



**S333 Architecture + Urbanism**

# **CiBoGa Terrain**

**Schots 1 + 2**

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VIEW OF SCHOTSEN 1 FROM THE INTERIOR COURTYARD



## 01 SITE HISTORY

Housing is often associated with urban sprawl, but in the city of Groningen, Netherlands, the 'High Buildings' urban policy encouraged the intensification of programs within buildings.

Its intent was to also promote building forms as contextual extensions of the existing fabric, and attract dwellers in to these mixed-use areas from the old inner city.

## LOCATION

### *Circusterrein*

*Circus*

### *BOdenterrein*

*Distribution*

### *GAfabriekterrein*

*Gasworks*

The site, known locally as the “CiBoGa terrain”, is a post-industrial, previously abandoned brownfield spanning 14 hectares. It sits along the canal between the traditional city centre and modern residential neighbourhood to the north.

This redevelopment project increased urban density by designing the terrain to have urban and suburban qualities, and acts as an ecological corridor link between the canal and Noorderplantsoen Park.

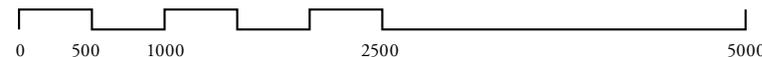
- Studio Woodroffe Papa



### City of Groningen



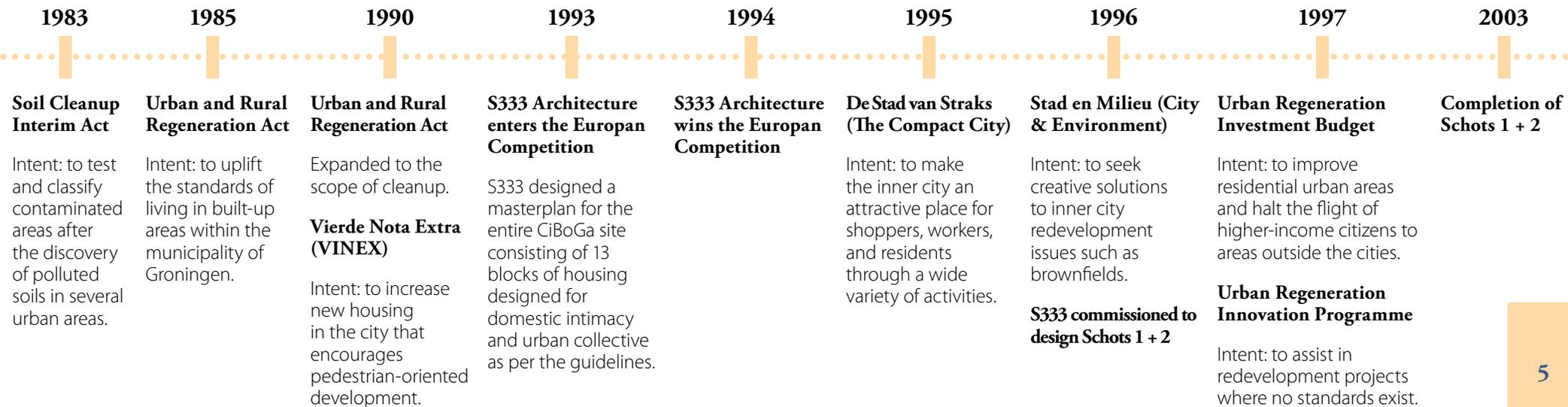
1:25 000



- CiBoGa Schots 1 + 2
- Site
- Canal Ring
- Modern Housing
- Old Inner City



## TIMELINE



## PREVIOUS SITE CONDITIONS

The effects of extensive recreational and industrial use marred the area for decades, and the surrounding neighborhood had long desired to redevelop the site. It was also the last major inner city area in which housing could be constructed to meet the VINEX targets for new housing in Groningen. After several stages of rehabilitation, the social transformation and urban intensification became the leading focus of the CiBoGa terrain.





## 02 DESIGN COMPETITION

The biennial European competition encourages architects to generate fresh, innovative ideas that often focus on themes surrounding urbanizing residential areas. It offers cities and developers solutions to local planning issues and to the overall spatial framework of the European society.

In 1993, European 3: At Home in the City, challenged designers to think about the way existing residential districts should be developed so that they are more compatible to resident lifestyles, and how the relationship between the area's public and private spaces can be transformed. The design firm, S333 Architecture + Urbanism was one of the winning teams.

## THE EUROPEAN SUBMISSION

*“The ambition for the open landscape is to promote broad and active use, to improve the ecological quality and to ensure that local residents are the main users of the site.”*

*-Jonathan Woodroffe and Dominic Papa, 1996*

S333’s winning design promulgated a dynamic vision for the contemporary city, and used the surrounding context’s building and transportation patterns to maintain a sense of cohesion.

Within the existing industrial landscape exists a fabric of canals and traditional brick buildings. By creating fluid public spaces, diverse urban flows and environmentally friendly transit emerge. The urban concept developed by the city extends the network of routes and views throughout the site.

- <https://www.european-europe.eu/en/project-and-processes/fortuitous-filtration>



### Diagram of the Masterplan

The municipality desired ‘spatial openness’ through an equal relationship between landscape and building, which was central to the success of the masterplan. The complex forms evolved through manipulations to articulate interior spaces that favour different activities.



### Model of the Schotsens

The concept of the ‘schotsen’, or iceberg floes, was created to accommodate the amount and variety of programs proposed for the site. A schots, is considered a compact building block eroded internally by new forms of semi-public space.

## S333 ARCHITECTURE + URBANISM

S333 Architecture + Urbanism is comprised of three smaller studios: BurtonHamfelt Urban Architecture, Studio Woodroffe Papa, and CMA+U. Following their win of the European competition, the firm was commissioned by the municipality of Groningen to design a masterplan that extended their original intent over the adjacent Boden and Gasterreins.

A new kind of compact, morphological block called the “schotsen” or iceberg, was designed to address the city’s wish for programmatic density. Thirteen schots were distributed across the CiBoGa site to act as a filter zone and ecological corridor linking the canal with an existing park. With a group of other architectural practices, stakeholders and they developed a complex, multi-layered zone organized by lines of movement and an ecological corridor, and activated by commercial and recreational functions.

- The Housing Design Handbook Chapter 6, 2009



## DEVELOPMENT CONSORTIUM

Schots 1 + 2 were the first buildings to be realized, and were taken on by a development consortium of private organizations including: Amstelland Onkwikking, Bouwbedrijf Moes BV, Amvestgoed, and Nijestee Vastgoed. They supplied 13, 000 rental housing units in the city leading to 30% of the 149 rental units being designated as social housing. S333 then pursued a design that focused on the relationship of the context, nature and urban ecology to create a multi-layering of activities and landscape.

**Contractor:** Bouwbedrijf Moes BV

**Rental Property Management:** Nijestee Vastgoed

**Real Estate Developer:** Amvestgoed

**Real Estate Branch of the Bank:** ING Vastgoed



- Housing and Landscapes in Urban Intensities, 2012



## 03 DEVELOPMENT

Though intriguing, S333's design was not adopted by the city council in the operational city plan which emphasized the concept of 'urban ecology' over 'the city in movement'.

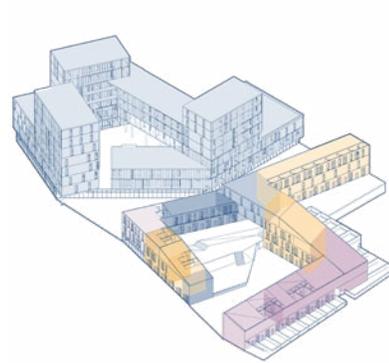
This reshaped S333's design from a district scale to the scale of the individual building. Schots 1 + 2 were the first buildings that were realized on site.

## ORGANIZING PRINCIPLES

Beginning in 1983, national planning policies such as the VINEX and De Stad van Straks, Groningen 2005 have outlined guiding principles that emphasize how to cohesively design new structure plans within the larger frame of the urban network. There were four main principles that emerged.



**1. Establish a socio-economic and environmental impulse to regenerate the surrounding neighbourhood.**



**2. Create a variety of residential units (for rent and for sale).**



**3. Employ a broad range of sustainable planning strategies to address the site's pollution.**



**4. Maintain the site's character, re-programming the industrial buildings with new activities.**

## THE BUILT PROJECT + AMENITIES

Schots 1 + 2 were developed as prototypes for the first phase of the CiBoGa development. They are composed of two broken lines of mirror-image buildings facing each other to create a lively intermediary space between them. The two residential structures fit smoothly into the existing city structure and are connected to the main streets by building fragments.

Each fragment is designed as a cluster of several volumes, creating physically and visually linked private and public spaces through irregular massing that contrasts the inward focus of the traditional block.

built between **1998 - 2003** tallest height at **25.50 m**

**0.34** COV

**1.19** FAR



0.5 parking space per residence



a car-free zone throughout



seal polluted ground with parking



300 underground parking spaces



110 indoor terraces



44 townhouses



105 apartments



39 social housing units



14 patios



8 shops



4 vertical gardens



3 collective roof terraces



2 courtyards



2 supermarkets



1 medical centre

# PROXIMITY ABOVE ACCESSIBILITY

*“[We want to create] a sustainable district with restricted car use and good spatial quality.”*

*- Zandvoort Planning Advice, 2011*

Landscaped elements are inter-woven throughout the site to create inviting outdoor spaces, and are complimented by the facades of each of the singular material expressions enveloping the schotsens. Its strong urban elevations and soft landscaping of the ground plane allow for accessible travel to the retail and commercial zones on the ground level.

The diverse programs and location of the site makes CiBoGa a more desirable place to live as the distance between living and working is made to be as short as possible.



Diversity of Uses on Site



Proximity to Services



## SCHOTS 1 DE BEREN



Schots 1 is formed of stacks of up to 8 different storeys to match the adjacent urban blocks.

Its primary urban facade is floor-to-ceiling glass cladding with varying levels of transparency, reflection and opacity.

As it fills the awkward site, the building does not impose its mass directly on its surroundings by concentrating the density at three points. In between them, roof terraces and patios act as mediators and continuations of the existing and formed landscapes.

- Housing and Landscapes in Urban Intensities, 2012



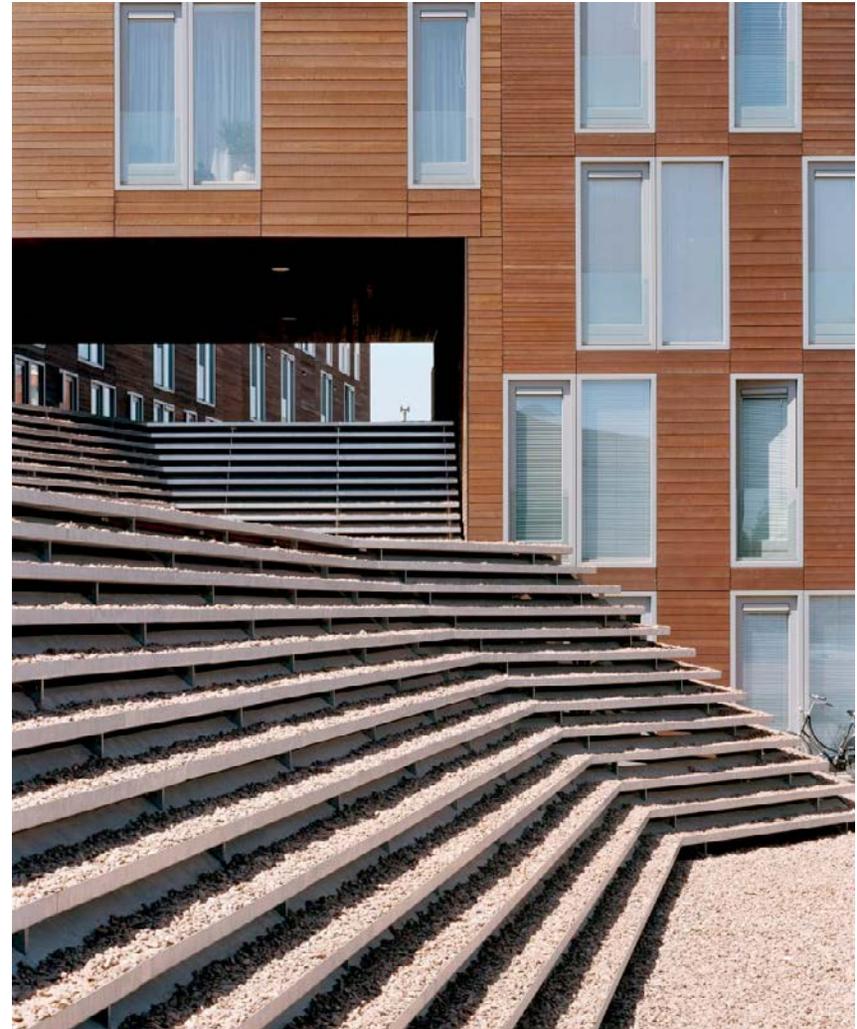
## SCHOTS 2 MONNHIKOF



Schots 2 is separated from its counterpart by a pedestrianized shopping street in between, and has also retained some of the existing one- to two- storey Dutch row houses in its 5-storey form.

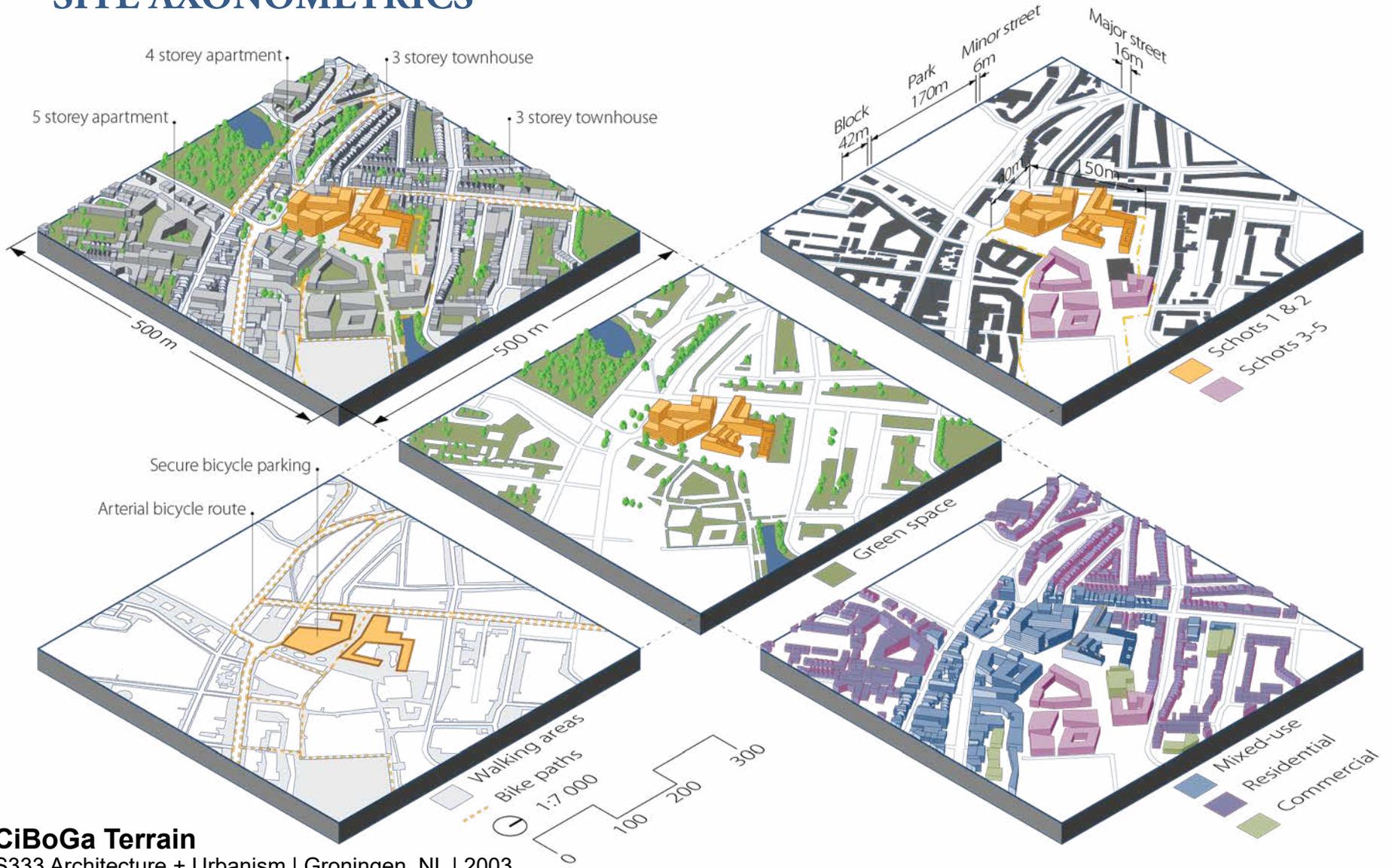
It favours traditional wood materials to convey a stronger sense of texture and materiality and extends itself horizontally through seamless and blurred transitions of the landscape.

- Housing and Landscapes in Urban Intensities, 2012



# CIBOGA SCHOTS 1+2 SITE AXONOMETRICS

GROUP 2: LATOYA, KEENAN, JAEVA



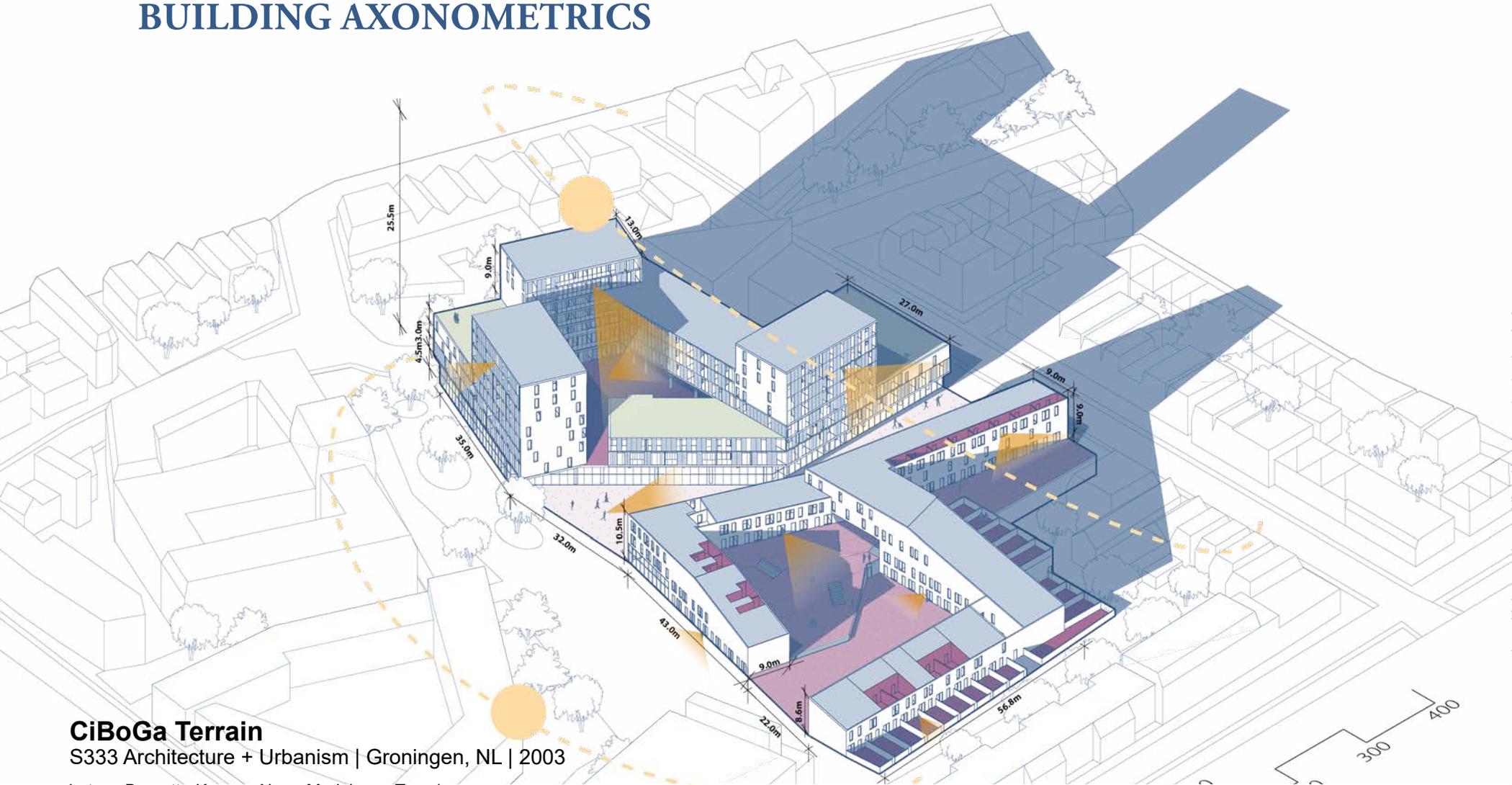
## CiBoGa Terrain

S333 Architecture + Urbanism | Groningen, NL | 2003

Latoya Barnett - Keenan Ngo - Mari Jaeva Tomol

Schotsens 1 + 2 are the first buildings on the CiBoGa site, a 14 ha former circus, distribution and gas works site between the historic inner city and modern residential neighbourhoods. The project creates public and private pedestrian spaces, connects bike networks and ecological corridors, and increases inner-city density through multiple unit typologies.

# BUILDING AXONOMETRICS

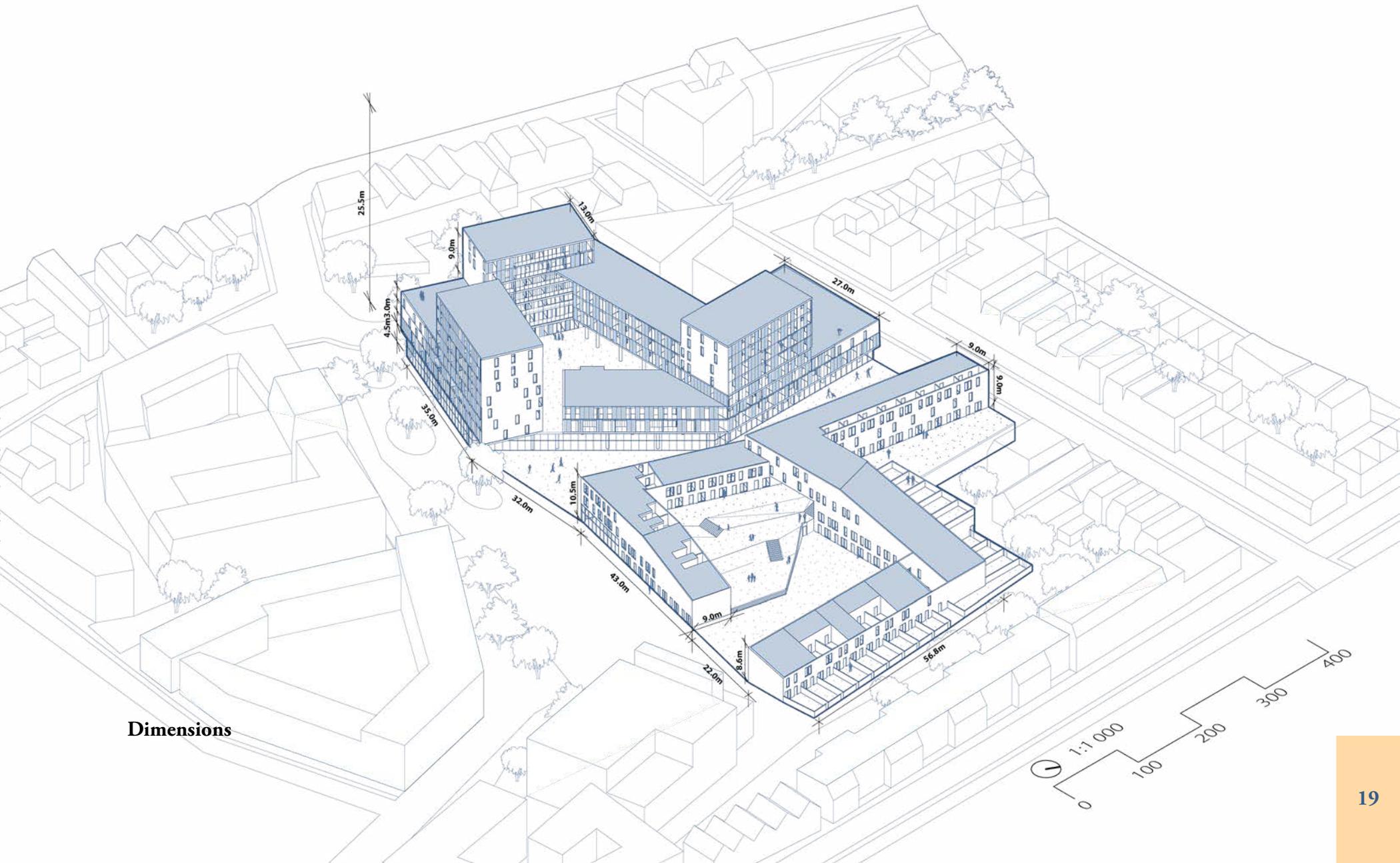


## CiBoGa Terrain

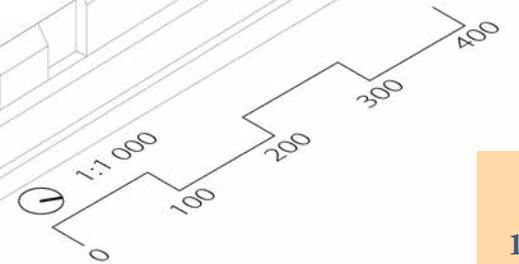
S333 Architecture + Urbanism | Groningen, NL | 2003

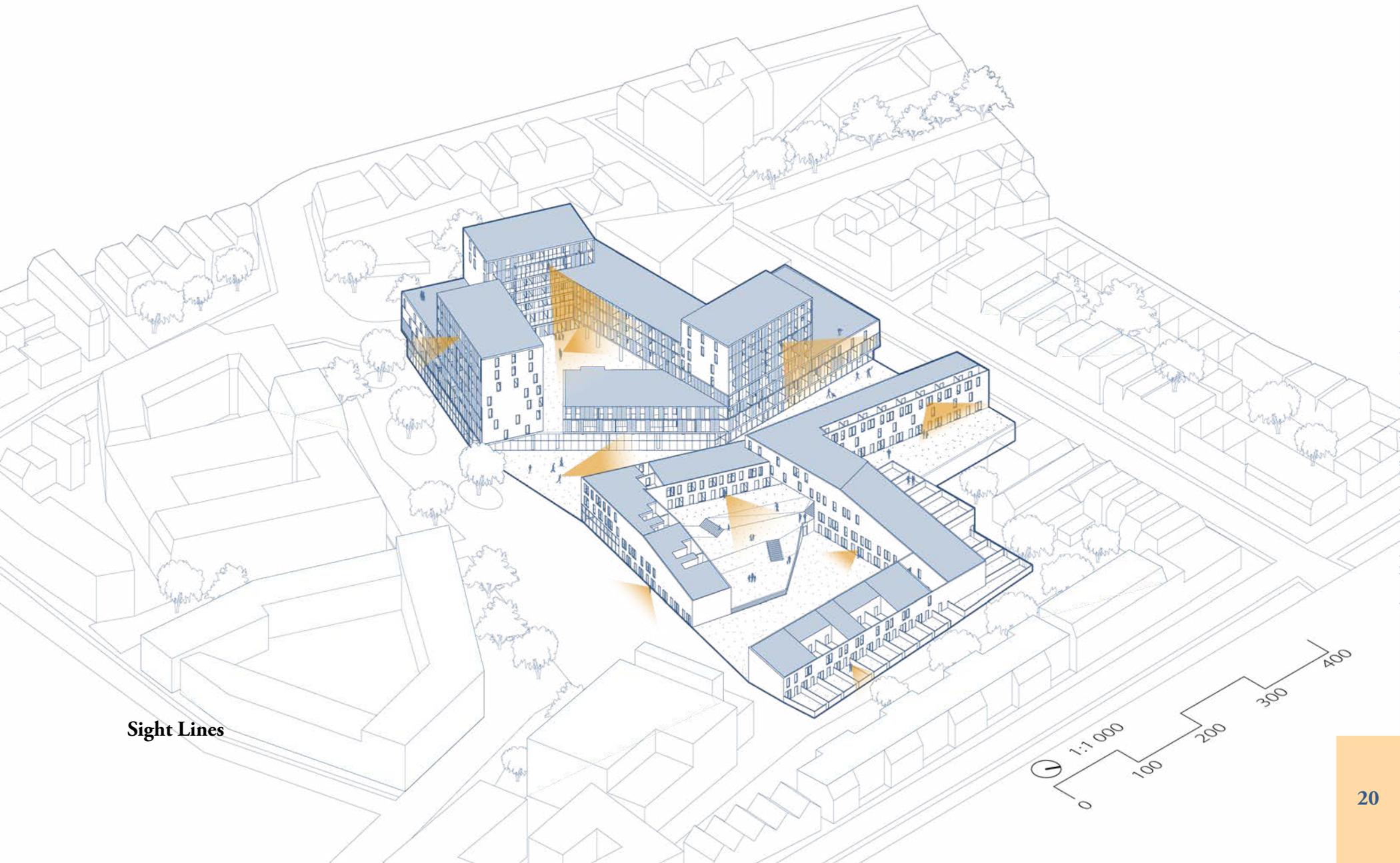
Latoya Barnett - Keenan Ngo - Mari Jaeva Tomol

The built forms of Schotsens 1 + 2 focused heavily on maximizing daylighting, views, and accessibility. The semi-open layouts, sloped roofs, and varying building heights all play an active role in creating not only a multi-layering of programs, but a multi-layering of the urban landscape as well.

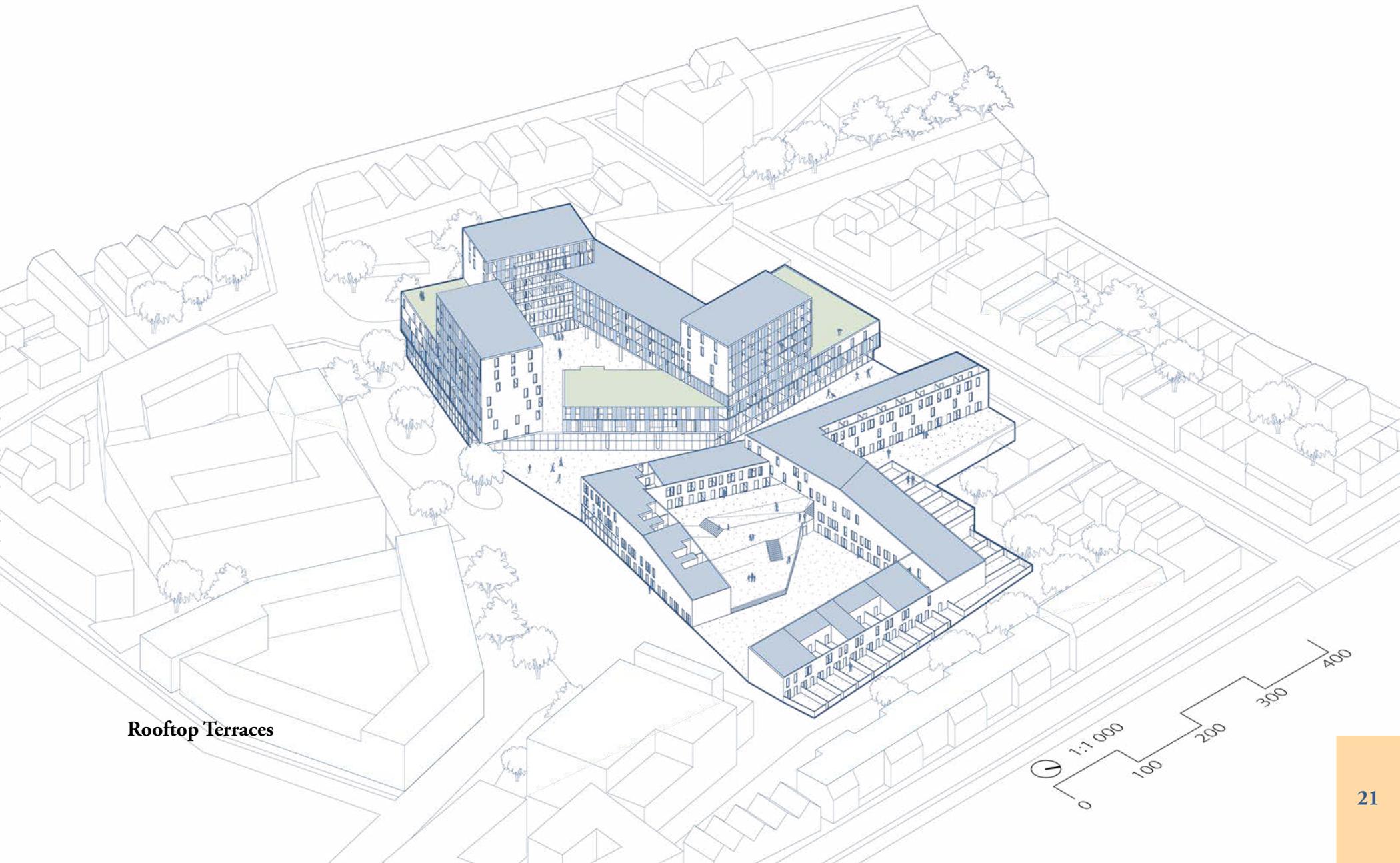


Dimensions

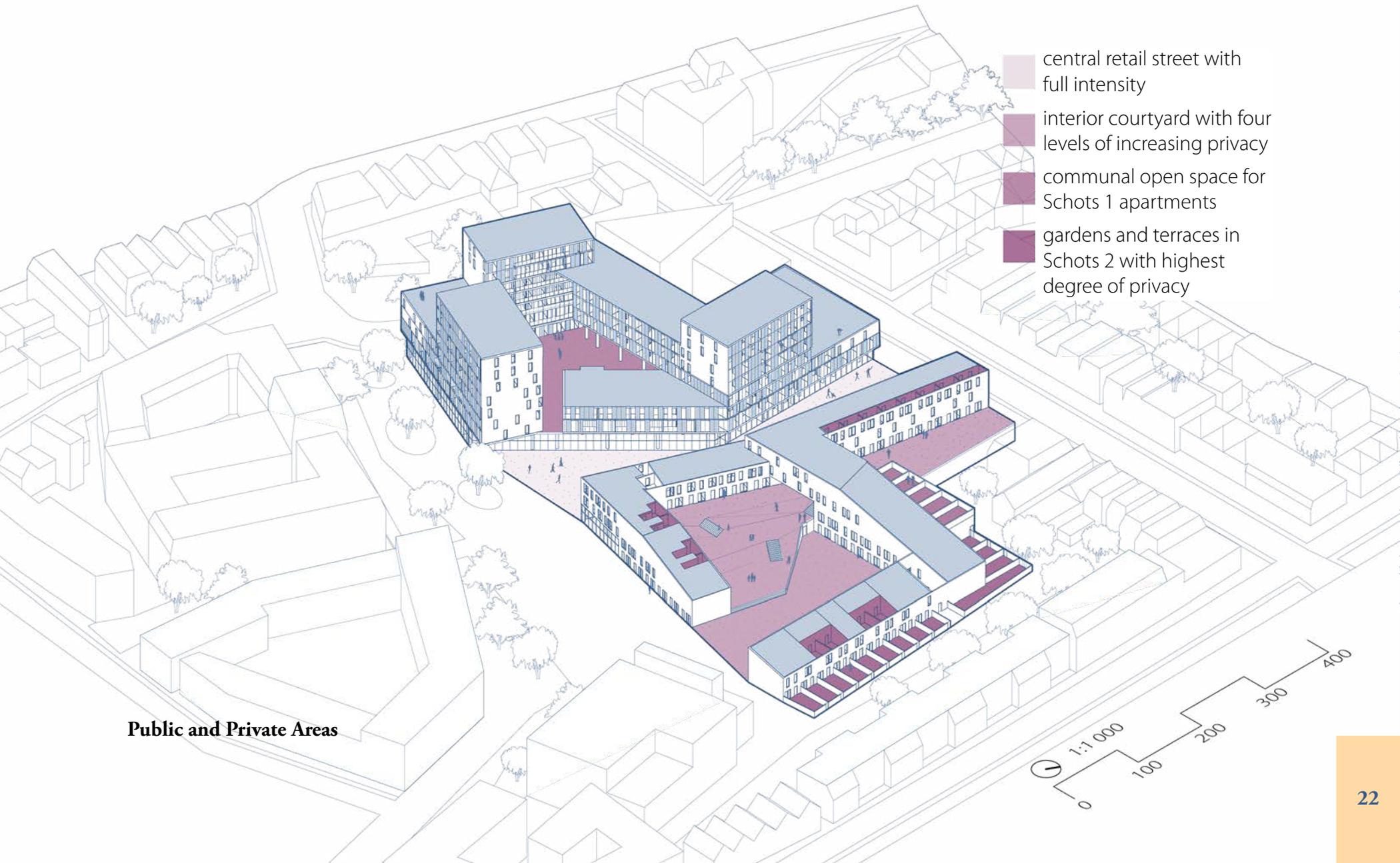




Sight Lines

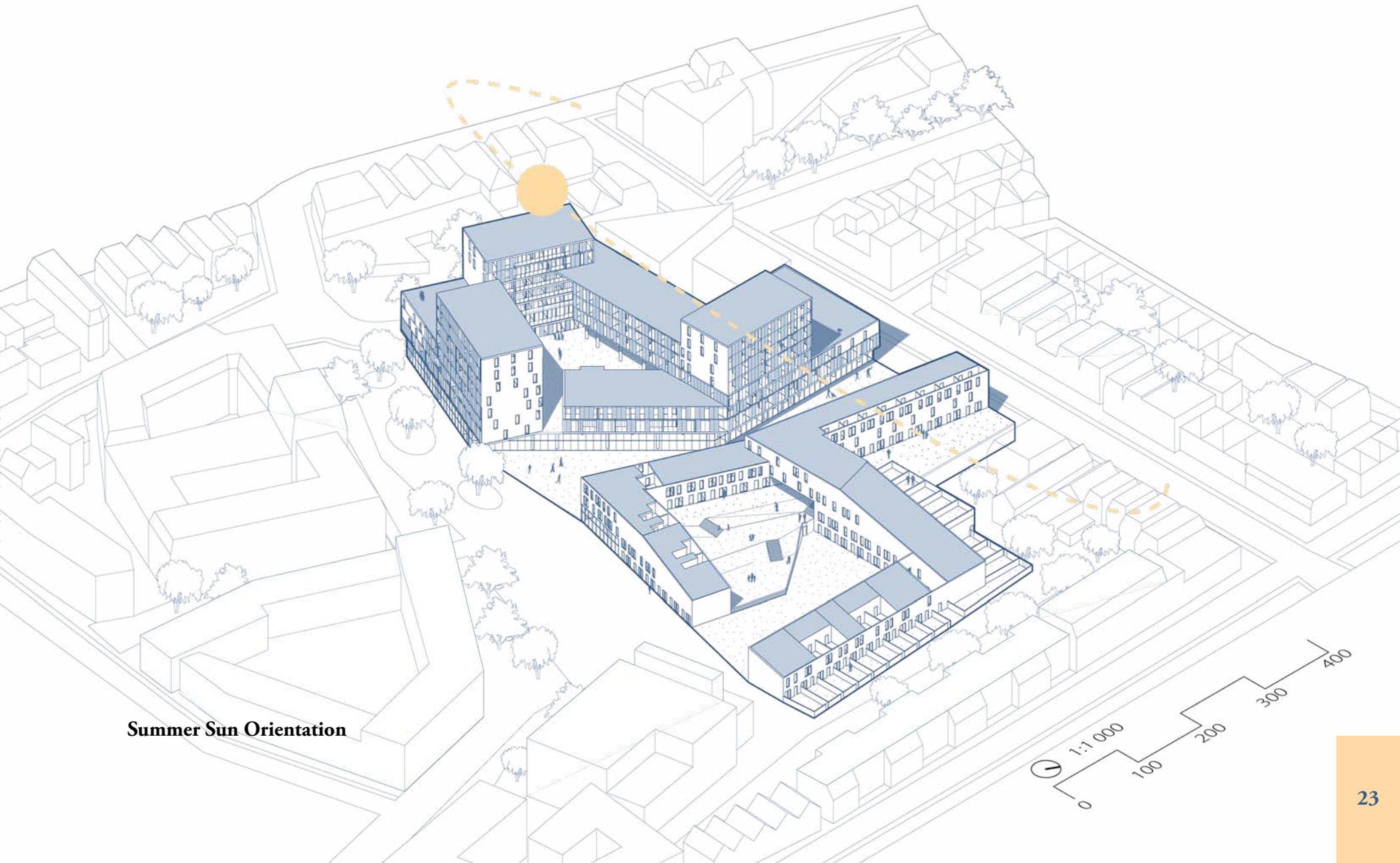


**Rooftop Terraces**

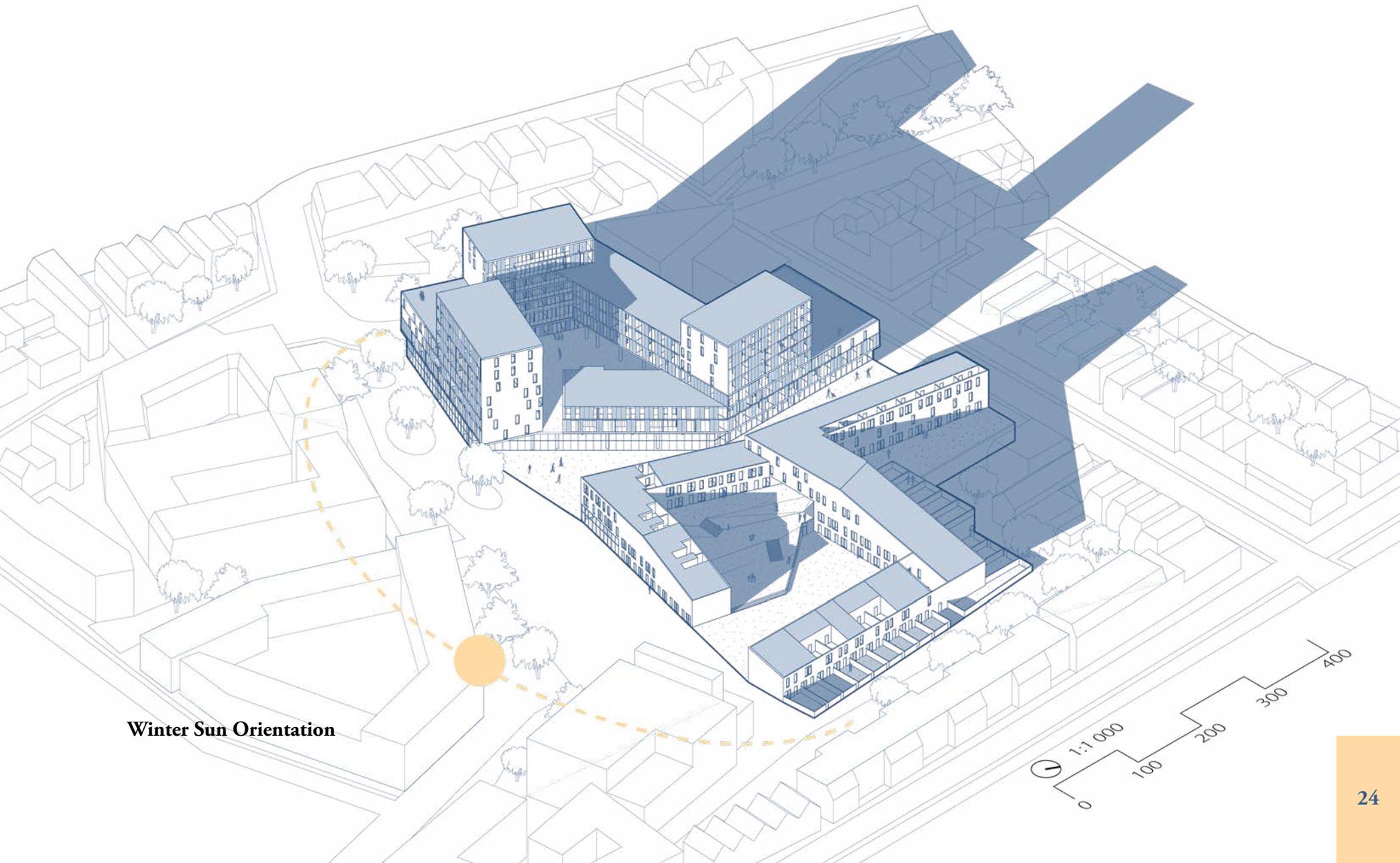


- central retail street with full intensity
- interior courtyard with four levels of increasing privacy
- communal open space for Schots 1 apartments
- gardens and terraces in Schots 2 with highest degree of privacy

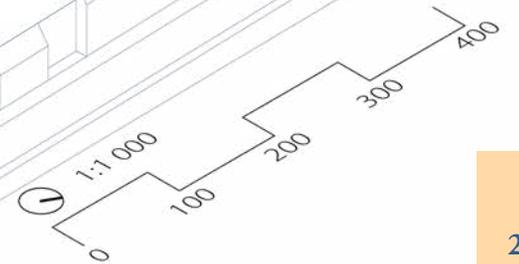
Public and Private Areas



Summer Sun Orientation

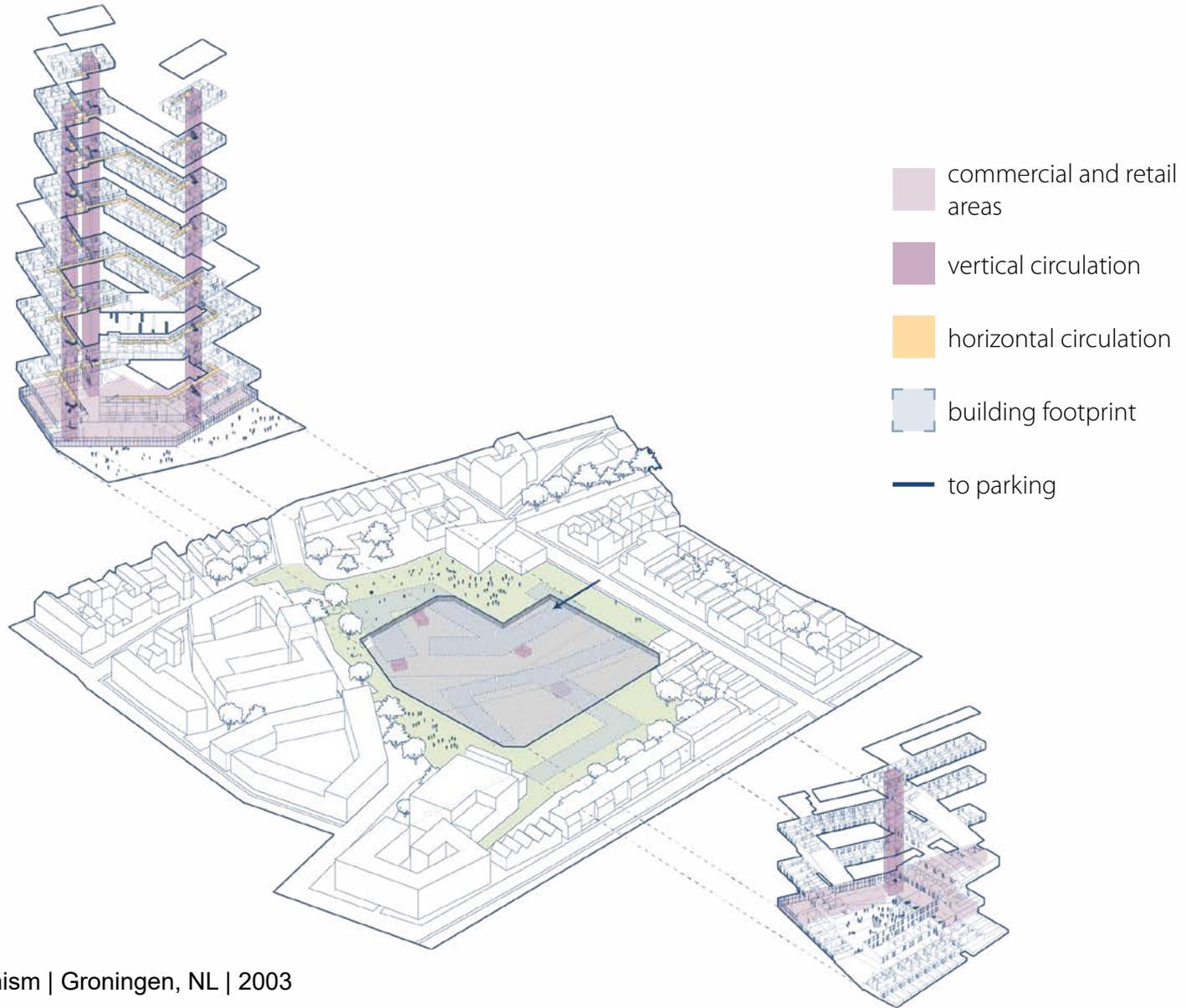


Winter Sun Orientation



## CIBOGA SCHOTS 1+2

## GROUP 2: LATOYA, KEENAN, JAEVA



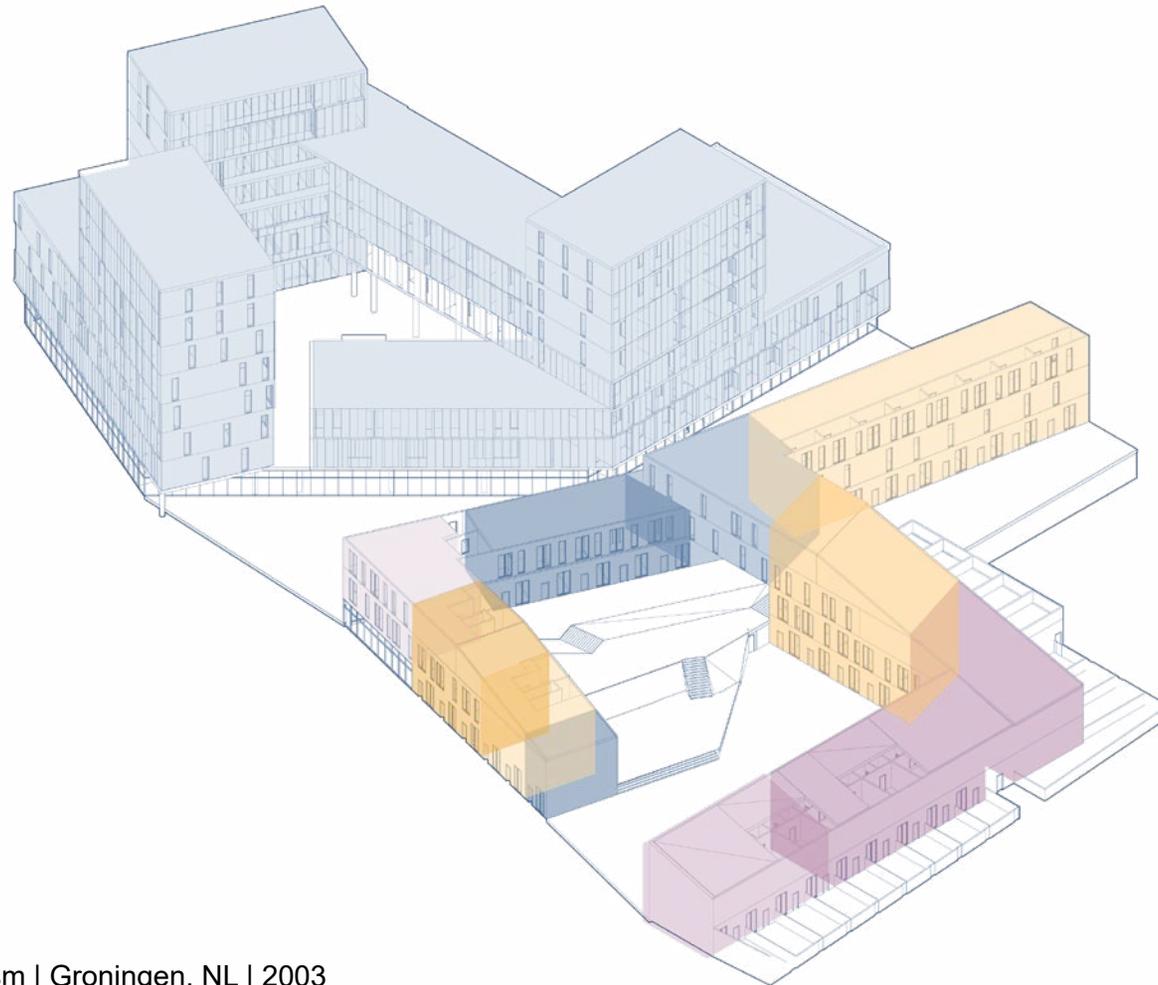
### CiBoGa Terrain

S333 Architecture + Urbanism | Groningen, NL | 2003

Latoya Barnett - Keenan Ngo - Mari Jaeva Tomol

The ground plane is designed for slow moving traffic (pedestrians, cyclists) through the site and shifts vehicular traffic to go around and below the site. Residents have independent access to their units resulting in one vertical core in Schots 2 at the centre of the block, and three cores in Schots 1 which connect to the retail space and parking. The remainder of the units have direct access from the courtyards. The housing blocks are situated within the site to minimize noise from the city.

## ROOM TYPOLOGIES



### **CiBoGa Terrain**

S333 Architecture + Urbanism | Groningen, NL | 2003

Latoya Barnett - Keenan Ngo - Mari Jaeva Tomol

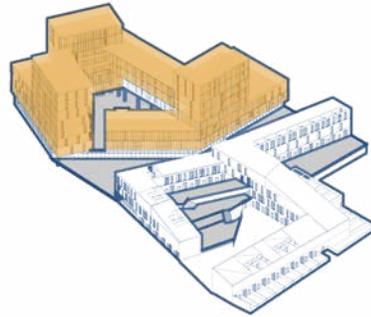
A selection of housing units were provided to suit different sized families, ages and income groups. Units range from single to five storeys and this variation allows for residents to stay within the housing complex as their needs for space grew or shrunk over time. All the housing units are rentals with thirty percent of them eligible for social subsidy. Independent access to units was a major factor in the design process, and are further varied to suit access to light, orientation or relationship to context.

## CIBOGA SCHOTS 1+2

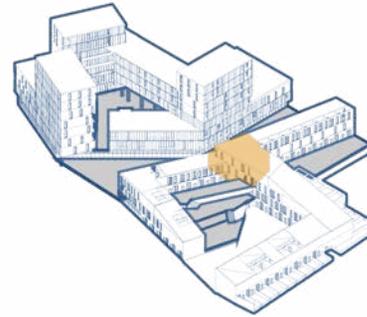
## GROUP 2: LATOYA, KEENAN, JAEVA

Unit A is single storey, ranging from 2 to 3 bedroom units with a possible winter garden depending on their location within the Schot 1 building.

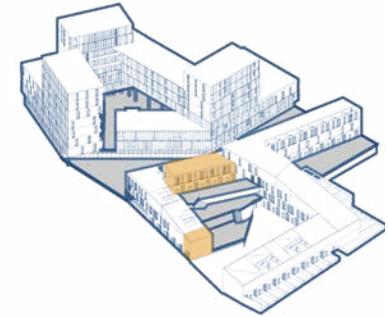
Units B-G are located in Schots 2 and experiment with the traditional Dutch row house with cross ventilation and central staircase typology as they extend from two to five storeys. The number of bedrooms within these units range from two to five.



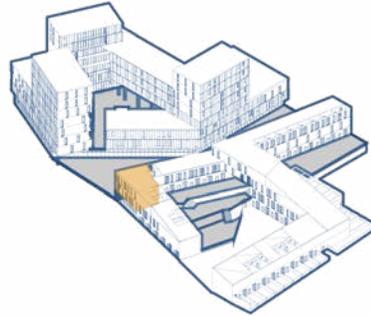
**Unit A: 3-4 rooms, 80-90 m<sup>2</sup>**



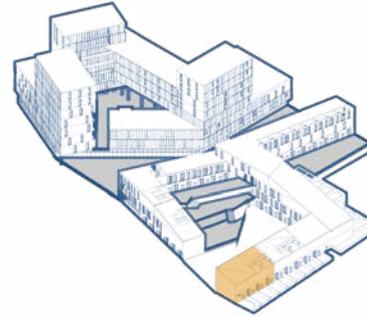
**Unit B: 3-4 rooms, 90-158 m<sup>2</sup>**



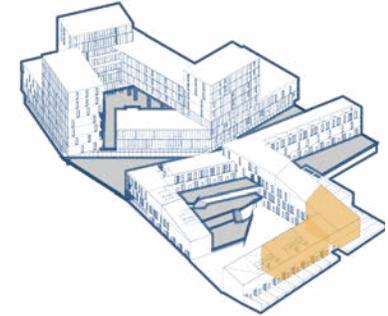
**Unit C: 5 rooms**



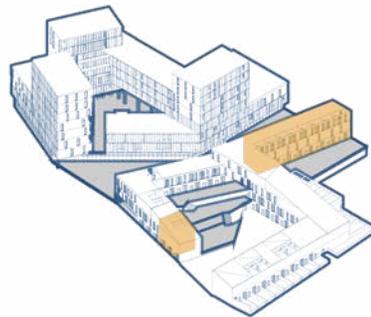
**Unit D: 5 rooms**



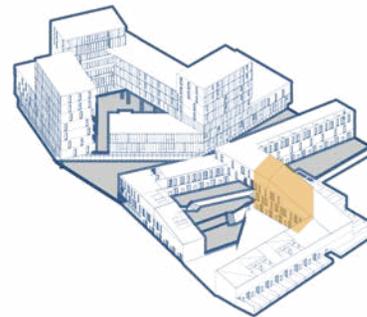
**Unit E: 5 rooms**



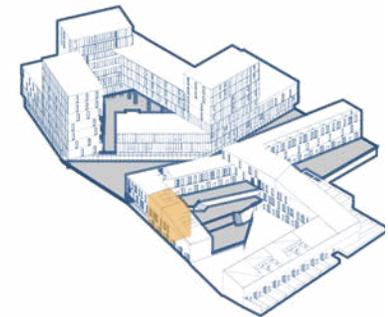
**Unit F: 5 rooms**



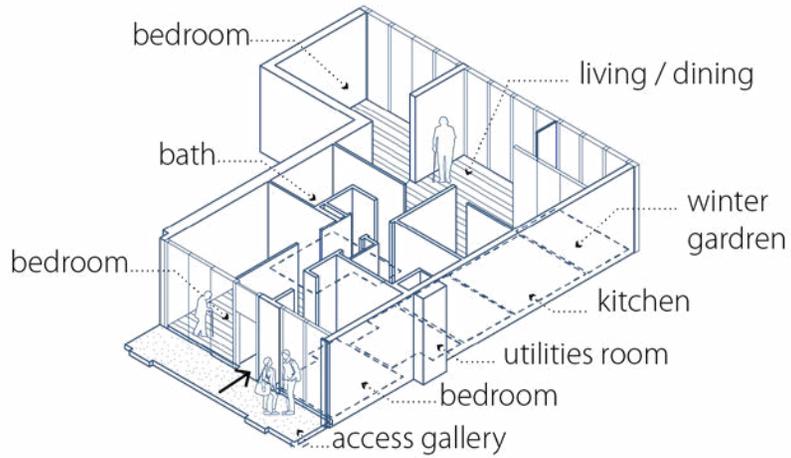
**Unit G: 5 rooms**



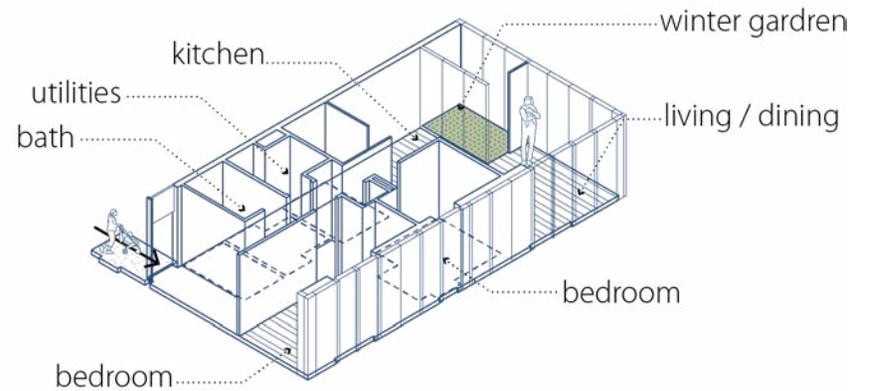
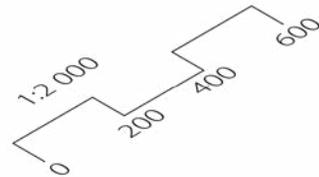
**Unit H: 7 rooms**



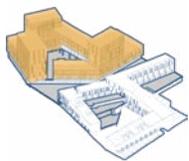
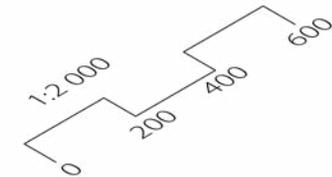
**Unit I: 7 rooms**



UNIT A1 - SCHOTS 1

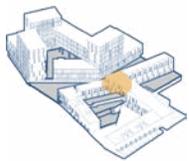
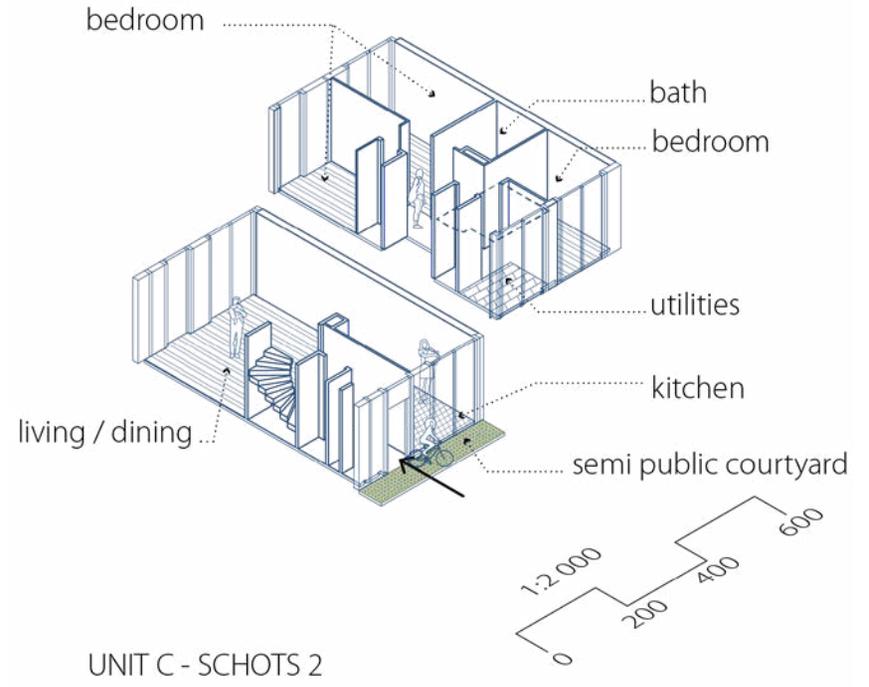
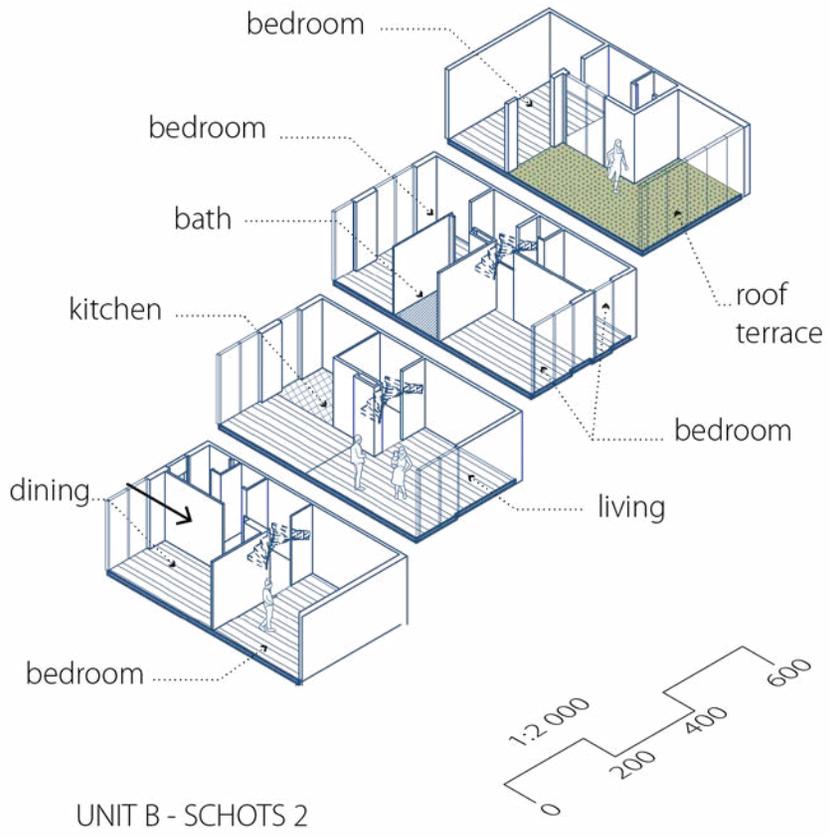


UNIT A2 - SCHOTS 1



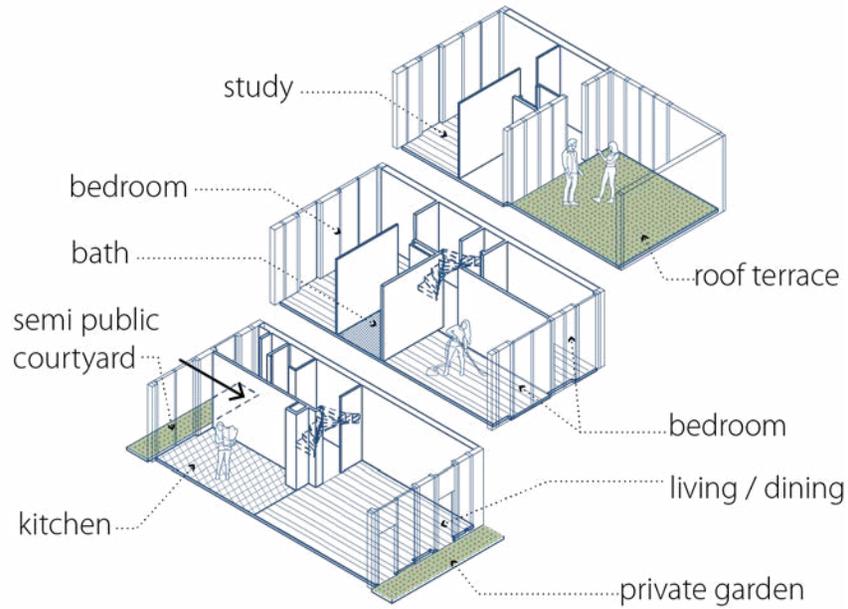
CIBOGA SCHOTS 1+2

GROUP 2: LATOYA, KEENAN, JAEVA

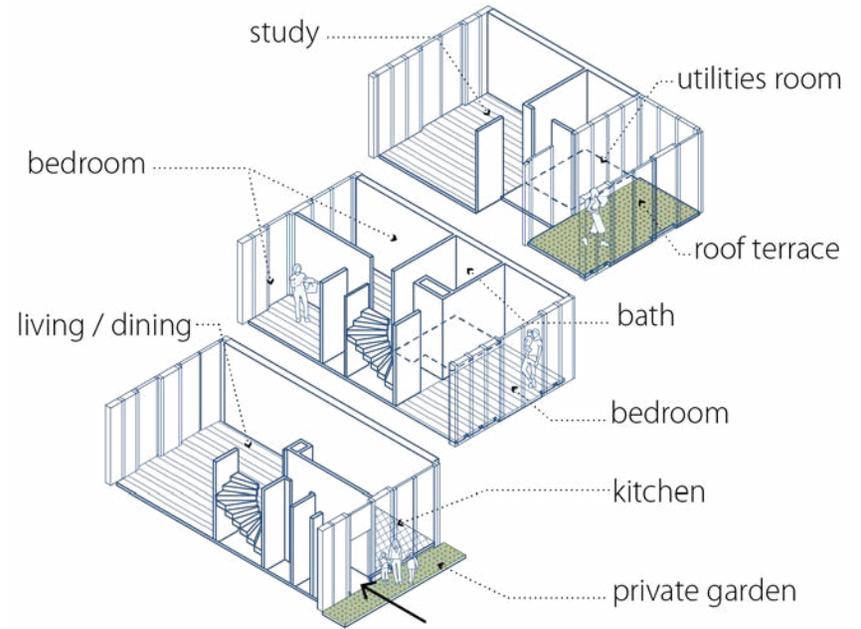
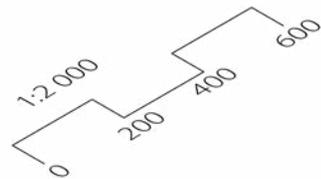


CIBOGA SCHOTS 1+2

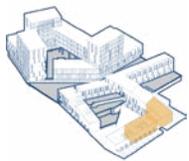
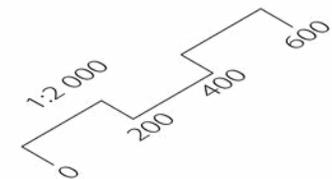
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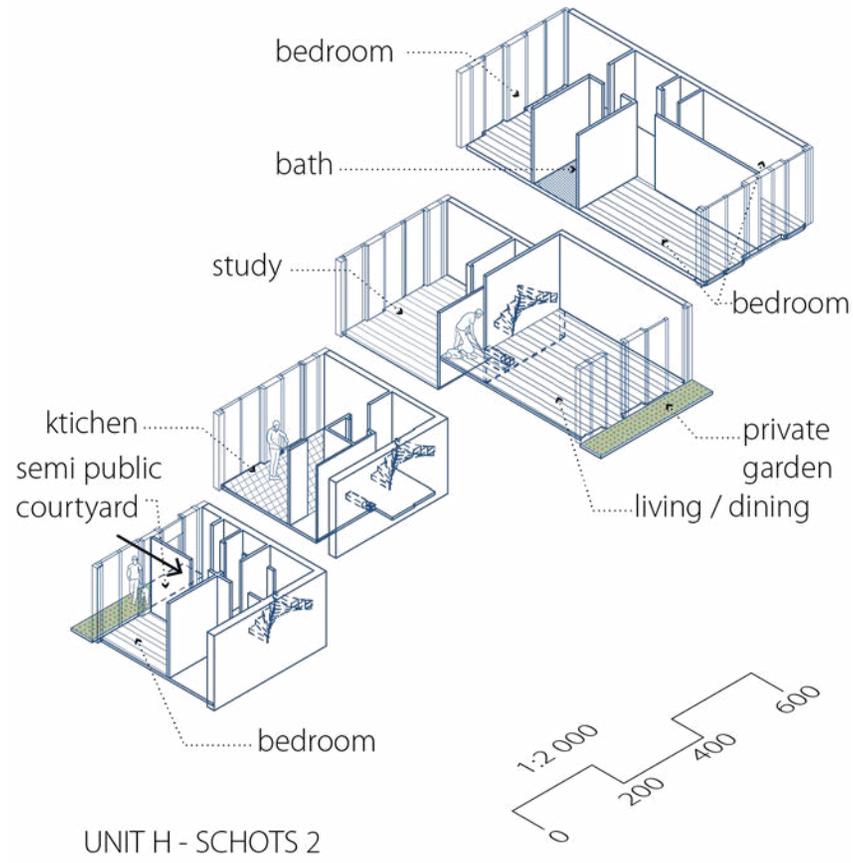


UNIT F - SCHOTS 2



UNIT G - SCHOTS 2





# SCALE COMPARISON

CiBoGa Terrain is classified under the 'Megaform' typology: a large complex system that extends horizontally and transforms the existing urban landscape. Below, the entire 14 ha site is compared to other industrial urban renewal projects including De Landtong, 8 House, and the Port Lands.



**CiBoGa, Groningen**

S333 et others



**8 House, Copenhagen**

BIG



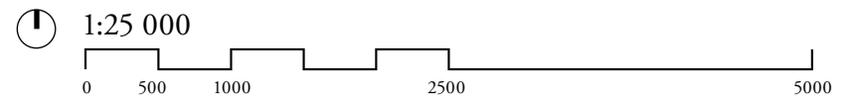
**De Landtong, Rotterdam**

Architekten Cie



**The Port Lands, Toronto**

## Scale of CiBoGa as Compared to Other Urban Areas





## 04 RECEPTION

The reclaiming of the CiBoGa complex is an example of third-wave gentrification to integrate housing with shopping, restaurants, cultural facilities, open space, and employment opportunities.



## PUBLIC FEEDBACK

*“It’s perfect! I drive my car into the basement garage, take the lift, and I’m in my flat. The proximity to all the shops is really practical, and I don’t have far to go to work either.”*

*- J. L. Osborne*



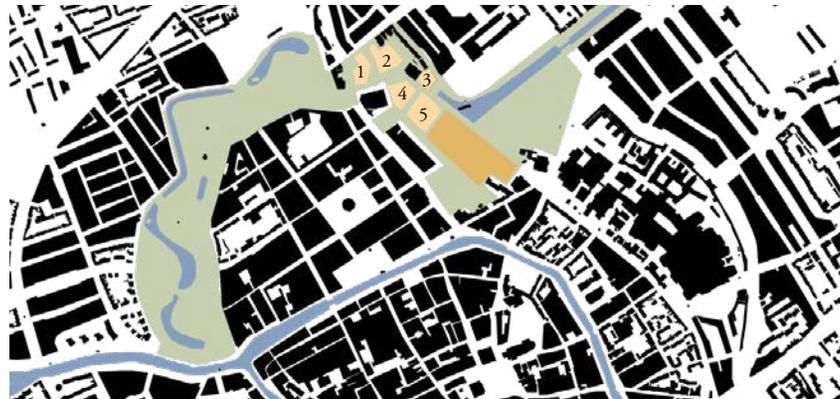
*“We’ve settled in nicely here. It’s a terrace house really, and it’s a lot bigger than it looks from outside. The children can play freely in the library on the third floor, or we use it as a quiet work- place. If we want to be outdoors, we prefer to sit outside the entrance in the communal courtyard. It doesn’t disturb us if a neighbour walks past occasionally between the place where we’re eating and our kitchen. After all, only local residents use the plateau.”*

*- Aida van de Poel*

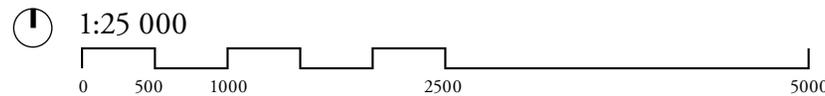
# PHASING

Schotsens 1 and 2 won numerous design awards including the Mies van der Rohe Award in 2003.

The CiBoGa site has progressed with Schotsens 3-5 and further Schotsens are currently under development.



Completed and Proposed Schotsen on CiBoGa Terrain



- Existing Urban Park
- Completed Schots
- Proposed Schots

