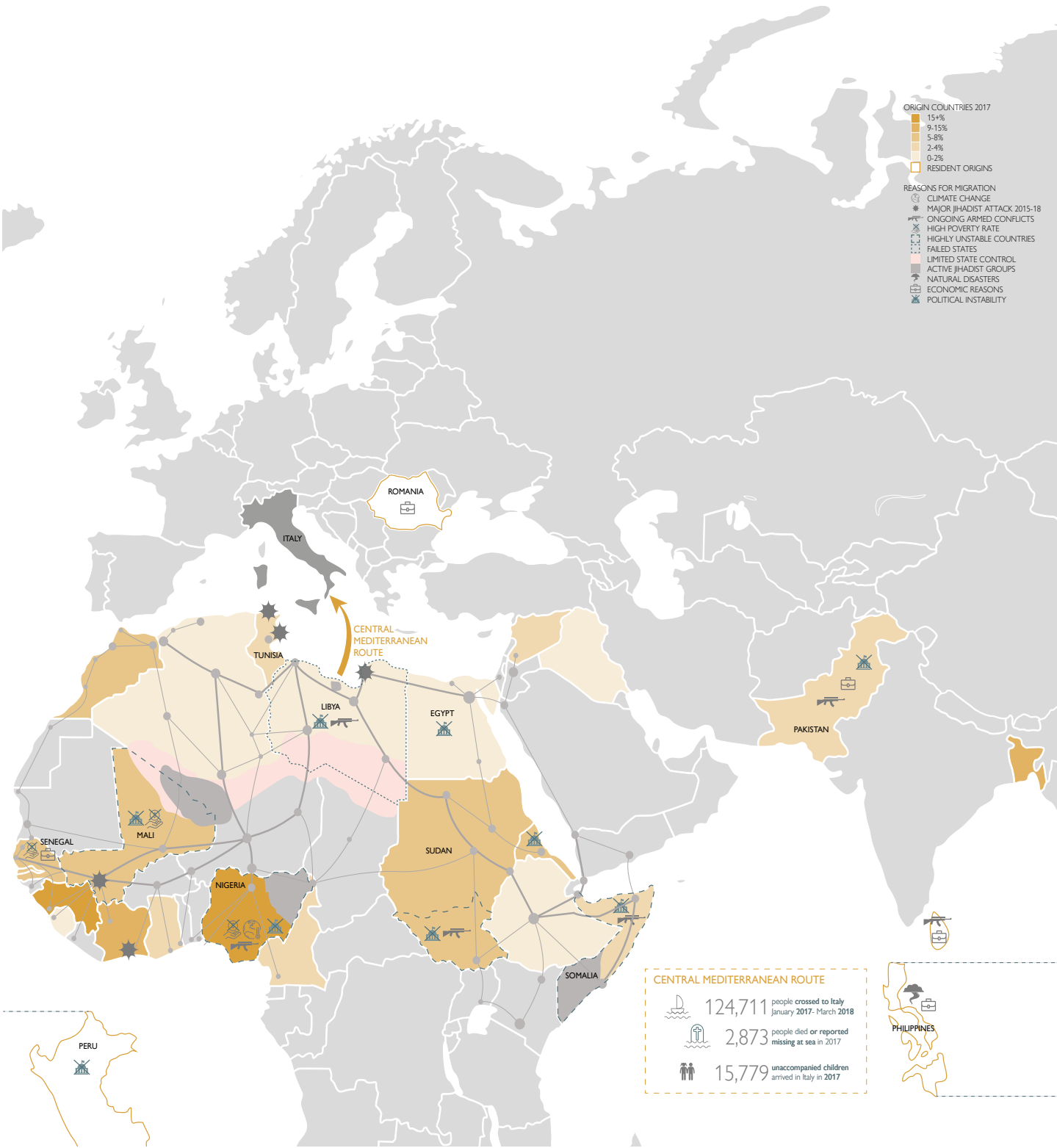
The neighbourhood sits distinct from the grain of the context, easily identifiable. The roads form boundaries between outside and inside, rich and poor, bustling and quiet...



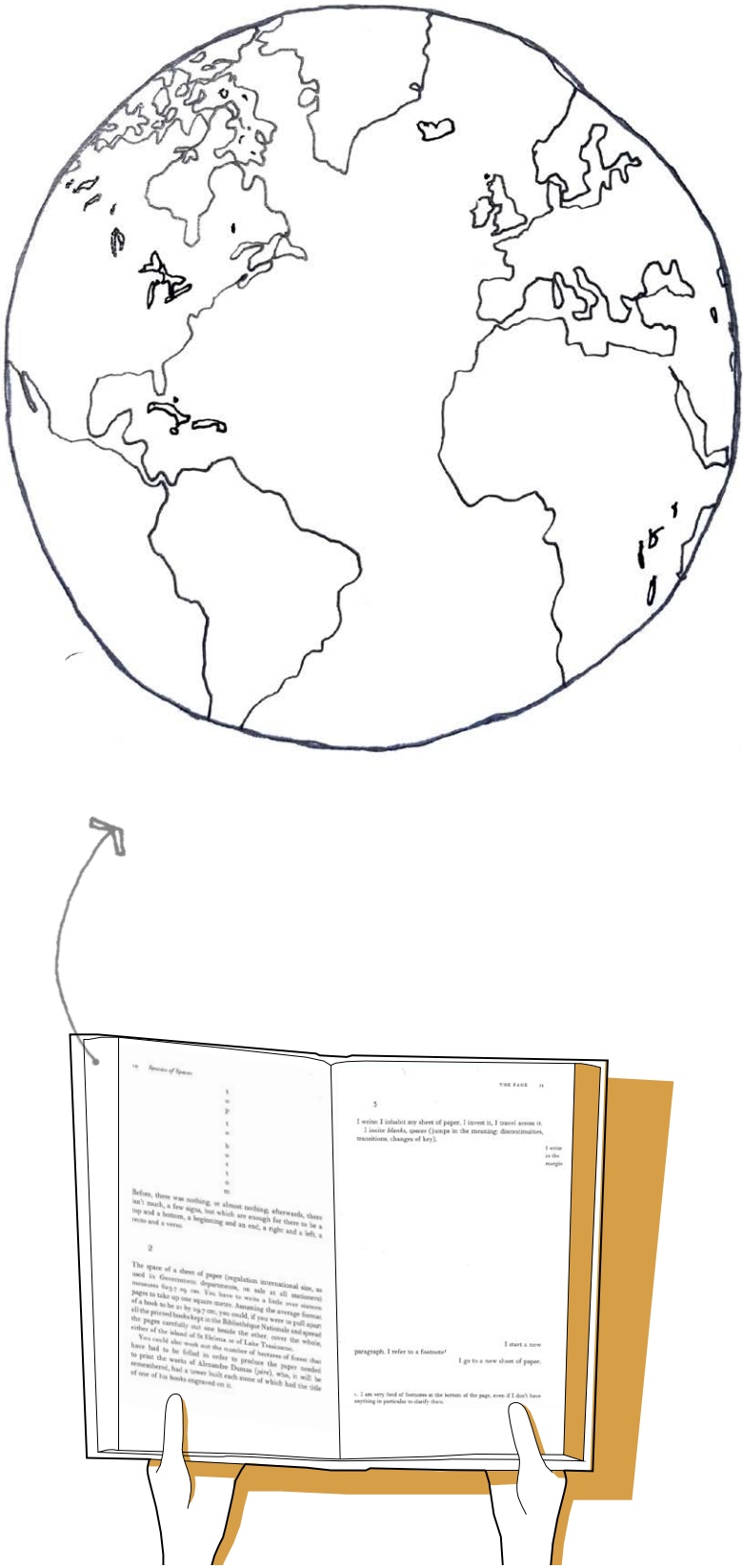
1946

Originally built surrounded by farmland on the edge of the city as a utopian model, Milan has grown to encompass areas far beyond San Siro, it's modernist urban planning even more at odds with the historic city.





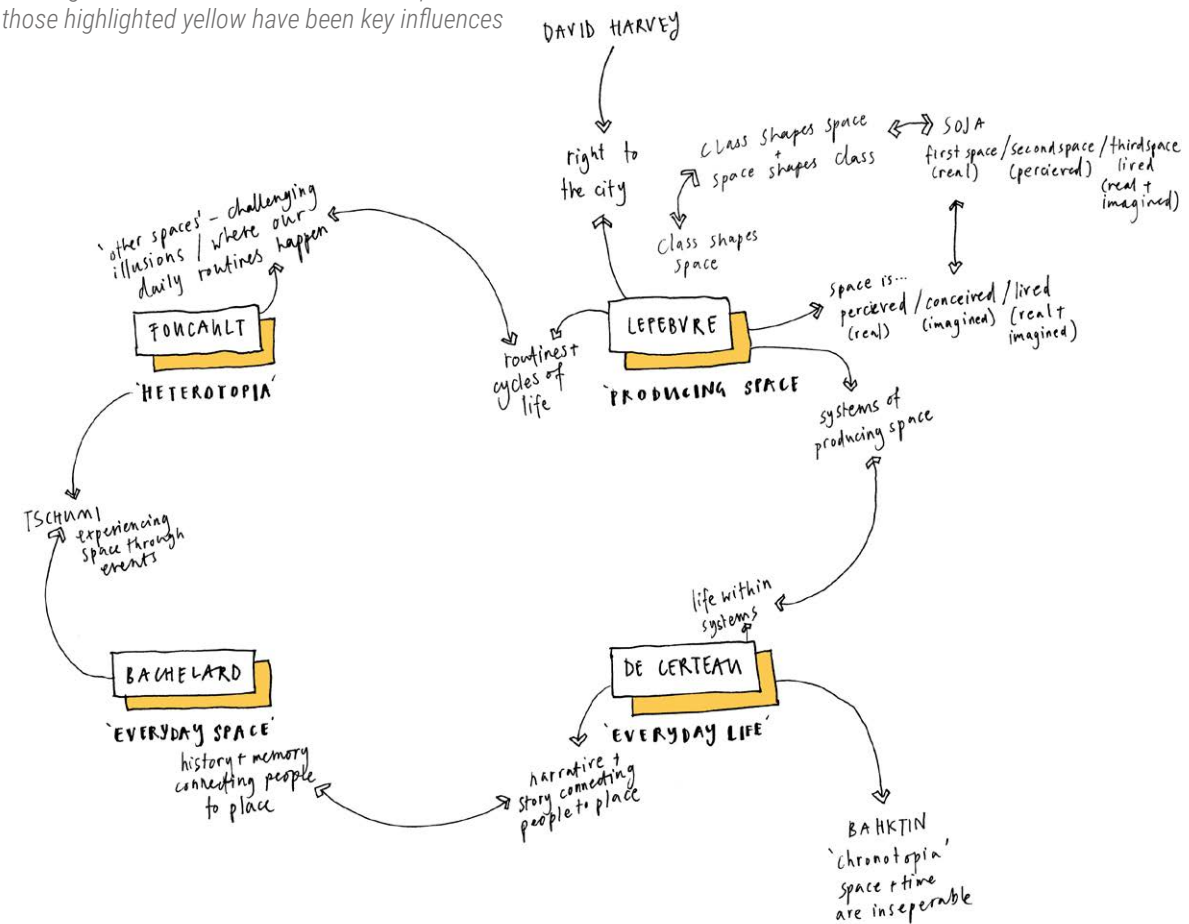
While San Siro plays host to many migrants, this is underpinned by wider continental migration via the Mediterranean, with Italy both a point of arrival and transition into Europe, predominantly from northern Africa.



This takes place somewhere in the world. But is it the world we live in or another world in the book? The cycle repeats...



*building connections between theories explored:  
those highlighted yellow have been key influences*



chapter 6

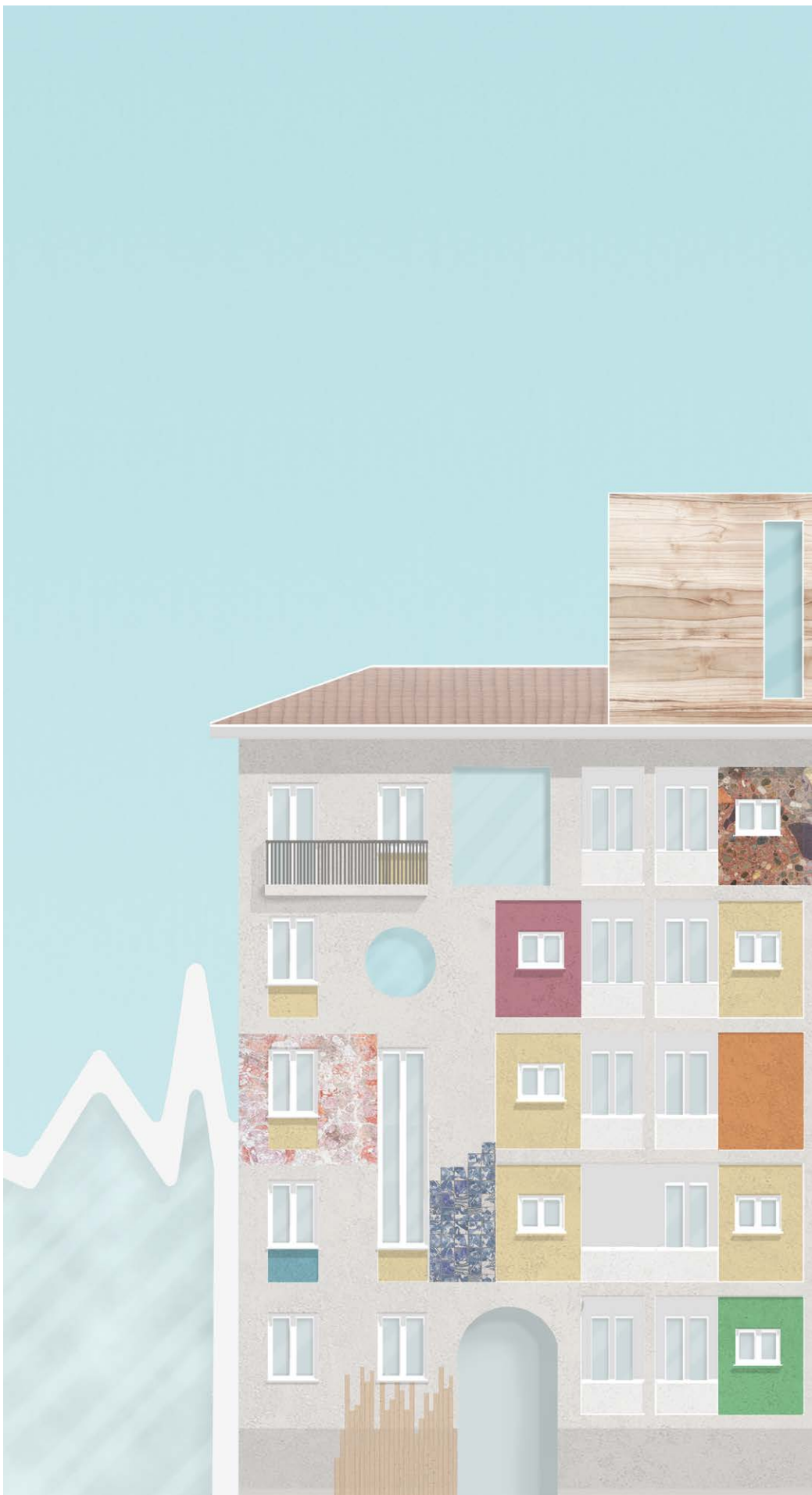
*politics, space & the everyday*  
*theoretical musings*

Everyday life is performed within the rigid modernist fabric of San Siro. This fabric is a product of prevailing ideologies and therefore inherently political.<sup>36</sup> Thus we can conceive architecture as a political act, in accepting or rejecting these ideologies. Space is also political, shaped and moulded by the politics of history.<sup>37</sup> Without suitable backing in policy, architecture cannot make the large-scale political changes we sometimes believe it capable of.

Ranciere offers a reading of politics as disruption,<sup>38</sup> whereby we can consider the disruption of space (or disruption of how we both read, perceive and experience space) a political act.

**If San Siro is a heterotopia, and a heterotopia is a disrupting space, how might San Siro be disrupted?**

A physical disruption creates alternative readings of space, whereas a perceptual disruption creates alternative readings of both people and place; how might San Siro be disrupted enough to counter the prevailing narrative, but without unwriting the uniqueness of place?



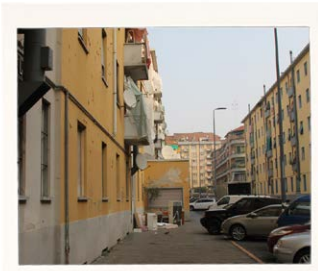
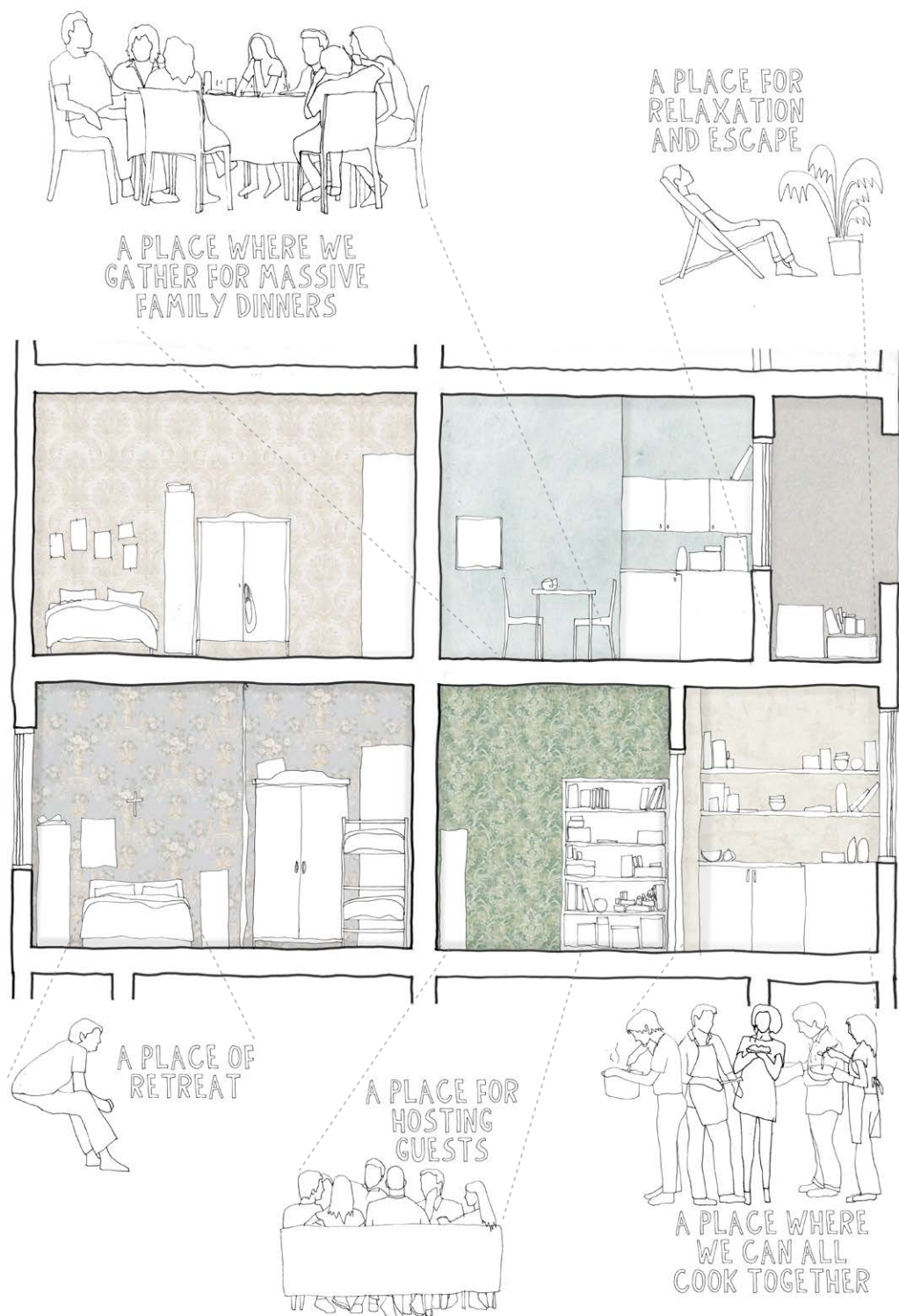
Space can be read in multiple ways. Lefebvre describes space as both perceived (real), conceived (imagined), and lived<sup>39</sup> (both real and imagined), appropriated through everyday life.

Bachelard suggests space connects present to past experience, whereby we experience space through memory, intertwined with current experiences.<sup>40</sup> Space is dreamed, imagined, remembered, and read through these experiences. De Certeau explores this appropriation of everyday life, whereby these learned ways of dwelling and occupying space are super-imposed onto [San Siro] creating a space of plurality between past and present.<sup>41</sup>

San Siro is characterised by a diverse population,<sup>42</sup> with different cultural references and experiences of space. This is apparent through the various appropriations of the balconies, and extended throughout San Siro.

**How might an architecture consider and support these multiple (cultural & historical) readings of place, space, and dwelling?**

How might this apply to a place that has only existed in its current form, built on farmland and then swallowed by Milan?



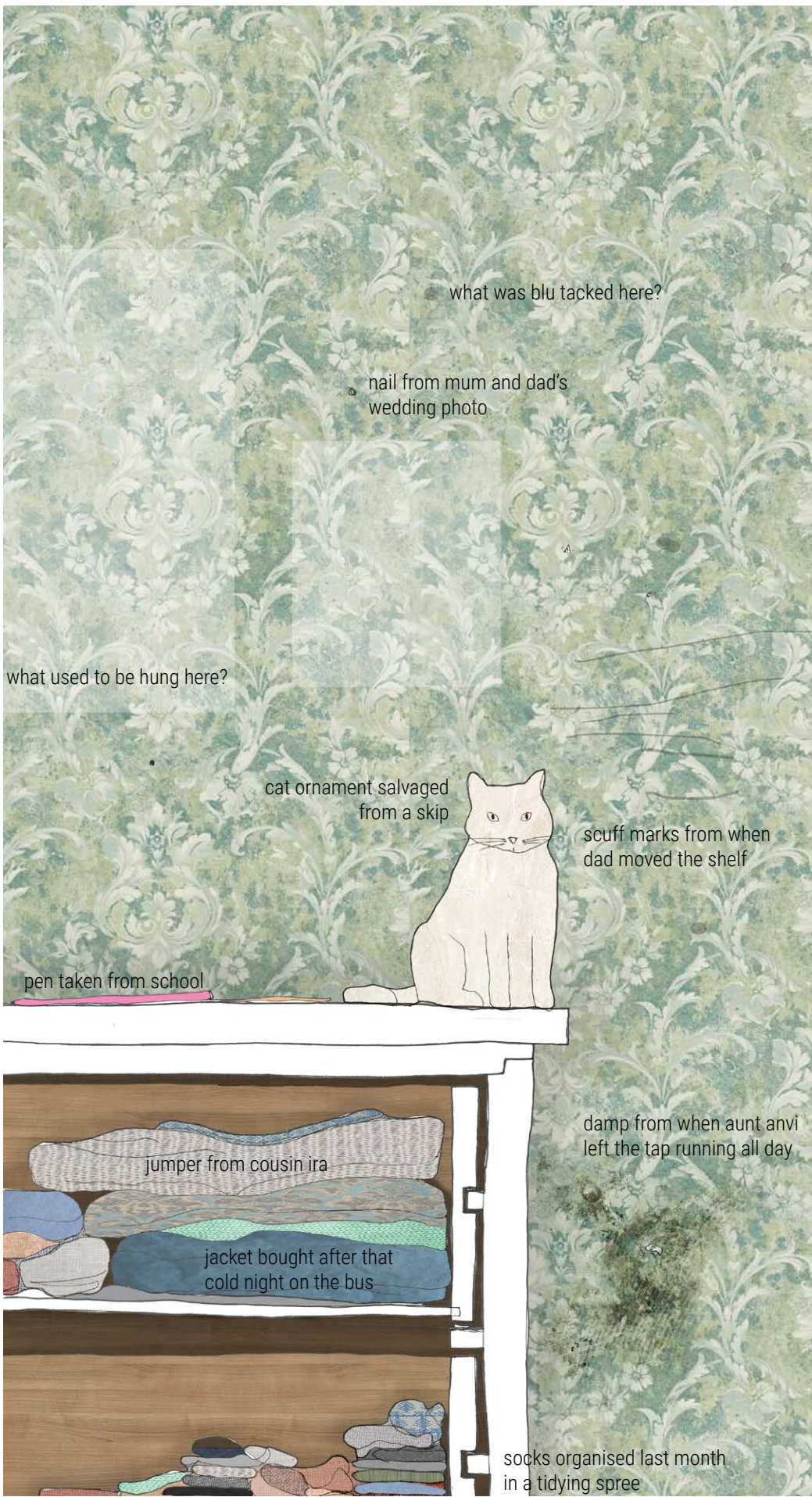


The practice of everyday life within these spaces is ruled by routines and cycles, through which the extraordinary, magical and surprising are revealed<sup>43</sup> expressed through the imagined lives stories. Through these everyday practices, spaces are inhabited and meaning ascribed to each, and conceived space is transformed to place.<sup>44</sup> These actions leave behind traces of being,<sup>45</sup> through which we can understand prior occupation and life within space. This might be sun-bleached wallpaper or nails left behind, or stories that organise and link places together, creating a theatre of actions, creating a theatre of actions.<sup>46</sup>

The objects of everyday life are charged with experience; a cabinet opened is a world revealed, drawers are places of secrets.

Reading space through everydayness leads us to non-binary understandings of space and life and routine.

**How might the multiplicity of narratives and stories within San Siro be supported and collected together through an architecture?**



The backdrop to everydayness is San Siro, built on a restricted budget and limited by strict technical laws regarding social housing (building height, number of floors, window dimensions, balcony types).<sup>47</sup>

These squeezed standards partly originate from the modernist notion of 'dwelling for the minimum existence',<sup>48</sup> interpreted as creating minimal spaces for minimal cost,<sup>49</sup> leading to a modest architecture at best. Driven by the notion of the house as a machine for living in,<sup>50</sup> these have created spaces that become purely functional with little room for the collective.

In contrast, Milan is long known for its luxury as a capital of fashion and finance. Lacaton & Vassal posit that luxury can be understood not as exotic materials and technologies, but as a generosity of space.<sup>51</sup>

Lefebvre's 'right to the city' stems from a notion that space is appropriated by the state (or commercial interests) and commodified through a political economy based on scarcity.<sup>52</sup> This notion of scarcity sees space distributed according to social class<sup>53</sup> – an abundance of space for the rich, and too little for the poor.

**How might this reading of luxury as 'spatial grandeur' be applied within San Siro?**

I posit this reading of luxury may be extended past space to encompass a sense of idleness and slowing down; a retreat from the world.





*chapter 7*

# *the urban block*

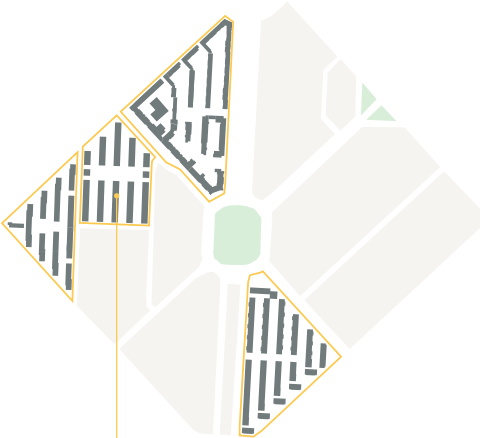
*an identified site*

*a block of interest*

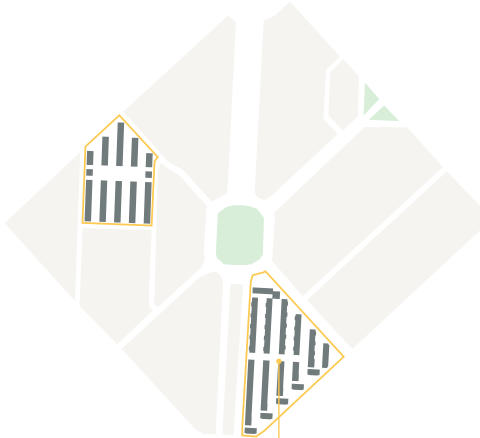
Whilst in San Siro, I was fascinated by the existing fabric. Therefore, I investigated blocks with the most vacancies and sub-threshold apartments. Two potential blocks emerged, indicated right. A high number of vacancies reduces the social impact any demolition may have.

This block is also the location for many of the stories, and has a number of conditions that might engender outcomes applicable beyond this urban block.

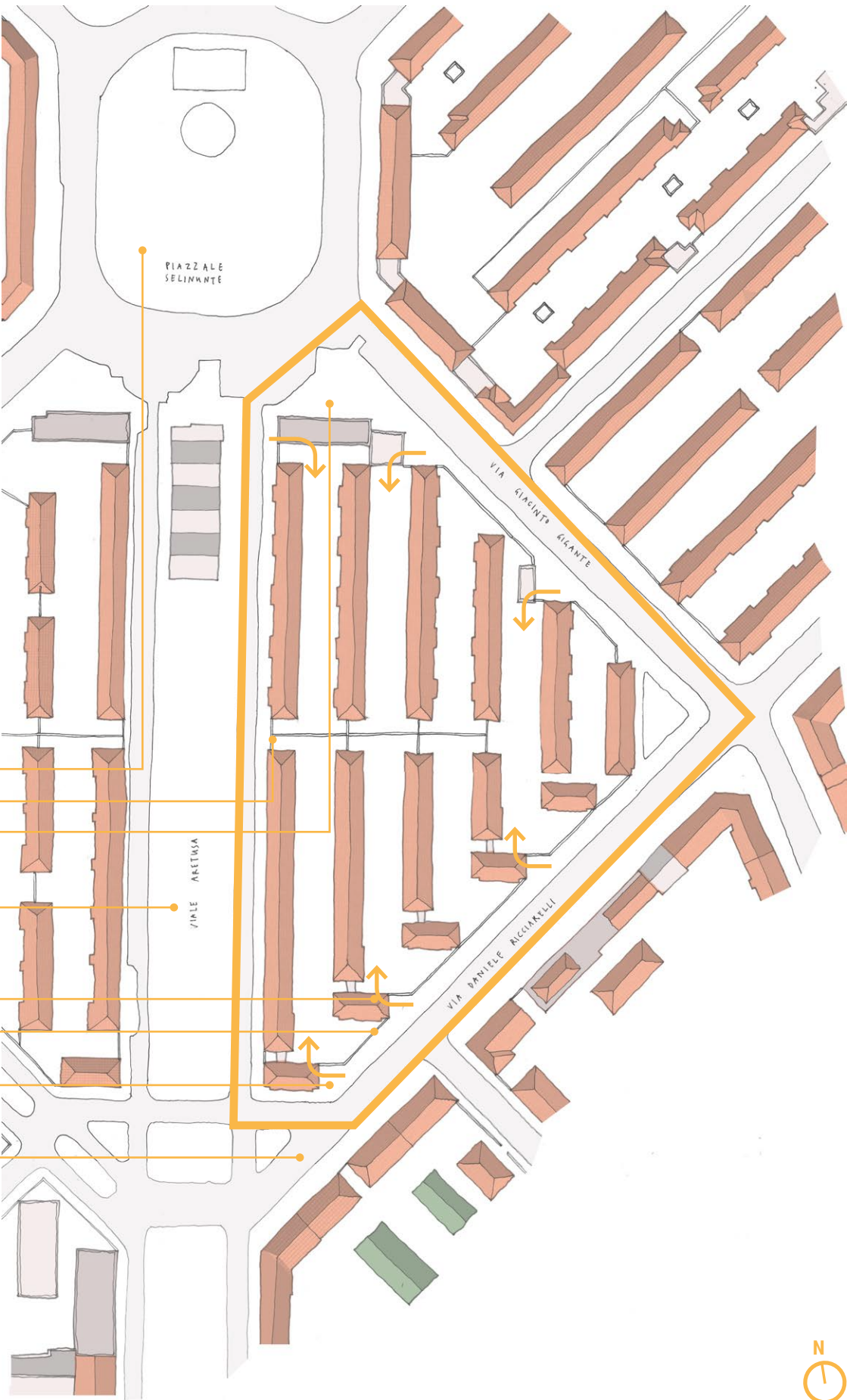
**BLOCKS WITH MOST SUB THRESHOLD**



**BLOCKS WITH MOST VACANCIES**



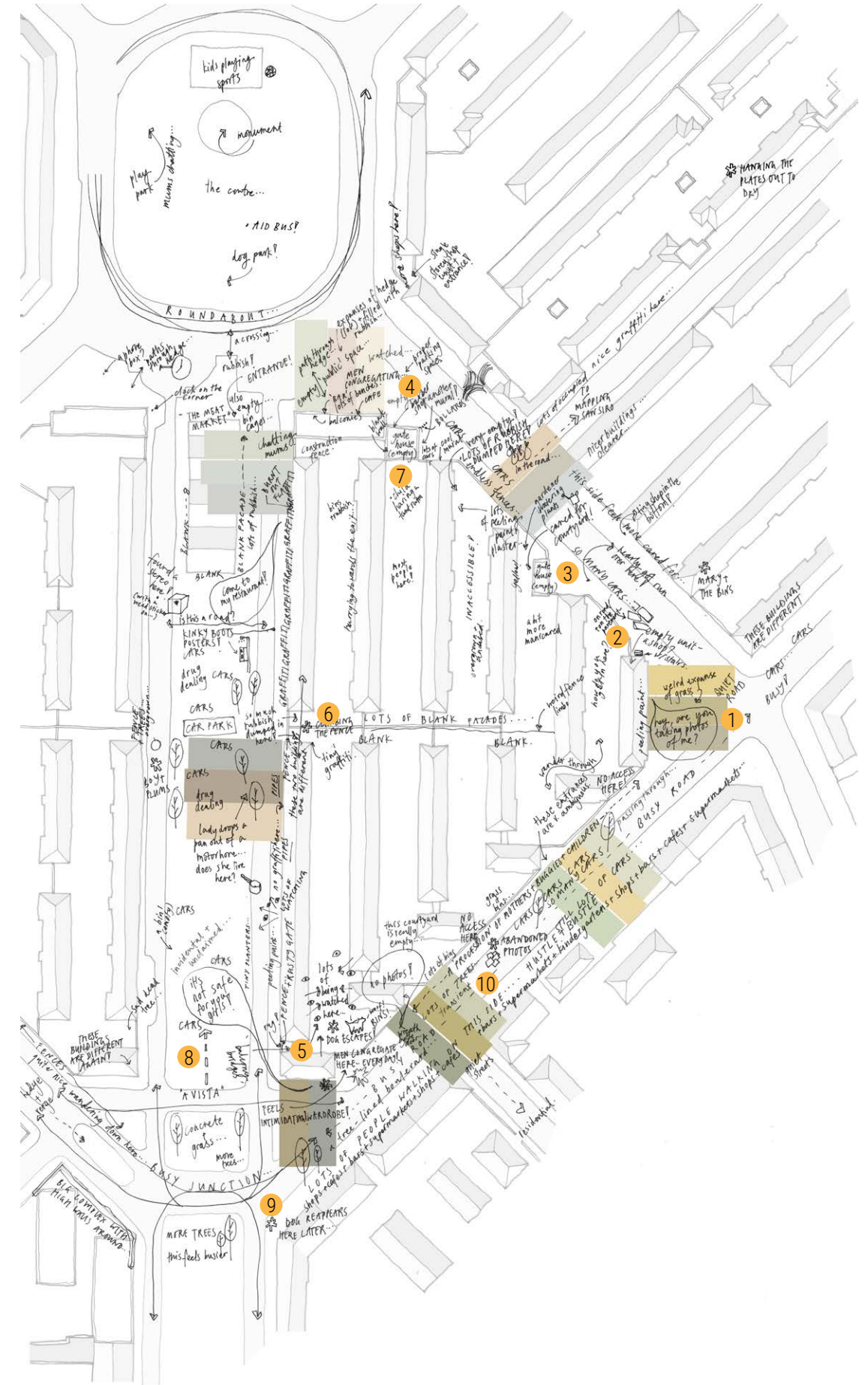
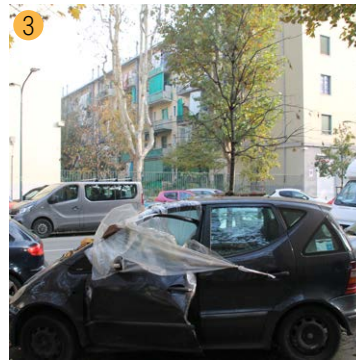
- heart of san siro
- fences divide the block
- ambiguous public space
- car park
- courtyard entrances
- varying edge conditions
- ambiguous public space
- main road



**SITE BLOCK 1.2000**

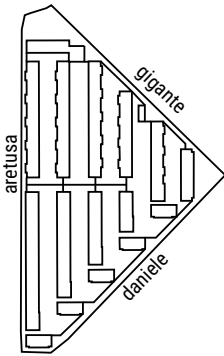


In walking the perimeter of the block, each side develops a distinct character. Via Aretusa is dominated by a solid wall and an expanse of car park; Via Ricciarelli is busy and bustling and lined with trees; Via Gigante is quieter and lined with cars and fences. These experiences are mapped along with extracted colours.





Each side of the block is characterised by different urban forms, dictating activity and presence.

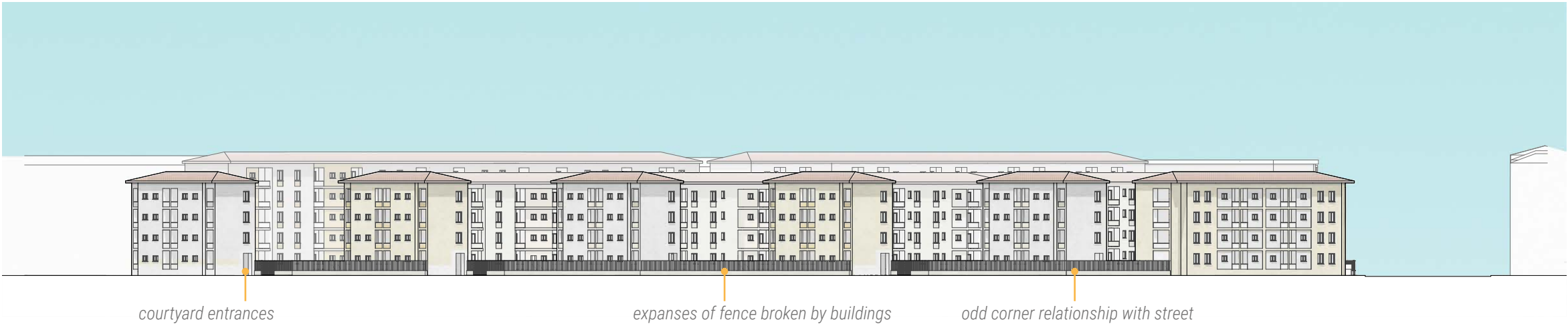


ELEVATIONS NTS

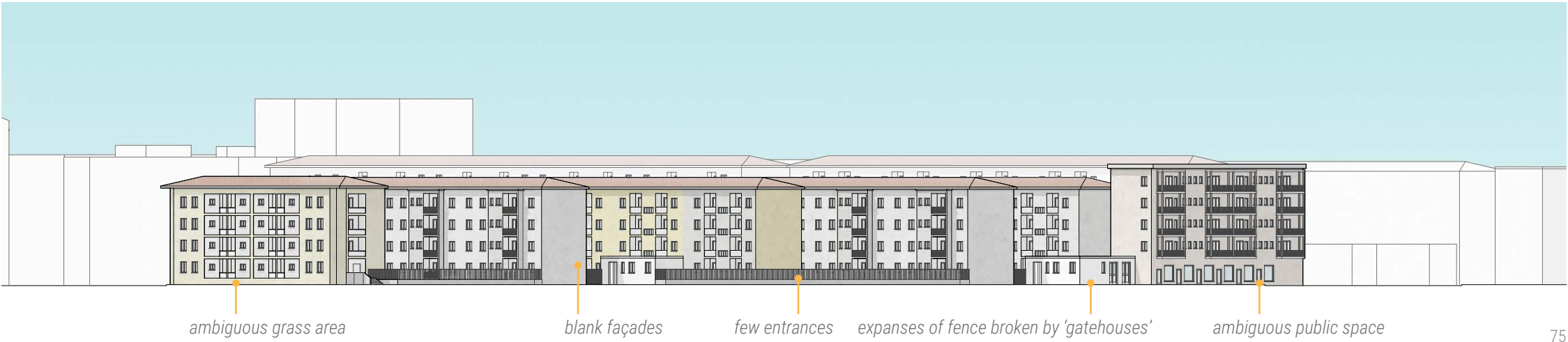
VIA ARETUSA



VIA DANIELE RICCIARELLI



VIA GIACINTO GIGANTE





## everyday life

the same spaces, over and over,  
are inhabited and appropriated in  
innumerable ways, through the  
imagination, culture, history...



no front/back hierarchy  
onto the courtyards does  
not aid their (dis)use.

many of the apartments  
are empty, especially  
those sub-threshold

inaccessible  
courtyard

"we don't talk enough  
about staircases."<sup>54</sup> All life  
enters and leaves through  
the shared stair... post  
and parcels, visitors and  
residents; a mutual space.

cared-for courtyard

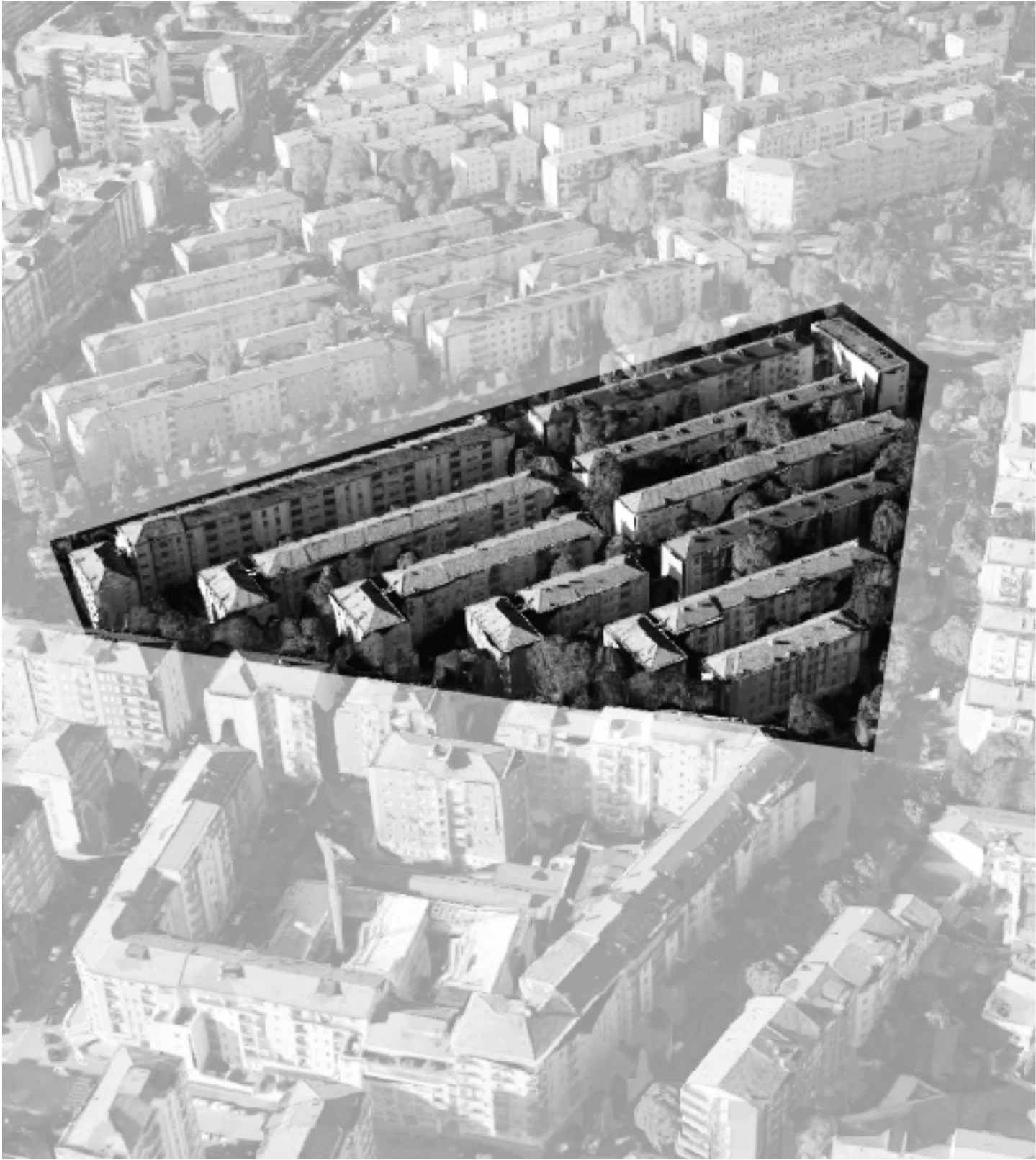
courtyards are often  
just used for bins

empty expanse  
of grass



*details + decay*

Graffiti, decay, and rubbish are the main experiences of the fabric presently





*chapter 8*

# *an emerging architecture*

*musings on an architectural approach*

## RETENTION

Retaining all the buildings preserves the neighbourhood both physically and socially, with little disruption.

This limits capacity for radical change and disruption, and sees a project based in refurbishment within the tiny existing dwellings, which will struggle to host any large programs.



## URBAN DENTISTRY

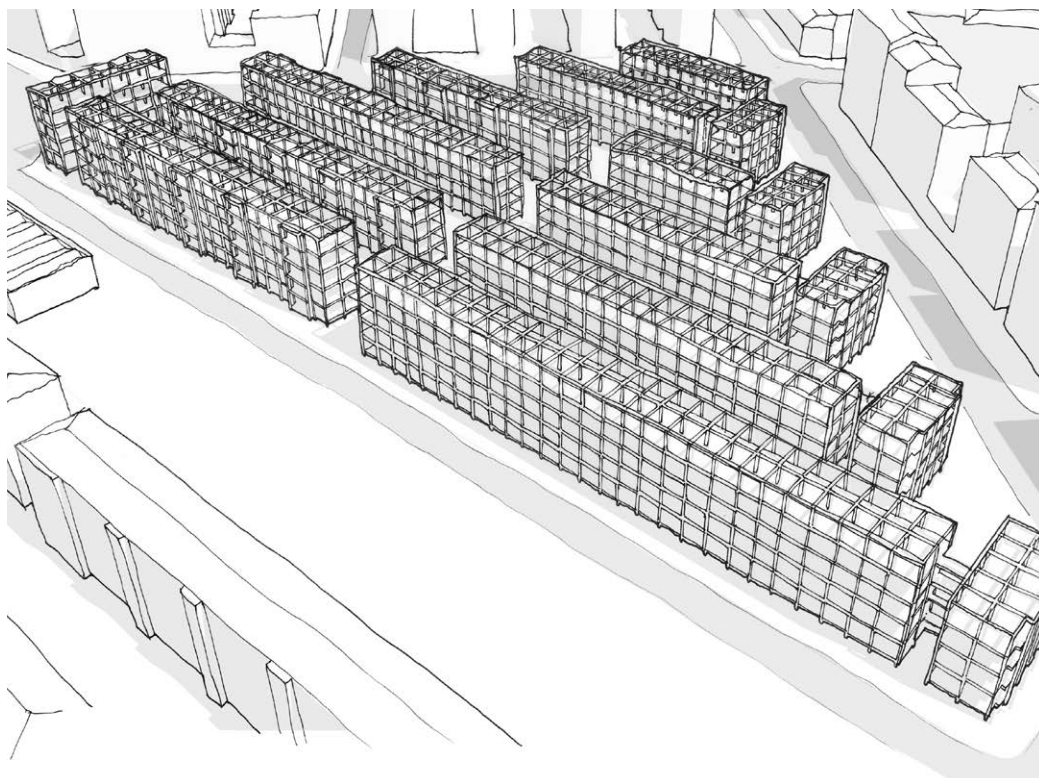
Delicately removing strategic pieces of the urban fabric (perhaps one building or small parts of others) unlocks space for a larger intervention while preserving much of the current structure of the neighbourhood. This also limits costs associated with demolition.



## HYPERTROPHY

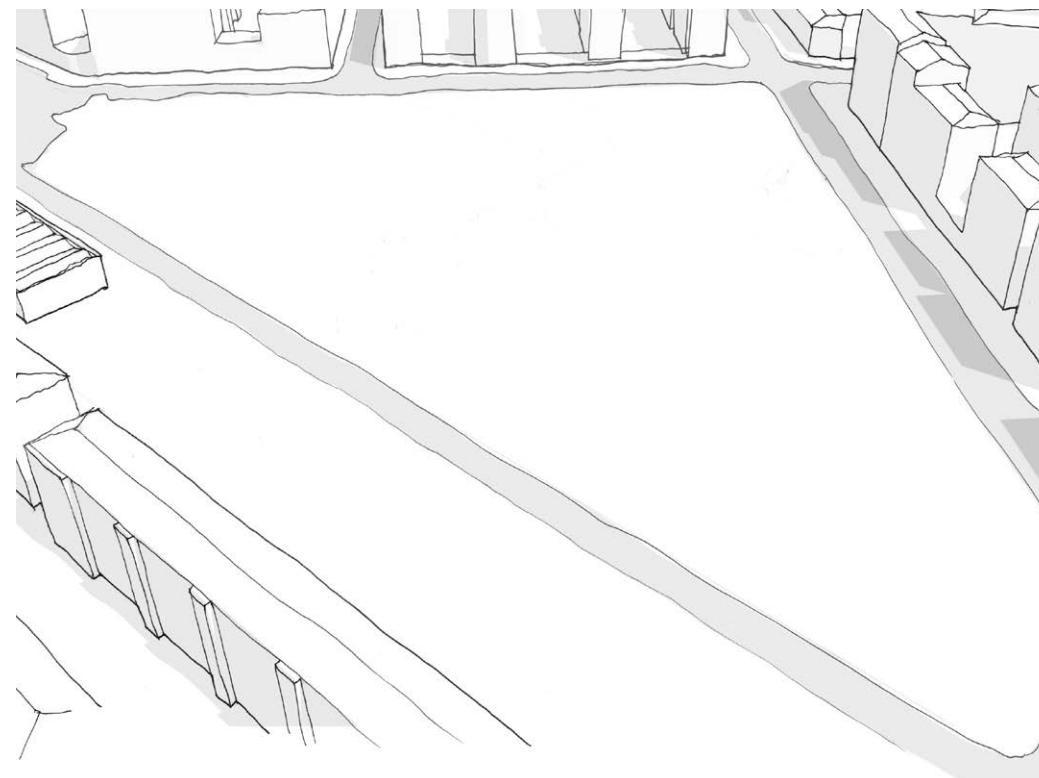
The existing buildings are kept and refurbished slightly more radically - maybe stripped back to the concrete frame and re-inhabited, or drawing on 'hypertrophy' which sees the existing buildings extended through small scale additions which transform the buildings from the inside out.

This offers an opportunity to alter aesthetics, but little scope to alter form or the urban grain.



## TABULA RASA

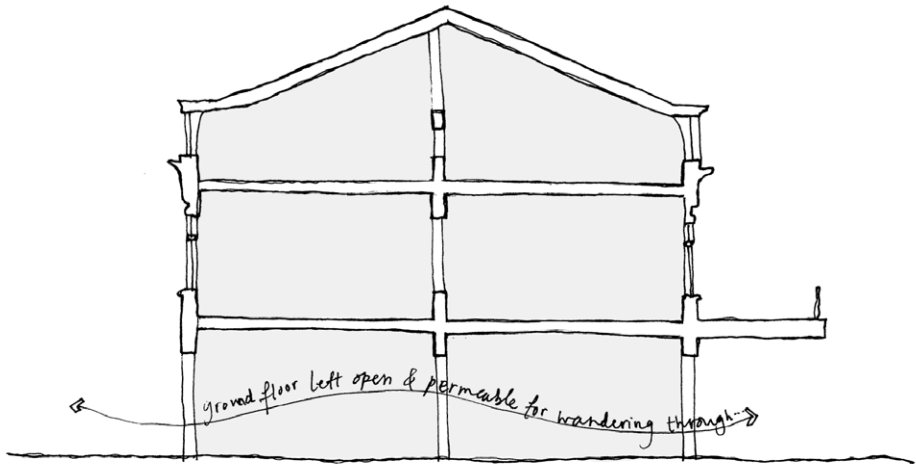
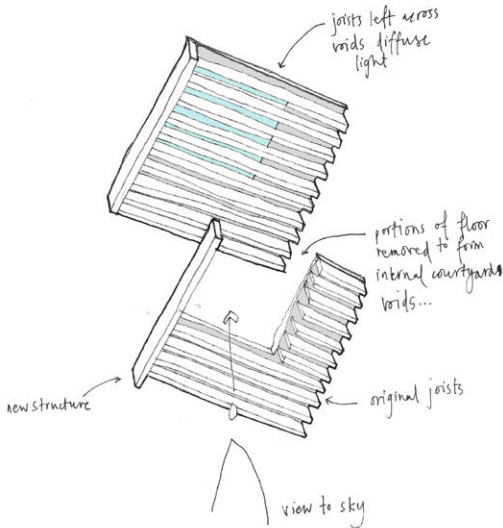
Complete demolition and clearance of the block has significant social, economic and environmental impacts: displacing hundreds of residents at great cost. However, this unlocks the largest area of the site.





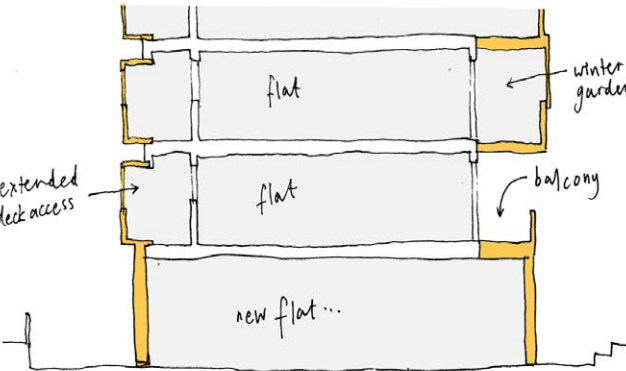
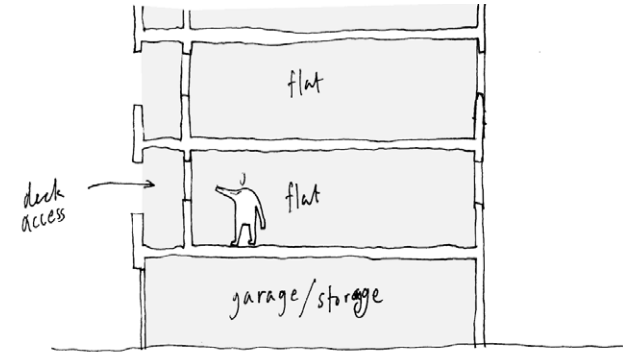
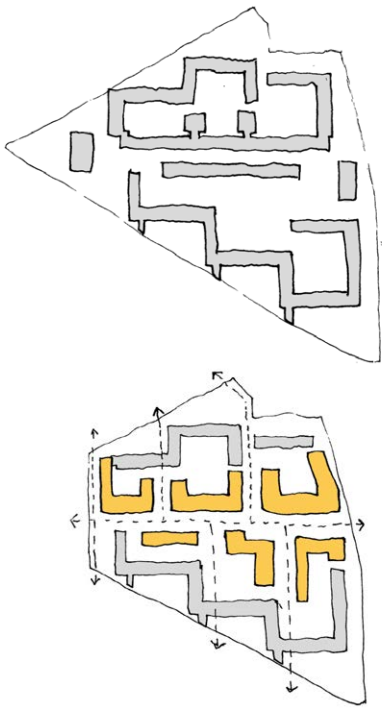
**PC CARITAS**  
de vylder vinck taillieu

A psychiatric clinic is created within the fabric of an existing 'pavillion', stripped back to its shell, reinforced and re-inhabited with buildings within buildings.<sup>55</sup> The floor is cut away to create internal courtyards, and there is a sense of being just another iteration of the building, something I hope to draw on.



**KINGS CRESCENT**  
karakusevic carson

The regeneration of a 1960s housing estate in Hackney, London sees a number of the existing buildings demolished and replaced (yellow), redefining urban form and creating new routes through.<sup>56</sup> This redefinition of the permeability seems applicable to San Siro, but I wonder if more could have been done to improve the awkward relationship of street to building?



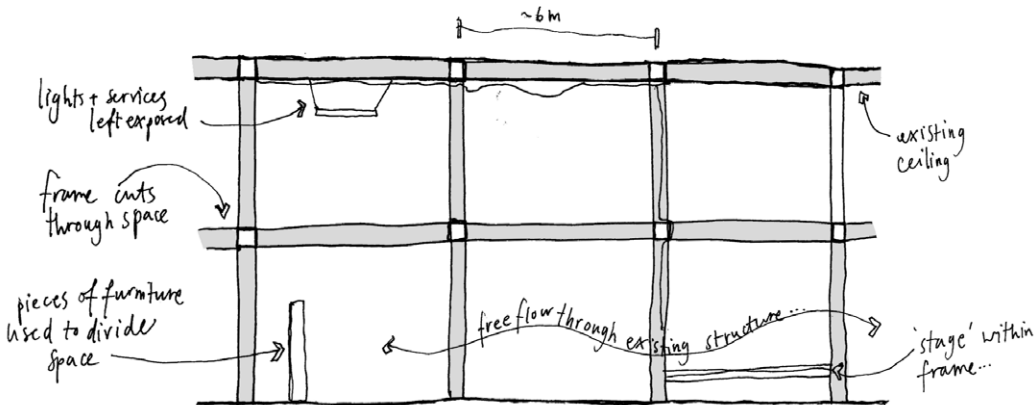
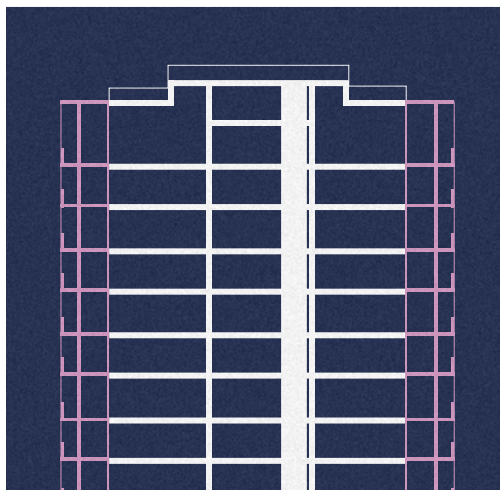
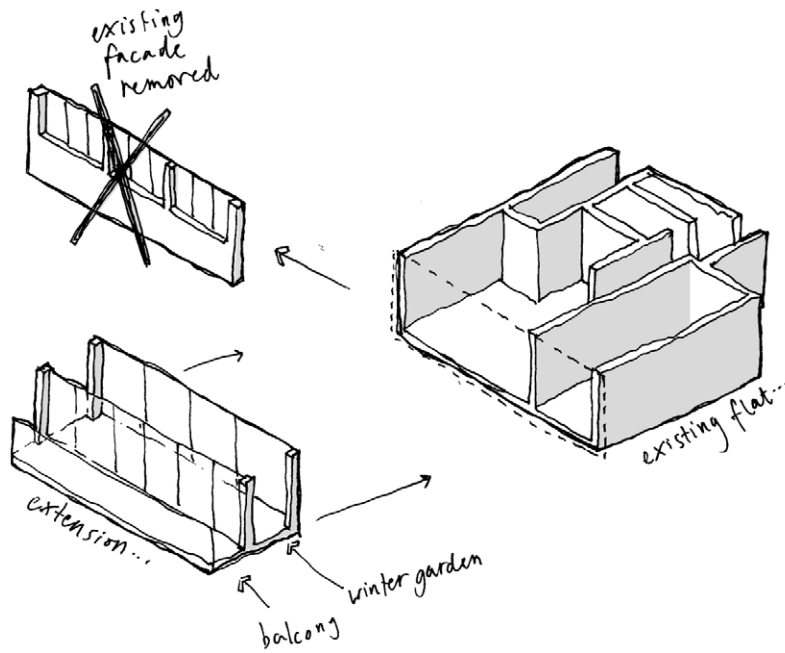


BOIS-LE-PRÊTRE

lacaton + vassal

An existing tower block is enlarged by structurally independent additions to the façades. The existing facade is removed, and each prefabricated module is added to the building. These increase living space to each apartment and open up and re-clad the facade to alter the identity of the building.<sup>57</sup>

The materials used are cheap and lightweight and flood the spaces with light, but homogenise the appearance of the building, and large expanses of glazing lead to overheating. However, there is much to be learned from this approach, which transforms the existing through addition rather than demolition.

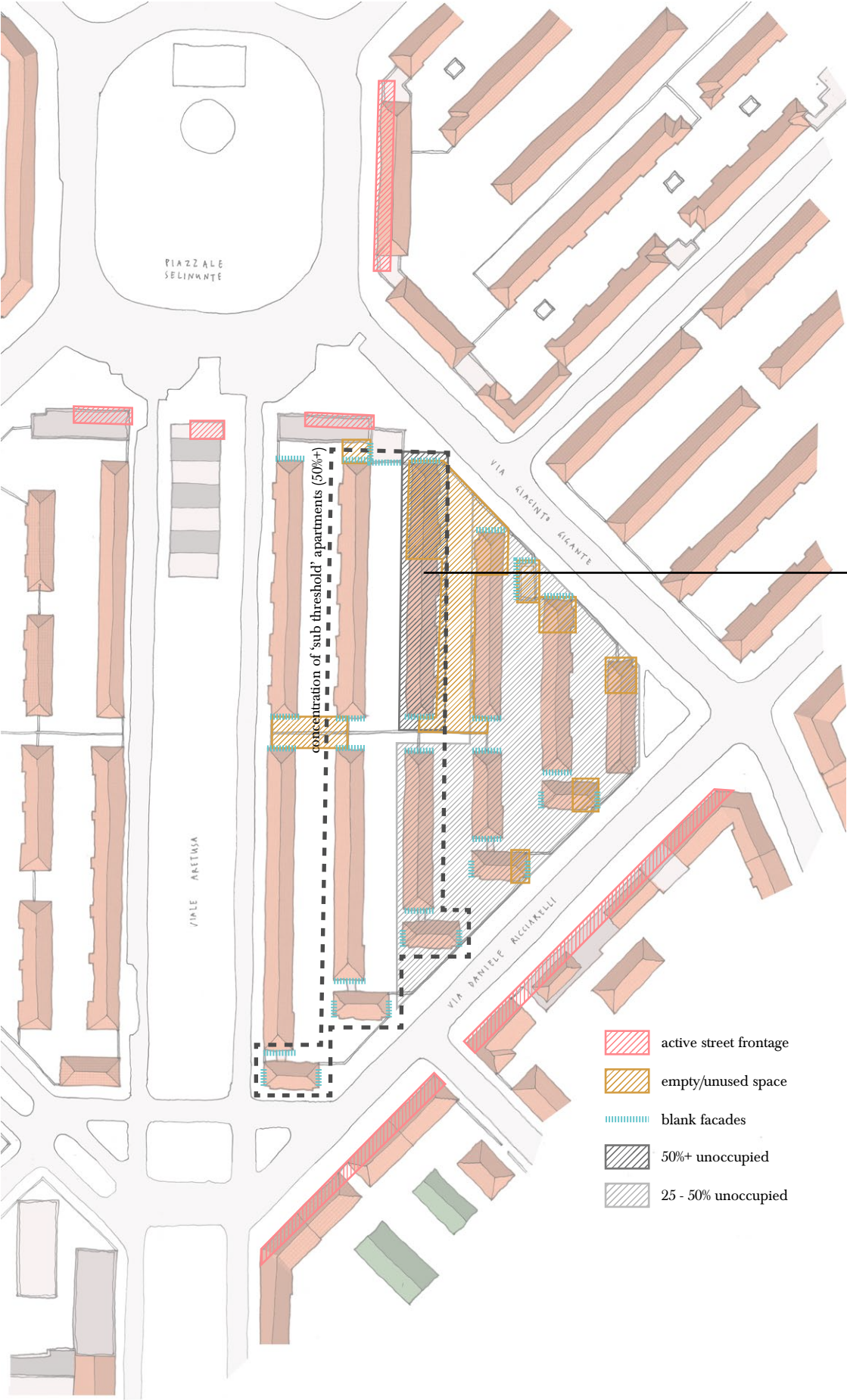


PALAIS DE TOKYO

lacaton + vassal

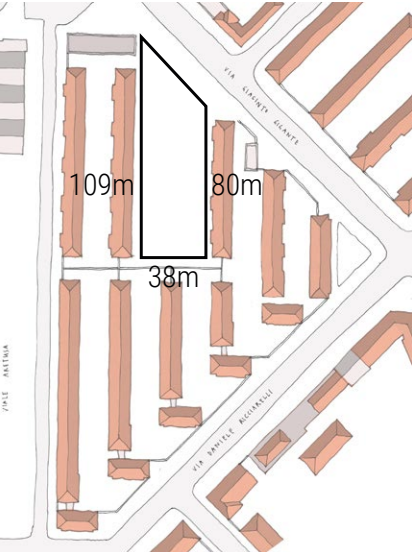
Stripped back to its structure to embrace the raw materials and imperfections, an ever-ageing patina of materials forms the backdrop to gallery spaces.<sup>58</sup> Might this be an approach for San Siro? I'm not sure the structural grid is as spacious, and it may need reinforcing. The linearity of the existing buildings may also be restrictive.



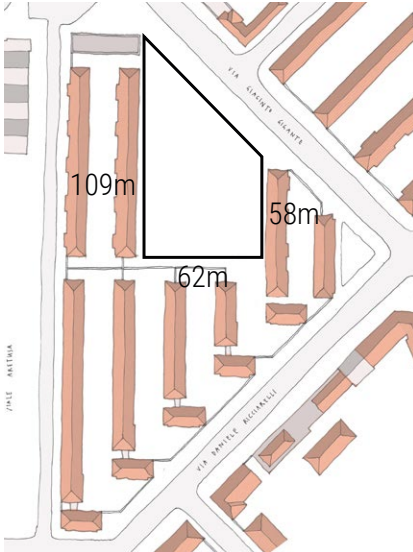


this building will be removed

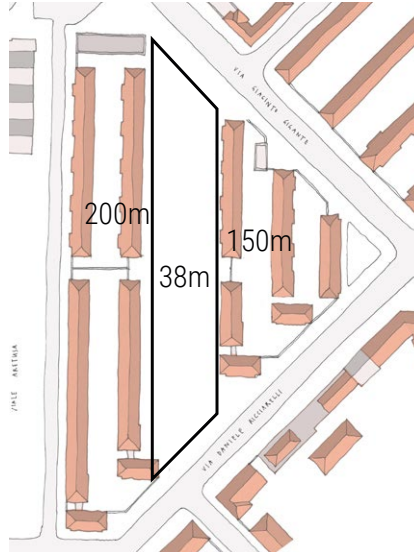
APPROACHES TO DEMOLITION



removing 1 building  
a modest space created that alone, inevitably leads to another linear building with lessened scope for 'disruption', but potential to infiltrate other buildings



removing 2 buildings - horizontally  
a wider space, suggesting a more disruptive form and more opportunity to redefine the street; but second building is not ideal for demolition.



removing 2 buildings - vertically  
a large linear space leading to another linear building, but with more scope to infiltrate courtyards, or perhaps other buildings.

My previous study 'Towards Hypertrophy' tested the critical underpinning of Lacaton and Vassal:

**Never demolish, never remove or replace, always add, transform, and reuse<sup>59</sup>**

I concluded that while wide-scale demolition is inexcusable, there is a case for targeted demolition – urban dentistry – in an impermeable urban case like San Siro. A combination of demolition approaches will be employed here, reusing, adapting and re-appropriating the existing fabric, rejecting the modernist tabula rasa.

In transforming and reusing, modernism is read as incomplete, drawing on Koolhaas' notion of 'suspended judgement'<sup>60</sup> of an average architecture in order to address contemporary issues.

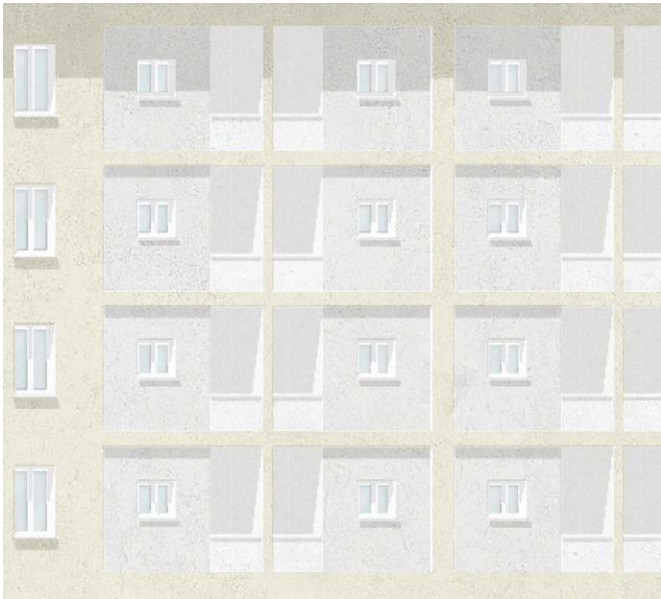
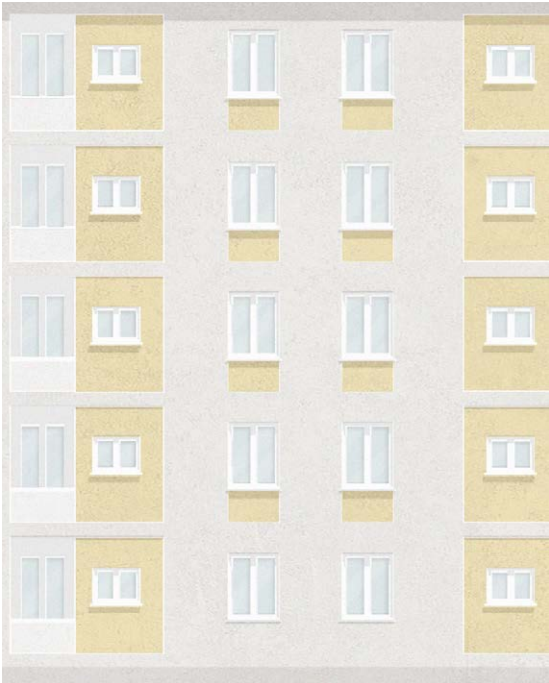
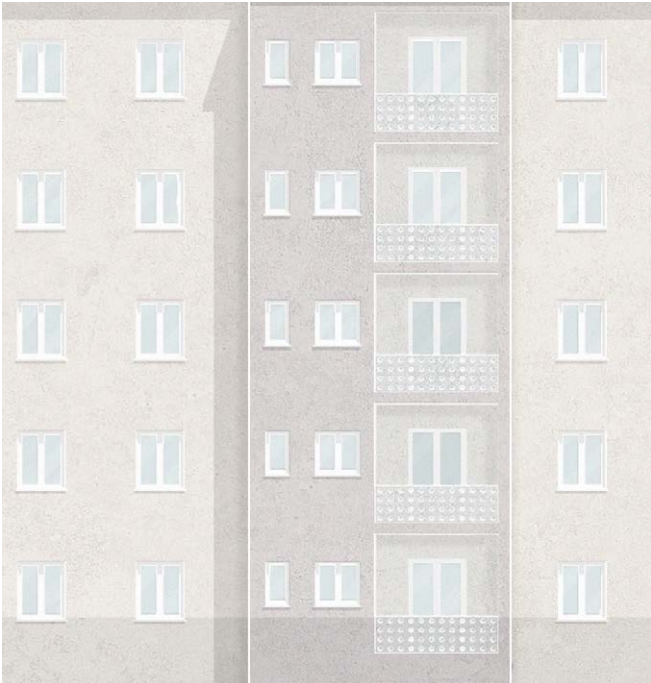
**This transformation is just the next iteration of San Siro.**



The existing palette of materials is of solid rendered walls, in creams and yellows and beiges. These are decaying to reveal bricks beneath, with a new layer of graffiti contributing colour. Into these are inserted metal fences, gates, bars, drainpipes and shutters, in rusting greys.



The existing form is dictated by the modernist origins of San Siro, with costs to save and restrictive standards to follow. There is no room for ornament or form past the rectilinear, resulting in unyielding stretches of facade of window after window...





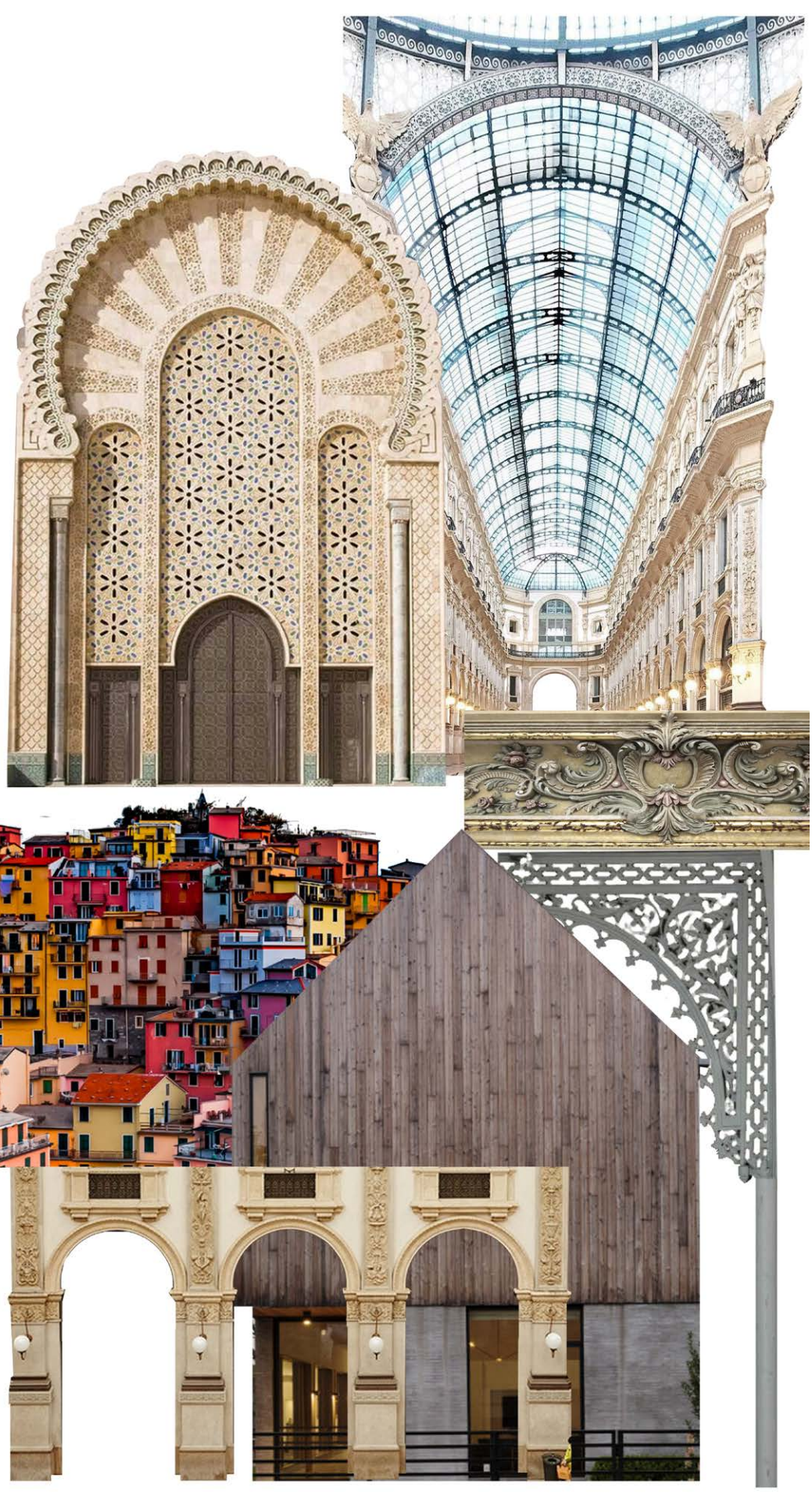
Reacting to the existing fabric two conceptions are proposed: creating new from old, and introducing transparency.

With the proposed demolition of at least one building, I propose reusing the waste to create new fabric that reveals the history. This also begins to introduce texture into the neighbourhood, beyond that created by dereliction.

Introducing transparency through materials and opening up façades disrupts the homogenous rhythms of the neighbourhood.



In contrast to the monolithic rectilinear forms, a number of approaches are proposed: drawing on the arch as a universal form across Italy and many of the origins of the residents, and playing with notions of luxury through interpretations of ornament, complexity of form and notions of domestic space.





*chapter 9*

*reclaiming luxury:  
a homage to the everyday*

*a proposal for the neighbourhood*



*What is this life if, full of care,  
We have no time to stand and stare.  
No time to stand beneath the boughs  
And stare as long as sheep or cows.  
No time to see, when woods we pass,  
Where squirrels hide their nuts in grass.  
No time to see, in broad daylight,  
Streams full of stars, like skies at night.  
No time to turn at Beauty's glance,  
And watch her feet, how they can dance.  
No time to wait till her mouth can  
Enrich that smile her eyes began.  
A poor life this if, full of care,  
We have no time to stand and stare.*

*WH Davies*



'The right to the city' proposes a collective right to participate in and co-create the city. Tracing through Harvey and Lefebvre's writings, we can understand it as "rescuing the citizen as the main element and protagonist of the city they have built"<sup>61</sup> transforming urban space into "a meeting point for collective life".<sup>62</sup>

If urban life has become a commodity; how do we move away from this, placing the citizen as the protagonist in the city/story/San Siro, where everyday life is paramount?

**How might an architecture support a space dreamed by the citizen protagonist?**

In opposition to the functionalist fabric of San Siro, a new joyful and luxurious space is proposed for the neighbourhood. It is both spatially and temporally luxurious, filled with *slow* activities, responding to spatial, social, and temporal issues.



The luxury of time is a class issue. The rich can afford to subcontract social and household labour, freeing up time for leisure; the poor cannot. San Siro is one of the most deprived areas of Milan...<sup>64</sup>

**How might the luxury of time be created in San Siro?**

Household labour occupies around 21 hours per week<sup>65</sup> (a gender issue, with a 40/60% male/female split)<sup>66</sup> and includes cooking, transport, housework, childcare, laundry... Preparing meals alone occupies 1hr30mins each day.<sup>67</sup>

Capitalism dictates an individualist approach to these everyday activities, whereby every household spends time on the same household labour in the same household spaces each day.

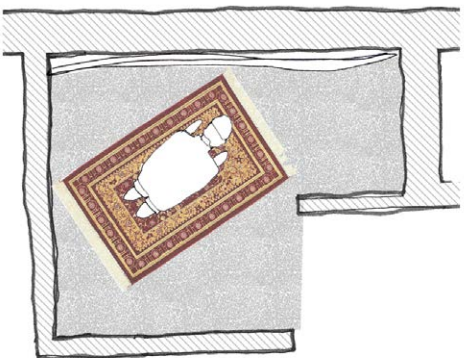
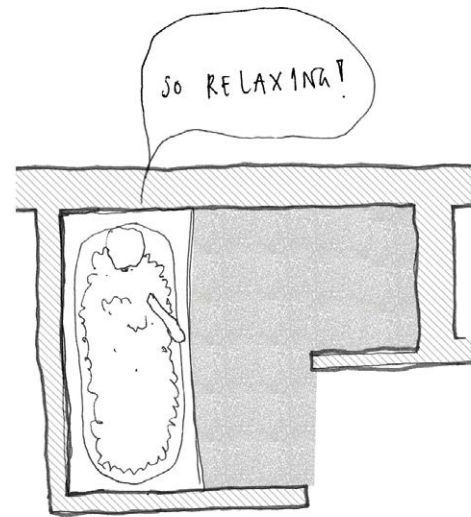
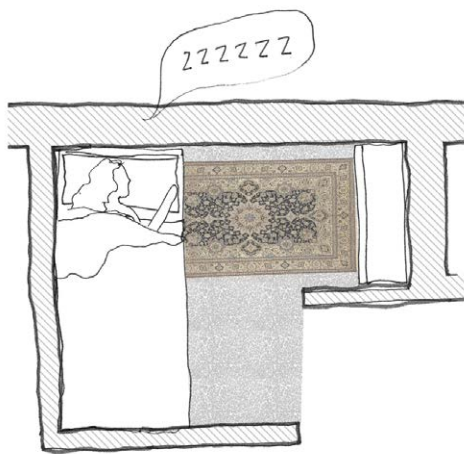
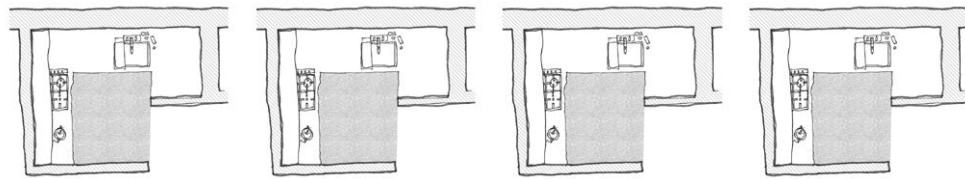
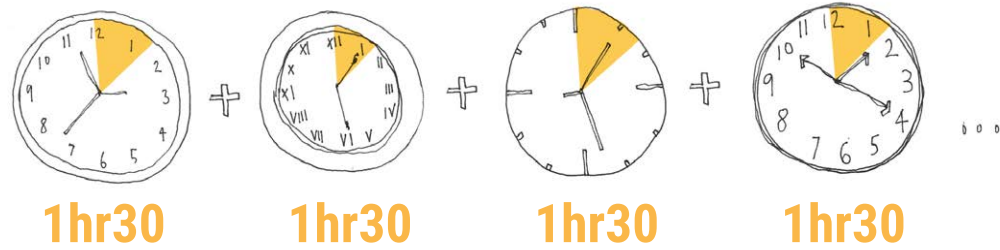
Harvey's 'ideas for political praxis' proposes that "New organisational forms [be] created that lighten the load of all forms of social labour [...] and liberate time for free individual and collective activities, and diminish the ecological footprint of human activities."<sup>68</sup>

Therefore, a neighbourhood kitchen is created, enabling the emancipation of the hours each day spent shopping for, preparing, and cooking food.

**The luxury of time is reclaimed.**

By collecting this social labour, it becomes more time and resource efficient. The tiny apartment kitchens become defunct, and can be removed and replaced with other functions.

**The luxury of domestic space is reclaimed.**

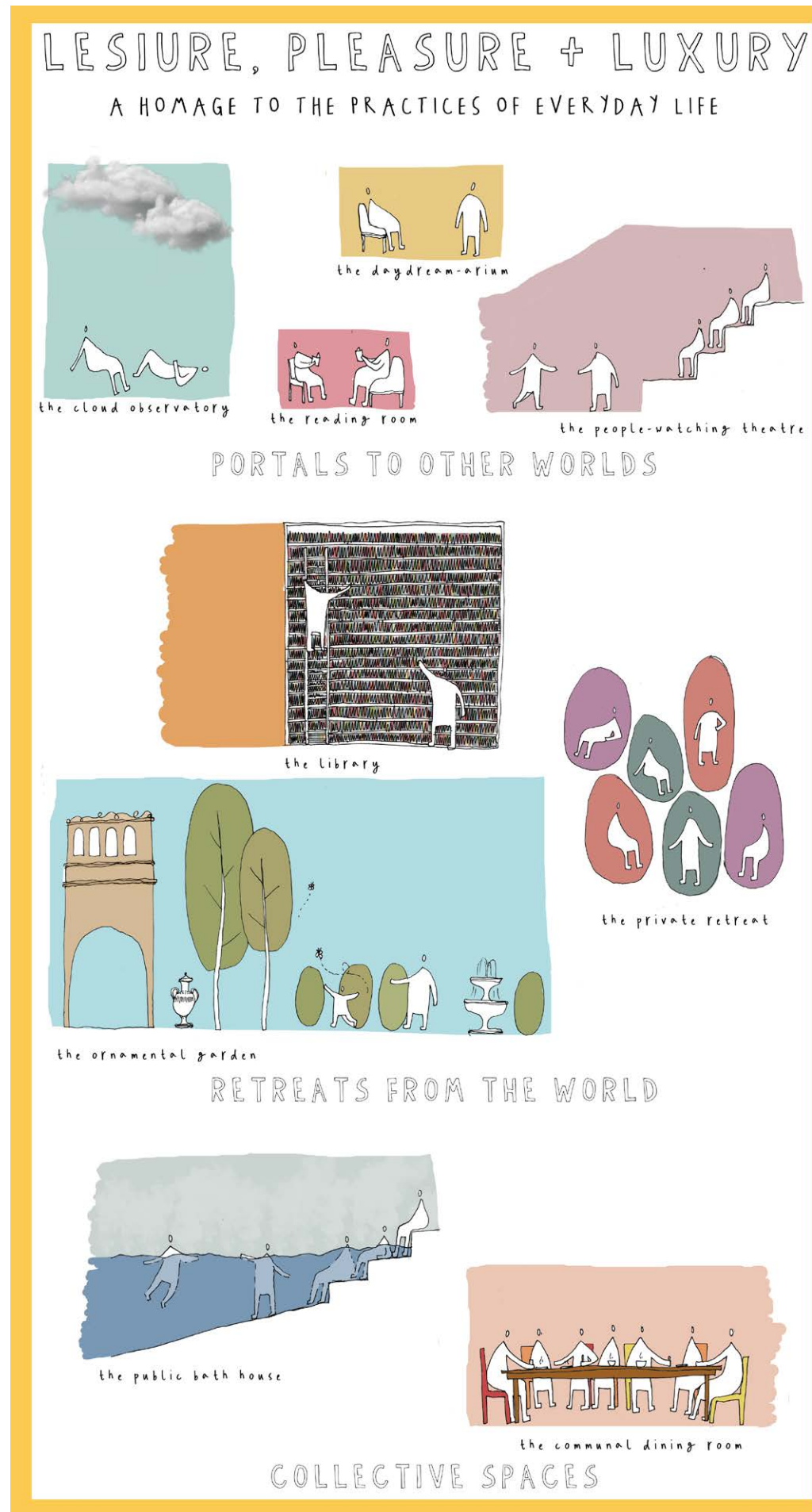


The newly created luxury of time enables residents to make use of the new 'neighbourhood luxury', a space for leisure and pleasure through 'slow' everyday activities.

These activities draw from the existing context of San Siro - on functions and spaces lacking - and from themes explored by Perec, Bachelard, Lefebvre and others. These are conceptualised as three forms of space;

**collective spaces  
retreats from the world  
portals to other worlds**

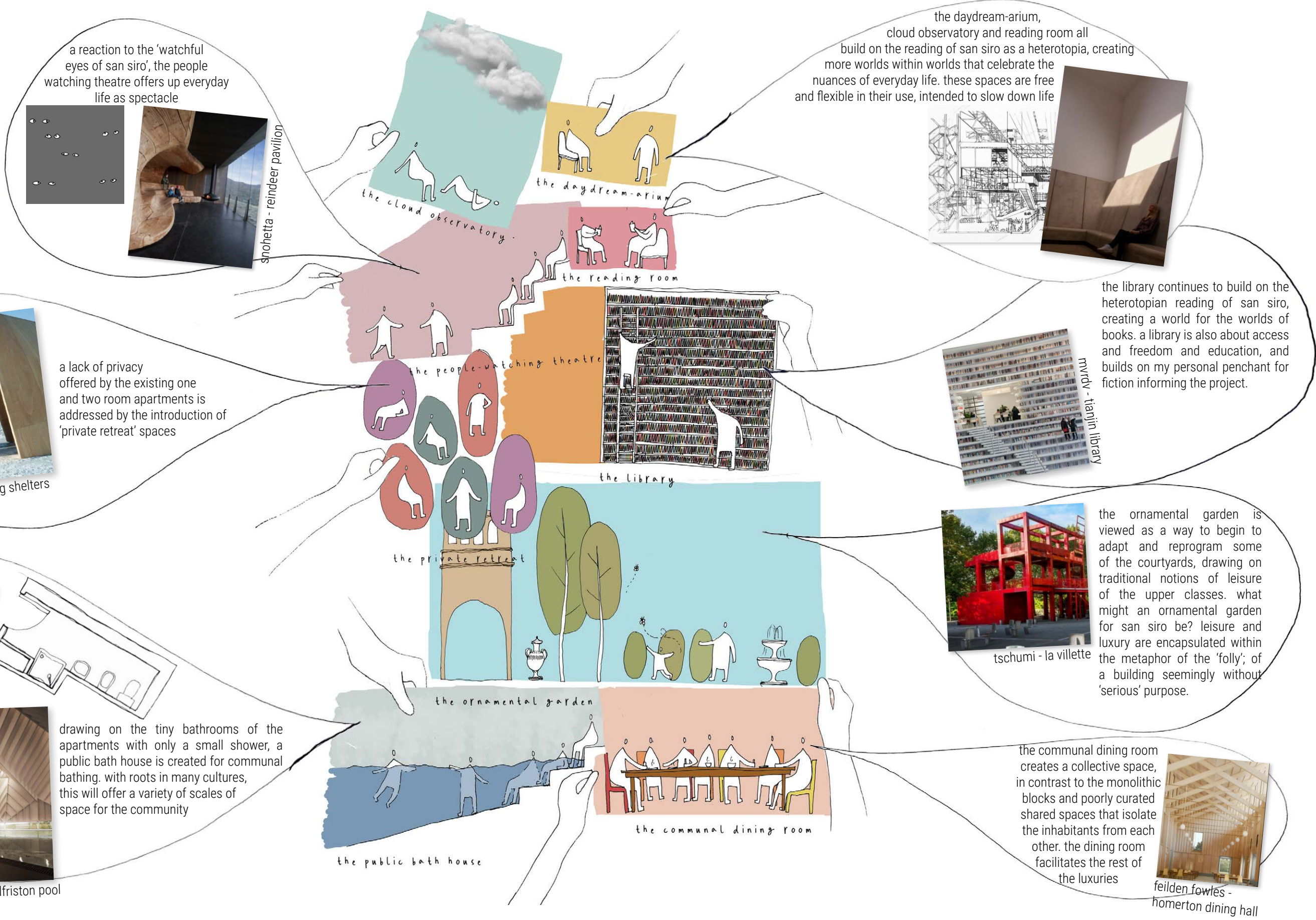
each taking ordinary everyday activities and elevates them to become both spatially and temporally luxurious.



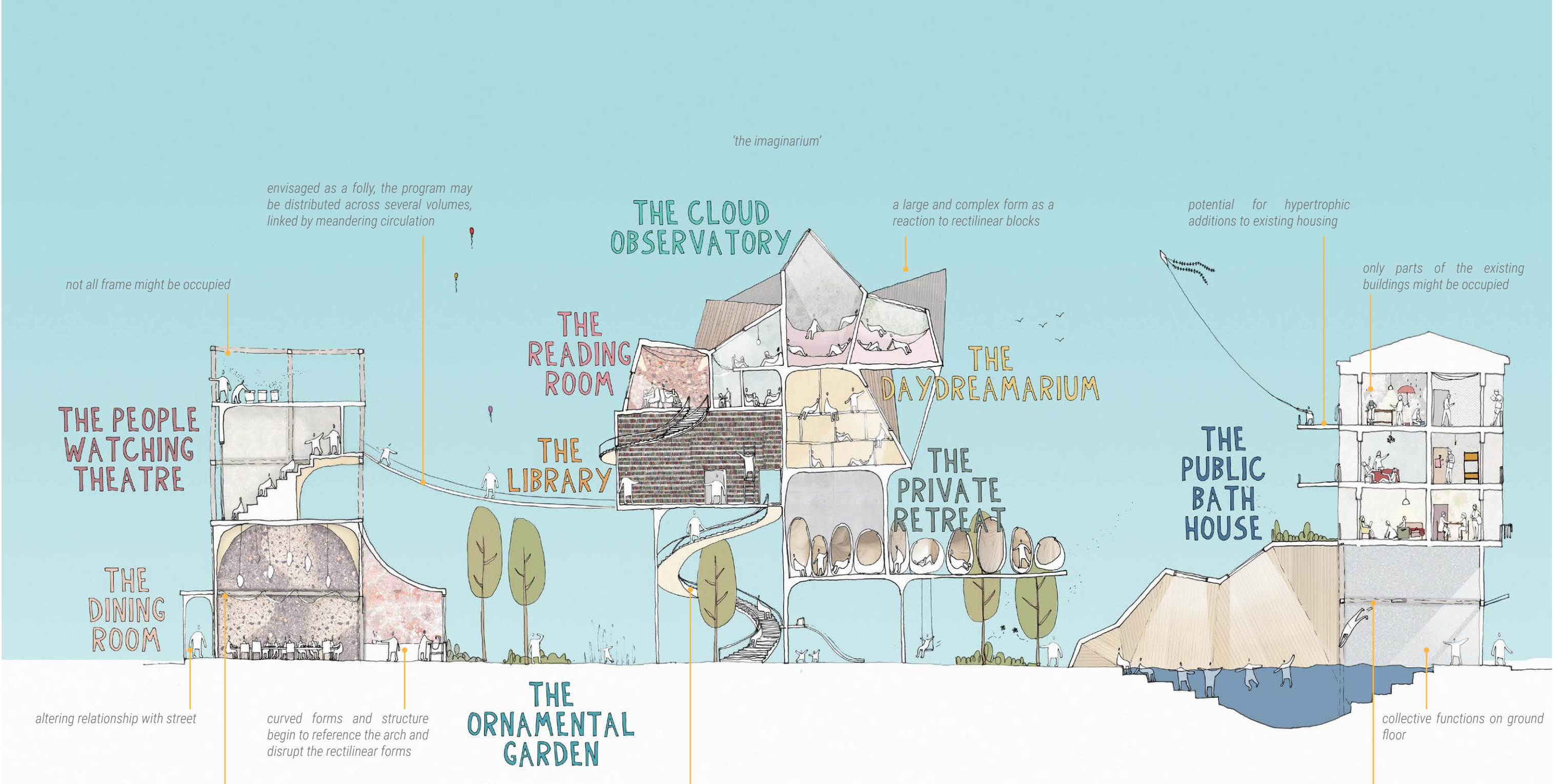


in dialogue with the existing

Each function is a reaction to San Siro, celebrating the nuances of everyday life, and creating new spatial and social relationships. Each function is presented here alongside potential precedents for future investigation.







'the imaginarium'

envisaged as a folly, the program may be distributed across several volumes, linked by meandering circulation

not all frame might be occupied

a large and complex form as a reaction to rectilinear blocks

potential for hypertrophic additions to existing housing

only parts of the existing buildings might be occupied

altering relationship with street

curved forms and structure begin to reference the arch and disrupt the rectilinear forms

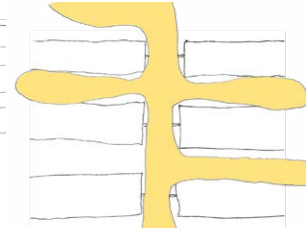
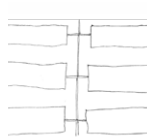
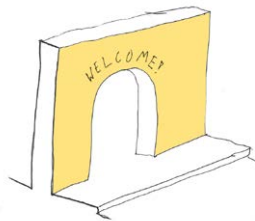
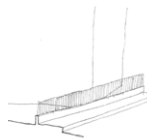
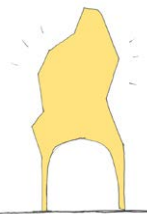
THE ORNAMENTAL GARDEN

meandering circulation becomes less functional than existing circulation to blocks

collective functions on ground floor

existing concrete frame cuts through some spaces

re occupying and re purposing existing concrete frame - as both a double and single height volume



the neighbourhood luxury will be a large, complex and permeable building

the neighbourhood luxury will be welcoming and active to the street

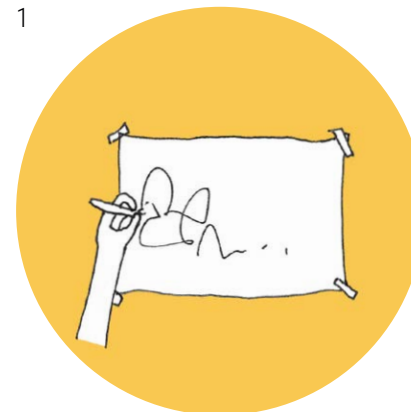
the neighbourhood luxury will permeate into and redefine the courtyards



*chapter 10*

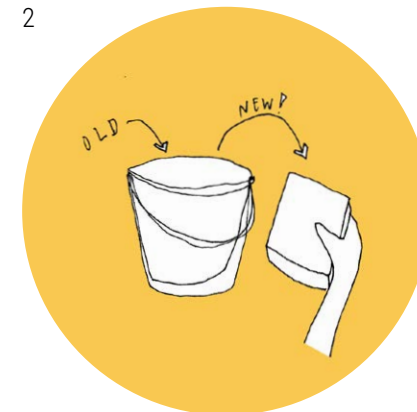
*futures*  
*next steps*

1



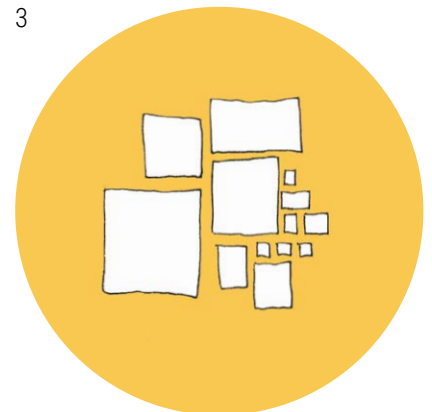
*continue exploring the project through constructed stories and drawings*

2



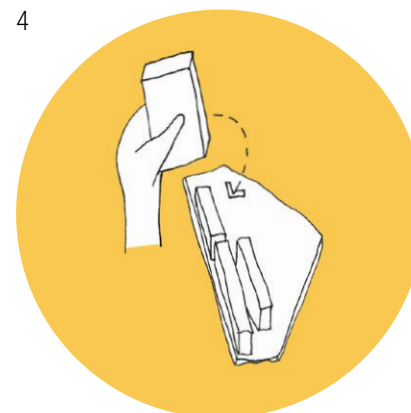
*begin to experiment with materials, including 1:1 testing of creating new from old*

3



*develop the program and how it might be arranged and respond to site through further precedent studies and drawing*

4



*develop an approach to massing on site through 3D modelling*

5



*develop a strategy for demolition of existing buildings through further site studies, modelling, and program*

6



*continue to work at a range of scales, zooming in and out from the micro to the macro*







# RECLAIMING **LUXURY**

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*an anthology of stories*

*volume 2:  
technology*

# *contents*

**01** personal approach

**02** urban grain

**03** sun & shading

**04** inhabiting the existing

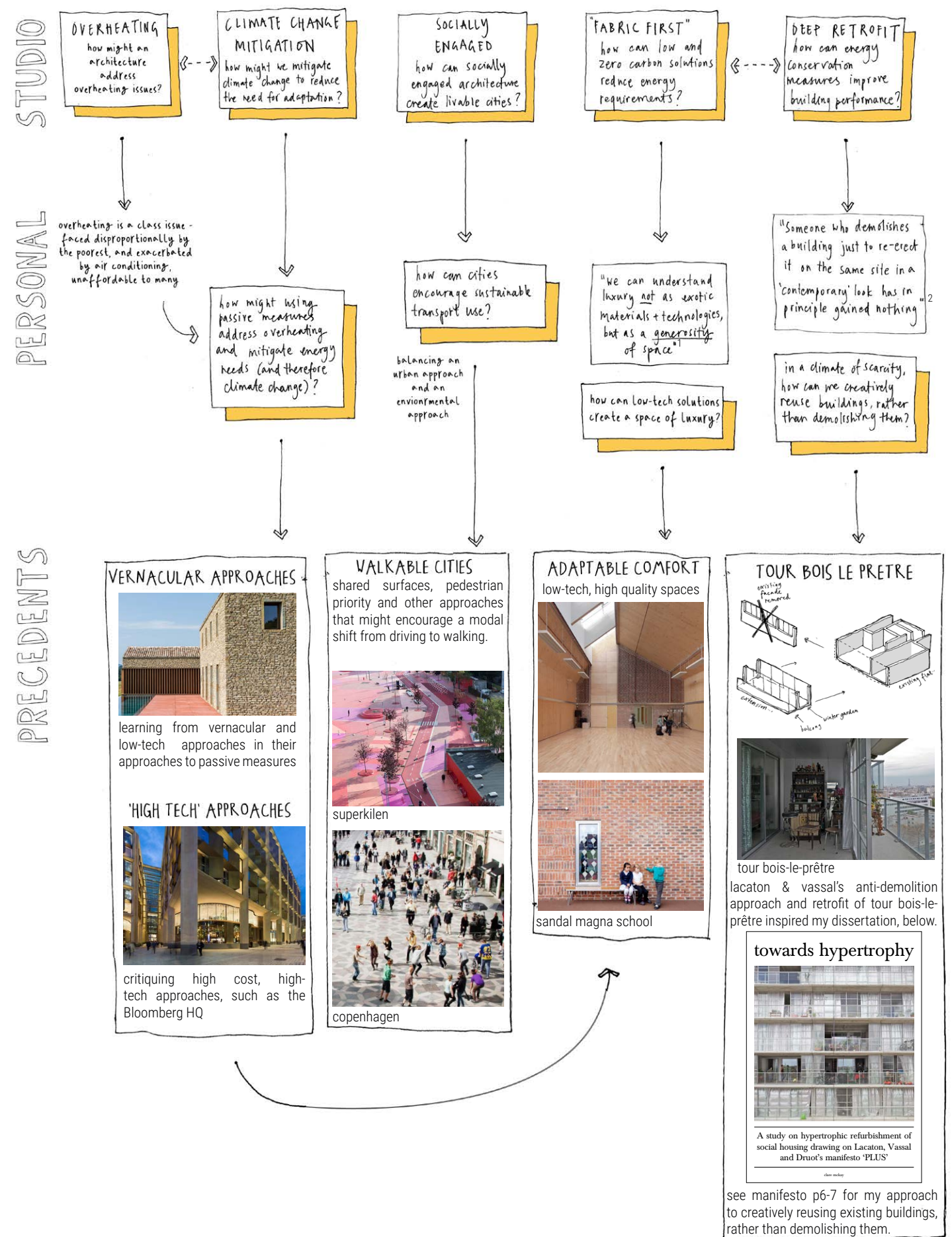
**05** new insertions

**06** precepts

**07** energy

**08** adaptation



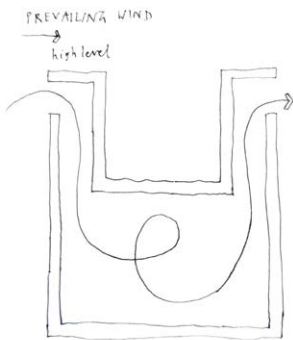




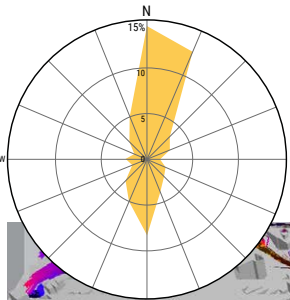
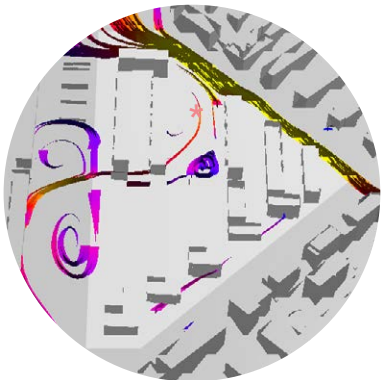
urban grain

San Siro is characterised by a strong urban grain dictated by its modernist planning. This organisation impacts the environmental conditions, with strong influence on the wind and shading within the quadrangle. The modernist approach of applying the same solution regardless of context is not appropriate as it fails to create diversity in the urban grain, which reduces the penetration of both sunlight and wind.

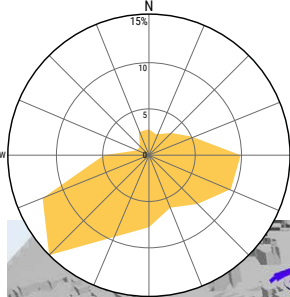
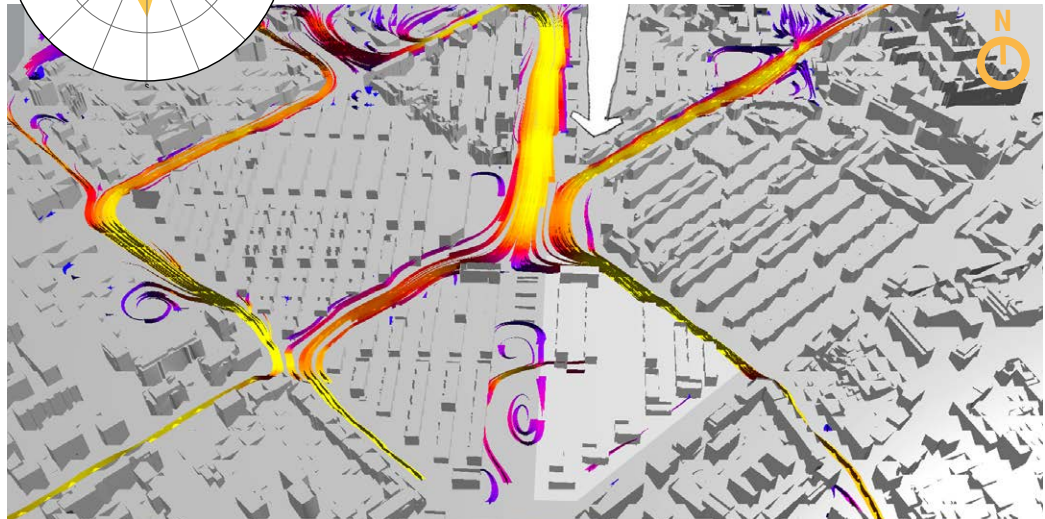
I propose an architectural disruption of San Siro, which will improve the environment within the quadrangle. Issues created by the existing planning are outlined over the following pages.



Milan has low wind speeds (1m/s, compared to ~4m/s across many other European cities)<sup>3</sup> leading to higher air pollution. Wind catchers (below) may be an appropriate solution to aid natural ventilation - as they capture high level moving air (therefore less polluted),<sup>4</sup> which is drawn down into the building. A pollution filter could be used to ensure better air quality.



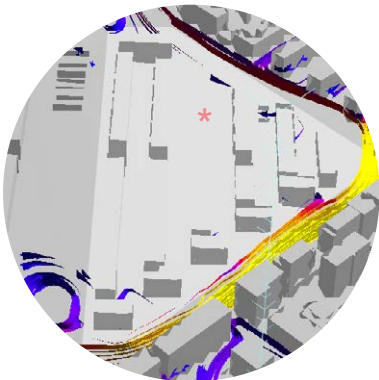
northerly winter prevailing wind predominantly filters down the main axial route of san siro, (reaching around 12m/s) and around the north edge of the site. there is little penetration into the courtyards between buildings.



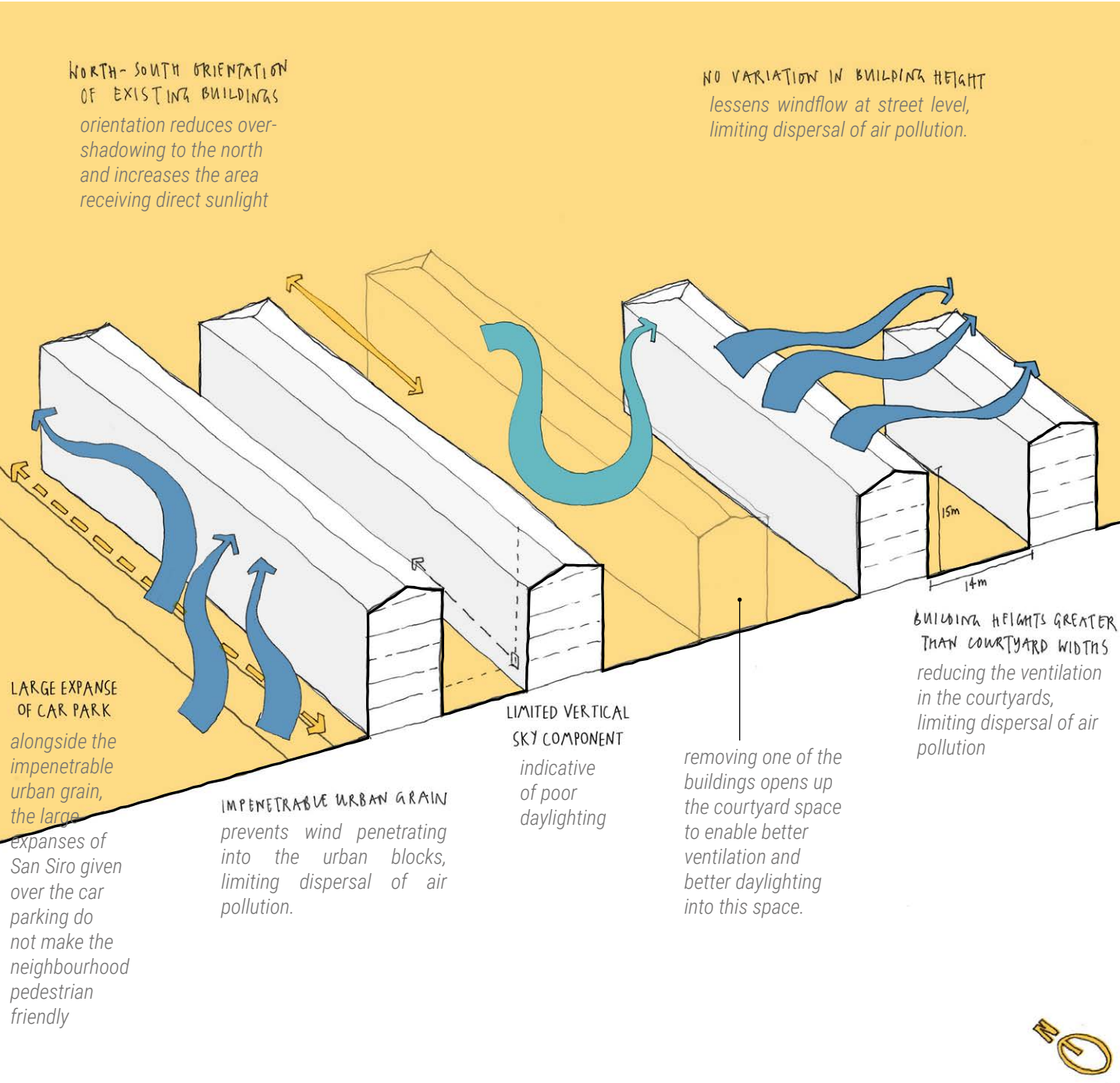
south-westerly summer prevailing wind filters down the main south-west orientated streets (reaching 5m/s), with little penetration into the courtyards where building orientation prevents this to the south of san siro.



removing a building (indicated \*) opens the site up to wind during the winter.



removing a building has no effect on the site during the summer. to use summer prevailing wind for cooling,<sup>5</sup> the building will sit towards the front of the site, protecting the space behind from cooling winter winds.



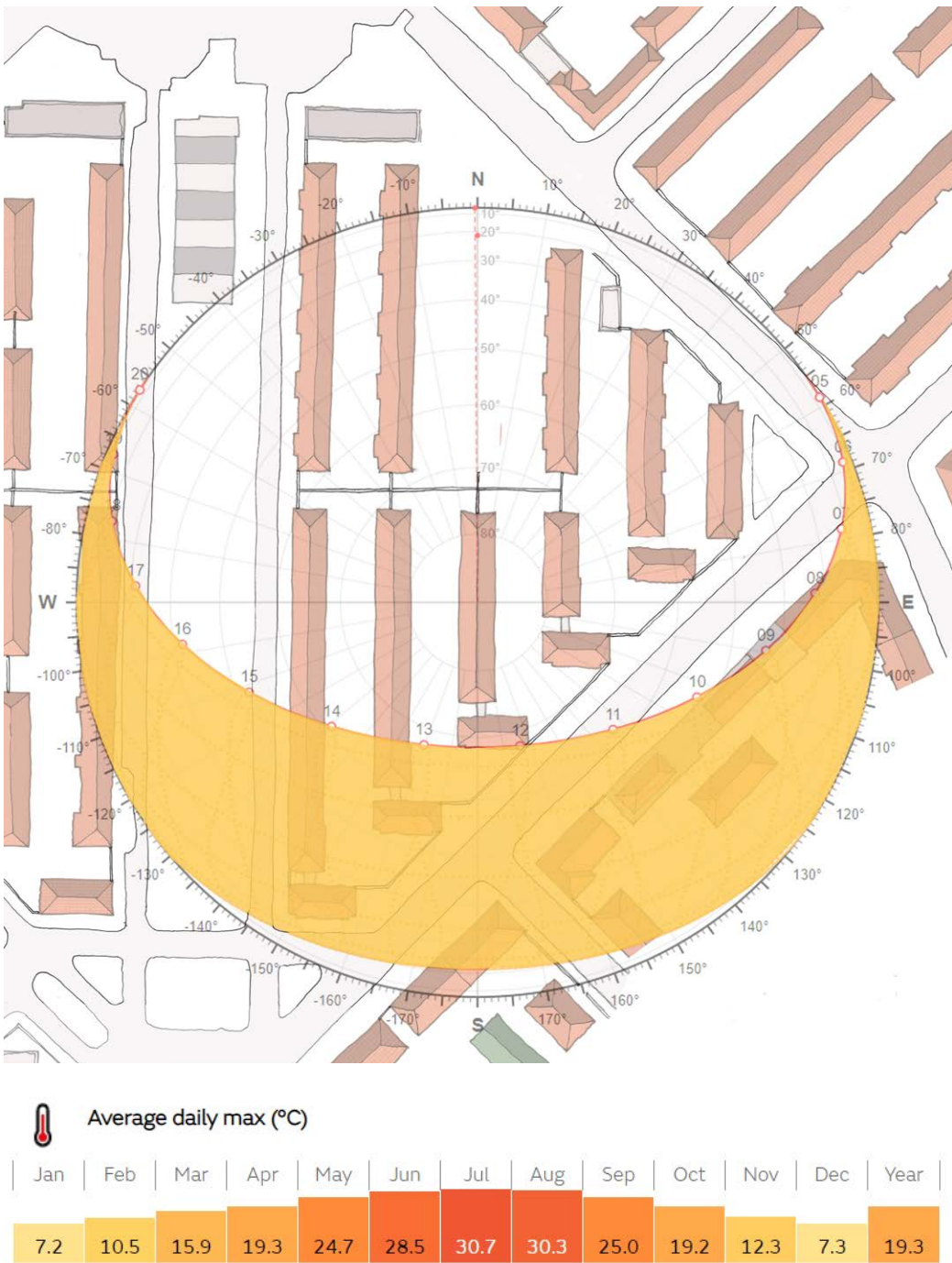
Introducing urban breaks will be investigated as an option that could address some of the issues highlighted. Urban breaks would not only vary the rigid urban grain and create interest, but could also improve ventilation at street level, and allow sunlight into the shaded courtyard spaces.<sup>6</sup> Given the rigidity of the urban grain, it is important these be at least 3m wide to avoid wind funnelling and provide good solar access.<sup>7</sup>



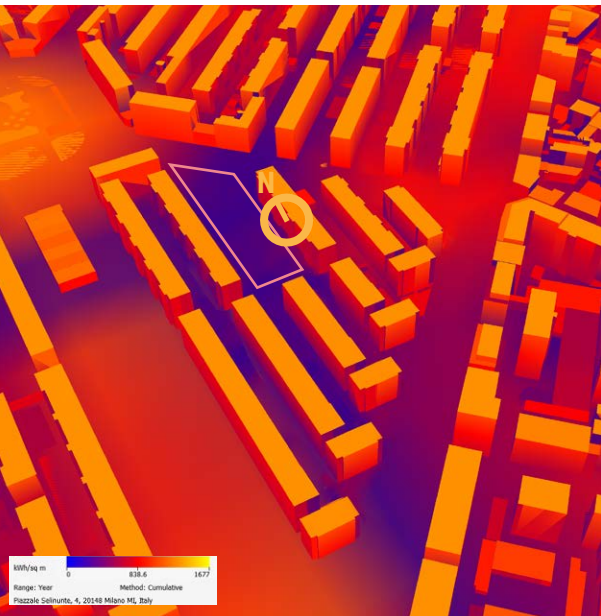
sun & shading

The buildings are arranged around linear courtyards, used to access buildings, their north-south orientation reduces northerly overshadowing but the courtyards still receive little sunlight due to their width and height of the surrounding buildings.

Yearly temperature variations in Milan are greater than those typically experienced in the UK.<sup>8</sup> Therefore it is important that the building be well shaded and well ventilated in summer to prevent overheating, and minimise heat loss in the winter through good insulation and making the most of passive solar gains.

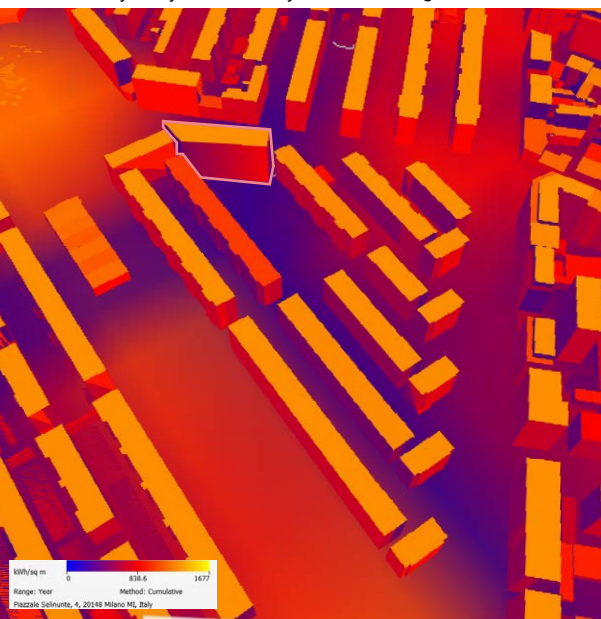


cumulative yearly solar analysis - site



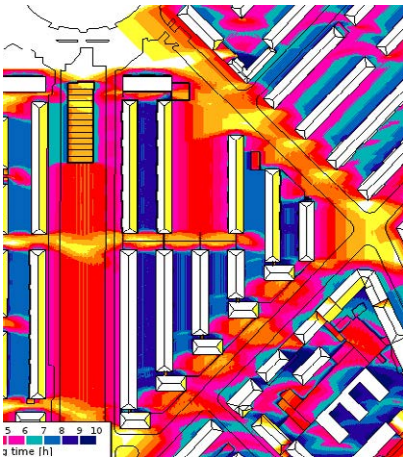
removing one building (indicated above) still leaves the site receiving relatively low solar radiation across the year due to overshadowing from surrounding buildings

cumulative yearly solar analysis - massing

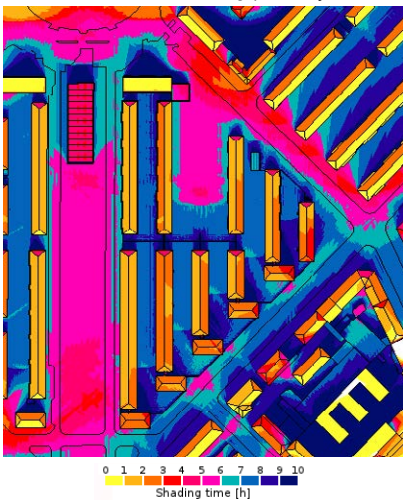


Inserting a new building to the north of the site (indicated) still leaves the site open to the south. The massing could step down towards the south to make the most of passive solar gains during the winter. The roof of the massing receives around 1400kwh/sqm of solar radiation yearly, making it suitable for PV panels.

summer hours of shading per day



winter hours of shading per day

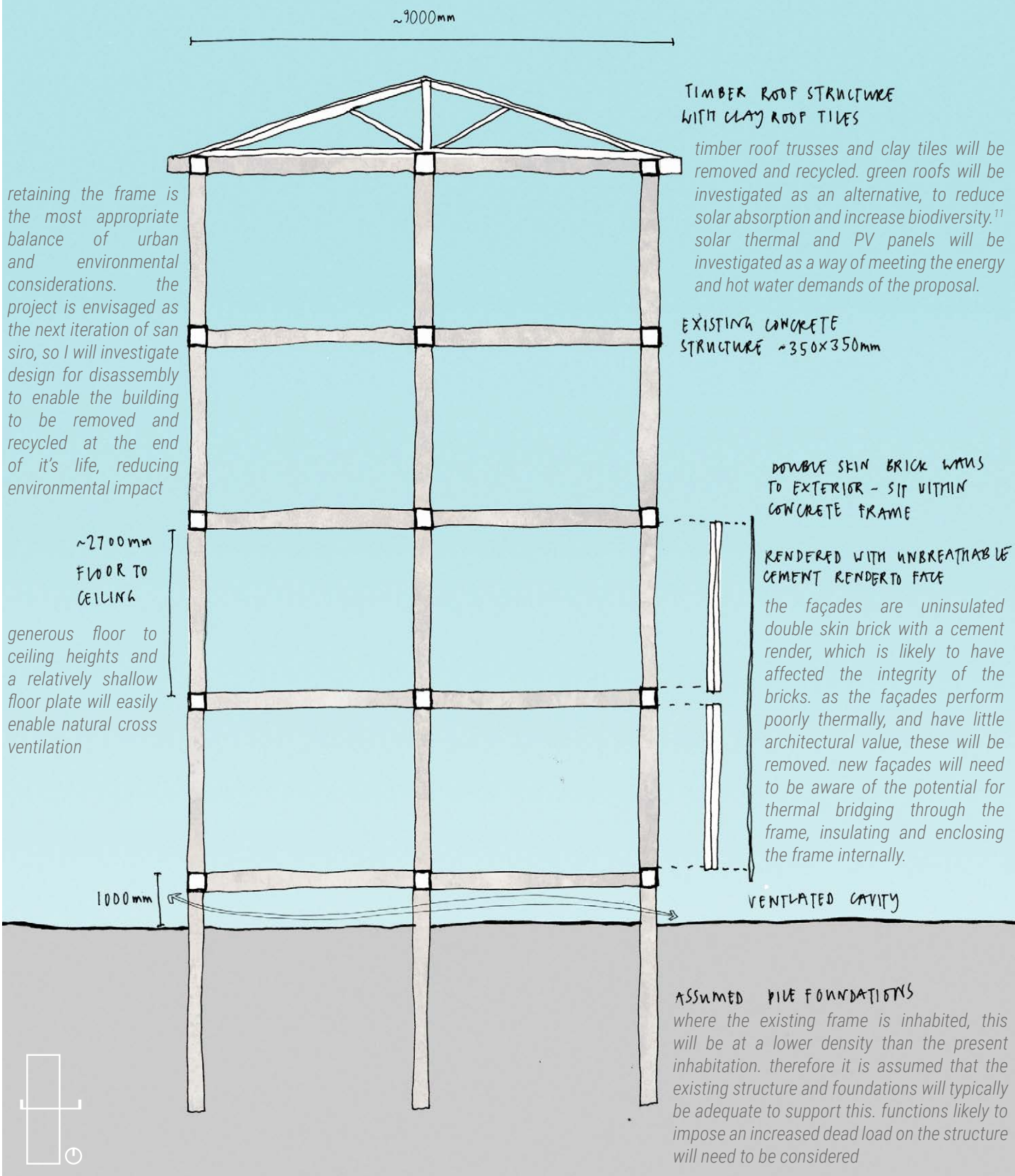


The hours of shading per day is shown for summer and winter, left. Removing a building from the site opens up what would have been another overshadowed courtyard. It is important to take this into consideration when exploring massing for a new building on the site. Pushing a building to the north of the site would leave the rest of the site open and largely unshaded, but would have implications for the surrounding buildings.



inhabiting the existing concrete frame

the existing building on the site will be stripped back to the concrete frame. the rest of the materials will be recycled where possible, but the concrete frame has especially high levels of embodied carbon<sup>9</sup> and is difficult to recycle.<sup>10</sup> Therefore it will be reused and re-inhabited by the new program.

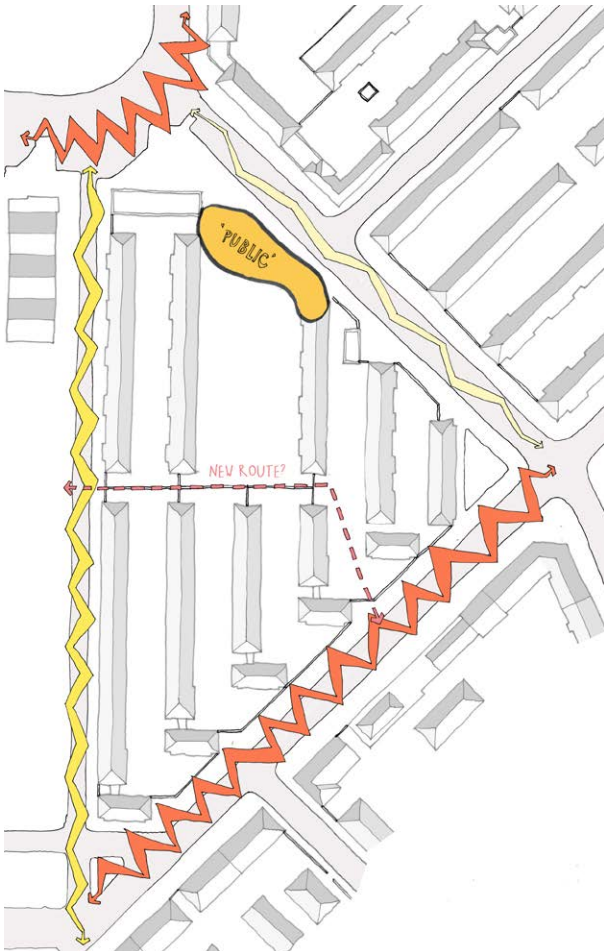


new insertions

The existing roads to the north and south of the urban block receive heavier traffic than the roads to the east and west. By proposing a new building in the location indicated to the left, people will begin to interact with the urban block differently, and the street this fronts on to may become busier.

I will investigate the potential of reprogramming this street to be shared surface. I also hope to create routes through the urban block (at present it is an impenetrable obstacle). By creating shorter blocks, a variety of routes are created around the site, drawing on the work of Jane Jacobs to create more 'urban diversity',<sup>12</sup> and a more walkable city.

Presently, the courtyards are largely unused across San Siro, due to overshadowing and lack of ventilation outlined previously. They are poured concrete, with small areas of grass and a few small trees, with little biodiversity or character that might make them better used. My project will make use of external courtyard space to reintroduce biodiversity into San Siro through new planting and landscaping, which will reduce solar absorption and therefore temperatures, alongside improving wellbeing by creating pleasant spaces.



relative busyness of roads surrounding site



pavement to the east of the site is used for parking



introducing shared surface and giving pedestrians priority could reprogram this street, and encourage a modal shift from driving to walking.



current courtyards



potential approaches to urban green space



sustainable design precepts

The precepts are read through two emerging themes within the project: the creative re-use of existing buildings, and the notion of 'luxury'. Extending the reading of luxury to encompass generous spaces that are comfortable, well lit and pleasant to spend time in, is a central theme to the project, alongside a critical approach to the reuse and reinhabitation of existing buildings.

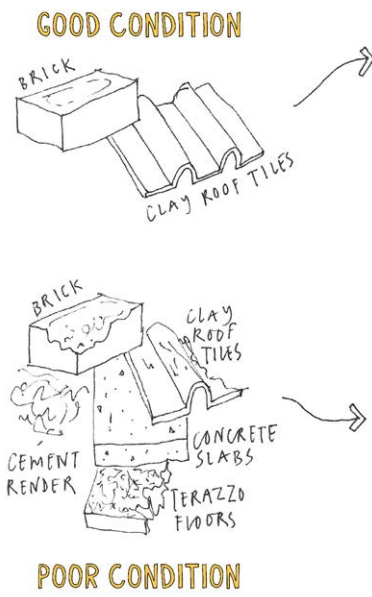
[01\_design to conserve non-renewable resources]

In a world where the construction industry contributes 45% of emission<sup>13</sup> and resources grow ever scarcer,<sup>14</sup> it is imperative that we value existing buildings instead of demolishing and rebuilding them. Their value is not just in existing materials and embodied CO<sub>2</sub>, but also in social networks and economic value. Therefore, I aim to limit demolition to one or two buildings, reusing existing concrete structure and drawing on deep retrofit to improve environmental performance.

New insertions will use locally sourced materials where possible. Milan is proximal to many sustainable alpine CLT, glulam, and timber manufacturers which I will aim to use, rather than relying on non-renewable and energy intensive materials such as concrete. New materials will be sourced within 100-150km of Milan.



homerton dining hall - structural timber



[02\_transform waste into new resources]

As stated, I will limit demolition. However, the impenetrable urban grain of San Siro will benefit from disruption - at an urban and environmental level - creating urban breaks to create a more walkable and better ventilated neighbourhood.

I aim to reuse 90% of material waste from deconstruction and demolition, in the construction of new buildings. Presently I am interested in two ways this might happen - drawing on the Ningbo museum, existing materials in good condition (predominantly brick, and clay roof tiles) will be directly reused in the facade. Drawing from Granby four streets, materials in poorer physical condition will be crushed to be used as an aggregate in a terazzo-like material. These two approaches will also introduce thermal mass for greater thermal comfort through temperature regulation. Any material not suitable for either could be used as recycled aggregate in concrete foundations.

[03\_design for comfort]

The existing fabric of San Siro is inadequately insulated. In creating a space with the intention of reclaiming luxury, the luxury of comfort will be prioritised.

Visual comfort will be created through an increased visual connection to greenery and the sky - important for both mental and physical wellbeing.<sup>15</sup> Re-programming the courtyards to introduce new functions will create more pleasant spaces and increased visual comfort.

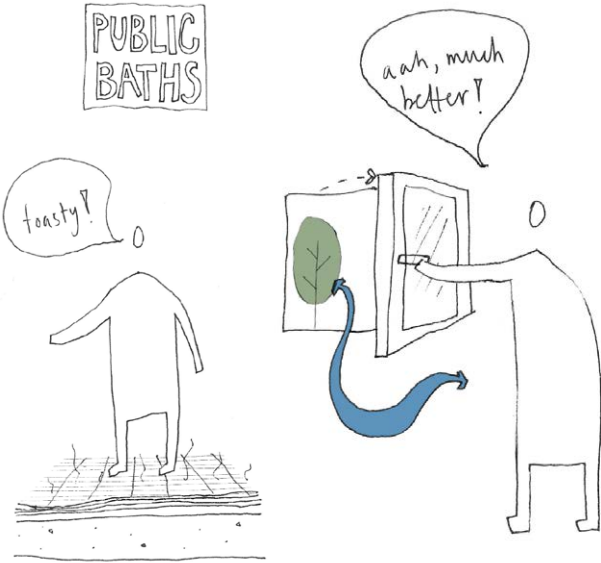
I aim to use passive measures, with user control throughout, to increase adaptive comfort - including windows operable by the users. Good ventilation will also regulate humidity levels. Underfloor heating will be used throughout for better distribution of heat, especially in the public baths where users will likely be barefoot.



san siro courtyards - current condition



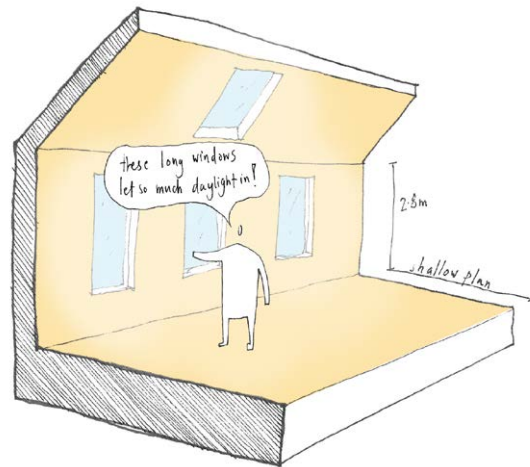
bigyard - reprogrammed courtyards





#### [04\_maximise efficient natural daylight]

Sufficient natural lighting is considered a luxury, therefore I aim to maximise efficient natural daylighting. My proposal is a mix of communal functions with different required lighting levels - where appropriate, spaces will aim for a daylight factor of 5% to achieve good daylighting and reduce need for artificial lighting.



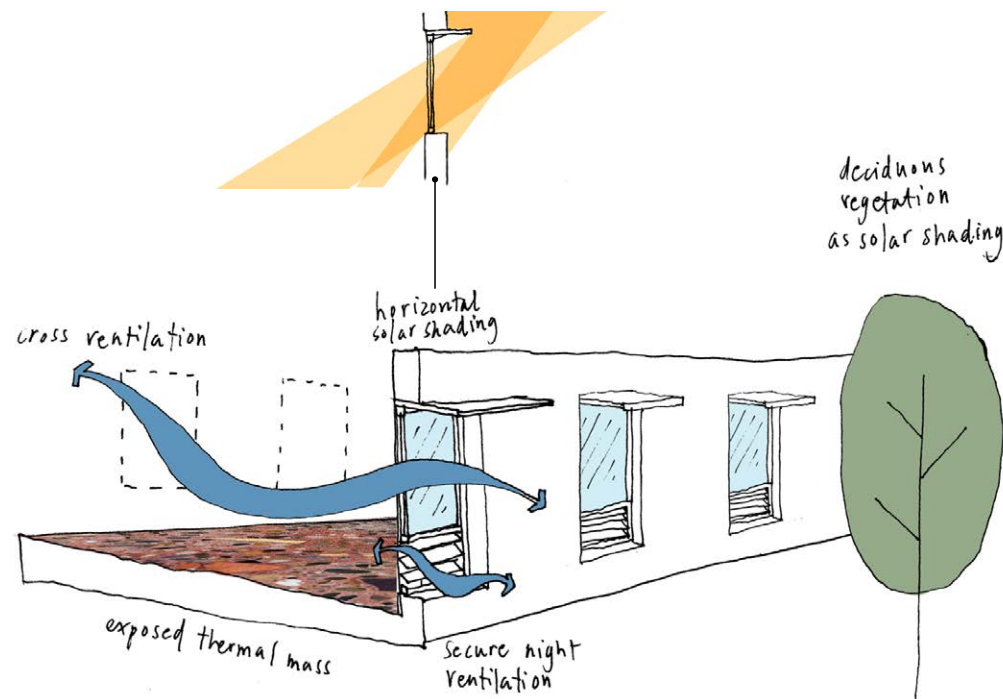
brockholes - tall, shallow naturally day lit spaces

This will be achieved through a number of measures, including using a shallow plan where appropriate (which will also benefit ventilation), and using generous floor to ceiling heights (2.7m+) accompanied by taller windows to the lower floors. Removing an existing building will also increase the vertical sky component.

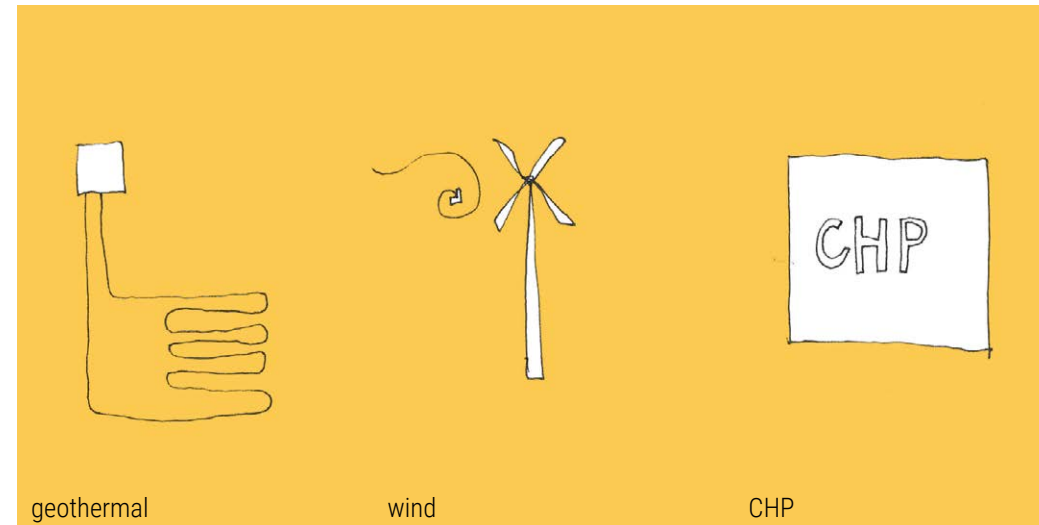
Where rooflights are used, these will be balanced against winter heat losses to ensure their use does not compromise the wider energy needs of the building.

#### [05\_minimise overheating]

Overheating is a class issue; the cost of mechanical ventilation systems is out of reach of many, and their usage often increases localised temperatures. Overheating is already an issue in Milan, and this will increase with climate change. I aim to use natural ventilation throughout the project, by designing shallow (>10m deep) spaces where possible, to enable cross ventilation. Night ventilation will also be used alongside thermal mass to minimise overheating potential. The use of passive strategies will reduce running costs of the building.



Horizontal solar shading and deep window reveals will also be used to the south facade to limit solar gain in the summer, without compromising good daylighting. Similarly, urban vegetation will provide solar shading and reduce local temperatures.



geothermal

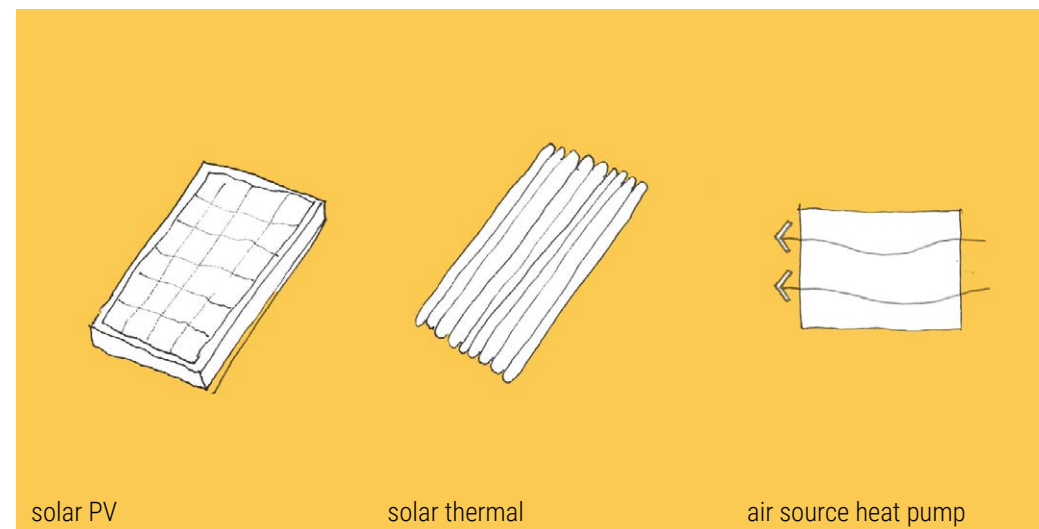
there is space on site for a ground source heat pump, suitable combined with underfloor heating. However, installation would likely be disruptive.

wind

there is very little wind in Milan,<sup>16</sup> therefore generating power from wind is not possible.

CHP

CHP could power the proposed building & existing residential. High air pollution in Milan (from burning wood)<sup>17</sup> makes it unsuitable due to pollutants in fuel.<sup>18</sup>



solar PV

there is potential for the roof to be south facing and not overshadowed, with high yearly solar radiation, making PV a suitable technology.

solar thermal

In addition to criteria for PV, there is space for a thermal store, making solar thermal a suitable technology. PV-T for both electricity and hot water is also suitable.

air source heat pump

sourcing heat from air is viable in Milan, but creates a lot of noise which is not appropriate for the dense urban context of San Siro.

The building exists with the premise that collective, communal facilities are more efficient than individual facilities can be. Communal energy production is examined as a possibility - solar energy seems most viable for the site - based on yearly cumulative solar radiation incident on surrounding roofs (~1400kwh/sqm), 1m<sup>2</sup> of PV panels could produce 120kwh per year.

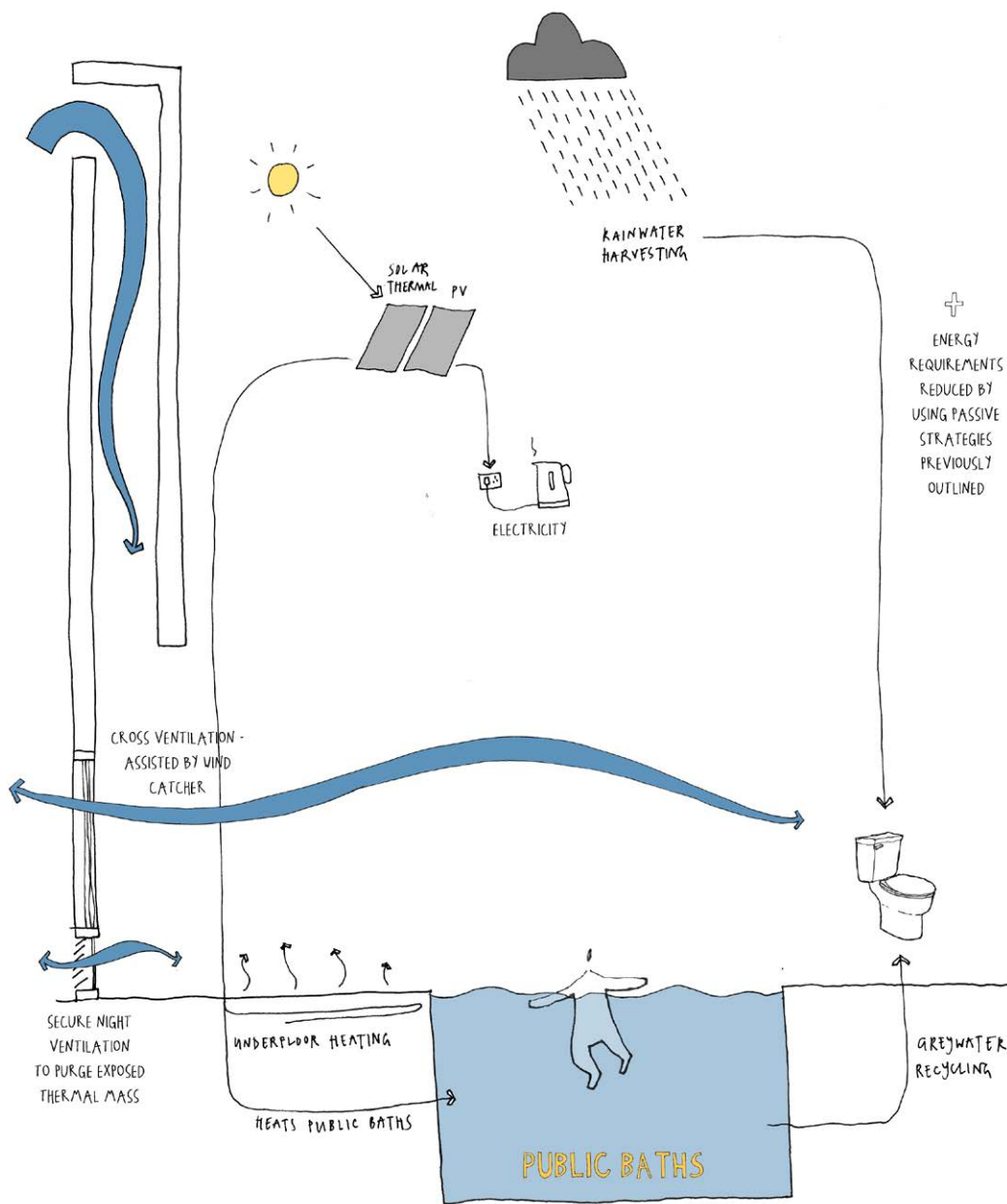


Energy demands of the building will be reduced through passive measures - including thermal mass, natural ventilation, good daylighting, winter solar gains, and summer solar shading.

The public baths will have the largest energy requirements. The water will be heated by the solar thermal panels, which will need to be boosted (especially during the winter). This demand could be met by energy from the PV panels supplying an electric immersion heater. The solar thermal panels will also provide hot water to the underfloor heating system, as this requires a lower temperature than traditional radiators.

The public baths may also require some form of mechanical ventilation, this will be combined with a heat recovery system for efficiency and to reduce it's effect on the surroundings. This, and any vents could also make use of pollution filters.

Rainwater harvesting will be used alongside greywater recycling (from the public baths and other clean water demands of the building) to make efficient use of the water.

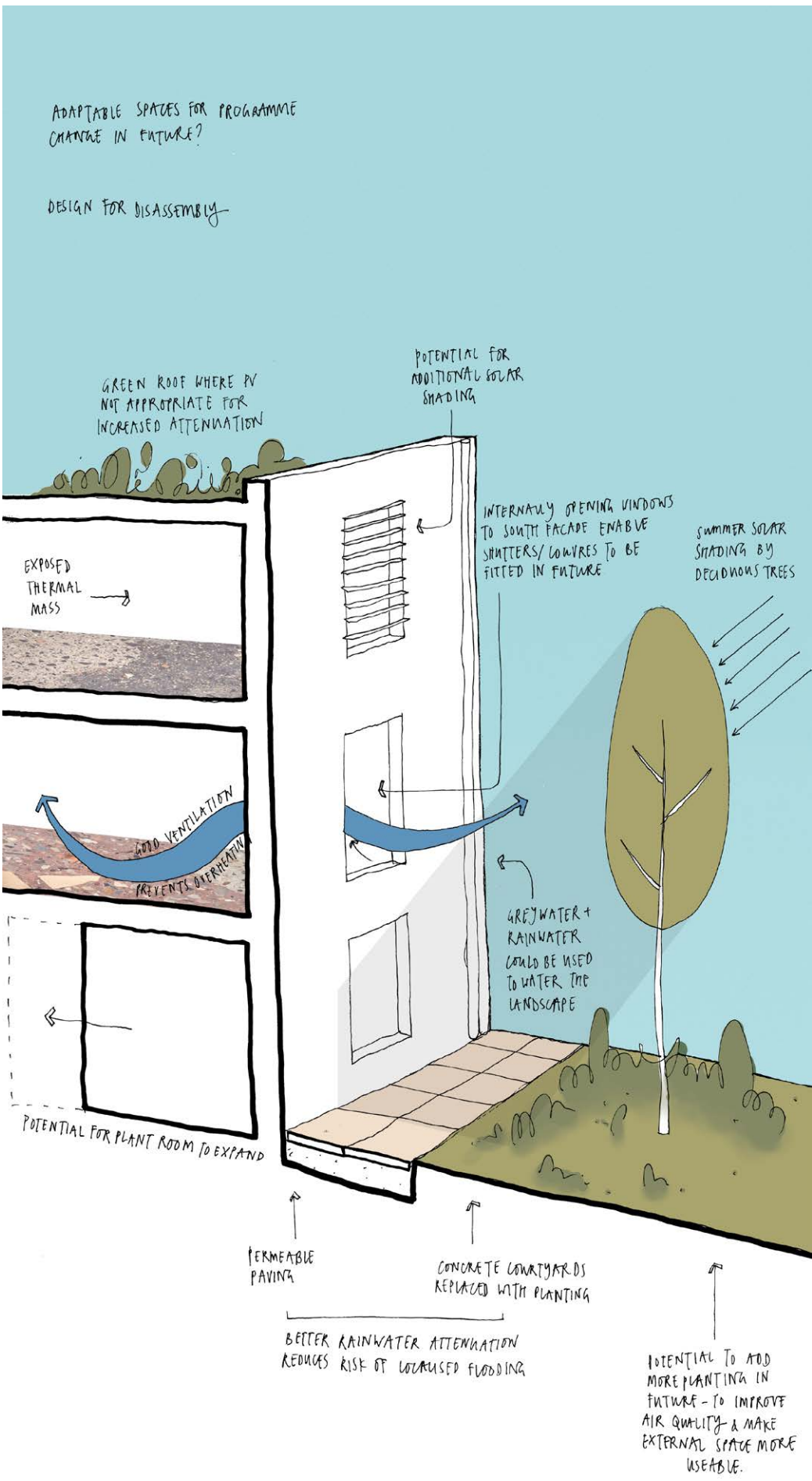


All adaptive strategies have been considered with the urban context of San Siro in mind - many strategies (such as the introduction of reflective materials on the facade) are likely to negatively impact the surroundings, and have therefore been discounted.

Milan will see a substantial increase (around 5°) in seasonal mean temperatures.<sup>19</sup> Precipitation will increase during the winter and decrease during the summer. Overheating is the primary concern - additional solar shading may be retrofitted to the south facade - either in the form of external horizontal louvres, or by using deciduous trees. Both will also allow good daylighting and solar gain during the winter.

Flooding is only likely in the case of extreme weather,<sup>20</sup> so a number of strategies are employed that would attenuate rainwater better than the current concrete courtyards, reducing the risk of localised flooding. These are primarily in the form of new planting and landscaping, which will also improve air quality and provide shading to create more usable outdoor spaces. This landscaping could benefit from rainwater collection and greywater recycling during the summer.

The building spaces could also adapt in the future. The plant room will be able to expand to accommodate potential future technologies. Many of the functions require very specific spaces (such as the bath house and theatre), but some of the functions requiring less specific spaces could potentially alter function in future. In either case, design for disassembly will be explored, to reduce the impact of potential future adaptation.









# RECLAIMING **LUXURY**

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*an anthology of stories*

*volume 3:  
management*

# *contents*

- 01** premise
- 02** benchmark costing
- 03** procurement & contracts
- 04** project program
- 05** 'value'
- 06** site issues
- 07** phasing
- 08** inclusive design

Note: For the purposes of this assignment, the project is considered in a British context – focussing on British (specifically English) procurement, contracts and regulations. In reality, it is highly unlikely a project based in Milan would run in the same way as a project based in Sheffield, as an alternative legal system lends itself to different interpretations of legal roles and responsibilities.<sup>1</sup>



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Lina (project manager) + Arrigo are our contacts at ISS  
Emilia is another Architect working on the project

Procurement advice

To: l.caputo@iss.it, a.vece@iss.it

February 2019

Cc: emilia@arrivalcity.studio

From: clare@arrivalcity.studio

Subject: Procurement advice

Lina, Arrigo,

Following our earlier conversation, I've outlined my advice regarding procurement and contract choice, ahead of your discussion with the QS and colleagues.

Procurement

I think a traditional approach is most suited to the project. This will enable you to have the high level of control over design quality desired for this experimental project. In contrast, D&B will see the contractor take responsibility (and therefore control) for the design, resulting in a more cost-driven approach than traditional, which will compromise design quality and prioritise time and cost.

MANAGEMENT

SPEED

QUALITY

COST

D&B

TRADITIONAL

The balance between speed, quality, and cost certainty can be simplified as thus, but this is further complicated by contract choices

Traditional procurement apportions the risk jointly between yourselves and the contractor, illustrated below.

CLIENT

CONTRACTOR

DESIGN + BUILD

DESIGN + BUILD (contractor design input)

TRADITIONAL LUMP SUM (fixed price)

TRADITIONAL LUMP SUM (fluctuations)

TRADITIONAL MEASUREMENT (bill of approximate quantities)

TRADITIONAL MEASUREMENT (fixed fee prime cost)

TRADITIONAL MEASUREMENT (percentage fee prime cost)

MANAGEMENT CONTRACTING

RISK

However, the unknowns of working with an existing building are likely to be priced in by the contractor in D&B. Taking on this risk yourselves means a potential for lower cost,<sup>8</sup> which alongside your previous experience commissioning and overseeing traditionally procured projects makes this risk less onerous. However, a lack of previous experience working with existing buildings makes management procurement riskier still.

Contract

The JCT standard contract seems most suited to the size and complexity of the project. There are a number of forms of this which balance cost certainty against flexibility, illustrated below.

TIME

FLEXIBILITY

COST CERTAINTY

CONTROL

QUALITY

SIZE/VALUE

COMPLEXITY

LUMP SUM

TIME

FLEXIBILITY

COST CERTAINTY

CONTROL

QUALITY

SIZE/VALUE

COMPLEXITY

MEASUREMENT

Traditional lump sum contracts offer certainty on price, which reduces flexibility - whereas measurement contracts offer flexibility, which reduces cost certainty

Deconstructing and reinhabiting the frames of the existing buildings means there is a level of uncertainty about the condition of the existing buildings until deconstruction begins, making it impossible to produce a detailed bill of quantities for tender. Tendering on a bill of approximate quantities means only the approximate cost will be known, with the actual cost calculated at completion.<sup>9</sup> This will be based on the rates provided by the contractor, produced from the drawings at tender stage.<sup>10</sup>

The JCT standard measurement with approximate bill of quantities will enable flexibility for control as (construction) work proceeds. Tendering on approximate quantities will reduce the time between deconstruction finishing and construction beginning, reducing the time the concrete structures are left empty for, and the neighbourhood disrupted.

tender

deconstruction

technical design

construction

tender

deconstruction

technical design

construction

Typically, tendering with a bill of quantities would happen at the end of stage 4. In this case, the buildings are left empty for a long period (pink arrow)

Tendering on approximate quantities enables tender to happen earlier. Overlapping programmes enables work on site to start sooner (pink arrow)

Tender

The suggested contract lends itself to two-stage (as opposed to single-stage) tendering, which will expedite the often lengthy sequential process of a traditional contract.<sup>11</sup> While you have accepted this is likely to be a lengthy process in order to achieve high quality (associated with traditional procurement), there is understandably a balance to be struck with the length of time San Siro will be disrupted.

A two-stage tender process will enable a specialist main contractor (with experience working with existing structures) to be appointed at the end of stage 3. As there is only a bill of approximate quantities, they will be hired on detailed preliminaries (including scaffolding, welfare facilities, hoarding, staff costs), overheads and profits, a schedule of rates (applied to second stage tender), pre-construction and construction program, method statements, and interview.<sup>12</sup> This will enable you to ensure your values align.<sup>13</sup>

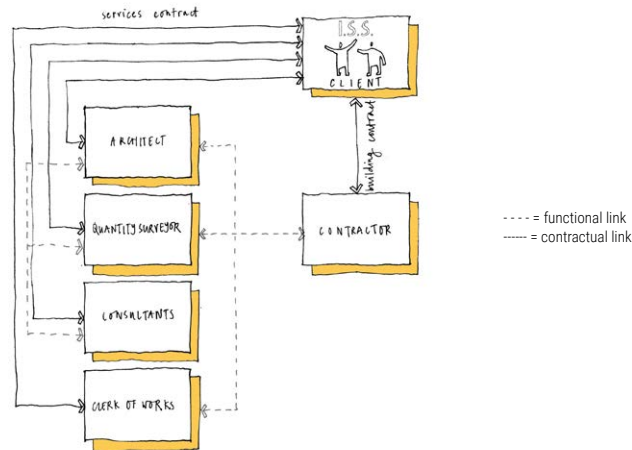
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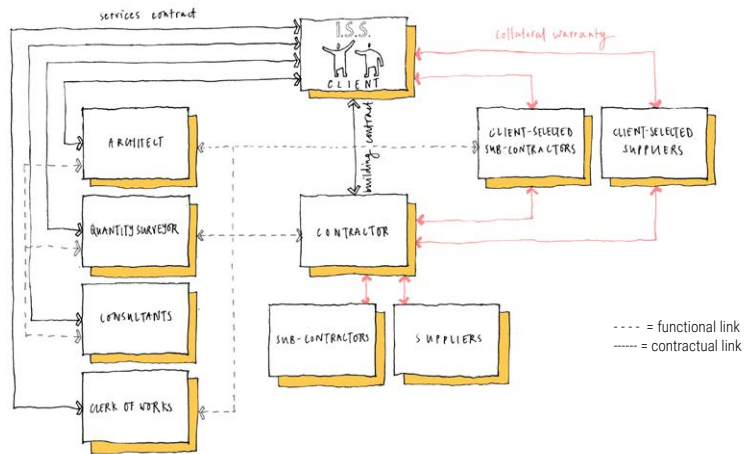


By involving the contractor early on a pre-construction services agreement, they will be better integrated into the design team, inputting into the production of detailed design information (stage 4), improving buildability and reducing the likelihood of disputes.<sup>14</sup>

First stage tender arrangement. Appointing the contractor earlier enables a more collaborative approach<sup>15</sup> likely to result in better design quality.<sup>16</sup>



The second stage of tendering (for the individual packages of work) will occur towards the end of stage 4, following the completion of exploratory work and site surveys. Some of these (such as groundwork) can be tendered before all technical design is completed to enable a quicker start on site. The main contractor will remeasure to give a more defined cost ahead of construction commencing, and negotiate with subcontractors on behalf of the client to drive value into the contract through competition.<sup>17</sup>



We look forward to hearing from you in due course,

Kind regards,  
Clare

Clare McKay ARB RIBA  
Project Architect  
Arrival City Studio

Re: Procurement advice

To: clare@arrivalcity.studio February 2019

Cc:

From: emilia@arrivalcity.studio

Subject: Re: Procurement advice

Just wondered how our role is affected if the client chooses a different procurement route?

Emilia

Re: Re: Procurement advice

To: clare@arrivalcity.studio February 2019

Cc:

From: emilia@arrivalcity.studio

Subject: Re: Re: Procurement advice

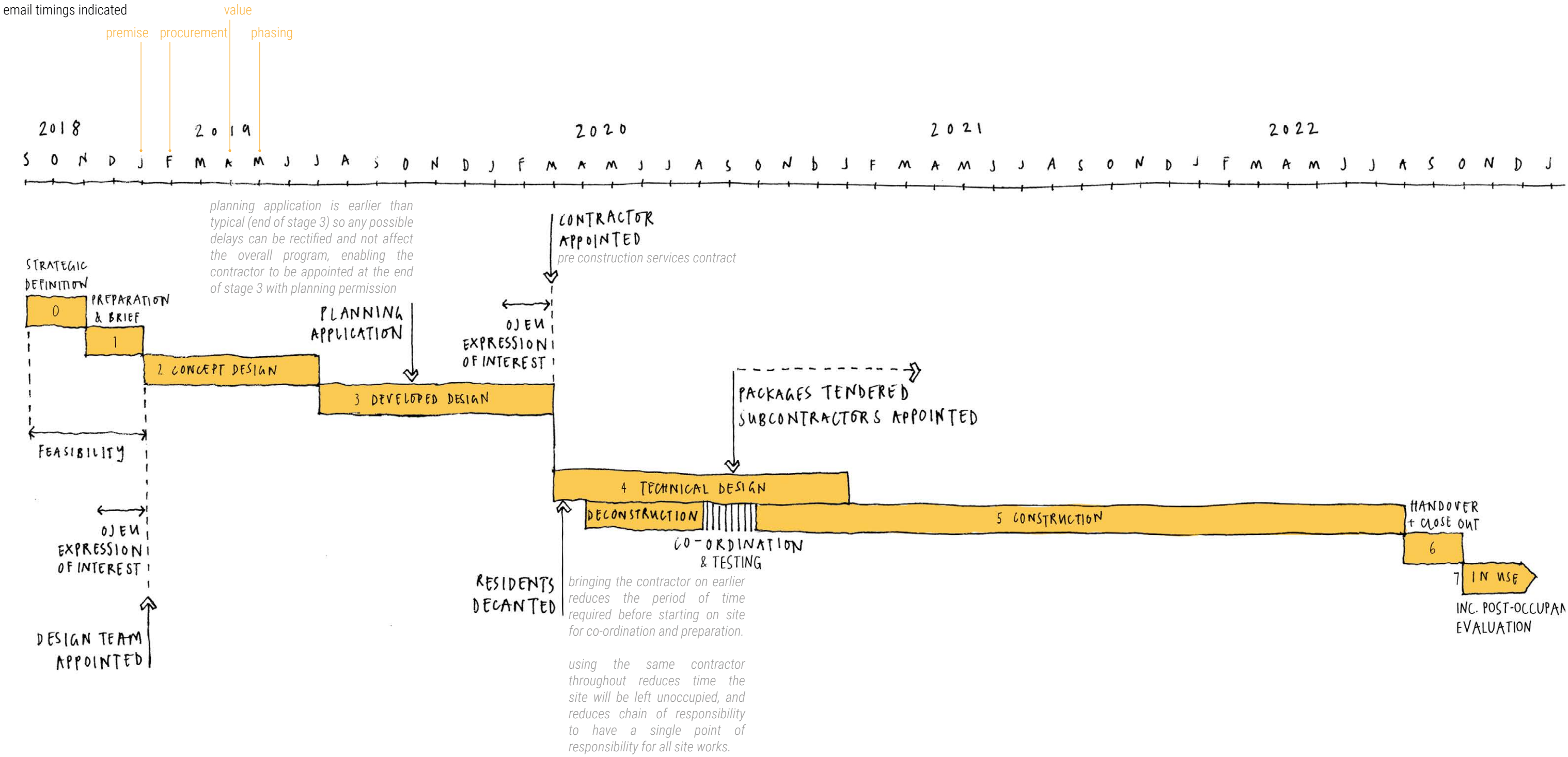
Hi Emilia,

Under a traditional arrangement, we work directly for the client, with no contractual link to the contractor and the client taking responsibility for the design.

Conversely, under D&B we would work directly for the contractor, who would take responsibility for the design. As a more defined and cost-driven approach, any changes (variations) are likely to come at a higher cost than in a traditional arrangement.<sup>18</sup>

Best,  
Clare

program - RIBA plan of work





Cost & Value

To: clare@arrivalcity.studio

Cc: l.caputo@iss.it

From: a.vece@iss.it

Subject: Cost & Value

April 2019

Dear Clare,

We've just met with the ISS funding department.

I know the neighbourhood luxury project is about positively affecting the local community, but the funding department are keen that when it comes to appointing a contractor, we should drive down the cost as much as possible, to ensure value for public money given the relative cost uncertainties rising from working with existing buildings.

Regards,

Arrigo Vece  
Assistant development manager  
Istituto Superiore di Sanità

Re: Cost & Value

To: a.vece@iss.it

Cc: l.caputo@iss.it

From: clare@arrivalcity.studio

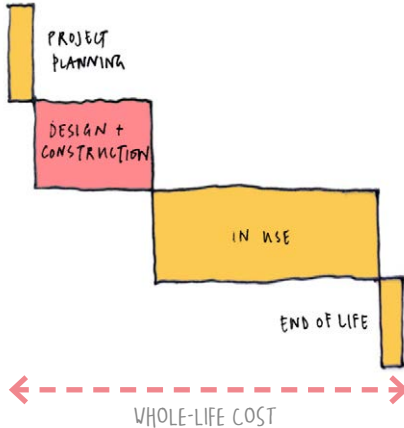
Subject: Re: Cost & Value

April 2019

Arrigo,

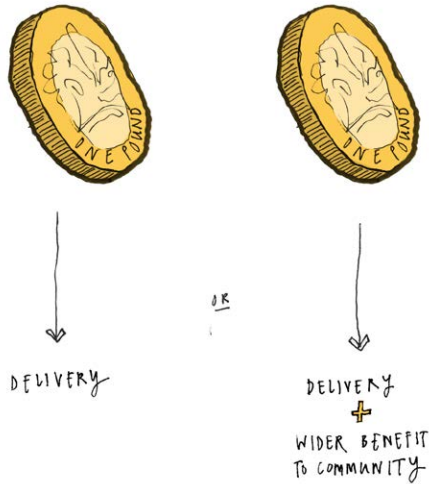
Thanks for your email.

I know we've previously spoken about value for money, but it's important this isn't confined to the construction cost - which in the context of the whole-life cost will be significantly lower than the running/maintenance costs.<sup>19</sup>



The running/maintenance costs will fall to ISS (within the general budget), whereas the construction will be funded by ISS and the European Social Fund. By making a larger investment now, we can specify higher quality, lower maintenance finishes which will reduce the long term maintenance costs of the building. Similarly, we will design in passive measures which will reduce energy demands and therefore usage costs, and utilise design for disassembly principles to reduce end of life costs.

It's important that we don't purely conceptualise value as financial - the grant from ESF is to improve quality of life in San Siro. We could look to achieve this just through the building program, but considering other forms of value (eg. social and environmental value) will enable the same amount of money to have a *wider* benefit to the community.



For instance, two-stage tendering will enable smaller local firms to bid for small packages of work, where they might be unable to bid for large packages or have the capability for design work,<sup>20</sup> and increasing the amount of permeable surfaces in the neighbourhood will help mitigate flood risk.

We can continue to discuss the best balance in terms of capital costs and maintenance costs at the next design team meeting.

Kind regards,  
Clare  
Clare McKay ARB RIBA  
Project Architect  
Arrival City Studio

Conceptually, the project critiques the individualist approach to everyday life dictated by capitalism - it is imperative that the project considers forms of value beyond capitalist economics

Fw: Re: Cost & Value

To: emilia@arrivalcity.studio

Cc:

From: clare@arrivalcity.studio

Subject: Fw: Re: Cost & Value

April 2019

Hi Emilia,

Thought you might be interested in the brief discussion on whole-life cost and value.

Interestingly, refurbishment and retrofit is disincentivised by VAT in the UK. While new-build residential and communal-residential buildings (eg. the neighbourhood luxury) are zero-rated for VAT, refurbishment and retrofit are subject to 20% VAT.<sup>21</sup> This often means refurbishment (particularly of social housing) is discounted as an option in favour of demolition and new-build, despite the negative environmental impacts.<sup>22</sup> However, this is not the case in Italy, where all construction work (new-build and retrofit) is subject to 10% VAT.<sup>23</sup>

Best,  
Clare

Site visit today

To: l.caputo@iss.it, a.vece@iss.it

May 2019

Cc:

From: clare@arrivalcity.studio

Subject: Site visit today

Lina, Arrigo,

Following our visit to the site today, it's clear there are a number of risks associated with the complexity of the site.

As principal designer for the project, I take responsibility for the health and safety in the design, but wanted to make you both aware of these risks as we move forward. I've attached a document highlighting some of the risks we discussed today.

Early involvement of the contractor through two-stage tendering will use the experience of the contractor to improve buildability and mitigate many of the highlighted risks. Being embedded within the design team enables me to greater influence the design, to design out risks.

I've attached a document highlighting some of these risks focussing on the proximity to existing homes, and how we might begin to mitigate them.

Best,  
Clare

Previously, CDM was overseen by a 'CDM co-ordinator' typically subcontracted to be external from the design team, reducing their capability to influence design. Under a traditional contract, the chain of responsibility is less complex, as the contractor is taking no responsibility for design elements.

Potential site risks.pdf

proximity to existing homes

Access to existing homes needs to be preserved throughout the construction process (highlighted yellow fills). This will be accommodated for in the site hoarding, which may need to be adjusted over the course of construction.

A delicate deconstruction process is necessitated, rather than demolition which could damage the surrounding buildings, and create large amounts of dust, debris, and noise.

Minimising disturbance to neighbours will be achieved through more sociable construction hours (9am starts & no weekend working... this will be allowed for in the project program).

Minimising disturbance to neighbours will also be achieved through restrictions in deliveries to site, which will avoid early mornings and rush hours.

Constrained site leaves little room for site offices or material storage as construction progresses. Consider locating these off-site, and making use of 'just in time' deliveries to minimise required storage.

Accurate survey information will be required on asbestos & other hazardous materials, measured point cloud and BIM model, photographic, topographical, acoustic & structural information. As much as possible will be surveyed before deconstruction, to reduce likelihood of delays - but this must be weighed against potential inaccuracies of pre-deconstruction surveys.

The relationship with the existing residents is key, ensuring engagement with the site/design/construction process

other issues

Prefabrication and offsite construction will reduce time on site and impact of noise, dust and vibration of construction on residents. This must be balanced against generating social value by employing local workforce.

'Right to light' of surrounding buildings must be considered, to ensure the levels of natural light to the buildings are not compromised.

There are existing small trees on site which will be preserved and retained - these must be protected during construction.

proposed building locations

site area

extg concrete frames



As there are no leaseholders (only renters) in the blocks for deconstruction, CPOs will not be required. These fall to the client, and often will not cover an equivalent home in the local area (due to gentrification) or in a new development<sup>25</sup> (despite this being their purpose). The block for deconstruction is <25% occupied, limiting the disruption caused. Several other buildings within the block have <50% occupancy, so the residents displaced will be rehoused within the urban block, in like-for-like homes.

Phasing Strategy

To: l.caputo@iss.it

May 2019

Cc:

From: clare@arrivalcity.studio

Subject: Phasing Strategy

Lina,

Following assessment of site issues, it was discussed whether building the neighbourhood luxury over two distinct phases (first at the back of the site, and second at the front) might be most applicable.

On further consideration, I think this is best constructed as a single phase, which will reduce costs of the contractor leaving and then returning for a second phase.<sup>24</sup> I feel the limited access to the rear of the site is best dealt with as a site program issue, whereby the construction of the building at the front of the site begins once large machinery is no longer needed at the rear of the site.

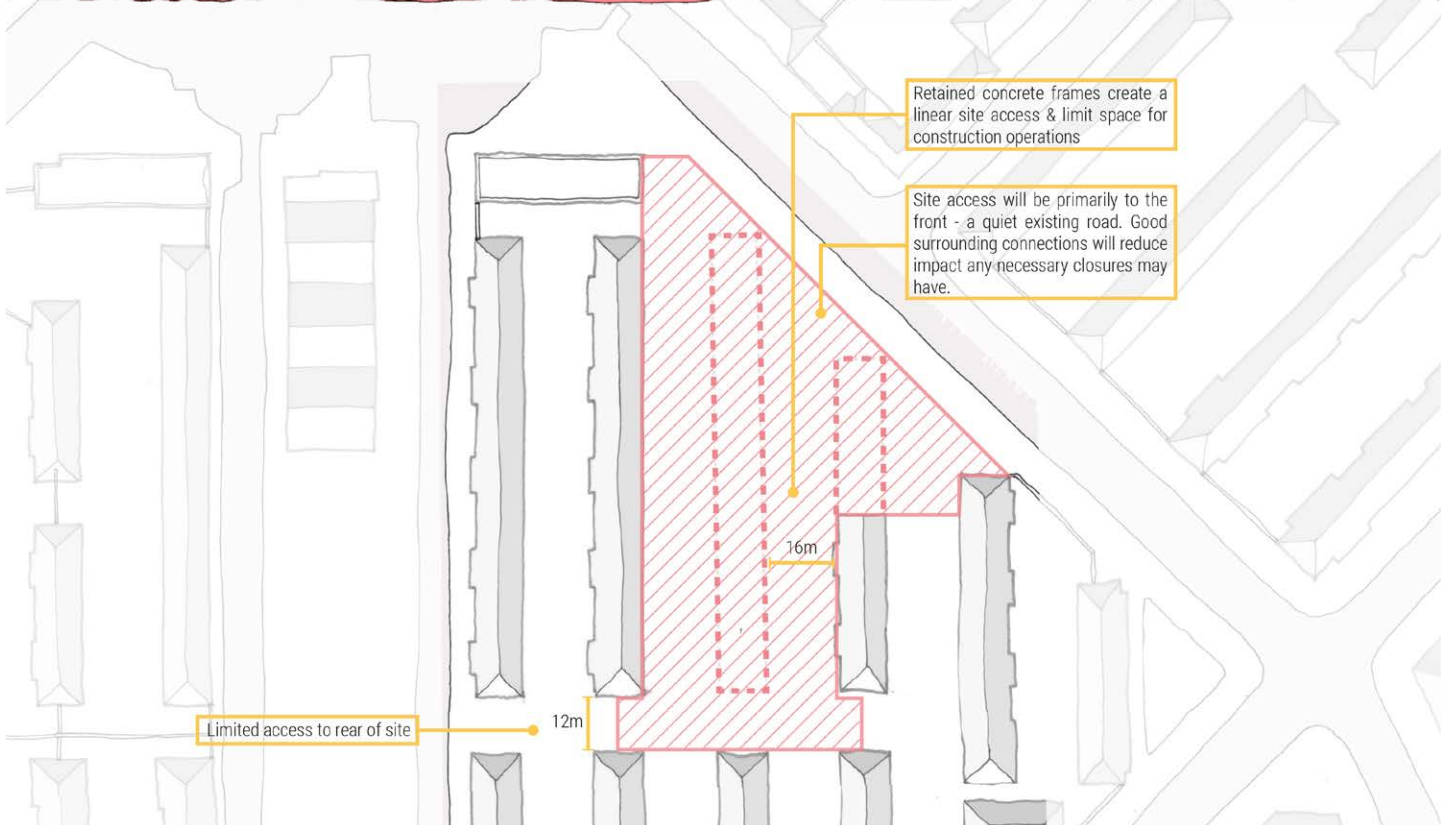
The proposed phases are:

- 0 – relocation of residents to other vacant properties in the urban block
- 1 – deconstruction of existing buildings
- 2a – imaginarium constructed
- 2b – baths and dining constructed
- 3 – landscape and ff&e

I've attached some drawings to better explain this.

Regards,  
Clare

Site Access Considerations.pdf



Phasing Strategy.pdf

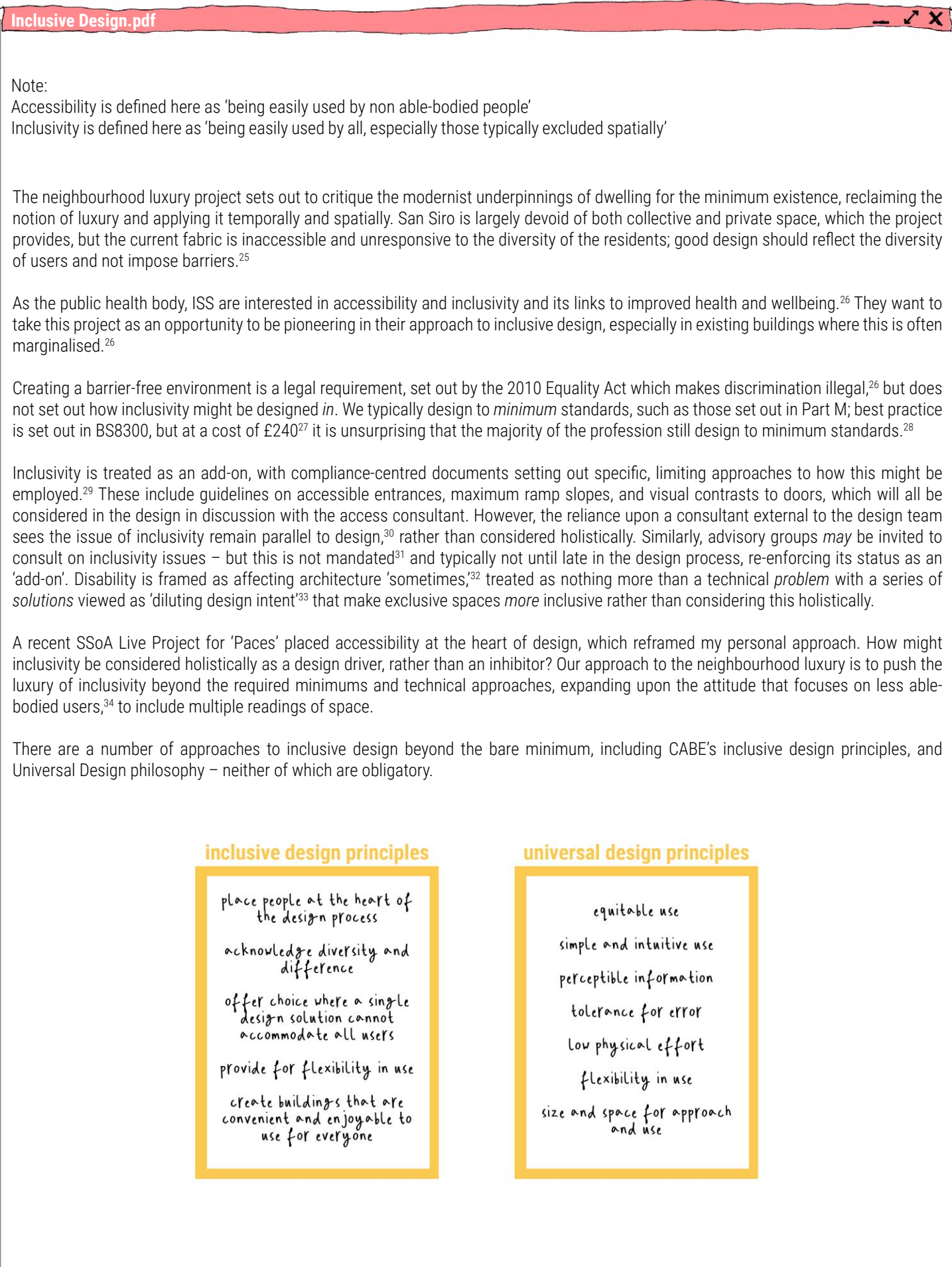
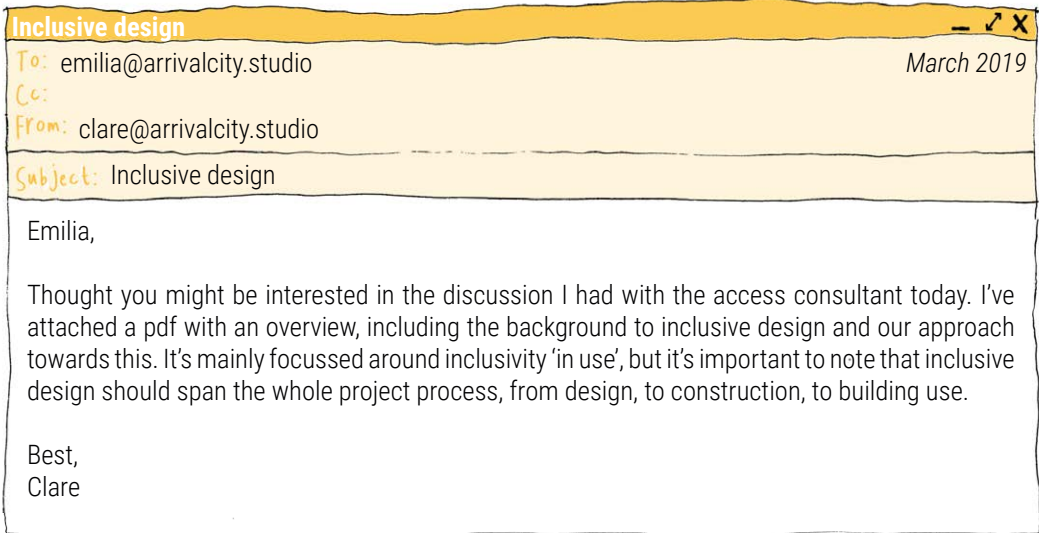
phase 0 - residents decanted

phase 1 - deconstruction

phase 2a - imaginarium

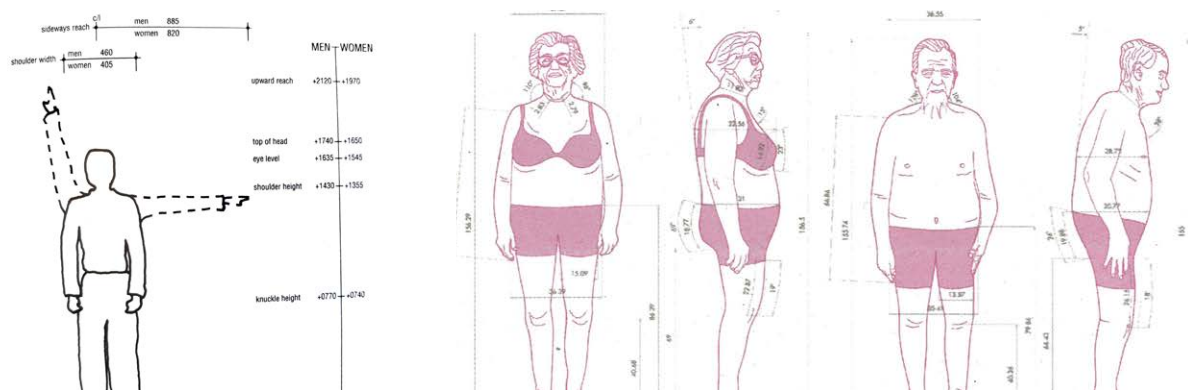
phase 2b - bath/dining

A single phase will enable the neighbourhood luxury to open as one development, rather than a more piecemeal approach. This will also allow us to address any issues that arise in the construction of the first building.

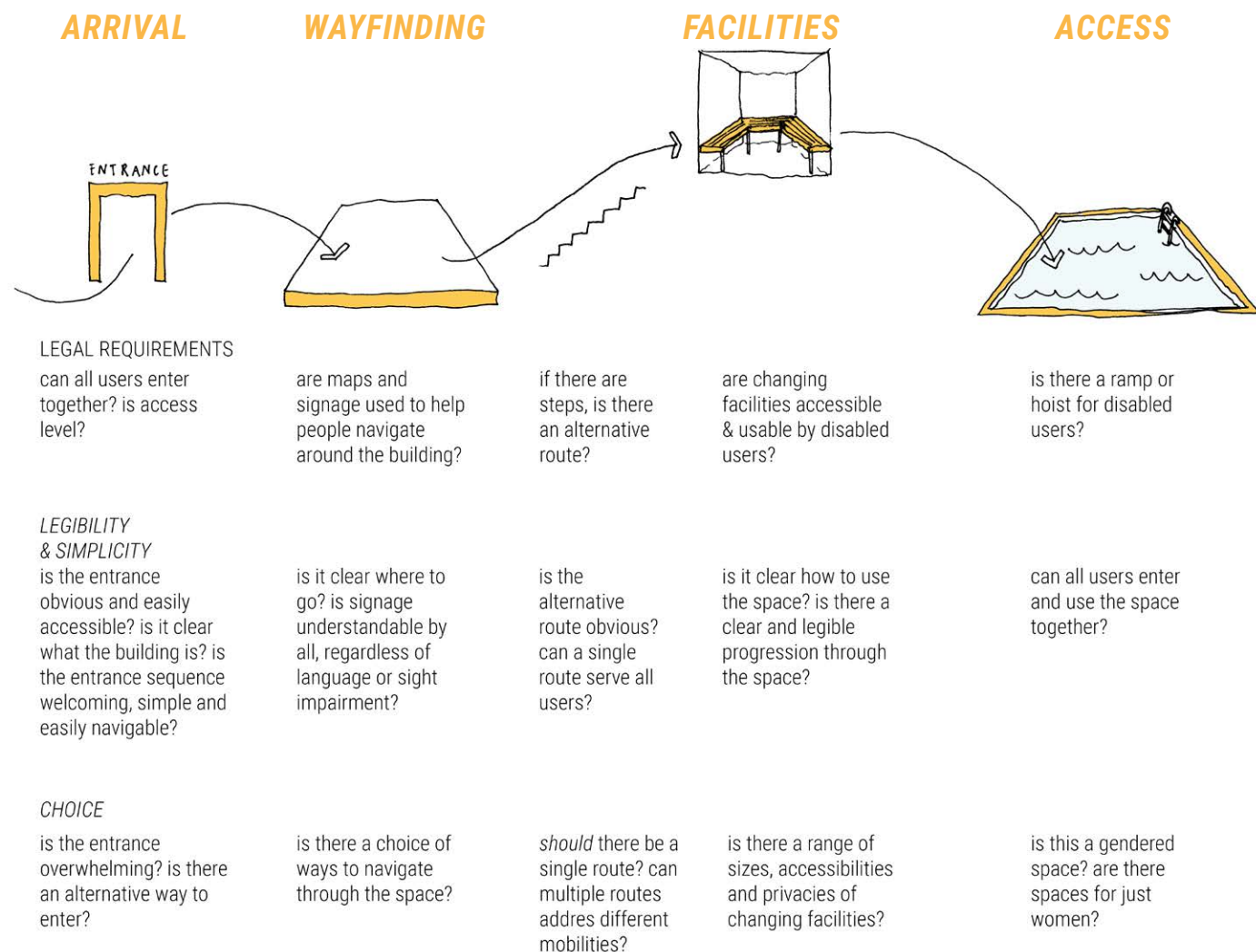




Universal design aims to create environments accessible by all; but it is this understanding of who 'all' is and how they might inhabit space which underpins the created environments.<sup>35</sup> We understand space through our past experiences,<sup>36</sup> designing in our own image,<sup>37</sup> or relying on anthropometric data. The architectural profession is overwhelming straight, white, able-bodied, middle-class and male,<sup>38</sup> unconsciously reinforcing our own privileges and understandings of space, alongside using anthropometric data that is overtly male and able-bodied. Thus design is rarely *truly* universal, instead addressing specific groups,<sup>39</sup> and the principles widely critiqued for becoming sanitised to be about 'good design for everyone.'<sup>40</sup>



Hamraie proposes universal design is a right to 'collective access'<sup>41</sup> physically, emotionally and intellectually. How might this be understood in San Siro? Underpinning the universal design/inclusive design principles is simplicity, legibility and choice. Drawing headings from the tick-box 'access audit' approach, a selection of considerations are developed and focussed around key points in the journey from entrance to public baths. The public baths encompass many 'access' issues – from how less able-bodied users and families can use the space, to creating gendered spaces address cultural issues around bathing and nudity. Being aware of our own spatial biases and considering a multiplicity of socio-cultural readings of space is essential to create this collective access, considering how spatial atmospheres may affect different users – particularly at a cultural level<sup>42</sup> is vital within the super-diverse San Siro neighbourhood.



Extending the legal requirements to consider wider socio-cultural inclusion through choice and legibility, it's important that these don't just become about access to space, but access to experience also.

How might we move beyond a culture of minimum compliance? The 2017 'building for equality' report posits inclusive design expertise has been lost at a 'local' level, and should be lead by the government;<sup>43</sup> through greater inclusion in the NPPF and amending of the building regulations to require higher 'minimums' to better meet the needs of the population.<sup>44</sup>

Perhaps this is not enough. How might this be done differently? Is a standards-based approach best? Should these be prescribed minimums, or best practices? Should it fall to the Architect to consider these issues – and how might this be enforced? There needs to be an absolute minimum compliance, but this should be in rare cases, with architects instead achieving best practice, adopting a consistent approach to inclusive principles.<sup>45</sup> Inclusivity should be *beautiful*, not clinical as is often the case.<sup>46</sup>

This begins in education – we should be taught how to design beyond the minimums for accessibility and inclusivity, and see inclusivity as a *design* problem rather than a *technical* problem. Our project at Paces consulted extensively with the users, to understand what spaces *did* work for them, using these as benchmarks and enabling us to understand the challenges presented by everyday space. There is no legal requirement for consultation with specialist groups – although a reductivist reading of Lefebvre & Harvey's 'right to the city' has been adopted by the UN new urban agenda, recognising the vision of cities for all. This is non binding<sup>47</sup> and merely encourages governments to enshrine in law the right for citizens to influence urban development, rather than the creation of truly inclusive design.

As architects, we must advocate for inclusive 'collective access'<sup>48</sup> of *all* spatially excluded populations...disability, age, class, race...<sup>49</sup> By creating truly inclusive space, a more inclusive and equal society is created.<sup>50</sup>





# summary

The new neighbourhood luxury proposed for San Siro reclaims luxuries of time, space, inclusion, and beyond.

In doing so, a critique of both modernist principles, and what we ascribe value to is set out, underpinning all 3 volumes contained in this complete collection, each building on the previous. This takes many forms; an approach towards working with and valuing existing buildings, an approach to social and environmental value, and a rejection of the individualist culture of everyday life dictated by capitalism. Each volume explores these issues through a different lens; theory and design, environment and technology, and management.

Volume 1 begins to reach beyond the realm of 'pure' architecture, drawing a theoretical framework from philosophy, fiction, politics, as well as spatial practices. These are developed symbiotically alongside imagined stories and narratives to create non-binary readings of everyday life and the space against which it is performed and practiced. This is drawn through following volumes and will be continued into the development of the project, using the imagined lives of the *objects* to investigate and evolve space. These speculative musings have enabled the abstraction of ideas which begin to comment on and respond to both the physical, cultural and socio-political context of San Siro, whilst bringing a notion of fun and whimsicality to the project.

Drawing on an agenda originally examined in my study 'Towards Hypertrophy', an attitude towards the valuing, retention, and reuse of existing buildings is set out and examined through each of the volumes. This is developed architecturally and theoretically in volume 1, examined through the environmental and tectonic implications in volume 2, and finally in volume 3, the associated risks and management issues. There are many challenges and constraints of working within existing concrete frames and creating new materials from old; but exploring alternatives to demolition and rebuilding is imperative in a world where resources grow ever scarcer, and the climate impacts of the built environment spiral higher.

The perceived lack of value ascribed to existing buildings is extended beyond economics and environmental impacts, to include forms of social value; of existing social networks, and the use of capital investment to benefit local people and economies. The neighbourhood luxury sets out to serve the people of San Siro by creating collective and private luxuries to foster wellbeing. In doing so, the individualist dogma of capitalism is upturned, creating the luxury of time through collective cooking and dining, facilitating the enjoyment of the rest of the neighbourhood luxury.

As the project has developed, the original forms of luxury have been developed and refined to better respond to the context of San Siro. Instead of distinct 'private' and 'collective' luxuries, a 'continuum of collectivity' has been developed, whereby each conceived luxury is interpreted in multiple forms: private, semi-private, and collective, and all the scales between.

Each volume examines the neighbourhood luxury through new methods, which will be used to challenge the issues raised, whilst drawing on the original narratives and literary frameworks which first guided and shaped the project. The luxuries continue to evolve in relation to contexts, both real and imagined, assembled together to create a series of luxurious spaces for everyday life for the people of San Siro.





*endnotes*

1 "San Siro Stories: The project" <www.sansirostories.it/portfolio/il-progetto/> [Accessed 18 December 2018]  
2 Linda Groat and David Wang, 'Architectural Research Methods' *Wiley* 2013  
3 Frederic Druot, Anne Lacaton & Jean-Philippe Vassal 'PLUS' GG 2004  
4 Sofie Pelsmakers 'The Environmental Design Pocketbook' RIBA Publishing 2012  
5 Jonathan Watts 'Earth's resources consumed in ever greater destructive volumes' *The Guardian* 23rd July 2018  
6 Doug Saunders, *Arrival City Windmill* 2011  
7 "San Siro Stories" <www.sansirostories.it> [Accessed 12 December 2018]  
8 Studio Arrival City group work November 2018  
9 "Cittadini Stranieri 2018 - Milano", *Tuttitalia*.It, 2019 <https://www.tuttitalia.it/lombardia/18-milano/statistiche/cittadini-stranieri-2018/> [Accessed 1 December 2018]  
10 Ibid.  
11 Ibid.  
12 Ibid.  
13 Ibid.  
14 Ibid.  
15 "San Siro Stories" <www.sansirostories.it> [Accessed 12 December 2018]  
16 Ibid  
17 Ibid.  
18 Ibid.  
19 Ibid.  
20 Gaston Bachelard 'The poetics of space' *Penguin* 1958  
21 "San Siro Stories" <www.sansirostories.it> [Accessed 12 December 2018]  
22 Werner Breitung 'Borders and the city' *Quaestiones Geographicae* 30(4) 2011  
23 Michel de Certeau 'The Practice of Everyday Life' *University of California Press* 1988  
24 Leo Hollis, "Cities Thrive When Public Space Is Open To All", *Aeon*, 2019 <https://aeon.co/essays/cities-thrive-when-public-space-is-open-to-all> [Accessed 19 December 2018]  
25 Ibid.  
26 Ibid  
27 Studio Arrival City group work November 2018  
28 Michel Foucault 'Of other spaces' *The Johns Hopkins University Press - Diacritics* 1(16)1986  
29 Ibid.  
30 Ibid.  
31 Michel de Certeau 'The Practice of Everyday Life' *University of California Press* 1988  
32 Maggi Savin-Baden and Claire Howell Major 'Qualitative research: the essential guide to theory and practice' *Routledge* 2013  
33 John Creswell and David Creswell 'Research Design: Qualitative, Quantitative, and mixed methods approaches' *SAGE Publications* 2017  
34 George Perec 'Species of spaces and other pieces' *Penguin* 1997  
35 "The 2017 Life At Home Report", *Ikea.Com*, 2019 <https://www.ikea.com/gb/en/this-is-ikea/ikea-highlights/the-2017-life-at-home-report/> [Accessed 29 November 2018]  
36 Henri Lefebvre 'The politics of space' *Anthropos* 1973  
37 Ibid.  
38 Jacques Raciere 'Dissensus: on politics and aesthetics' *Bloomsbury* 2015  
39 Henri Lefebvre 'The production of space' *Blackwell* 1991  
40 Gaston Bachelard 'The poetics of space' *Penguin* 1958  
41 Michel de Certeau 'The Practice of Everyday Life' *University of California Press* 1988  
42 Studio Arrival City group work November 2018  
43 Michel de Certeau 'The Practice of Everyday Life' *University of California Press* 1988  
44 Ibid.  
45 Gaston Bachelard 'The poetics of space' *Penguin* 1958  
46 Michel de Certeau 'The Practice of Everyday Life' *University of California Press* 1988  
47 Francesca Cognetti and Beatrice de Carli 'Mapping San Siro: Instant Report' 2013  
48 Frederic Druot, Anne Lacaton & Jean-Philippe Vassal 'PLUS' GG 2004  
49 Ibid.  
50 Frederic Druot, Anne Lacaton & Jean-Philippe Vassal 'PLUS' GG 2004  
51 Ibid.  
52 Henri Lefebvre 'The right to the city' *Anthropos* 1968  
53 Henri Lefebvre 'The production of space' *Blackwell* 1991  
54 George Perec 'Species of spaces and other pieces' *Penguin* 1997  
55 ArchDaily "PC Caritas / architecten de vylder vinck taillieu" 2017 <https://www.archdaily.com/871034/pc-caritas-architecten-de-vylder-vinck-taillieu/> [Accessed 10 January 2019]

56 RIBA Journal 'Kings Crescent estate phases 1 and 2' 2018 < https://www.architecture.com/awards-and-competitions-landing-page/awards/riba-regional-awards/riba-london-award-winners/2018/kings-crescent-estate-phases-1-and-2> [Accessed 11 January 2019]  
57 Frederic Druot, Anne Lacaton & Jean-Philippe Vassal 'PLUS' GG 2004  
58 ArchDaily "Palais de Tokyo expansion / Lacaton + Vassal" 2012 < https://www.archdaily.com/248026/palais-de-tokyo-expansion-lacaton-vassal> [Accessed 10 January 2019]  
59 Frederic Druot, Anne Lacaton & Jean-Philippe Vassal 'PLUS' GG 2004  
60 Ibid.  
62 Henri Lefebvre 'The right to the city' *Anthropos* 1968  
63 Ibid.  
64 "San Siro Stories" <www.sansirostories.it> [Accessed 12 December 2018]  
65 Office for national statistics 'Women shoulder the responsibility of 'unpaid work' *ONS* 2016  
66 Ibid.  
67 Ibid.  
68 David Harvey 'Seventeen contradictions and the end of capitalism' *Profile Books* 2014

image references

All images are by the author or studio arrival city unless otherwise specified

p15 - san siro stories image from <www.sansirostories.it>  
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p100,101 - precedent images from Archdaily, various pages <www.archdaily.com>



1 Frederic Druot, Anne Lacaton & Jean-Philippe Vassal 'PLUS' GG 2004  
2 Ibid.  
3 Guido Lazani, Sandro Finardi & Gian Luca Gurrieri 'History and perspective of air quality in Milan: scientific and management challenges' *ARPA Lombardia* 2016  
4 Sofie Pelsmakers 'The Environmental Design Pocketbook' *RIBA Publishing* 2012  
5 Ibid.  
6 Ibid.  
7 Ibid.  
8 'Climate San Siro' Meteo Blue <meteoblue.com/en/weather/forecast/modelclimate/san-siro\_italy\_6534436> [accessed 29th January 2019]  
9 Sofie Pelsmakers 'The Environmental Design Pocketbook' *RIBA Publishing* 2012  
10 Ibid.  
11 Ibid.  
12 Jane Jacobs 'The Death and Life of Great American Cities' *Vintage* 1993  
13 Sofie Pelsmakers 'The Environmental Design Pocketbook' RIBA Publishing 2012  
14 Jonathan Watts 'Earth's resources consumed in ever greater destructive volumes' The Guardian 23rd July 2018  
15 Sofie Pelsmakers 'The Environmental Design Pocketbook' *RIBA Publishing* 2012  
16 Guido Lazani, Sandro Finardi & Gian Luca Gurrieri 'History and perspective of air quality in Milan: scientific and management challenges' *ARPA Lombardia* 2016  
17 Ibid.  
18 Ibid.  
19 Sergio Castellari & Vincenzo Artale 'Climate change in Italy: evidence, impacts & vulnerability' *Euro-Mediterranean Centre for Climate Change* 2010  
20 Ibid.

All images are authors own unless otherwise stated  
p113 precedent images from <archdaily.com> (various pages) and <dezeen.com> (various pages) [accessed January 2019]  
p115 temperature graph from <meteoblue.com/en/weather/forecast/modelclimate/san-siro\_italy\_6534436> [accessed 29th January 2019]  
p119 precedent images from <dezeen.com> (various pages) [accessed January 2019]  
p120 precedent images from <feildenfowles.co.uk/homerton-dining-hall/> <archdaily.com/14623/ningbo-historic-museum-wang-shu-architect> and <granbyworkshop.co.uk/catalogue/granby-rock> [accessed January 2019]  
p121 precedent images from <archdaily.com/793287/zanderroth-architekten> and <adamkhan.co.uk/projects/brockholes/> [accessed January 2019]

1 Hugh Clamp, Stanley Cox, Sarah Lupton and Koko Udom 'Which Contract?' *RIBA* 2007

2 Pamela Johnston ed. 'Project Interrupted: Lectures by British Housing Architects' *Architecture Foundation* 2018

3 Valentina Romei 'Why Italy's economy is stagnating' *Financial Times* 13th November 2018

4 EU 'Tendering rules and procedures' <europa.eu/youreurope/business/selling-in-eu/public-contracts/rules-procedures/index\_en.htm> [accessed 14th February 2019]

5 Laura Mark 'Work won through OJEU us scant and falling' *Architects Journal* 9th January 2015

6 Alastair Blyth, John Worthington 'Managing the brief for better design' *Spon Press* 2003

7 Karl Schmid 'Construction Estimating: A Step-by-Step Guide to a Successful Estimate' *Momentum Press* 2011

8 Hugh Clamp, Stanley Cox, Sarah Lupton and Koko Udom 'Which Contract?' *RIBA* 2007

9 David Chappell, Andrew Willis 'The Architect in Practice' *Wiley* 2010

10 Hugh Clamp, Stanley Cox, Sarah Lupton and Koko Udom 'Which Contract?' *RIBA* 2007

11 David Chappell, Andrew Willis 'The Architect in Practice' *Wiley* 2010

12 Davis Langdon, Simon Rawlinson 'Procurement: two-stage tendering' *Building* 12th May 2006

13 'Social value and design of the built environment' *Supply Chain Sustainability School* 2017

14 Davis Langdon, Simon Rawlinson 'Procurement: two-stage tendering' *Building* 12th May 2006

15 Ibid.

16 Nigel Ostime 'Handbook of Practice Management' *RIBA* 2013

17 Davis Langdon, Simon Rawlinson 'Procurement: two-stage tendering' *Building* 12th May 2006

18 David Chappell, Andrew Willis 'The Architect in Practice' *Wiley* 2010

19 'Life cycle costing' *RICS* 2016

20 'Social value and design of the built environment' *Supply Chain Sustainability School* 2017

21 Robert Prewett 'Add value by helping clients reduce VAT' *RIBA Journal* 18th April 2018

22 Kate Crawford et al 'Demolition or Refurbishment of social housing?' *UCL Urban Laboratory* 2014

23 'Italian VAT rates and VAT compliance' <avalara.com/vatlive/en/country-guides/europe/italy/italian-vat-rates.html> [accessed 16th February 2019]

24 David Chappell, Andrew Willis 'The Architect in Practice' *Wiley* 2010

25 'The principles of inclusive design' *CABE* 2006

26 David Bonnett 'Measuring the benefits of inclusive design' *Design Council* <designcouncil.org.uk/news-opinion/measuring-benefits-inclusive-design> [accessed 26th February 2019]

27 RIBA 'Inclusive Design: the standard to reach' <architecture.com/knowledge-and-resources/knowledge-landing-page/inclusive-design-the-standard-to-reach> [accessed 25th February 2019]

28 Ibid.

29 Aimi Hamraie 'Building Access: universal design and the politics of disability' *University of Minnesota Press* 2017

30 Jos Boys 'Doing Disability Differently: An alternative handbook on architecture, dis/ability and designing for everyday life' *Routledge* 2014

31 Ibid.

32 'Inclusion by design: equality, diversity and the built environment' *CABE* 2008

33 Jos Boys 'Doing Disability Differently: An alternative handbook on architecture, dis/ability and designing for everyday life' *Routledge* 2014

34 Aimi Hamraie 'Universal Design and the problem of 'post-disability' ideology' *Design & Culture* Vol 8 August 2016

35 Ibid.

36 Gaston Bachelard 'The poetics of space' *Penguin* 1958

37 David Nicol and Simon Pilling (eds) 'Changing Architectural Education Towards a New Professionalism' *Taylor & Francis* 2000

38 Karen Glaser 'Architecture: People from social housing should build cities' *Guardian* 3rd July 2018

39 Tanya Titchkosky 'The question of access: disability, space, meaning' *University of Toronto Press* 2011

40 Aimi Hamraie 'Universal Design and the problem of 'post-disability' ideology' *Design & Culture* Vol 8 August 2016

41 Aimi Hamraie 'Building Access: universal design and the politics of disability' *University of Minnesota Press* 2017

42 Michael Bond 'The hidden ways that architecture affects how you feel' <bbc.com/future/story/20170605-the-psychology-behind-your-citys-design> [accessed 27th February]

43 Ella Jessel 'MPs grill housing minister over 'disappointing' response to accessibility report' *Architects Journal* 12th October 2018

44 'Building for equality: disability and the built environment' *House of Commons Women & Equalities Committee* 25th April 2017

45 Tom Perry 'A need for inclusive environments' <designcouncil.org.uk/news-opinion/places-work-better-all-need-inclusive-environments> [accessed 26th February 2019]

46 Jos Boys 'Disability and ability: towards a new understanding' <designcouncil.org.uk/news-opinion/disability-and-ability-towards-new-understanding> [accessed 27th February 2019]

47 Vanesa Broto 'Here's what happened at Habitat III' *The Conversation* 21st October 2016

48 Ibid.

49 Aimi Hamraie 'Building Access: universal design and the politics of disability' *University of Minnesota Press* 2017

50 Aimi Hamraie 'Universal Design and the problem of 'post-disability' ideology' *Design & Culture* Vol 8 August 2016

All images are by author unless otherwise stated

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*bibliography*

ArchDaily “Palais de Tokyo expansion / Lacaton + Vassal” 2012 < <https://www.archdaily.com/248026/palais-de-tokyo-expansion-lacaton-vassal>> [Accessed 10 January 2019]

ArchDaily “PC Caritas / architecten de vylder vinck taillieu” 2017 <<https://www.archdaily.com/871034/pc-caritas-architecten-de-vylder-vinck-taillieu/>> [Accessed 10 January 2019]

Bachelard, Gaston ‘The poetics of space’ *Penguin* 1958

Blyth, Alastair and Worthington, John ‘Managing the brief for better design’ *Spon Press* 2003

Bond, Michael ‘The hidden ways that architecture affects how you feel’ <[bbc.com/future/story/20170605-the-psychology-behind-your-citys-design](http://bbc.com/future/story/20170605-the-psychology-behind-your-citys-design)> [accessed 27th February]

Bonnett, David ‘Measuring the benefits of inclusive design’ *Design Council* <[designcouncil.org.uk/news-opinion/measuring-benefits-inclusive-design](http://designcouncil.org.uk/news-opinion/measuring-benefits-inclusive-design)> [accessed 26th February 2019]

Boys, Jos ‘Disability and ability: towards a new understanding’ <[designcouncil.org.uk/news-opinion/disability-and-ability-towards-new-understanding](http://designcouncil.org.uk/news-opinion/disability-and-ability-towards-new-understanding)> [accessed 27th February 2019]

Boys, Jos “Doing Disability Differently: An alternative handbook on architecture, dis/ability and designing for everyday life’ *Routledge* 2014

Breitung, Werner ‘Borders and the city’ *Quaestiones Geographicae* 30(4) 2011

Broto, Vanesa ‘Here’s what happened at Habitat III’ *The Conversation* 21st October 2016

‘Building for equality: disability and the built environment’ *House of Commons Women & Equalities Committee* 25th April 2017

Castellari, Sergio & Artale, Vincenzo ‘Climate change in Italy: evidence, impacts & vulnerability’ *Euro-Mediterranean Centre for Climate Change* 2010

“Cittadini Stranieri 2018 - Milano”, *Tuttitalia.It*, 2019 <<https://www.tuttitalia.it/lombardia/18-milano/statistiche/cittadini-stranieri-2018/>> [Accessed 1 December 2018]

Chappell, David and Willis, Andrew ‘The Architect in Practice’ *Wiley* 2010

Crawford, Kate et al ‘Demolition or Refurbishment of social housing?’ *UCL Urban Laboratory* 2014

Creswell, John and Creswell, David ‘Research Design: Qualitative, Quantitative, and mixed methods approaches’ *SAGE Publications* 2017

Cognetti, Francesca and de Carli, Beatrice ‘Mapping San Siro: Instant Report’ 2013

de Certeau, Michel ‘The Practice of Everyday Life’ *University of California Press* 1988

Druot, Frederic, Lacaton, Anne & Vassal, Jean-Philippe ‘PLUS’ *GG* 2004

EU ‘Tendering rules and procedures’ <[europa.eu/youreurope/business/selling-in-eu/public-contracts/rules-procedures/index\\_en.htm](http://europa.eu/youreurope/business/selling-in-eu/public-contracts/rules-procedures/index_en.htm)> [accessed 14th February 2019]

Foucault, Michel ‘Of other spaces’ *The Johns Hopkins University Press - Diacritics* 1(16)1986

Glaser, Karen ‘Architecture: People from social housing should build cities’ *Guardian* 3rd July 2018

Granby Workshop < <https://granbyworkshop.co.uk/>> [Accessed 8 January 2018]

Groat, Linda and Wang, David, ‘Architectural Research Methods’ *Wiley* 2013

Hamraie, Aimi ‘Building Access: universal design and the politics of disability’ *University of Minnesota Press* 2017

Hamraie, Aimi ‘Universal Design and the problem of ‘post-disability’ ideology’ *Design & Culture* Vol 8 August 2016

Hollis, Leo “Cities Thrive When Public Space Is Open To All”, *Aeon*, 2019 <<https://aeon.co/essays/cities-thrive-when-public-space-is-open-to-all>> [Accessed 19 December 2018]

Hugh Clamp, Stanley Cox, Sarah Lupton and Koko Udom ‘Which Contract?’ *RIBA* 2007

‘Inclusion by design: equality, diversity and the built environment’ *CABE* 2008

‘Italian VAT rates and VAT compliance’ <[avalara.com/vatlive/en/country-guides/europe/italy/italian-vat-rates.html](http://avalara.com/vatlive/en/country-guides/europe/italy/italian-vat-rates.html)> [accessed 16th February 2019]

Jacobs, Jane ‘The Death and Life of Great American Cities’ *Vintage* 1993

Jessel, Ella ‘MPs grill housing minister over ‘disappointing’ response to accessibility report’ *Architects Journal* 12th October 2018

Johnston, Pamela ed. ‘Project Interrupted: Lectures by British Housing Architects’ *Architecture Foundation* 2018

Langdon, Davis and Rawlinson, Simon ‘Procurement: two-stage tendering’ *Building* 12th May 2006

Lazani, Guido, Finardi, Sandro & Gurrieri, Gian Luca ‘History and perspective of air quality in Milan: scientific and management challenges’ *ARPA Lombardia* 2016

Lefebvre, Henri ‘The politics of space’ *Anthropos* 1973

Lefebvre, Henri ‘The production of space’ *Blackwell* 1991

Lefebvre, Henri ‘The right to the city’ *Anthropos* 1968

‘Life cycle costing’ *RICS* 2016

Mark, Laura ‘Work won through OJEU us scant and falling’ *Architects Journal* 9th January 2015

Nicol, David and Pilling, Simon (eds) ‘Changing Architectural Education Towards a New Professionalism’ *Taylor & Francis* 2000

Office for national statistics ‘Women shoulder the responsibility of ‘unpaid work’ *ONS* 2016

Ostime, Nigel ‘Handbook of Practice Management’ *RIBA* 2013

Pelsmakers, Sofie ‘The Environmental Design Pocketbook’ *RIBA Publishing* 2012

Perec, George ‘Life: a users manual’ *Harvil* 1978

Perec, George ‘Species of spaces and other pieces’ *Penguin* 1997

Perry, Tom ‘A need for inclusive environments’ <[designcouncil.org.uk/news-opinion/places-work-better-all-need-inclusive-environments](http://designcouncil.org.uk/news-opinion/places-work-better-all-need-inclusive-environments)> [accessed 26th February 2019]

Prewett, Robert ‘Add value by helping clients reduce VAT’ *RIBA Journal* 18th April 2018

Ranciere, Jacques ‘Dissensus: on politics and aesthetics’ *Bloomsbury* 2015

RIBA Journal ‘Kings Crescent estate phases 1 and 2’ 2018 < <https://www.architecture.com/awards-and-competitions-landing-page/awards-riba-regional-awards/riba-london-award-winners/2018/kings-crescent-estate-phases-1-and-2>> [Accessed 11 January 2019]

RIBA ‘Inclusive Design: the standard to reach’ <[architecture.com/knowledge-and-resources/knowledge-landing-page/inclusive-design-the-standard-to-reach](http://architecture.com/knowledge-and-resources/knowledge-landing-page/inclusive-design-the-standard-to-reach)> [accessed 25th February 2019]

Romei, Valentina ‘Why Italy’s economy is stagnating’ *Financial Times* 13th November 2018

“San Siro Stories” <[www.sansirostories.it](http://www.sansirostories.it)> [Accessed 12 December 2018]

Saunders, Doug Arrival City *Windmill* 2011

Saunders, Doug Making Heimat: Germany, Arrival Country *Hatje Cantz Verlag* 2016

Savin-Baden, Maggi and Howell Major, Claire ‘Qualitative research: the essential guide to theory and practice’ *Routledge* 2013

Schmid, Karl ‘Construction Estimating: A Step-by-Step Guide to a Successful Estimate’ *Momentum Press* 2011

‘Social value and design of the built environment’ *Supply Chain Sustainability School* 2017

Studio Arrival City group work November 2018

Titchkosky, Tanya ‘The question of access: disability, space, meaning’ *University of Toronto Press* 2011

“The 2017 Life At Home Report”, *Ikea.Com*, 2019 <<https://www.ikea.com/gb/en/this-is-ikea/ikea-highlights/the-2017-life-at-home-report/>> [Accessed 29 November 2018]

‘The principles of inclusive design’ *CABE* 2006 21

Watts, Jonathan ‘Earth’s resources consumed in ever greater destructive volumes’ *Guardian* 23rd July 2018





