

# OPEN & CLOSED

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After the Second World War, Rotterdam started its endless process of continuing evolution and reshaping of itself. The first goal after the bombing was to rebuild the demolished city centre. Today, the city is facing a new wave of constructions, where the aim is the densification of the city centre with new 50.000 dwellings before the 2040, converting the city centre towards a more residential and international direction. Within this scenario, the public space will be more and more relevant and populated by all inhabitants of the city, to accommodating the use of both residents, workers, and visitors.

The relationship between the built environment, human scale and public space has always been one of the main themes in the study of architecture and urbanism. However, it is the latter that create a deal between the other two actors, as can be saw in Cop van Zuid, where the difference of scale among the tall skyscraper related to the Hotel New York and the human scale, is unified and mitigated by the public space at the end of the pier.

The continuing evolution of the city, from the medieval age, through the modernism period and the contemporary trend, meant a change in size of the built environment, questioning the relationship with the public space and the human scale.

The future densification of Rotterdam led by the high-rise strategy and the need of more dwellings, it is going define a border condition between the new high-rise developments and the historical neighbourhoods, such as the case of Cool Zuid and Baankwartier, increasing further the disrupted relationship, creating tension and dichotomy.

What could it be a different catalyst event, opposite to the high-rise strategy, that will lead the future of these neighbourhoods, preserving its human scale while accommodating the future of the city? And so, the leading question that driven this whole research is "How is public space going to be reconsidered within the international character and the high-rise strategy of Rotterdam?". And so, if the Municipality of

Rotterdam is more focused on the sky-line of the city, the goal of this graduation work was to explore the so-called "ground-line" or "floorscape"

To know more about the public space from a different point of view, it has been analysed different public spaces in the World and migrating examples of different uses of them. And so global typologies from Europe, America and Asia has been studied, plus imported, and exported uses of the public space. Of striking relevance, is the tendency in the Northern Europe of considering public building also as public spaces, since ae milieu were people meet and live their social and urban life.

From this perspective, the dichotomy of Open & Closed public space started to be envisioned, and so in response to the high-rise strategy of Rotterdam, and the historical neighbourhoods is the relationship and synergy between the public space like a square, the Open public space, and a public building considered in its broader sense, namely the Closed public space, which together will act as catalyst event in a smaller scale. Together, they will generate a future densification also in the historical neighbourhood, preserving the human scale.

After this decision, it was relevant to envision what could be the future of the public space of the area at different scales. On one hand, the larger connection and role of this space within the city, and so being part of a broader pedestrian-friendly area that will links other different Open & Closed public spaces in Rotterdam. On the other hand, its meaning in relation to the direct users of the place at a more neighbourhood scale, which meant how to deal and mitigate between historical residents of the neighbourhood and the future ones that will arrive after the tower's densification? To explore this dynamism of the city and the neighbourhood few goals were settled.

The already present Open public space of the area today is only perceived as playground, a fixed mono-functional use, while in the

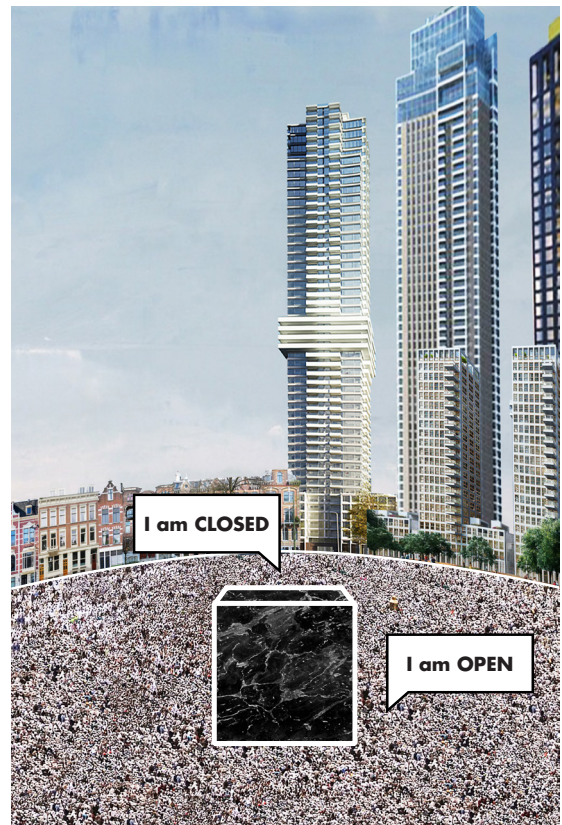
## Introduction

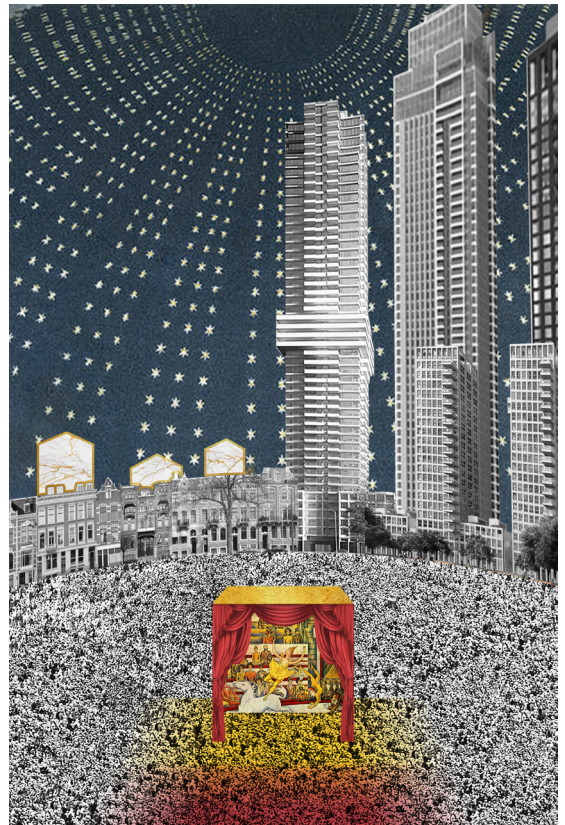
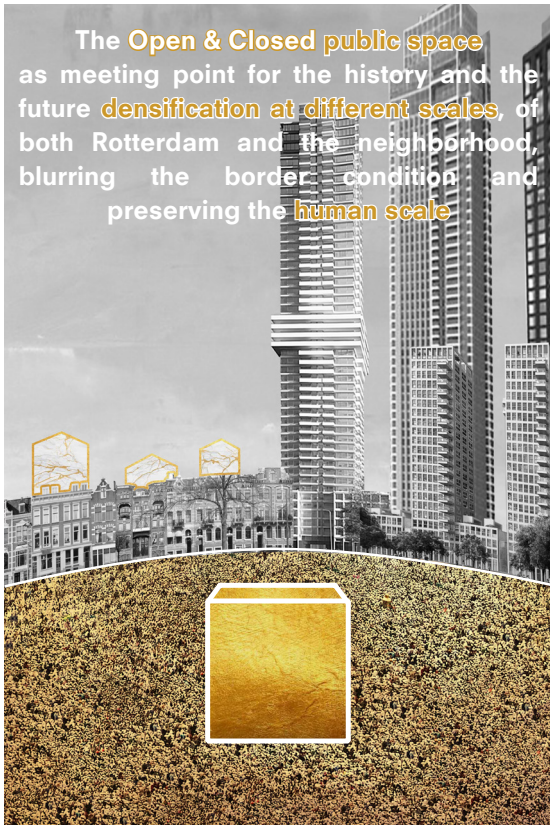
coming years it will be re-thought and designed as more informal public space, where different users will start to interact, as future residents, but also people coming from the city. Moving further, the Closed public space will be mainly a new Performing arts centre, where the already present activities such as dance, music and theatre studios in the area will be reallocated in one main building that will engage a relationship not only with strict users, but also with a larger audience. However, it will be important to make a strong the synergy between the Open & Closed public space, thanks to both visual and physical relationship that the architecture can create.

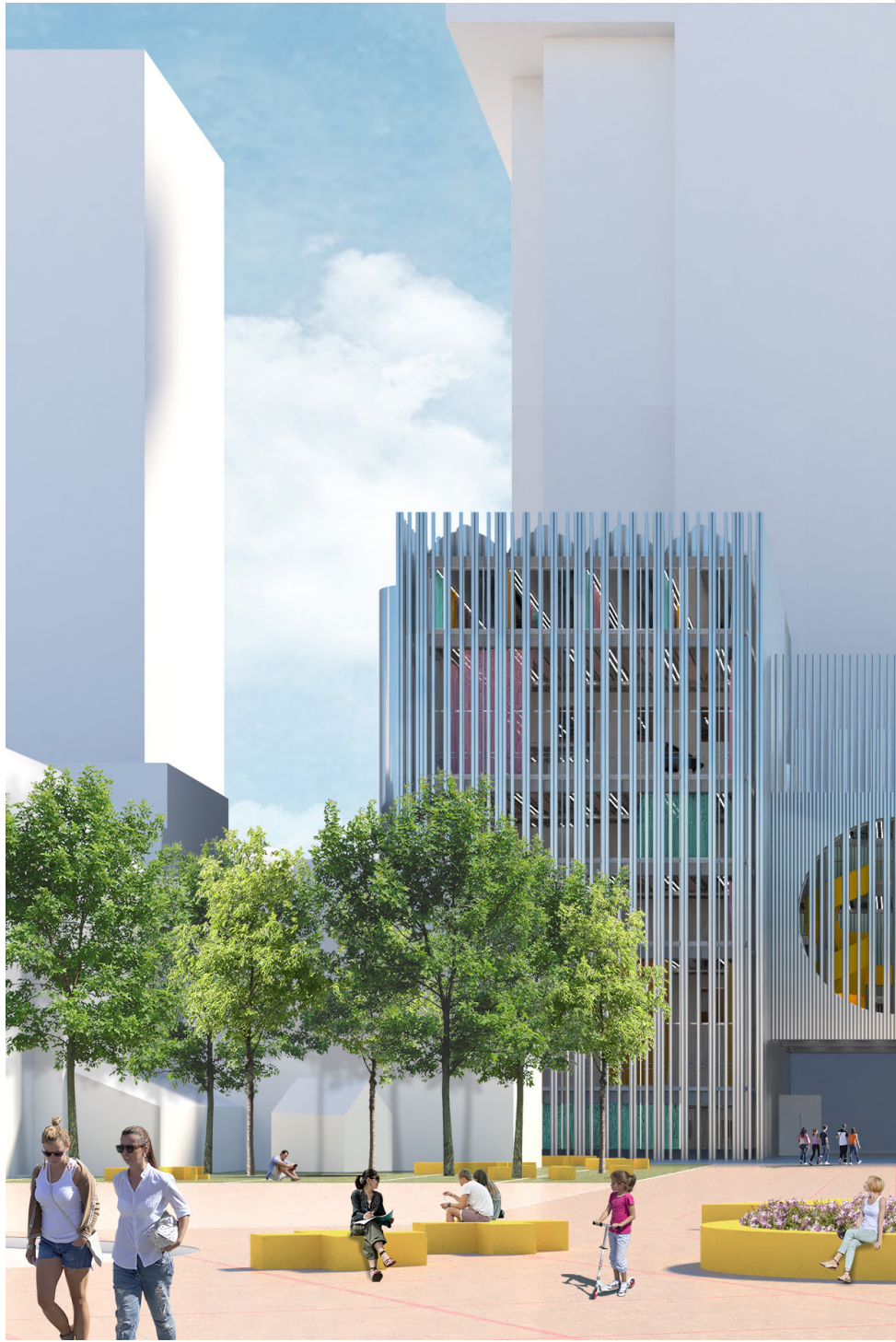
In order to achieve this goal, it has been important to set some urban rules to frame the project to a more precise result, such as a lowered height of the project and a minimum distance of 10m up to 40m from special objects present on the area, as three churches, one school and the majestic round faced that characterizes the historical neighbourhood.

To give a deeper explanation of the project, it is important to highlight the fact that the Open & Close public space is only a single piece of a broader vision, which is called the "Unfinished city". Indeed, the Hotel New York Group designed an entire scenario for the city centre of Rotterdam, in response to the High-rise strategy.

Dividing the strip in three different areas, from north to south, several projects will co-work together, with the shared goal to create a better scenario of well linked public spaces. And so, the Open & Closed will be part of the CND area. Here, the strengthened public transport node of Beurs will generate new high rise residential developments and new amenities for the city, while accommodating a new public space structure to bind together a more pedestrian friendly area. The Open & Close will act as sub-catalyst to mitigate the different scales of the built environment in the historical area of the neighbourhood of Cool Zuid, responding to the densification with an informal public space for different users.











## OPEN public space

The Open public space responds to its surrounding by facilitating a new pedestrian-friendly route within the neighbourhood. This will directly connect the project to both the new Beurs metropolitan node and the Urban school. Meanwhile it will provide a new public space's axis in the city, linking the area to the future extension of the Boijmans Museum, the Kunsthal and the Museum Park.

Before to design the Open public space, it was relevant to understand the relationship between the Open & Closed. A deep study of different synergies has been explored, concluded with the choice of locating the Closed public space at the edge of the Open one, to create an opposite facade, mirroring the historical one. This will create an inward-looking atmosphere for the square.

The composition of the Open public space starts from the Closed one as the first step and catalyst event of the project, which will generate a main composition grid orientation. Then, to highlight the presence of the existing special objects of the area, self-oriented grids will overlap the main one.

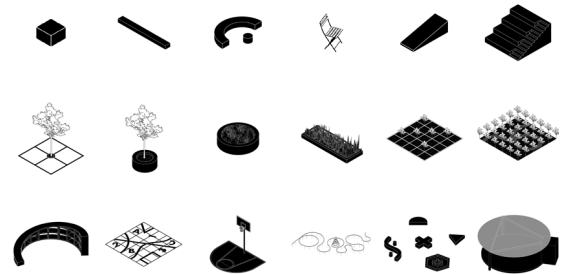
Moving further, the extremities of the Open public space are populated by dense a vegetation and trees. This will create an atmosphere of a new threshold of the neighbourhood. Moreover, it will cool down the temperature to reduce the urban heat island effect, plus it will act as noise buffer from and it will make fresh air towards the city centre.

Meanwhile the centre of it is left as open free space, where the boundaries are the monumental facades of the built environment, namely the historical one and the modern one of the Closed public spaces.

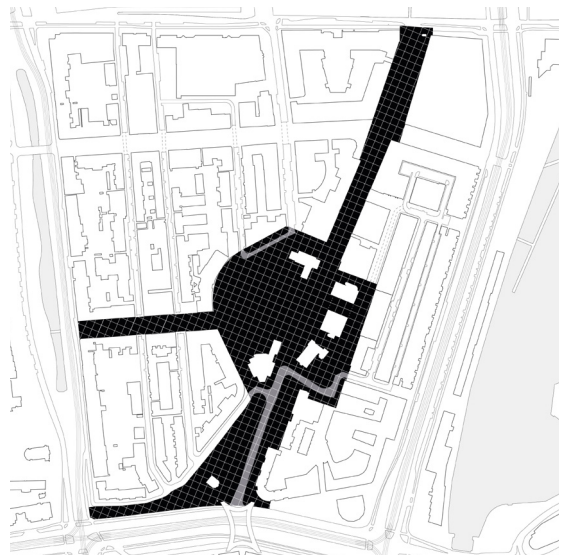
The character of the revitalized public space is informality, where different activities, users and scales will coexist together at the same time. People could simply walk and rest, or they will perform the lively urban life of Rotterdam. Starting with the materialization of the "floorscape", it will range from hard, soft, and playful, which will be made out granite and

grass. Moreover, a catalogue of the elements of interaction for different activities and users will create the more informal character of the public space, providing informality. The elements will range from different types of seating, as cubes, benches, arenas, movable chairs, and tribune. Then, different types of vegetation, such as trees, pots, flower, and urban agriculture.

Finally, as performing objects, there will be an interactive playground where kids can play, sport field for physical activities and an Open-air stage that can express flexibility with different uses. Concluding, different typological areas are defined, as the green boulevards as extremities, resting green areas around the churches and the school, a colourful playground and finally a central performing space.



Use of the space catalogue



Main grid orientation



## CLOSED public space

After the analysis of the neighbourhood, it has been decided that to engage a broader relationship with the already present and future users, a performing art centre was the best program for the Closed public space. This will be composed by several dance studios, several music rooms, and a Black box theatre. Finally, the possibility of integrated public space within the building crowns the relationship between the Open and Closed public space. However, to engage a broader audience, it has paid more attention in the design of more public program, alike a public café, performing art shop, foyer lounge and activity workshop.

Looking closer at the architecture of the Closed public space, instead of designing a building which could be directly related to the public space and the human scale, something as the Cool-tower is trying to mimic with its repetition of pattern. On the contrary, the composition is started from the opposite direction, namely with the goal to achieve monumentality with contained dimensions, thanks to the "scaleless" of the envelope. Indeed, the building wants to be perceived at the first glimpse, as monumental and almost detached from its surroundings.

And so, it is this dichotomy that empowers the relation between the Open and Closed public space, a special feature which is solved using specific materials and elements that highlight the interaction and relationship between building and user, such as the entrances, staircases and even toilets.

In terms of material, reflective anodized aluminium was chosen to reflect the urban life of the Open public space. The material is applied in two different ways, namely as cladding panels for the interaction objects, while pipes as envelope for the envelope of the volumes of the project. More precisely, the pipes will generate a game of different rhythm of open and closed and will create a system of physical and visual relationships.

Concerning the elements of interaction, these are wrapped by a reflective blurry metal cladding, where the reflection of the human

being represents the possibility to break the monumentality of the building bringing it back to the human scale and its interaction. Finally, a big eye over the open public space will observe above the surrounding. However, who is the audience and who the performer? Continuing, the importance of the visual relationship between different users continues also in the interiors of the building, thanks to double-height spaces which provide via windows the indirect connection between different spaces.

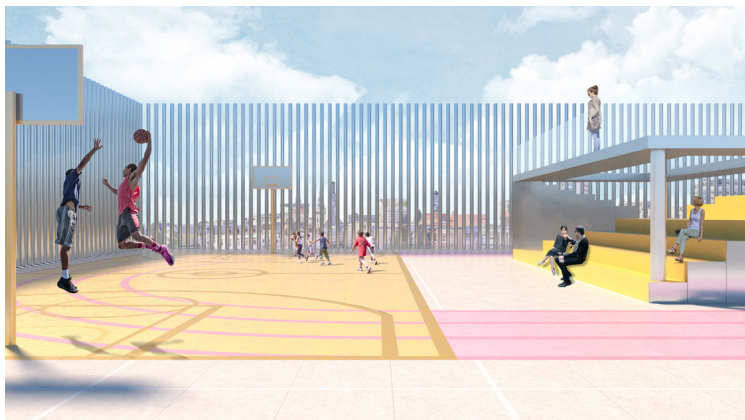
However, if the exterior appearance is glossy reflective the interior will be colourful, as staircases, curtains, furniture, frames, and doors. Finally, due to the program requirements, also acoustic material were important. Indeed, soundproof, and dampening material are applied to control sound and noise inside the building.

The building is made out a precast concrete structure with a grid of 4mx4m, chosen for its exposed feeling, its good thermal mass and acoustic performance. Then, three main cores will make stable the entire volume. However, to avoid over dimensioned elements, sometimes composite steel-concrete elements have been used.

About the climate system, a mechanical ventilation system together with a heat pump system to use geothermal energy, will control the air quality and temperature of the building. To provide the required quantity of air two technical rooms and large shafts have been integrated within the cores at the opposite extremities of the building.

As experience of the Closed public space, the journey starts with a cover space which can be use for different activities. Then, two different entrances stick out as geometrical object to break the scaleless of the envelope. Here, the flow can be divided between the learning part of the studio and the black box theatre. For the latter, the visitor will find the ticket area and the shop art centre. Then, one floor above, there will be the foyer before to enter inside the theatre.

On the other side, the ground floor of the perming arts academy, is presented as multipurpose space. Then, several music and dance studios are distributed along sixth floors, and finally the last one is another multipurpose space. Striking of relevance is the cafe which is located in between the fourth and fifth floor, to link the open public space on the rooftop with the building.

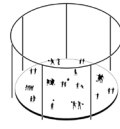


## Final reflection

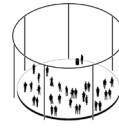
As Richard Sennett describes in his book "Building and Dwelling: Ethics for the City", to understand the built environment and the relationship with the people, he defined the concept of Ville and Cité.

The Ville is the built environment made out physical objects, while the Cité is the atmosphere that enrich the life of the people of the city. This elaboration can be connected to the idea of sky-line and ground-line, as the municipality is more focused on the former, while the Open & Closed was more concentrated on the people and the human scale. Moreover, in response to the historical neighbourhood and the future international city, there is not a main user, but a new scenario is provided, where the border condition is blurred, and the co-existence of different users is flourishing.

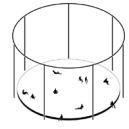
An OPEN & CLOSED public space in Rotterdam, made out different perming stages, their flexible uses and users. Black Box Theatre as, performing art centre with a flexible character. Upper stage, as public space with an elevated point of view to the City. Cover stage, with the possibility of using the ceiling during the performance. Open-air stage, where the historical façade and new one act as scenography.



Play



Event



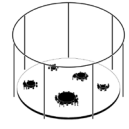
Rest



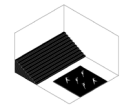
Performance



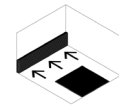
Exhibition



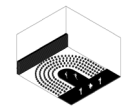
Dinner



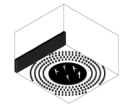
Standard Stage



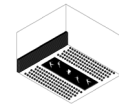
Flexible Stage



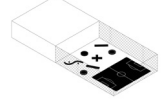
Thrust Stage



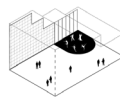
Arena Stage



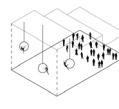
Traverse Stage



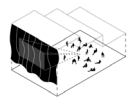
Play



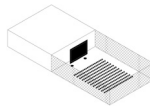
material



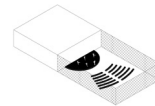
Performance



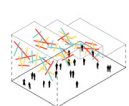
Movie night



Movie night



Performance



Lights

