THE URBAN OF ART
designing a live-work building for art and culture

GRADUATION PROJECT

Teun Theijse
4474406

Dutch Housing Studio
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Theo Kupers
Ferry Adema
Pierijn van der Putt

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THE INCLUSIVE CITY

Ever since ancient times, cities have been the centre of human culture. It is where people of different classes, cultures and religions come together. It is a reflection of society, but more intense. In modern times empire, trade, and globalization have led to a society that is more multicultural and multi-ethnic than ever before. But it does not always seek to include all who are a part of society. Historically people have been divided based on occupation, wealth and ethnicity, while some may even have been banned from the city. Foreigners, Jews and other distrusted people were confined to their ghettos as much as possible. Meanwhile undesired occupations, such as cobblers or prostitutes were pushed to the edge of town, where they wouldn't soil the 'proper' citizens, either with stink or with supposed moral degradation. However, the modern ideal is that of inclusivity. We no longer believe that people should be segregated. We should not discriminate against people based on ethnicity, gender, or occupation. At least, that my opinion and the moral context in which this design project was executed, though certainly not all will agree.

Even nowadays the city is rife with problems, often stemming from this division among groups. Ethnic neighbourhoods are prevalent in every city in the world, whether intentional or an accidental result of policy or people seeking something familiar when they move. Capital also has a large influence on who gets to live where. Poor people live in poorer neighbourhoods, in the Netherlands that implies social housing, often towards the edge of cities. While the wealthy can afford high quality urban apartments, or large homes at the edge of cities in areas rich with green. This in turn will have an influence on who their children grow up with and what stimuli they get. And so the kids of poor people will be more likely to grow up to be poor, while the kids of the rich will likely grow up to be rich.

This economic division is exacerbated by a relatively new issue: Housing shortage. At the moment there is a shortage of some 330 000 homes, especially in cities. To ensure that the shortage doesn't increase it is expected that we will need some 850 000 new homes within the coming decade. As a consequence this makes the entrance into urban life much more difficult for those with little capital. To truly make the city inclusive we don't only need to make sure to diffuse the divisions between groups, but we need to ensure that the barrier to entry is as low as possible, so that anyone who wishes can be included in the society of the city. And that process starts with solving the housing shortage.

RESEARCH

ARTISTS, THE VULNERABILITY OF CULTURE

Artists have historically been a weaker group in society, with an income that lies below the average. During times before photography their works were they only lens we could capture the world in. However since the advent of that new technology their role has become more and more one of culture and entertainment. However they have always been reliant on the patronage of those interested in art. Historically that could have been wealthy merchants, kings or popes. The church was a great patron of the arts, especially during the renaissance. Nowadays artist often rely on government subsidies to be able to practice their craft. Only very successful artists are able to fully stand on their own feet.

In cities like Rotterdam and Amsterdam the prices of real estate have been rising incredibly fast (Taha, 2018). Paired with a shortage of suitable space the municipality has been selling property that previously functioned as artist studios or working space. This group does not have the high income to compete against other groups that are looking for space within the city and are therefore forced to leave the city centre. The space simply isn't affordable for them (Slotboom, 2017).

This isn't just the case in the larger cities, in smaller towns, like Schagen in the north of Holland, there is also a shortage of affordable studio and exposition space for artists. (Jasper, 2019) On top of that, the province of Brabant is going to be reducing subsidies for art and culture by 30 percent by 2023. Director of the North Brabant Museum Charles de Mooij claims this might be the killing blow to the sector, especially paired with the Corona-crisis. (Merkx, 2020) On the other hand, the municipality of Utrecht decided in 2019 to reserve extra money out of their budget to subsidise at least 6 art organisations and give them more opportunities (DUIC, 2019).

In response to this vulnerability historically there have been people like Alfred Boucher who funded an artist community in La Ruche in Paris that gave them a very cheap place to stay and work

along with other artists. In the same vein the Rotterdam-based artist Joep van Lieshout has made similar plans to provide for artist work space in M4H when it is to be redeveloped. After his forage into the creation of a free-state in 2001, which was more art project than artist commune, he now aims to create what he calls the 'Woonknots'. This 60000m2 tower is supposed to be a new landmark for Rotterdam and include 300 apartments, an art hotel with statue-garden, a restaurant, exposition space, museum, storage space and dozens of studiohomes that will be rented out cheaper than available on the market and through that create affordable working and living space for artists. (Gunneweg, 2018)

But the question still stands: How do we create affordable housing for artists? This has been done in the past, but what sort of planning and programs have been used and can be used in order to facilitate this element of culture within our cities? Those are the questions that this paper will explore.

THE STUDIO-HOUSE, A TYPOLOGY

The Studio-House, as described by Frances Holliss (2015), is a type of workhome that is specifically designed for artists. As the name suggests, the studio-house (not to be confused with the studio-apartment, that has nothing to do with a studio!) is the result of a combination of artist's studio and their residence. The key aspect of its design is how it combines the spacious, well-lit workroom that is needed for painting or sculpting, with the functionality of a house. In its essence it has a lot in common with the older weavers' homes, which had a work room with a large glazed opening, often on the upper floor, while the lower floors were meant for living and business. Historically artists would gain this large window by working on attics, which were cheap and had access to that light, but while being cheap they were also mouldy, wet and cold. But even while they need healthy circumstances too, artists are not weavers and they have their own desires for joining their living and working in one building, through something other than a cold and wet attic.

Holliss gives several examples of the studiohome, some for wealthier and some for less wealthy artists, from the late 19th and early 20th centuries. They occur both as individual homes, such as C.F.A Voysey's 1896 house and Le Corbusier's Atelier Ozenfant
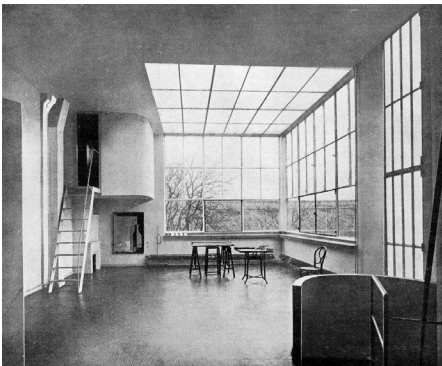
Le Corbusier's Atelier Ozenfant

from 1924, as well as stacked into a single building, such as R. Start Wilkinson's 1882 design for 57 Bedford Gardens in London. The examples she gives vary some, but some common aspects are large (north-facing) windows and an arrangement to easily move art pieces out of the building. Some of the examples have living and work spaces directly connected, but others have them entirely separate but still within the same building. The cheaper variants seem to have the living and working space very closely connected, which makes sense as a smaller space is more affordable for artists with less income.

Holliss observes about Bedford Gardens: "The 24-hour occupation of these unconventional dwellings has generated an on-going loose community of like-minded people – artists, friends and collaborators. This is a common characteristic of clusters of workhomes, especially when they are designed around a particular occupation, as with this building or the Coventry cottage factories. Common space is an important ingredient. Here the occupants all share a staircase designed to allow large pieces of work to be removed from the building. It easy to see how struggling with unwieldy pieces of art could encourage neighbourly relationships." It is perhaps unsurprising that a group of people with similar life experiences, interests and current situations would easily become a closer knit community, it is also common to see people not knowing their neighbours in modern times, especially in urban environments. So sharing common space with people with similar frames of reference to you would help turning a building of individual workhomes into a community of artists.

A large amount of studiohomes was built in Paris at the start of the last century. Banham (1967, p.217) explains that for early modern architecture during the start of the 20th century there was little wide appeal. The main interest in this architectural style was from the community of avant-garde architects and artists. And so in Paris the most common form of early modern architecture that appeared were buildings for that group. Banham dubs these workhomes the maison-type or studio-house (The name that Holliss would use later). This typology had existed in similar fashion

since the previous century in buildings such as Bedford Gardens. They typically consisted of a two-storey height open-plan space. The (preferably north-facing) façade would have as much glass as possible to let in the light that would allow an artist to do their work. On the opposite wall there would be a mezzanine floor which would hold a sleeping space above and a kitchen and bathroom below.

While this type of home was most directly designed for artists, it also found its appeal among art related workers such as writers and some who weren't necessarily attracted by the space, but rather by those who lived there, looking for the creative climate.

ATELIERWONINGEN ZOMERDIJKSTRAAT

The Studio-homes (Atelierwoningen) Zomerdijkstraat by the architects Zandstra, Giesen and Sijmons are an excellent example of the studio-home type. This building from 1934 is specifically designed for artists and was directly marketed towards them. Each of its 32 north-south oriented housing units include an artist's studio and a living space. The 8 ground floor dwellings were specifically aimed at sculptors and the 24 upper-floor dwellings were meant for painters. The building has 4 stairwells connecting to two stacks of 4 units each. The stairwells are asymmetrically placed within the 8 units, creating a larger and a smaller unit on each level.

The building appears to be designed to optimally serve the function of studio first and that of home second. That is what the layout suggests. Each of the studios has large windows facing north, with the ground floor sculpture studios extending outwards and thereby also being able to receive light from above. These large windows are a child of artist studio tradition, and are meant to bring as much light as possible into a studio, while also avoiding
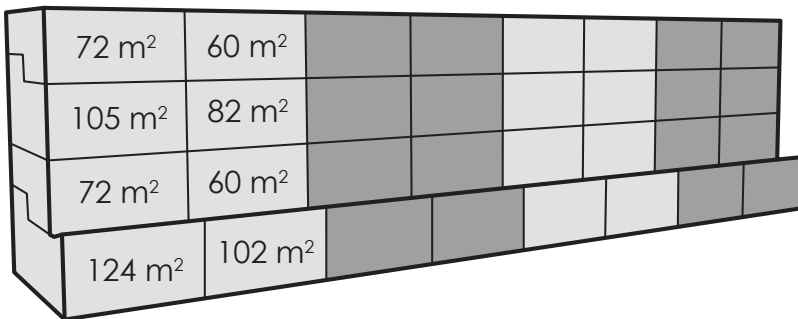
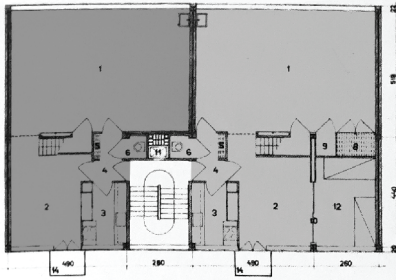Zomerdijkstraat south façade   Zomerdijkstraat north façade

any direct light shining in. The north is favoured because that light that comes only from the sky is the most consistent throughout the day, while sunlight changes throughout. This consistent light an essential factor for an artist to be able to make the same decisions with the same effects. The windows are made as large as possible with the thought is that if it is too bright outside, some light can easily be covered, but if they are too small no daylight can be added. Only on the west façade was the building given extra windows (round ones in this case).

Besides light the studios have also been provided with other additions to support their function: They were supplied with a tap and sink, storage space for art as well as rails hang works on. Additionally the sculpture studios have floors of wood ends so that dropped tools get damaged less easily and it's possible to put anchors into the floor for sculptures or pedestals. Furthermore, the upper floor dwellings have south-facing balconies that have been given a detachable front so that art pieces can easily leave the building this way. Each set of vertically stacked homes is also provided with hoist or 'hijsbalk' to allow for the movement of goods (and art pieces) in and out of the dwellings. Where the
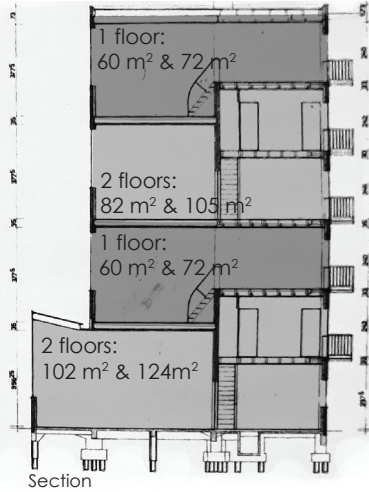

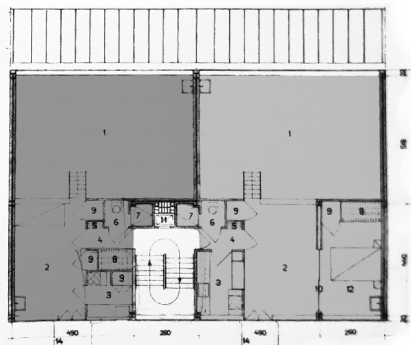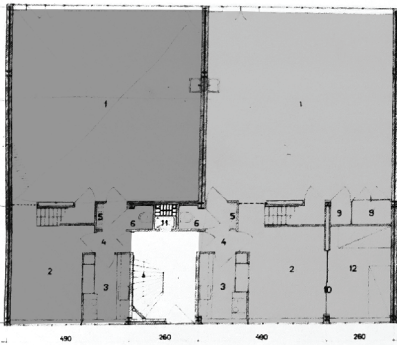The 8 groupings of homes around 4 common stairwells

1 floor:
60 m² & 72 m²

2 floors:
82 m² & 105 m²

1 floor:
60 m² & 72 m²
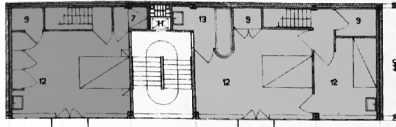
2 floors:
102 m² & 124m²

2nd floor studios and split level

Section

1st and 3rd floor studios

Ground floor studios and split level

1	ATELIER	8	SCHILDERIJENBERGING
2	EETHOEK	9	KAST
3	KEUKEN	10	SCHUIFWAND
4	GANG	11	BOODSCHAPPENLIFT
5	KAPSTOK	12	SLAAPKAMER
6	W.C.	13	BAD
7	DOUCHE	14	BALCON

5m

Plans of different studio layouts, Scale 1:300, from Stralen (1989)

The Smallest Studio-Home

The homes on the Zomerdijkstraat were relatively expensive as artist homes went. This smallest home is 60 m2, which might explain the size. Its large studio space (A) of nearly 40 m2 takes up almost two thirds of the unit. The rest of the living space is packed into a tight 20 m2, and includes a toilet and shower (B), small kitchen (C), living space (D) and storage, including a dedicate storage space for paintings (E). This appears to have been done without using any part of the studio space as part of the living space.
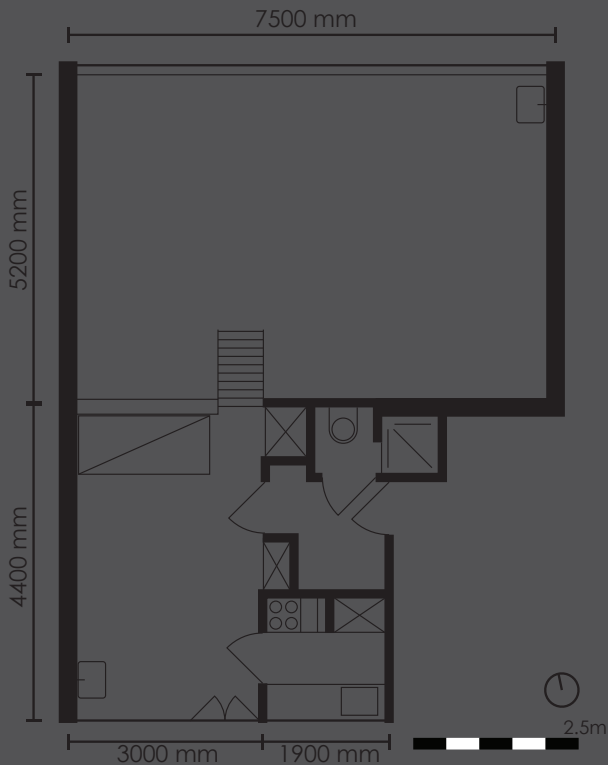
Plans of the smallest 60 m² studio-home on the Zomerdijkstraat

upper floor studios can move art out of the building from their balconies, the ground floor studios have large wooden doors that facilitate the same.

The increased height of the studio space is because at the time the consensus was that studios had to have a ceiling height of around 4 meters to be suitable, partially as a consequence of the desired light. However for dwellings a much reduced height is sufficient, so here a studio space corresponds to one and a half dwelling floor height. Consequently the northern (studio) side of the building counts 4 floors, while the southern (living) side of the building has 6. The result is 4 studio-homes stacked atop one another, 2 with 2 dwelling floors (on the ground and second floor) and 2 with a single dwelling floor (on the first and third floor). Unlike the double floor units, the single floor dwelling spaces don't lie on the same level as the studio spaces, creating a split level in those units. The larger version of this type has an extra space that can be closed off with a sliding wall. The double floor units are more akin to a normal house with an adjacent studio, with a normal kitchen, bathroom, living room and bedrooms. The larger version of this type also has an extra space downstairs with a sliding wall.

Zomerdijkstraat south façade

Working in the building

Not all the units were occupied by artists, mainly because they were not always affordable for their target group. Other residents included photographers and architects, but also dentists and businessmen. For a time one of the units as also used as a ballet school. On top of that situation there is the case of artists who did live there, but did not use it for work. Among them are Piet Esser and Paul Grégore that were professors at the Rijksacademie and had studios at the academy. Others simply did not find it comfortable to work in their homes and so had studios elsewhere.

Planning the project

Zomerdijk straat was inspired by similar homes in Paris. In the shape of units that were very small and bare-bones, which kept the units cheap and more accessible to artists. However, nothing of such a type existed in Amsterdam at the time. To amend this, Zanstra, Giesen and Sijmons took their own initiative and designed the studios at the Zomerdijkstraat without yet having a developer or financer behind the plan. But this did fall in line with existing artists' plans to make artist residences in Amsterdam. And so, soon the first iteration of the design was presented and devel-

Studio Jet Schepp
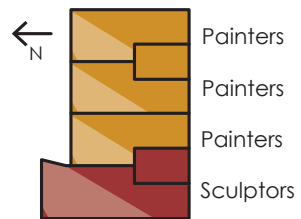
Organisation artists

opers showed interest in executing their designs. This first version differed in a few ways. The two most interesting changes were that the living spaces and studio space in the largest units were in complete connection with one another, and that this version of the studios was merely a large empty room, without the facilities that would be added later to make it function properly as an artist's work space, such as the industrial sinks. The studio space was also promoted as a potential living room, to ensure to the financiers of the project that the units could be sold to non-artists as well in case there weren't enough artists to occupy all the units.

The project also saw municipal involvement. One way in which that played a major role was the request to the municipality to keep the plot to the north side of the building free to prevent 'vals licht', false light. There was no explanation of what this was, but it appears to be the (reflected) light of the sun that changes over time and can therefor not be trusted. The municipality granted their request and the plot to the north of the building became a local park.

Complaints
As with any building there were plenty of complaints about the building: The floors aren't very water resistant. The windows in the west façade of the building cause 'vals licht'. On the ground level floors there are complaints from the artists about people peeking in through the window of the studio and bothering the artists. The lowest windows on that side end up getting covered. Personally it seems crazy behaviour from the 'youth' as they put it. I would not expect people to behave like that these days, but I could be wrong. These was also a relatively expensive houses for the interbellum period when compared to houses for other low income groups, but they did become more affordable after the second world war. The reputation it had as a building for successful artists is probably partially as a result of the higher rental prices.

Collectivity

The communal activities among the artists in the building appear to have been less prominent than expected. The first year after the opening of the building there was a large exposition of all the artists that came to live there. But after that there appears to have been less and less cooperation. At least over time, because in the early years there was a big artistic atmosphere and that cooperation was there. There is a lot of evidence of friendships between the residents, such as the portraits they made of one another. There also used to be a small figure drawing group among some of the residents. However during world war 2 some of them seems to have gone different ways. And after the war the connections between the artists seem to have lessened.

The division between artists does seem to spring from a difference in style. As different generations would each bring in their own style and would thereby create subgroups within the building. The artists appear to have been the most socially connected with those who worked within the same philosophy. A social mechanism was supposed to ensure that only artists of similar

Opening exhibition of the residents

methods moved into the building, but that wasn't fool proof and some other artists did get in, fragmenting the unity of the collective.

Instead of seeing the Zomerdijkstraat building as an art colony, it is better compared to a village. Everyone knew each other and there was a feeling of community and of there was plenty of course gossip. However, the building had never been designed to create community. It really been designed to create a good working space for artists, where the addition of living spaces and the arrangement of the studios into a block were merely for the municipality and for financial reasons. Because the municipality wanted homes and it was simply more economical to put more units into a simple block. Holliss (2015) criticises this approach for weakening the connection to the street and making the building much more self-contained. A courtyard structure would have been much more suited to the creation of a community in her view.

This same group of architects made designs for a similar building later, but that was never built. This might have to do with the additional luxuries that this design included, such as gardens a roof terrace and a garage. These are amenities that artists simply could not afford.

(Stralen, 1989)
Pictures from: https://www.zuidelijkewandelweg.nl/archief/architectuur/atelierwoningenzomerdijkstraat.htm

LA RUCHE

The la Ruche studiohomes form a curious contrast to the norm set by other studiohomes. This circular building has studios facing all sides, instead of only north like other studios. This is because the building wasn't originally designed as a building for artists. It was designed for the 1900 Great Exposition by Gustave Eiffel as the Gironde wine pavilion. After the Exposition it was sold on auction and bought by the sculptor Alfred Boucher. Boucher quite affluent for an artist. He'd made his fame primarily through gravestones for the wealthy and though the carving of busts for high profile officials such as the King of Greece and the Queen of Romania. (Ramirez, 2000)

He made the Gironde wine pavilion into a building for young artists with little to no money. It became known as La Ruche (Beehive). La Ruche included studios as well as a communal exposition space that was available for all who lived there. Aside from just a shared space, the artists (mainly immigrants from eastern Europe) and other poor people who visited and stayed in the building lived together a lot and there was a strong sense of community. It formed a true colony of poor artists of all aesthetic convictions and nationalities. The studio-homes were rented out for

La Ruche

exceedingly little money and Boucher never evicted anyone for not paying rent, only ever for causing trouble, which happened rarely. (Ramirez, 2000)

The 'golden age' of la Ruche was ended in part by the second world war as the building fell into disrepair. It was restored in after gaining monumental status in 1972 and is in use again as artist studios nowadays. (Fondation La Ruche, 2015)

La Ruche consisted of studios situated in a radial pattern around a central space. Like on the Zomerdijkstraat is the first floor reserved for sculptors with the upper floors being aimed at painters. And they also follow the traditional setup of a large window on the working side with a kitchen on the other side and a mezzanine floor with a sleeping space above. These living areas were often separated from the working area on the side of the façade with a curtain. In total La Ruche had some 80 studios divided over its 3 floors (Ramirez, 2000). Due to the desirability of northern light in a studio, it seems likely that the some of the apartments were more wanted than others. But there is no mention of there being more prestigious places in the building.
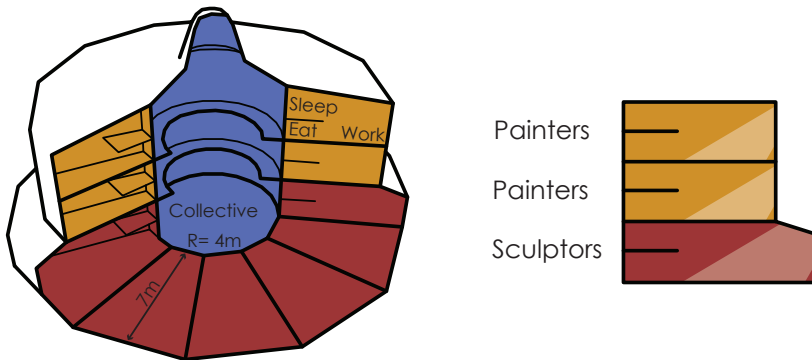
The unique characteristics of La Ruche are a result of the cheaply available building after the 1900 Great Exposition and the presence a philanthropist that had the best of intentions for artists and knew their troubles. This incredibly rare set of circumstances allowed the community to thrive. While the combination of communal space that allowed artists to easily meet and share in one another's work would create the social circumstances, it was Boucher that allows the project to subsist. The economic situation and circular shape of the building created an atmosphere of sharing. However due to the coveted northern light there might have been some underlying hierarchy among the residents in La Ruche.

Photograph from: https://laruche-artistes.fr/

COLLECTIVITY WITHIN STUDIO-HOMES

The contrast in the connectedness among residents of the Zomerdijkstraat and La Ruche is quite striking. Where one was initially more united in its creative vision, but saw cracks appearing in its social bonds as the artistic styles represented in the building fractured, the other welcomed all, no matter what style they followed or even regardless of whether they were an artist. While on the one hand this was a consequence of how, and for whom, the buildings were organised. On the other hand the spatial structure of either building plays a definite function.

The way Boucher had organised La Ruche made it a mix between a homeless shelter and an artist commune with some hints of communist free state. While at the Zomerdijkstraat dwellings the individuals lived completely separate. This group of people was not struggling in the same way as the residents of La Ruche were, and consequently did not need to support one another, even though some of them certainly did. This community spirit is reinforced by the way either of them shared communal space, where in La Ruche the communal space formed the connection between all the studiohomes, at the Zomerdijkstraat there was no communal space whatsoever, which meant that there was no natural meeting space between residents. Residents had do make more effort and social bonds became weakened.

Holliss (2015) explains this difference on both the building and urban level. She acknowledges that grouping together workhomes with similar occupations often contributes to the creation of community, but in order to strengthen that bond, there needs to be some communal space. Because "It is easy to see how struggling with unwieldy pieces of art could encourage neighbourly relationships." (Holliss, 2015, p.42). This communal space does not have to be inside the building. She also praises the Pullens estate for organising its buildings around 3 courtyards, creating 24-hour habitation in these live-work buildings and stimulating collectivity around the courtyards. "Each yard has a population small enough for its inhabitants to know each other, at least by sight. And architecturally the estate is distinct, giving its inhab-

itants a sense of identity. [...] the combination of dwelling and workspace in the Pullens Estate contributes to an extraordinarily positive sense of neighbourhood identity and to an ongoing development and enjoyment of local social capital." (Hollis, 2015, p.142) On the urban level she explains that buildings and especially separate dwellings need to interface with the neighbourhood and the city in order to share and mix in the urban social environment. This is not too dissimilar to Sennett's (2019) idea of porosity in the city, in which one creates spaces where different groups can meet through the use of membranes or borders that facilitate social interaction. This can be the space between the collective and the public, that can allow the building to also bring extra life to its environment beyond the social interactions it brings to its inhabitants.

HARNESSING GENTRIFICATION

One of the ways that artists would often find affordable living and working space is by finding those in old run-down neighbourhoods. This would often kickstart a process of gentrification that can completely change the area. Sharon Zukin (1982) describes the development of the transformation of the lofts in SoHo New York. At first the mostly empty industrial buildings were only used by small manufacturers that lived in other neighbourhoods and commuted to Manhattan for work. Attracted by low rents, artists took these large spaces as studiohomes. This, the 1960s and 1970s, was at a time when the 'artist lifestyle' became fashionable and a large part of the middle class became interested in the arts. Gallery owners, curators, art critics started visiting the lofts of these new artists in Manhattan. These groups were soon followed by middle and upper class people that visited the lofts during cultural 'happenings'. At the same time the artists moving into the lofts improved the quality of the buildings and created cultural facilities. Some lofts were used for performance, dance, music and theatre all contributed to the cultural character of SoHo. Additionally, new galleries put the art of the local artists on a more prestigious pedestal. Over time the artists were followed by designers and then non-creatives that brought money. The lofts became an accepted living space for the middle and upper class and the rents of the lofts increased drastically. Soon artists weren't able to afford living there anymore and they disappeared en masse.

This presents the first wave of gentrification, the time of the production of art, and the second wave, the 'commodification' and private consumption of art. Especially this second wave has come under criticism as it is the moment where the gentrifying force of art loses its innocence and the art becomes commercialised. That wave of gentrification sees a neighbourhood lose the features that initially attracted artists to it, and not just in affordability. Neighbourhoods become more slick and polished and they lose their makeability. It is the third wave of gentrification that sees art become part of the public, with the addition of galleries, museums and theatres. This last step often occurs with

the interference of public policy in the 'revitalizing' of neighbourhoods (Cameron & Coaffee, 2005).

In the town of Gateshead in the north of England, the council of the borough has taken the process of gentrification into their own hands and used it as a strategy to rebrand and reinvigorate their national image. Their program went in three steps. The first step was subtle. Starting in 1986, a series of large 'environmental sculptures' and 'decorative artwork' to enhance the aesthetics of the town and that would hopefully increase social cohesion. Additionally in this stage there were programs for artist housing and educational programs that would integrate them with the local community. A derelict industrial area was also reclaimed by turning it into an the Riverside Sculpture Park. The second phase saw the creation of the landmark artwork the "Angel of the North" in 1998. This icon of the town put it on the map in Britain and gave it a new public image. Finally the third stage revolved around the creation of two new cultural centres, the Baltic Art Gallery from 2002 and the Sage Centre for Music and Performing Arts from 2004. By the time these opened the image of the town had changed drastically and the cultural district around these two buildings experienced a surge in real estate value as it attracted many affluent young professionals (Cameron & Coaffee, 2005).

Not only municipal governments saw this process as an opportunity to reinvigorate certain areas. In the Dutch city of Utrecht housing corporations have sought to use artists as a way of 'regenerating' neighbourhoods. As part of the redevelopment plan of the problem neighbourhood Kanaleneiland, housing corporations Portaal and Mitros worked together on a plan to use artists to improve the neighbourhood's image. They offered artists cheap apartments in buildings that were due to be demolished. In return the artists were expected to contribute to the local social and cultural environment by contributing a monthly fee for cultural events and by physically enhancing their environment. Furthermore they would also host art workshops for the locals. It's hoped that the artists will add new cultural qualities to the area

that will attract middle-class households. In the future they don't expect the artists to stay in the neighbourhood, but they might want to move on to a different neighbourhood to repeat the steps if it proves successful in 'regenerating' or gentrifying the area (Zebracki & Smulders, 2012).

Art and culture are used as a way of increasing neighbourhood values. But by the end of the process the artists that brought them often end up discarded and pushed out. But there are also efforts to stop this effect. In the redevelopment of the Station North district in Baltimore there were several efforts to keep the local artist community in the area. While many artist live-work spaces closed, accompanied by performance spaces and museums, the developers did build new below market-rate housing for artists and ensured the appearance of new studio and performance spaces as well as a new theatre. In The Motor House non-profit organizations pay market-rate rent for their office space and so subsidise the artists' studios in the building. Other buildings in the same area work with similar initiatives, hoping to use corporate and retail tenants to subsidise artist tenants in the same buildings. While this is partially for philanthropic reasons, the developers of the projects also seek to retain the cultural value of the resident artists in the area, which is meant to be a culture themed development (Rich, 2019).

Artist housing and workspace, however, does not only need to be mixed with commercial functions. An alternative strategy could be the inclusion of luxury housing within the building, the income of which can support the cheaper apartments for the artists in the building. But first they need to keep control over the prices of their own homes.

COOPERATIVE DEVELOPMENT

So while artists can be a great contributor to the value of a neighbourhood, market forces will often push them out as they are unable to afford the prices of the real estate that their presence created. Initiatives such as those in Baltimore can solve part of that issue, with the caveat that if a less philanthropic developer decides that they would rather earn more money than provide space for artists and their work, they can easily change course and the artists would be out on the street. There needs to be some better mechanism to protect them against this sort of effect.

One solution would be a through the forming of a housing cooperative. This is a type of non-profit organisation that aims to protect the needs of its members, in this case in the shape of housing. It allows its members to band together to make things happen that they aren't able to individually. The important difference between a cooperative and a corporation is that a cooperative is democratically organised, with all its members having a say in the decision making process. It is a form of organisation that wasn't allowed after the second world war, but a change of law in 2015 saw them reintroduced as an option. But for now only as a through law recognised organization for social housing. (Woonbond, 2016)

The Dutch Ministry of Housing has determined three types of housing cooperatives: The owners cooperative, where everyone owns their own home but are still unified in management, the management cooperative, where the homes are owned by a third party but the management is done by the cooperative, and the collective ownership cooperative, where the cooperative owns the homes and rents it out to its members. (Woonbond, 2016) This last one is what we're most interested in, as we're trying to control the market forces that might potentially force out the artists from their apartments.

An example project from Zurich in Switzerland was also aimed at mixing different income groups. The Cooperative (or Genos-

senschaft) Kalkbreite made a proposal to the city in 2007 for a building that combined commercial and residential space, with 97 apartments for a diverse group of occupants. As a consequence of this diversity there was also great variation in the types of homes planned in the building, ranging from traditional family homes to studios with shared kitchens, bathrooms and common space. The city leased the land to the cooperative and gave a grant of 3.25 million Swiss francs to manage everything up to the architectural design. The rest was funded through collective funds and loans. In total the project ended up costing 63 million francs. The cooperative had set up several rules for the apartments to be rented out: A maximum of 20 percent was allowed to be rented out to high-income residents, with 11 units reserved for low-income residents, presumably at below market-rate prices. To rent an apartment in the complex one has to be a member of the cooperative. This is one of the advantages of the housing cooperative: They can set prices and rules for who can rent what for how much to avoid market forces making the supposedly affordable homes unaffordable. (Schindler, 2014)

Kalkbreite project, Zurich, Switzerland

LUXURY APARTMENTS

While there is a shortage of artist apartments in the Netherlands, there is little culture of high density luxury housing as well. The Netherlands is quite late in joining other places in the world in the contemporary idea of luxury apartments. Traditionally the main luxury that people sought in their home was space and, most importantly, gardens. Apartments were not seen as a luxurious way of living as they are often smaller and lack a garden. But a large house with a garden is not well suited to high density urban living.

That absence of luxury apartment culture does not mean that the Netherlands does not have expensive apartments. Dutch homes are relatively expensive per square meter. However this cost primarily comes from the price of the plot, especially in Amsterdam. In Berlin and many other large cities expensive apartments are expensive due to their quality. A luxury apartment in New York is smaller than in Amsterdam, but it will be finished with luxury materials and the building will often include extra services such as a doorman and sometimes a health-club with a swimming pool, sauna and fitness room. Other amenities can include a swimming pool, wine cellar, communal garden or a beautiful lobby. In all cases the place and the size of the apartments are important. (Kompier, 2009)

While the size and services of an apartment are very important to the apartment's status of luxury, location is a major factor as well. "Apartments on the Minervalaan in the southern part of Amsterdam are generally 60 m2. The finishing is high-quality. What's more, the status of the neighbourhood prescribes luxury. The upkeep of greenery is better, the population density lower and the possibilities for parking greater – all very important conditions for a luxury district." (Kompier, 2009, p. 17)

A fourth factor is choice. For new luxury apartments it is sometimes worth it not to design an interior space, but to instead provide spacious plan with easy access for pipes and cables. This will allow the new inhabitant to hire their own interior architect to create a unique and personalised interior. As this space that

is truly your own is a luxury in itself. This open floor approach was originally the plan for the Fountainhead building in Amsterdam and was the design approach for Winka Dubbeldam's Greenwich Street Project (2004) in New York. She herself designed 2 homes within the building, while other inhabitants hired different interior architects. (Klijn & Mooij, 2009)

In the case of a serviced apartment, the type of and access to these services need to be carefully considered. During the design process of the Fountainhead building, the designers discovered that "[...] most of the potential buyers wanted the luxury normally provided by a good hotel, but they also were very concerned about their privacy. [...] Most of the potential buyers, for instance, did not want to feel they had to share the fitness room with people from the neighbourhood or to meet them in the swimming pool." (Klijn & van der Putt, 2009, p. 12) This indicates the importance of privacy and the feeling of own-ness to residents of luxury apartment buildings.

Luxury apartments are starting to appear in the Netherlands as well, but are still not very prolific. Both in the rental and the purchasing sector.
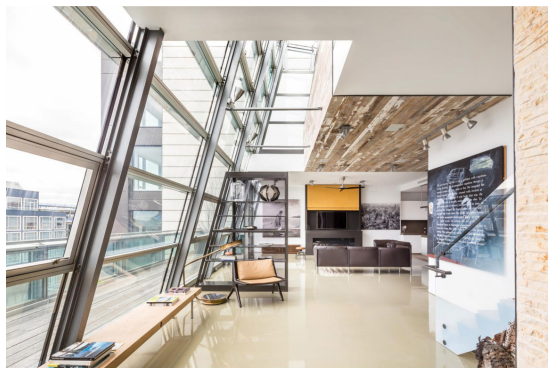
A luxury apartment in the Greenwich Street Project, New York

Renting Luxury Apartments in Dutch Cities

The service apartments have still not become the norm for luxury apartments in the Netherlands. For example, Vesteda advertises the apartments in the Markthal building (2014) as luxury but it lacks the typical health club as well as other facilities, except for parking. They mainly rely on the apartments' location in the heart of Rotterdam and overtop an icon of the city. Unsurprisingly the rent is also on the lower end of luxury, which Kompier (2009, p.21) describes as starting at 1200 €/month in 2009. A 109 m2 apartment was being offered for 1305 €/month at the time this was written (with an additional 70 €/month service fee). The apartments do at have an A+ energy rating, which makes them again more desirable. (Vesteda, 2020 1)

The same company offers apartments on the Wilhelminapier in the New Orleans building (2010). At the time of writing 2 apartments of 103 m2 are on offer for 1625 and 1715 €/month, with the prior having a view of the harbour and the latter of the city. On top of this there is a €125 service fee and an optional €190 parking cost per month. While this is more expensive, this does offer the benefits of a health club with swimming pool, gym and sauna. Next door Montevideo (2005) offers the same services for a cheaper 1560 €/month plus €85 service fee. This time for a slightly larger residence of 113 m2. (Vesteda, 2020 2)

The New Amsterdam building actively advertises its luxury status with its health club, extra security and parking. With a hefty price of 115 €/night (discounted from 135 at the time of checking) for a 50 m2 apartment the building is aimed at true luxury despite the smaller size apartments. The website also directly advertises this as a place for business travellers to stay, not as an long-term home. (Corporate Housing Factory)

This is by no means a full representation of all 'luxury' apartments in the urban parts of the Netherlands, but it gives some impression of what sort of apartments are available and for whom. The fact that the site huursector.nl has no filter based on services in

their rental apartments suggests that those are still not primarily on dutch people's minds when they look for apartments, however they do offer an undeniable layer of luxury to the building. A lot of luxury apartments are still advertised as being part of a regular home but with the added benefit of a garden and a central location within the city, especially along the canals in Amsterdam.

Buying Luxury Apartments in Dutch Cities
When looking to purchase luxury in the Netherlands there seems to be less on offer. Especially on the side of serviced luxury apartments. The Montevideo building that was mentioned before does also offer its services to owners of apartments in the building. One of which is on offer as this is written: 285 m2 for a price of €1490000, or €8371 per m2. And a monthly contribution of €420 to the owners association, which presumably partially covers the costs of the health club that the owners also get access to.

Aside from that, other luxury apartments in Rotterdam mainly earn their luxury title based on size, material use and location. Access to a private garden also contributes, as well as the view. Most expensive apartments that were on offer at the time of writing were large and had ceilings about 3 meter or more high. The apartments had a price of around 6000 €/m2. In 2009 a luxurious apartment in Berlin would cost around 5000 €/m2 "and up" (Kompier, 2009, p. 23). But that price suggests a higher luxury than these prices, when adjusted for the increase in housing prices since 2009 in Rotterdam. Perhaps this can be attributed to standards to which luxury was held in Berlin at the time, which are higher standards than Dutch people still hold their luxury apartments to.

In Amsterdam some dwellings in the New Amsterdam building are also available for purchase. Like in the Montevideo buildings these homes also have access to the building's health club and laundry service.

Luxury Apartments in the Keilekwartier
There is little luxurious in the Netherlands in the way of serviced apartments. Some of which is there is aimed towards expats who are used to a different standard of luxury. Among luxury homes some of the other factors, besides the services in the building, include the size of the apartments, personal choice in the outfitting, high quality outfitting, and the location of the building. A certain exclusivity is desired, and not only in access to the building's services, but also in what other people live in the same building. "The mixing of public rental and owner occupied dwellings proportionate with the scale of the building has been the adage for a very long time, but in true luxury residential complexes, there is no mixing with public housing rentals." (Kompier, 2009, p. 19) While a building with cheaper artist housing might not be 'true' luxury, the presence of artists can make the environment of the building more desirable, as explained in the previous chapter. This quality in the environment, in combination with the other factors, can still create a luxurious series of dwellings.

ARTIST HOUSING: CONCLUSION

Artists are losing studio and living space in the modern city. However there are some initiatives to provide housing and work space for these artists. And not without precedent. Out of a necessity for suitable and affordable artist accommodations came the typology of the studio-house, which combined the studio workspace of an artist with residential space for said artist. Many of these have been built for low prices to ensure affordability. The first building of its sort in Amsterdam, however, was not nearly so affordable. While creating excellent studio space for artist, the architects made the units relatively large and inaccessible to many due to the high rents. In contrast the studio-homes in La Ruche in Paris were much more bare bones and lower quality, but an incredibly cheap rent and the circular collective space of the building created a place for artists to meet and share in their troubles. Similar buildings have historically been made to provide this sort of cheap solution for artist homes.

While artists are a vulnerable group in society, they can also be an instrument of their own demise. The affect that artists have on gentrification have made them a harbinger of doom to the residents of the affordable (and often low quality) housing that they settle in, while also making them a tool for developers and governments in order to reinvigorate their neighbourhoods. Such are the processes that happened in places like SoHo, New York, Gateshead in England and Station North in Baltimore. In each case the artists' presence increased the prices of the surrounding real estate through the injection of cultural capital in the neighbourhood. In Baltimore they didn't just try to harness the gentrifying force of the artists for commercial gain however. They tried to find a business model that could allow the artists to remain within the neighbourhood by balancing out the below market-rate prices for artist rentals with market-rate commercial and office rentals.

While these initiatives provide cheaper artist housing, they leave the artists vulnerable to market forces still. If the artists form a co-operative housing group, they can keep rental prices under con-

trol and ensure that it is artists that remain within the block. This form of development also strengthens the social cohesion within the building, beyond any spatial design. In turn the artists can make use of their cultural capital to attract wealthy renters to the building, for which luxury housing can be created. This is a form of housing that is still uncommon within the Netherlands, especially of the serviced variant. Through a combination of high end finishing, providing luxury services and creating a desirable environment through the presence of artists, suitable luxury apartments could be created. These would in turn provide the funding for cheap, good quality, artist studio-homes so that this circle of value can be completed.

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URBAN DESIGN

M4H

The location for the project is M4H, a future urban expansion of the city of Rotterdam. It is a former harbour area and still houses several companies that revolve around the distribution of fruit and vegetables. Rotterdam's department of urban planning has designated this area as a 'maker's district' to house small and large manufacturing and innovation companies in a live-work environment.

KEILEKWARTIER

Within M4H the group was assigned the Keilekwartier, the area around the Keilehaven, to make an urban plan for and to place our eventual buildings in. This area houses several monuments alongside creative efforts from artists and artisans housed in buildings such as the Keilewerf and the Atelier Lieshout. As such the municipality had designated this area for small scale creative industry.

PLANS

We divided the urban design into 4 along two axes. Each quadrant would be designed by a different group. The divisions were made along axes defined by general structures of the plan of M4H. The Keilehaven and Keilepark formed one axis, with the Benjamin Franklinstraat forming the other axis. Another structure that interacted with the design was a cycling route through M4H, which determined the placement of a bridge over the Keilehaven, along with several monuments and visually distinct objects in the area (marked light grey in the plan here).

100m

MORPHOLOGY

Despite the four quadrants having been proposed by different groups, three of the four quadrants planned with a similar scale in blocks. This scale was derived from the scale of the large harbour warehouses that had previously occupied the area, and in case of two of these quadrants still occupied it. This scale echoes its former industrial designation and heritage. Quadrant A, the northernmost quadrant, by contrast, resorted to a much smaller scale. Partially informed by the smaller buildings that remained on that site. Unlike the other quadrants which held large warehouses, this quadrant counted a total of 5 buildings which would be retained, each with a smaller footprint than those in the other blocks.

STRUCTURE

An important decision was to reduce car traffic within the Keilekwarier as much as possible. To achieve this the entire area has been made a pedestrian zone, with motorized traffic only able to drive along the edges of the block. They have access to several 'mobility hubs', a term coined by the municipality to note large scale buildings with would combine parking with bicycle rental and other supporting functions, this allows the other buildings in the quadrants to forego internal parking.

People flow

- Major car routes ●
- Bicycle ●
- walking route ●
- Tram ●
- Bus ●
- Pedestrian area ●

Subway station

Pedestrian area

Pedestrian area is realized by keeping fast traffic at the edgess of the quadrants.

DENSITY

One of the issues that the Netherlands faces is a severe shortage of homes. In order to satiate the country's hunger for housing we need to build more densely, as the country has also decided to avoid new urban expansion outside of the current cities' limits. That is why within our design one of the goals was to create a high density urban design. In this case the goal was an average floor space index of 2.5.

Nieuwe Maas

Group C

Total surface area: 35.000 m2
Total GFA: 86.000 m2

FSI: 2.46

Lekhaven

Group B

Total surface area: 30.760 m2
Total GFA: 66.139 m2

FSI: 2.15

Keilehaven

Group D

Total surface area: 69.897 m2
Total GFA: 179.974 m2

FSI: 2.6

Keileweg

Benjamin Franklinstraat

Vierhavenstraat

Group A

Total surface area: 34.763 m2
Total GFA: 90.904 m2

FSI: 2.6

Keilehaven

Total surface area: 170.420 m2
Total GFA: 423.017 m2

FSI: 2.48

QUADRANT A

Quadrant A is the most granular of the four quadrants. It is surrounded on two sides by large streets and on a third side it borders the Keilepark. The urban design itself is marked by narrow alleyways connecting courtyards, to turn itself inwards and away from the busy streets. Where possible the courtyards are adjacent to one of the pre-existing buildings that are retained in the design of the quadrant. These give a recollection to the old identity of the quadrant. From a distance these squares are also marked by vertical elements or towers, placed towards the middle of the block, with the intent of drawing visitors into the narrow streets, while on the north-eastern side two towers function as the architectural icons for M4H.

Impression Quadrant A, by Teun van Knegsel
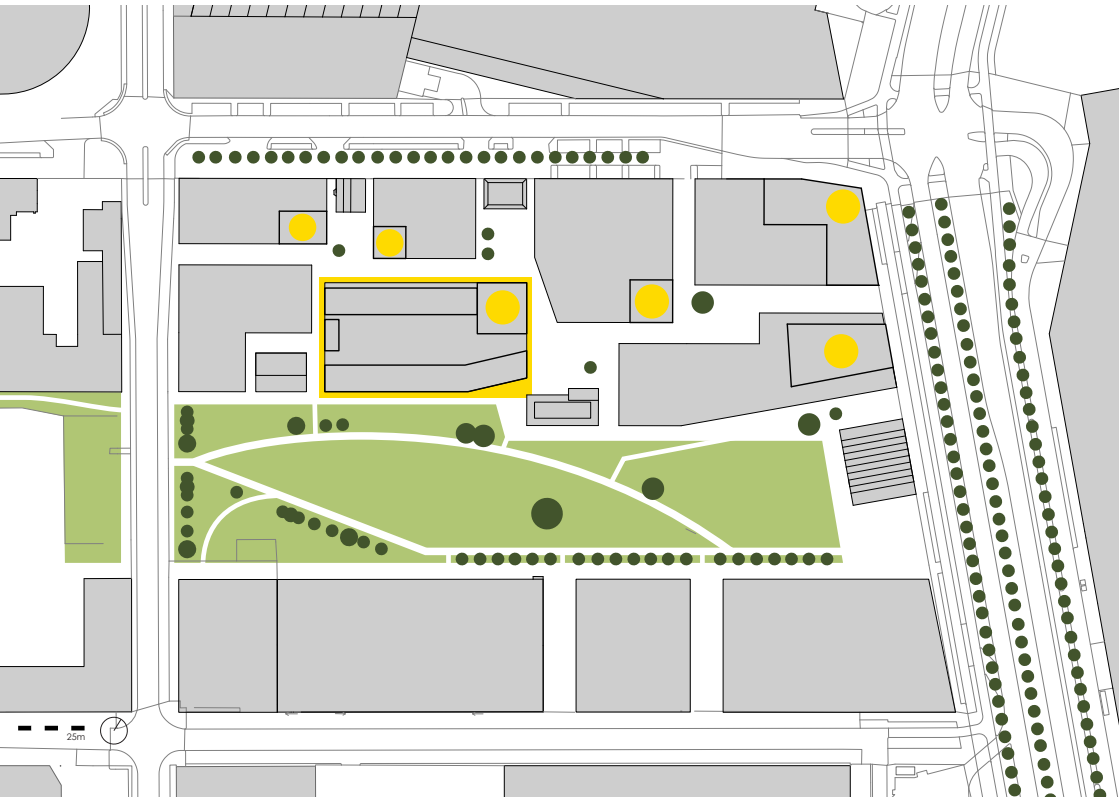
25m

ARCHITECTURE

CONCEPT

ASPIRATIONS

Affordabily

One of the greatest issues that artists face is the lack of affordable living and working space, so that is one of the primary goals of my design: Affordability

Creative Space

The building is aimed at artists, and so it should be a space that stimulates creativity and the creation of art. It needs to accommodate the creation of different sorts of art and that of new art.

Social Space

At the heart of the design it is a space where people live, where people form a community. And so the space will be aimed to become a social space beyond merely being a living or working space.

Culture Space

Art is not merely something that is created, it is also something that is enjoyed. For the building to revolve around culture the building also needs to allow for the enjoyment of arts and culture.

DIY

The greatest gift artists bring to a building is a unique identity created by them. That is why the building should leave as much space as possible for "Do It Yourself" solutions and decoration.

OTHER PRINCIPLES
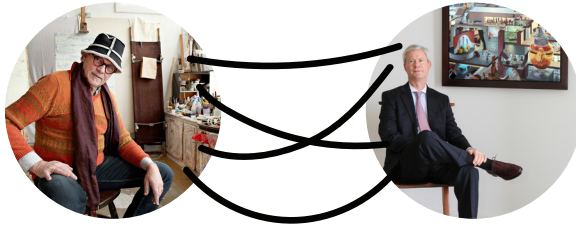
Combining Groups

Have designed a building for art and culture. Not a museum but a building for living and working, for creating and enjoying art. Central to the concept of the building is the connection between two groups: the artists and the art collectors. Combining these two groups and bringing them together in the building makes the city more inclusive, can provide valuable connections for both, and can help with the affordability of the artist studios as discussed in my research.

Workspaces

Artists are not uniform in their creations and therefor they need a variety of working spaces. There is need for individual spaces for painting, sculpting or other light duty work. But other artists do work with welding or substances with release toxic fumes. And again other artists may work in groups or on larger projects. These different needs should all be accommodated within the building.
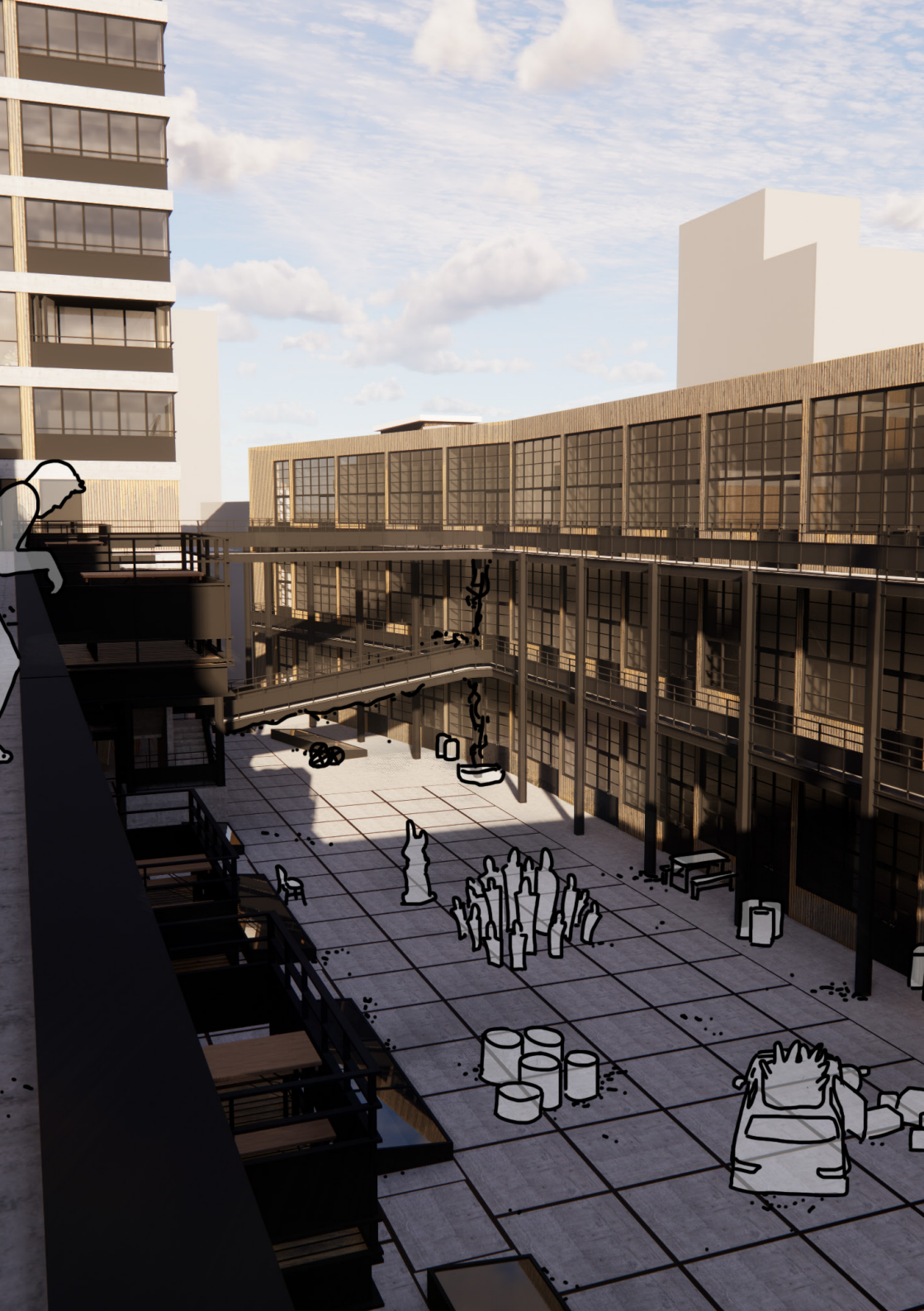
ORGANISATION

COLLECTIVE FUNCTIONS

fitness
screening room

art studios

art gallery

workshops

shops

lounge
lounge
washing room
kitchen

collective deck:
social space
working space
exposition space
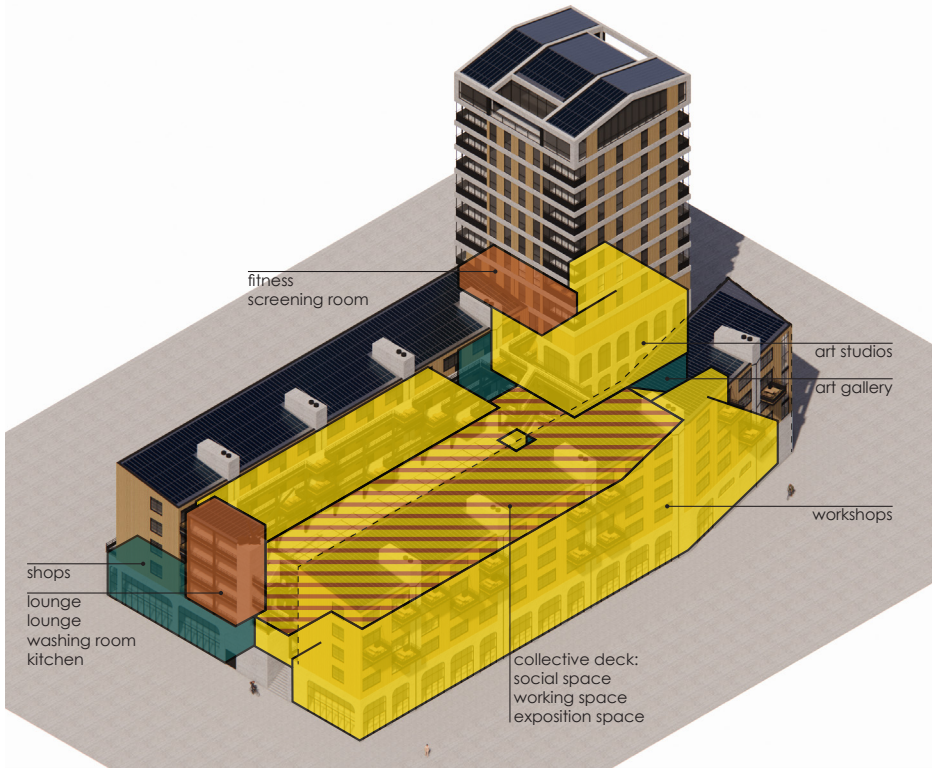
CIRCULATION
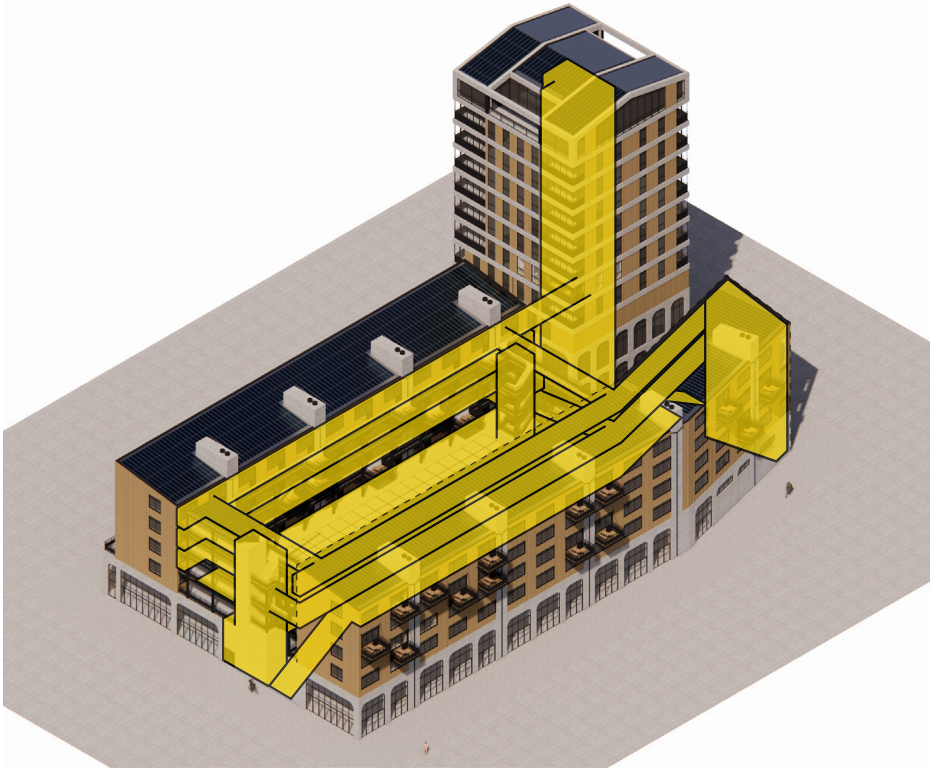
CONNECTING TO THE CITY

western stair

northern stair

eastern stair
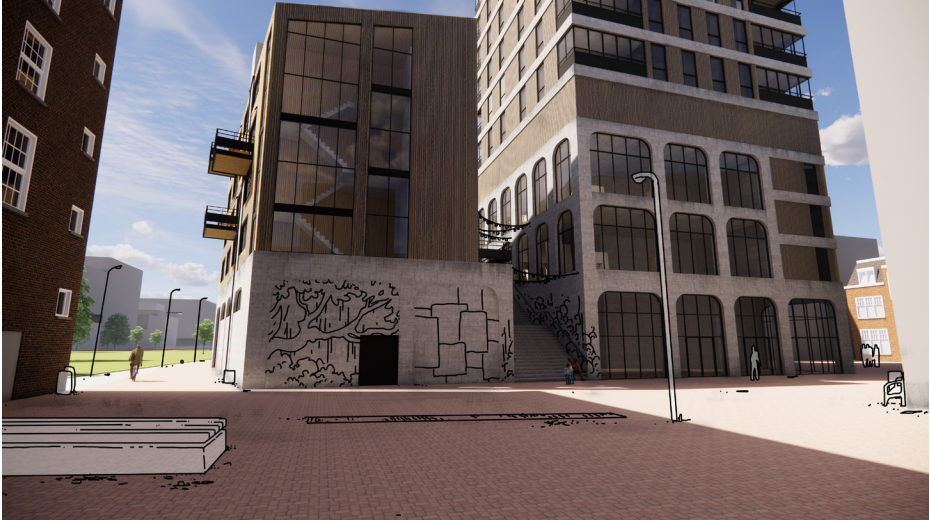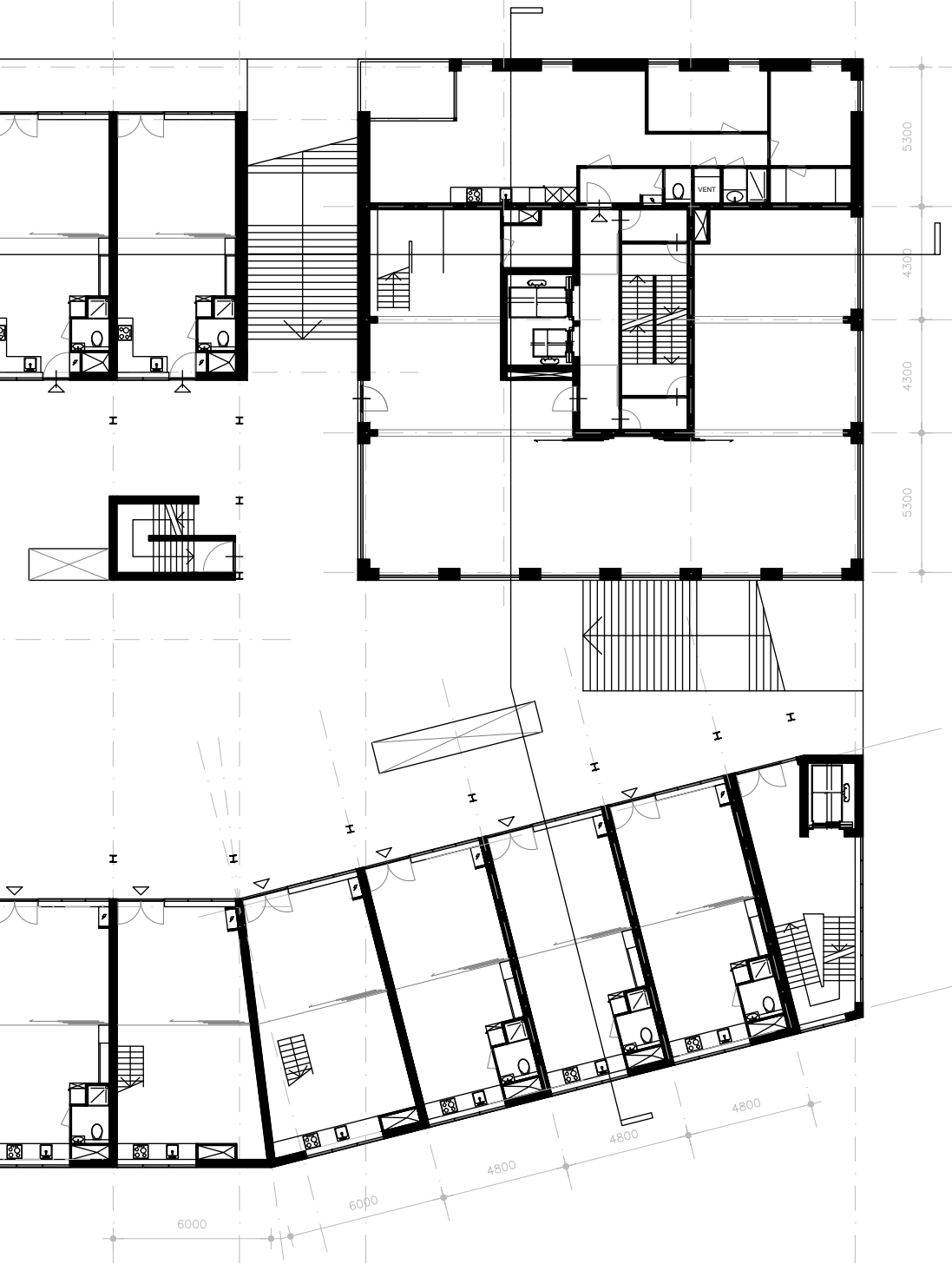
5300

4300

4300

5300

VENT

6000

4800

4800

4800

6000

PLANS AND SECTIONS

ART GALLERY

DANCE STUDIO

WORKSHOPS

STORAGE IN 2 LEVELS

SHOPS

10 m

ART STUDIOS

KITCHEN

10 m

LAUNDRY

10 m

ART STUDIOS

LOUNGE

10 m

STORAGE

FITNESS

SCREENING ROOM

LOUNGE

10 m

47400
42200
38800
35400
32000
28600
25200
21800
18400
15000
12000
9000
6000
0

10 m

47400

42200

38800

35400

32000

28600

25200

21800

18400

15000

12000

9000

6000

0

47400

42200

38800

35400

32000

28600

25200

21800

18400

15000

12000

9000

6000

0

10 m

ARTIST STUDIOHOMES

Type StA

Type StG

Type StB

Type StF

Type StC

Type StE

Type StD

ARTIST STUDIOHOMES

The residences for artists are clustered around the interior square of the building, so that the creatives will have as many opportunities to meet and exchange ideas as possible. This sort of arrangement can greatly stimulate the creative process: Not only through the exchange of ideas and inspiration, but also through the exchange of skills through projects. Those are some of the advantages of clustering creatives with varying skills and ideas together. This is something that became clear to me through my research into Keilewerf, Kunsthaus Tacheles and la Ruche.

The apartments themselves are inspired by the Atelierwoningen at the Zomderdijkstraat in Amsterdam. They are divided in two parts: A north facing studio space of 1,5 floor height and one or two residential floors facing south. This orientation means that the studio space has consistent light throughout the day, and the ceiling height ensures that there is an abundance of it. The residential space is either one or two floors, depending on the dwelling's location in the building. The way these different floors, residential or studio, connect to one another creates a variety of different dwellings. In general the apartments are kept compact to ensure the affordability of the dwellings.

The expectation is that these apartments will be occupied primarily by artists: Painters, sculptors, writers, dancers, actors, and artists of other media. But some part of the apartments may also be rented out to non-artists, presumably art collectors, designers, and architects. These groups may occupy up to 20% of these studiohomes.
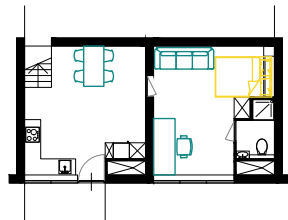
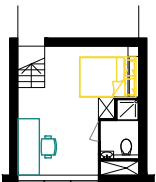Type StA   Type StB   Type StC   Type StD
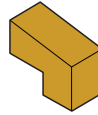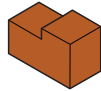
5 m
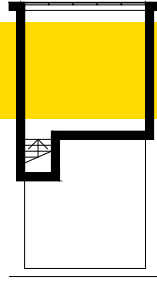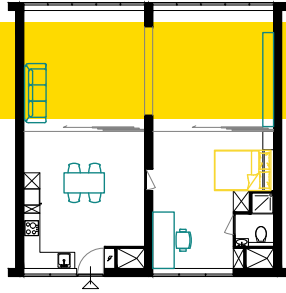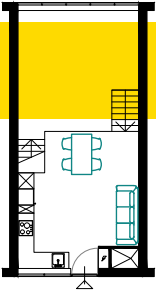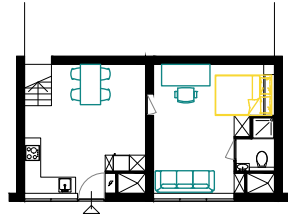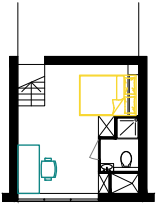
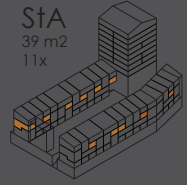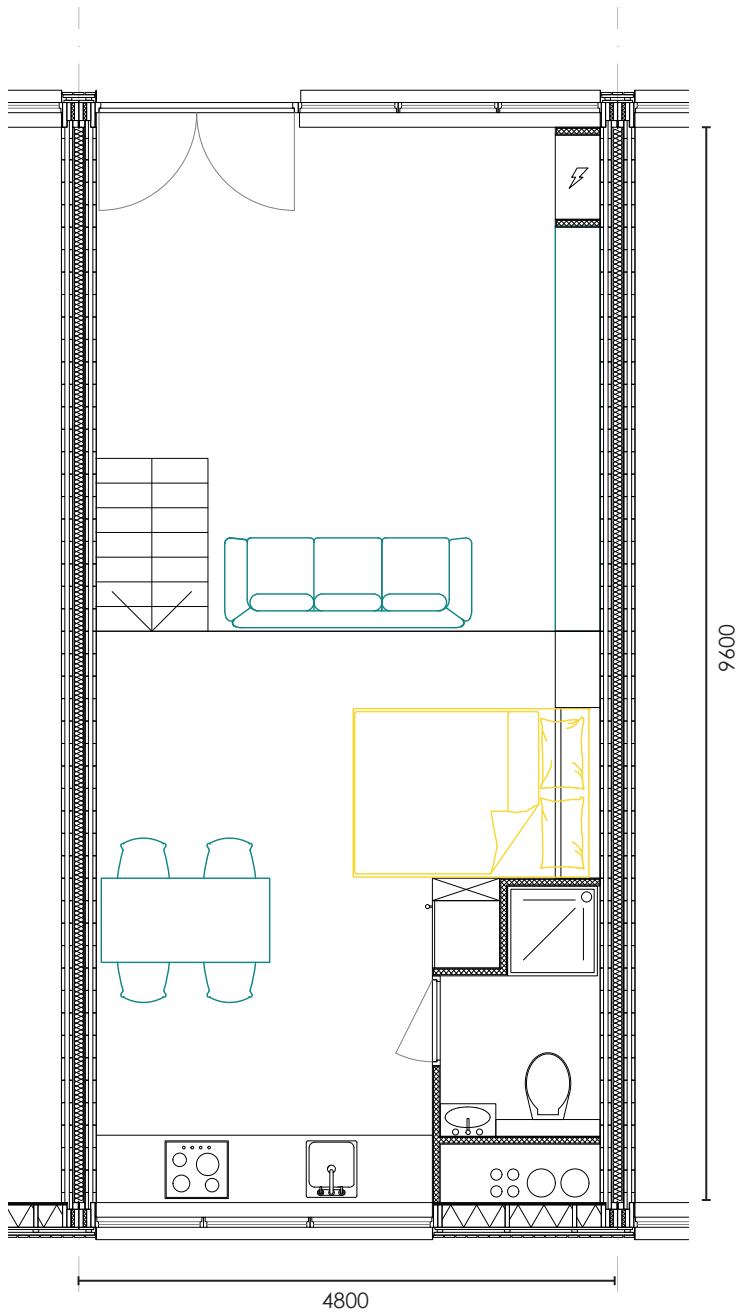**WORK**

Type StE

Type StF

Type StG
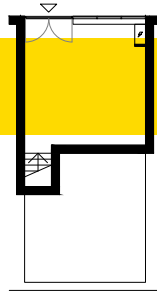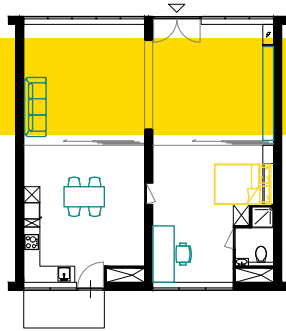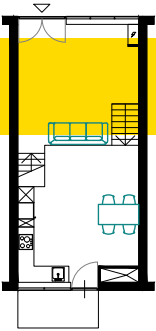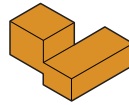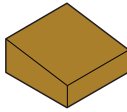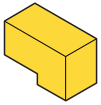
WORK

VARYING USE

While there is a division between work and living in the functionality of the artist studios, in reality these functions aren't strictly separate. An artist may receive guests in his studio or do work at his kitchen table.
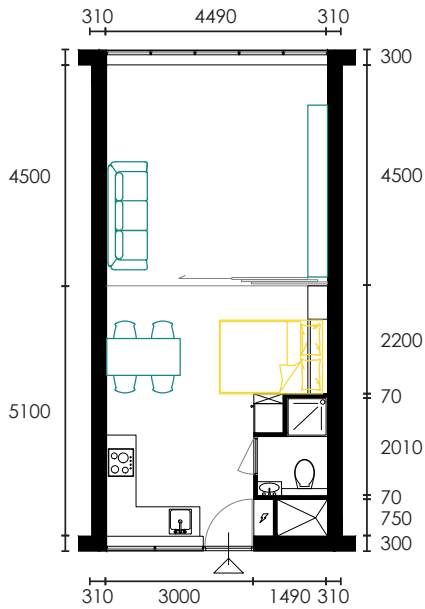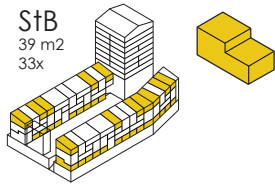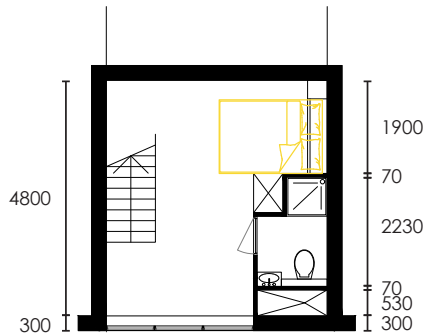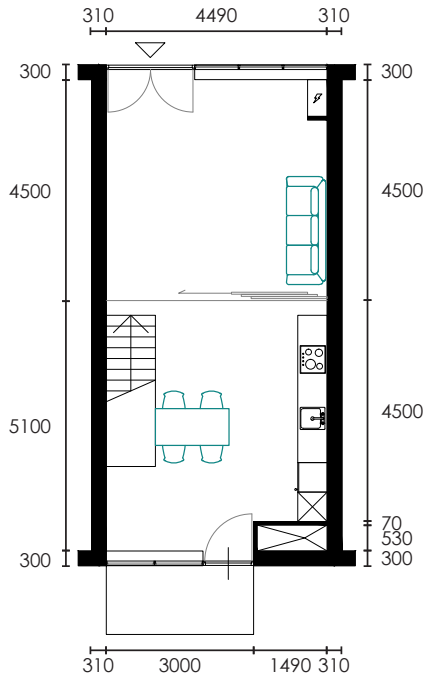
StA
39 m2
11x

4800

9600

2.5 m

StB
39 m2
33x

1:100 ARTIST STUDIOS

StC
59 m2
7x

310   4490   310

300   300
4500   4500

                                       4500
5100

                                       70
                                       530
300   300

310   3000   1490 310

                                       1900
4800   70

                                       2230

                                       70
                                       530
300   300

StD
59 m2
3x

4800

310   4490   310

1900
70
2010
70
750
300

300
4500
4500

5100
4230
70
750
300

310   3000   1490 310
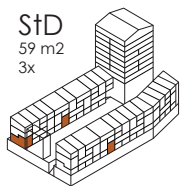
2.5 m   1:100 ARTIST STUDIOS

StE
59 m2
9x

310   4490   310

300

4500   4500

5100   4500

70
530
300   300

310   3000   1490   310

1900

70

4800   2230

70
530
300   300

StF
78 m2
4x

310 | 4490 | 310 | 4490 | 310

300
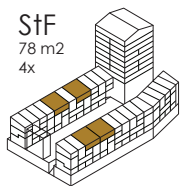
4500

4500

2200

70

2010

70
750

300

310 | 3000 | 1490 | 310 | 3000 | 1490 | 310

4500

5100

2.5 m

1:100 ARTIST STUDIOS

StG
59 m2
7x

310   4490   310

300

4500

310   4490   310   4490   310

4800

1900

70

2230

70
530
300

300

TOWER APARTMENTS

TOWER APARTMENTS

The apartments in the tower are designed for higher income groups that then artist studiohomes in the midrise. They are more spacious and have a higher quality o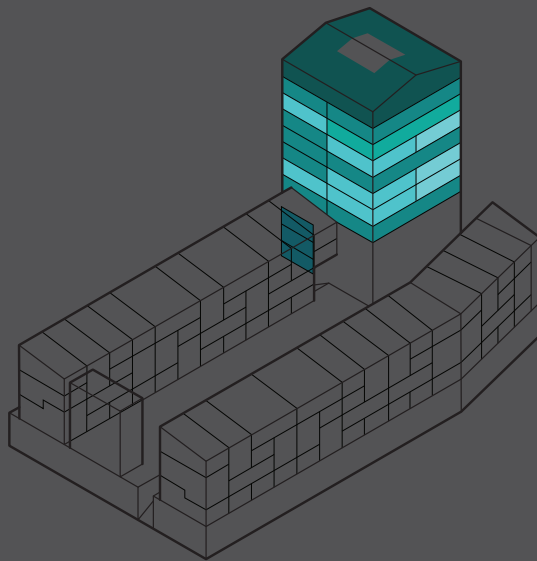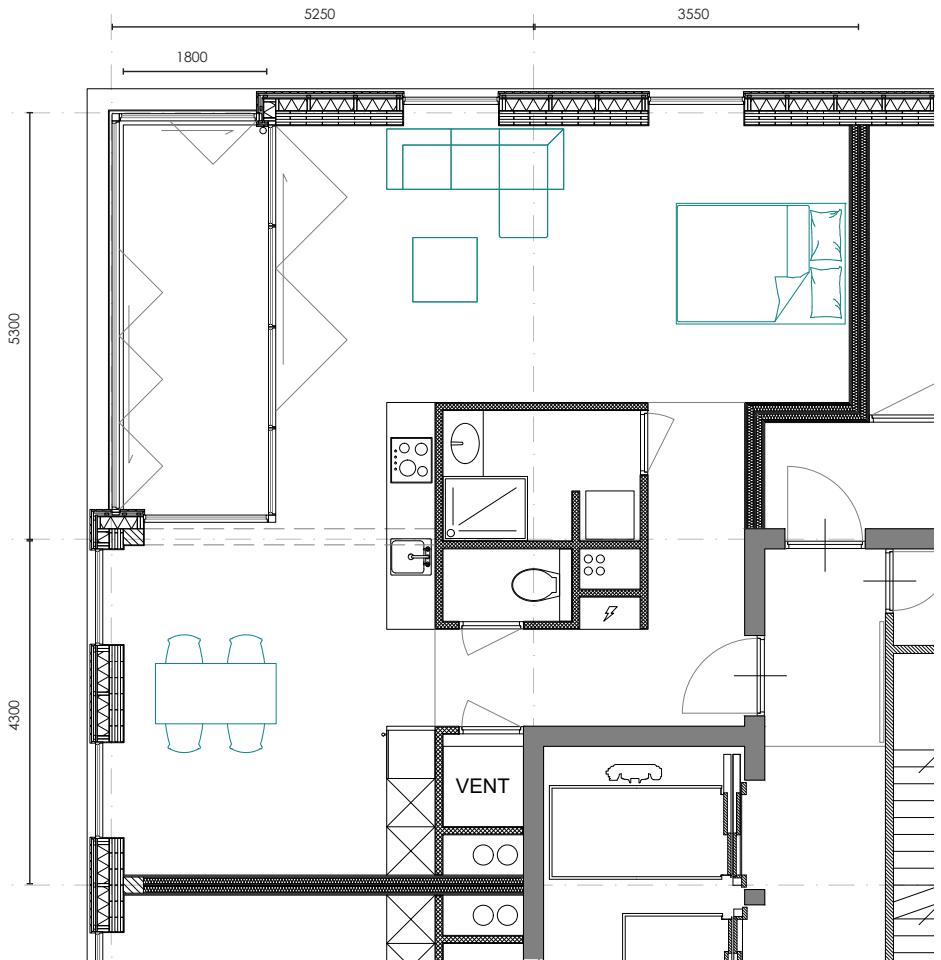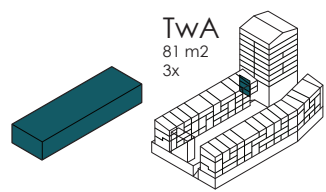f finish. The envisioned residents are art collectors or successful artists or designers. While these people are a part of the building and have a taste for art, they are generally more keen on privacy than the other residents of the building. They have access to their own entrance, fitness room and screening room. But they also have direct access to the deck and through that to the artists living in the building. Within the apartments themselves, an effort has been made to ensure the availability of exposition space for collected art.

WINTER GARDEN

Every tower apartment has a balcony, which functions as winter garden. It has two layers of glass which can make it a semi-interior or full exterior space depending on the weather. This extends the usable floor space of the apartment and creates a climatic buffer between the apartment and the exterior.

VENT

TwA
81 m2
3x

TwB
58 m2
5x

F7

TwC
59 m2
4x

450 1800 100   7100   100   6350   100 1980 100 1800 450

5250   7100   6250

F7

TwD
118 m2
8x

F7

2.5 m

TwE
176 m2
1x

5250   7100   6250

5300

4300

4300

5300

VENT

VENT

VENT

F10

TwF
227 m2
1x

5250   7100   6250

5300

4300

4300

5300

VENT

F12
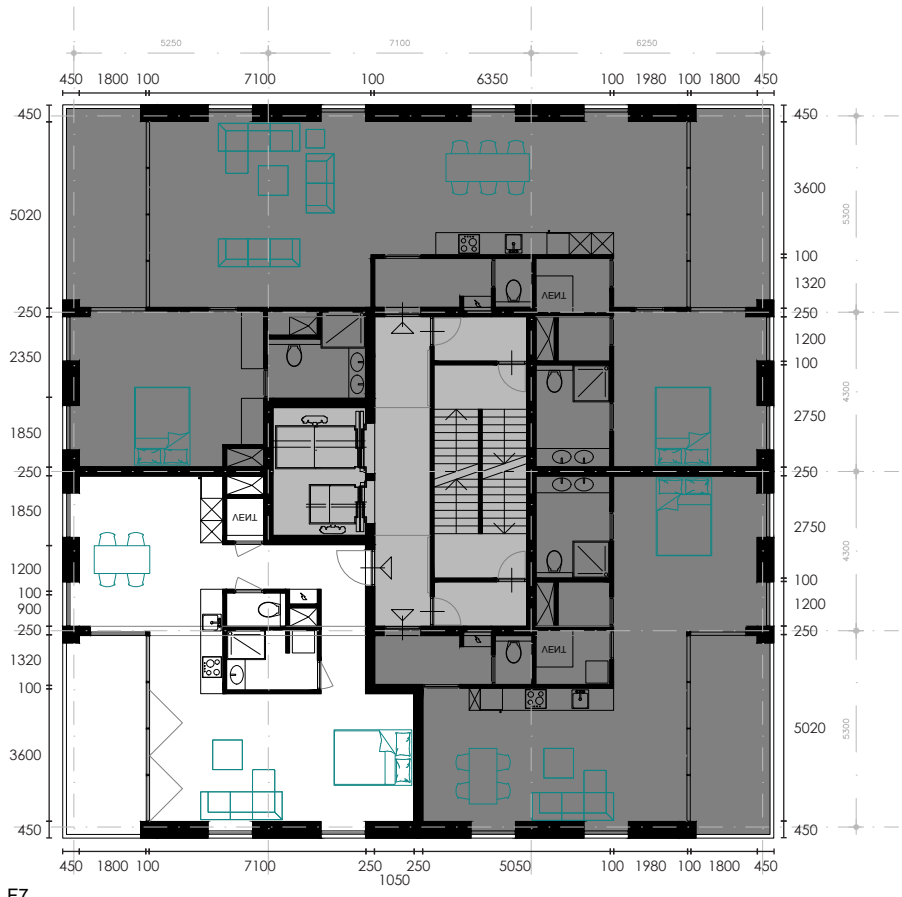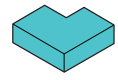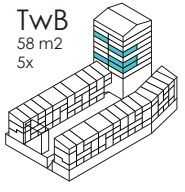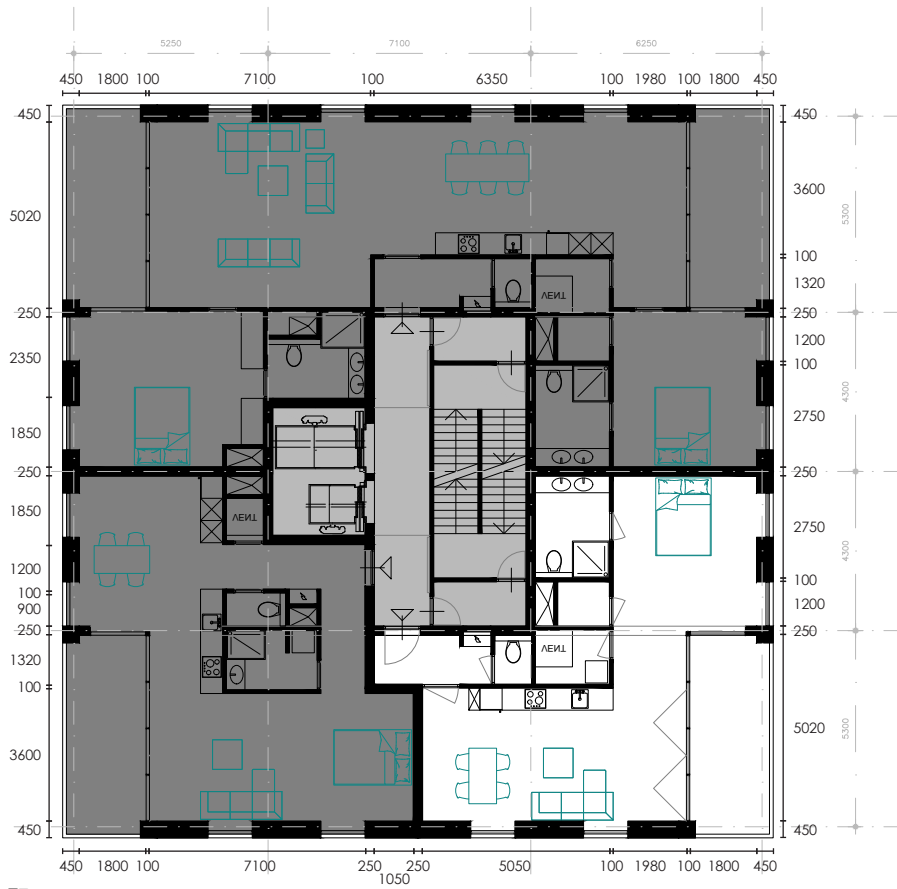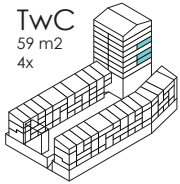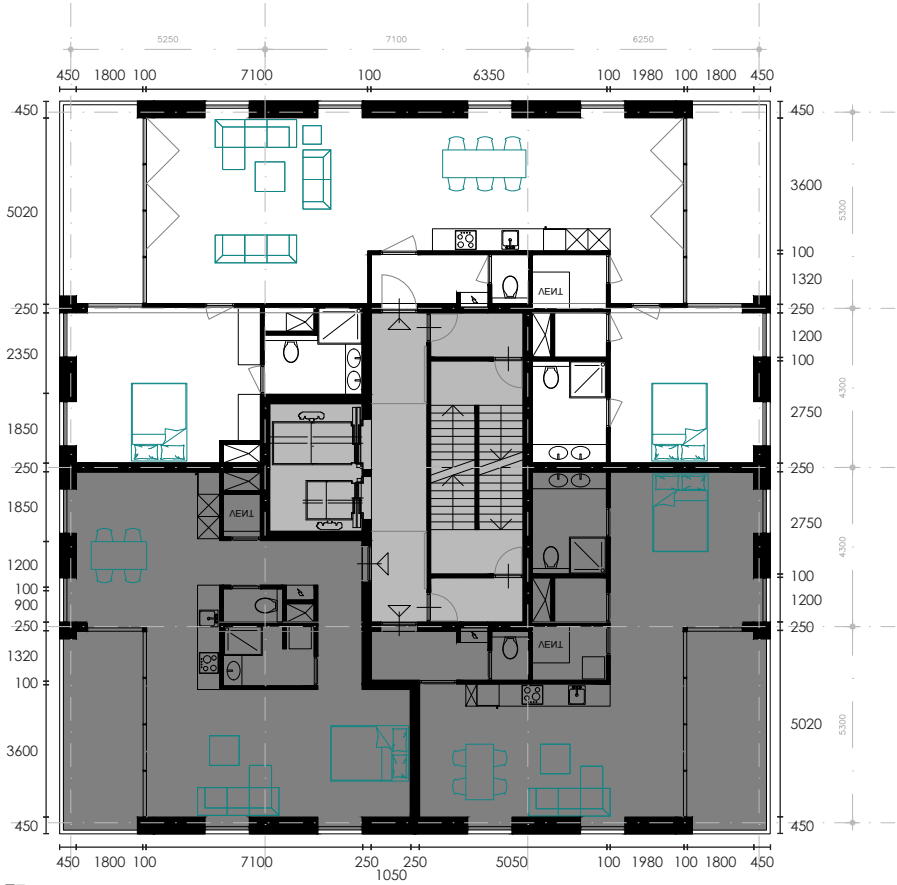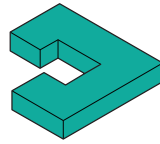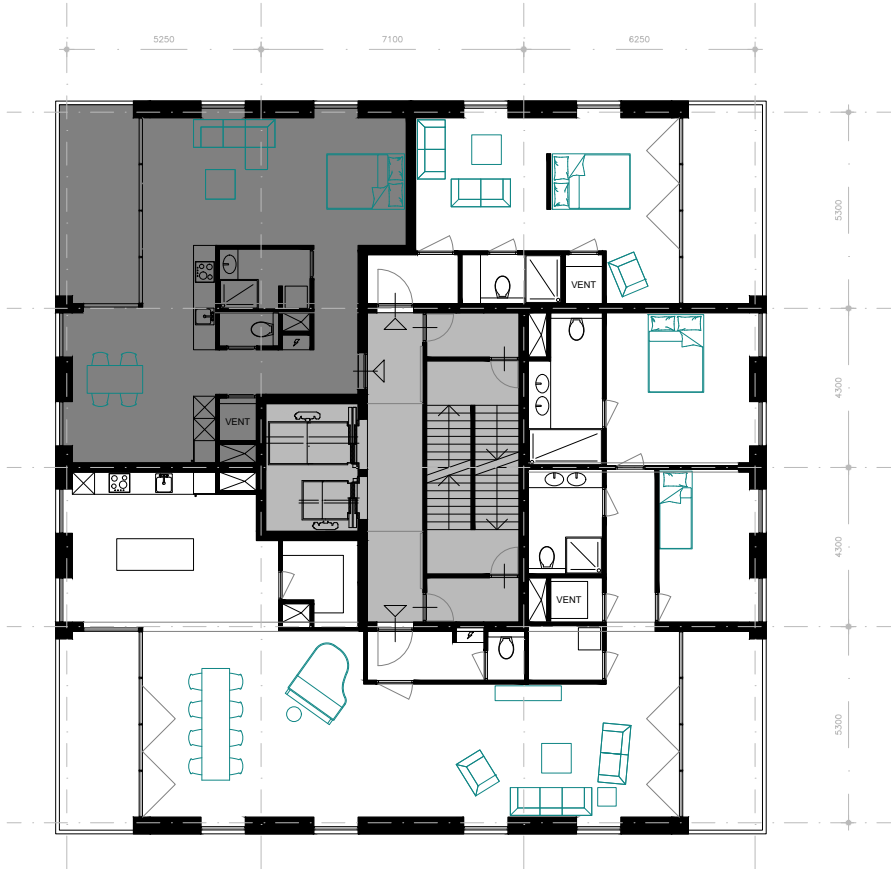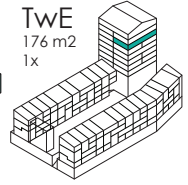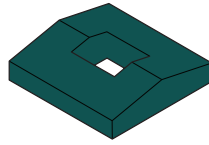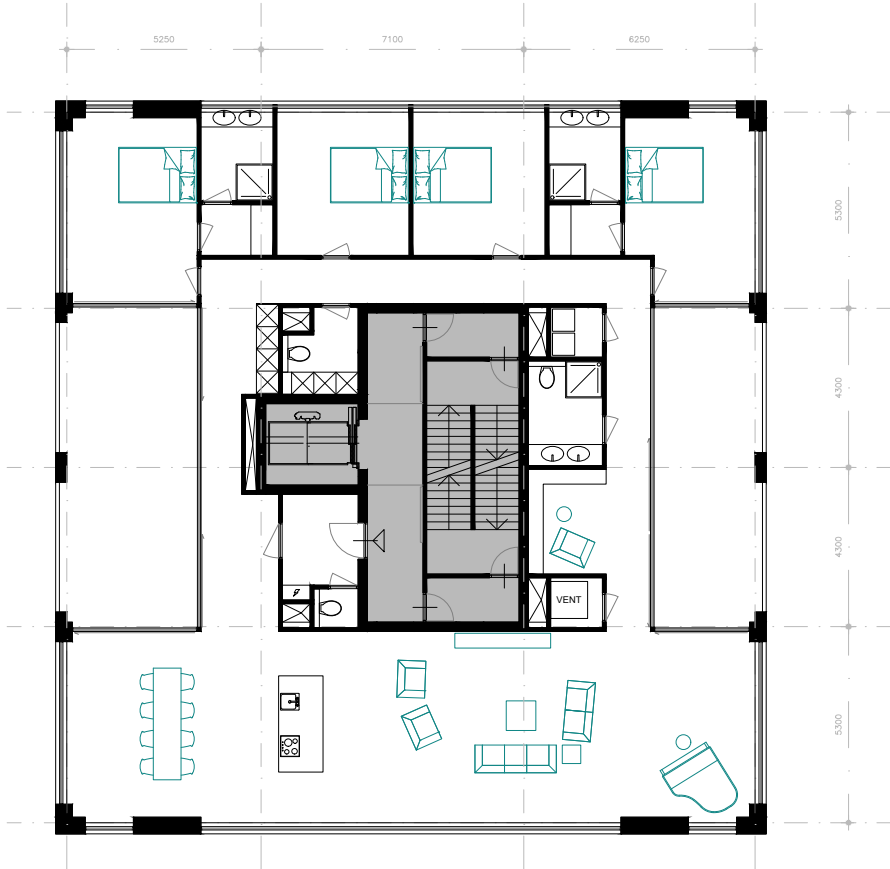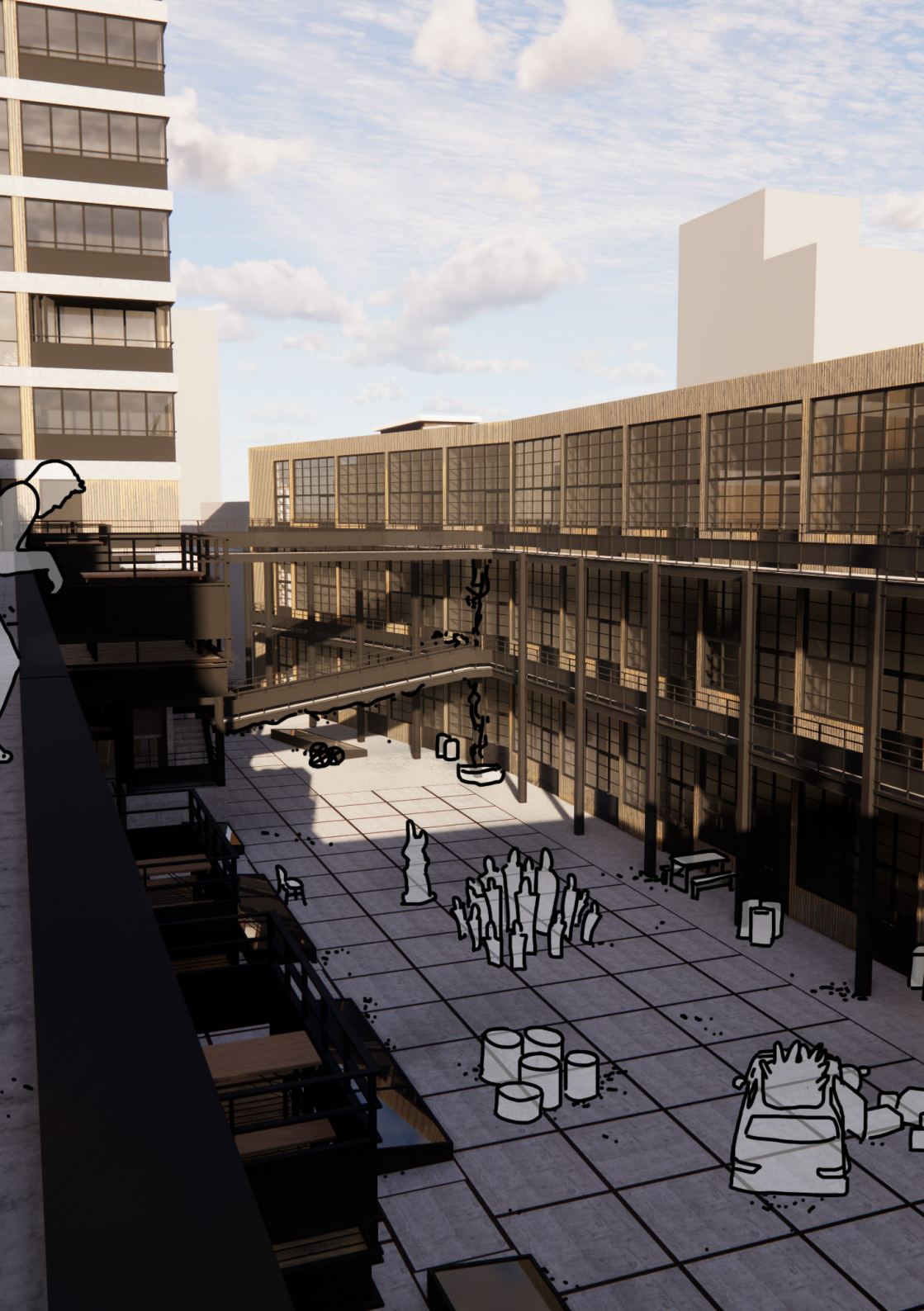
COMMUNTIY
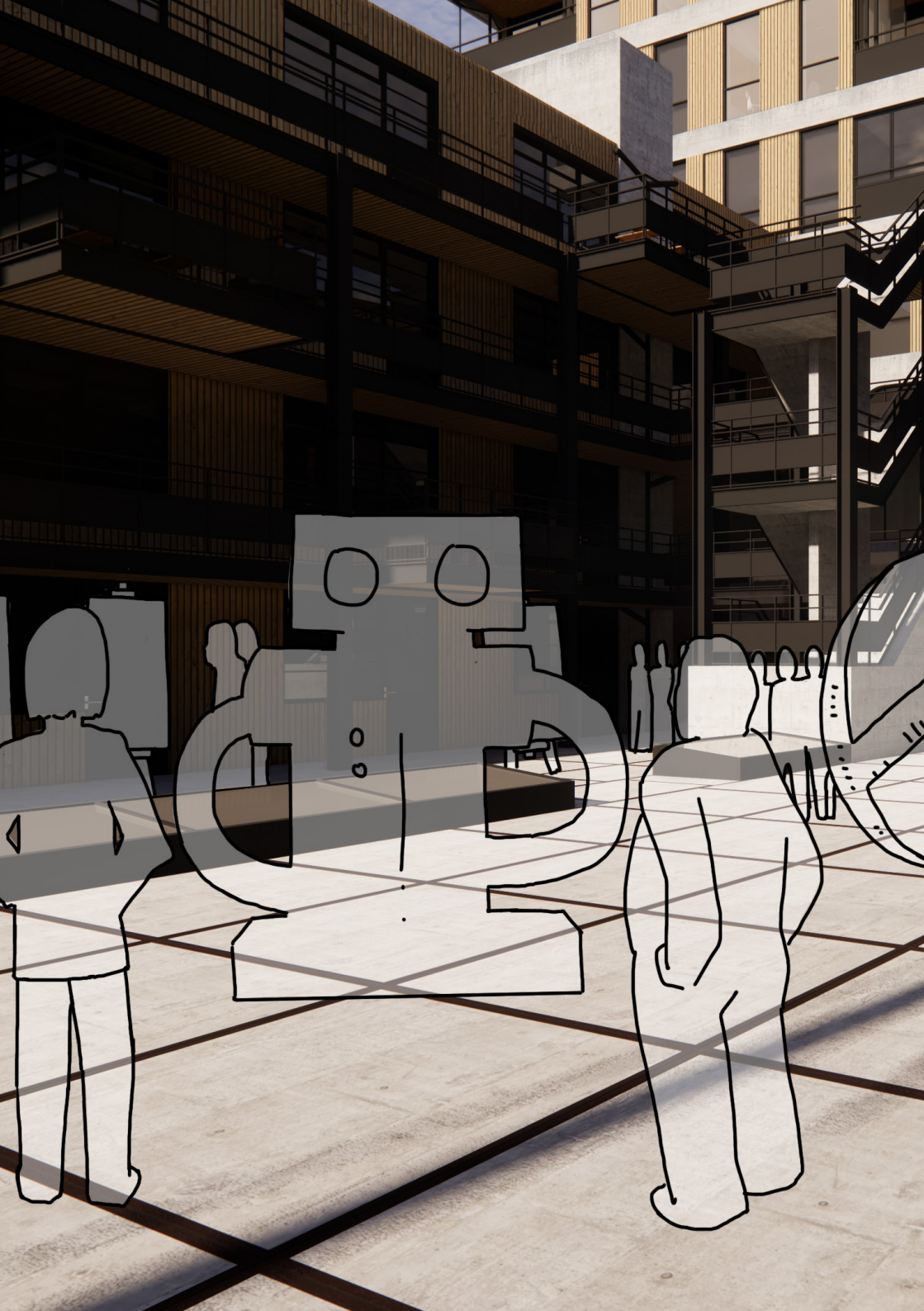
COMMUNITY

The greatest challenge in designing a communal building for culture is the creation of the community within that building. As such the most vulnerable moment in the life of the building is the period between the completion of the structure and the complete occupation of the building. How to create an artist community between potential complete strangers? The gathering of like-minded individuals only becomes fruitful when they start to interact. In her book Frances Holliss claims that a group of residents with the same occupation will automatically form a community, but the example of the Zomerdijkstraat shows that that can become fragmented. Furthermore the group is wider than only artists in this case. The goal is to also involve the art collectors in the community.

While the Zomerdijkstraat community grew fragmented after a time, it serves as an example of what can be done to encourage the creation of a community. I also draw upon the examples of La Ruche and Kunsthaus Tacheles. The first initiative to create a community is the hosting of an art exhibition, with art of the res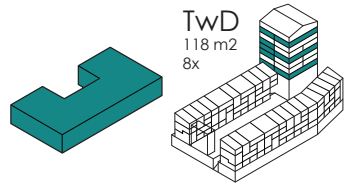ident, future resident, and other artists. This is an opportunity for the artists to meet each other and the collectors and other interested people in the building and neighbourhood. It is a chance for forging connections between those who live and work in the building and some artists and collectors from outside the group. If these sorts of events are hosted on a regular basis it can reinforce the bonds between all involved and also forge new ones.

Aside from exhibitions, the structure and facilities of the building also serve to stimulate the creation of a community. The central deck is both a meeting, exposition, and a working space for the artists that live around it, and is also accessible to those who live in the tower. The block at the western side of the deck holds some communal functions to support the artist apartments: A communal kitchen, laundry room and two lounge spaces. Such a communal kitchen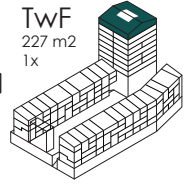 was a place for people to gather in artist buildings such as Tacheles and La Ruche. While it may not fulfil as central a role in my design, its presence can still give the oppor-

tunity for social meetings. In the lower floors of the tower and in the plinth of the building there are studios and workshops. These give the opportunity for artists to work together or individually in a large space along with other artists. Such a working space is also prime for the creation of social connections, even if only on a professional level. Keilewerf and Tacheles are good examples of that phenomenon.

The following pages describe the route an art collector may take from their apartment to visit an artist living in the block. On this route they visit the hallway on their level, which has a mural created by a resident artist. They exit the tower through the communal studio spaces in the lower levels, where they may see some artists work. Outside they will cross a messy space, which houses art pieces both finished and unfinished. They can catch a glimpse of some people sitting at the kitchen, having lunch or an outdoor chat, while someone else is moving a painting out of their home. Finally they pass by the stairs that lead from this space of art down towards the mundane urban fabric and then they meet their artist friend with whom they can discuss some latest masterpiece.

ROUTE

greeting a neighbour on the tower

passing through the studiospace in the tower
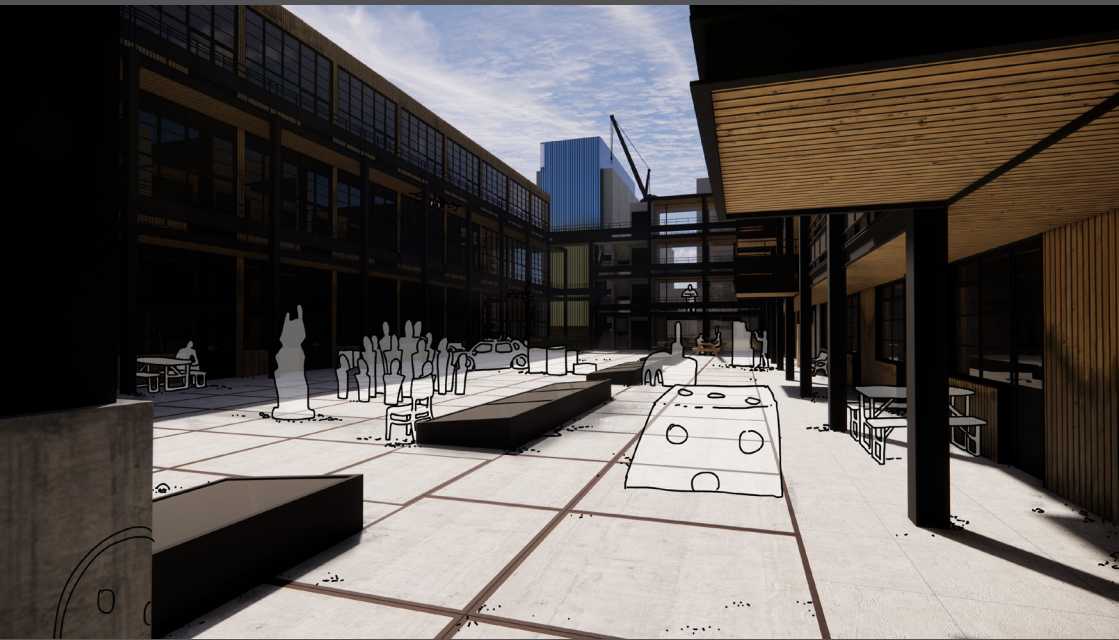
finished and unfinished art exposed
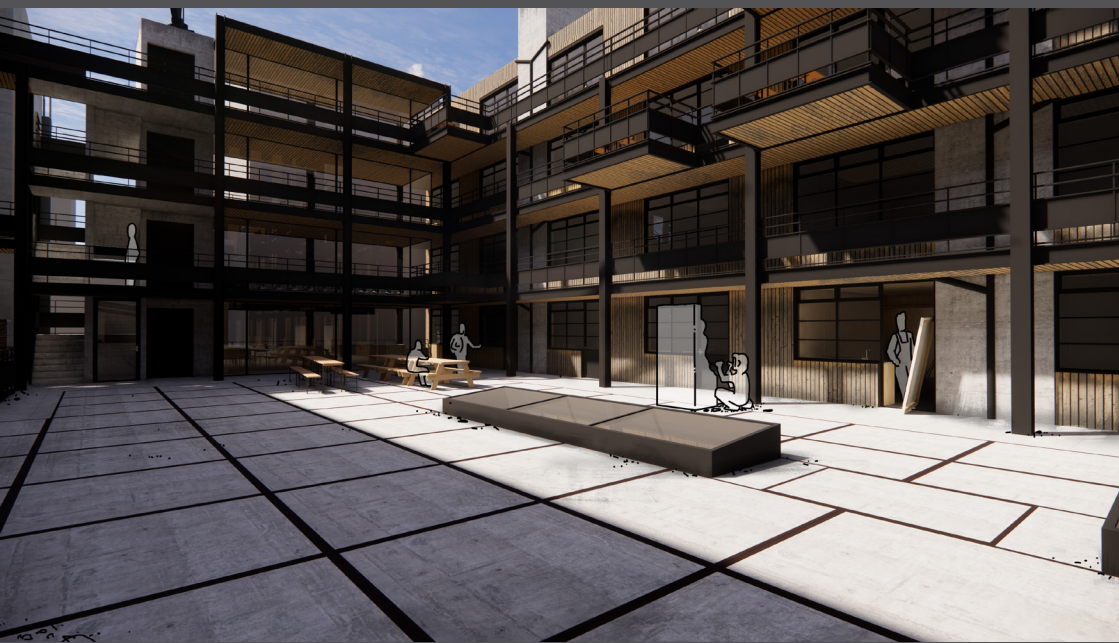
artists at work or talking with friends

stairway down to the city

meeting with an artist

CONSTRUCTION

10 m
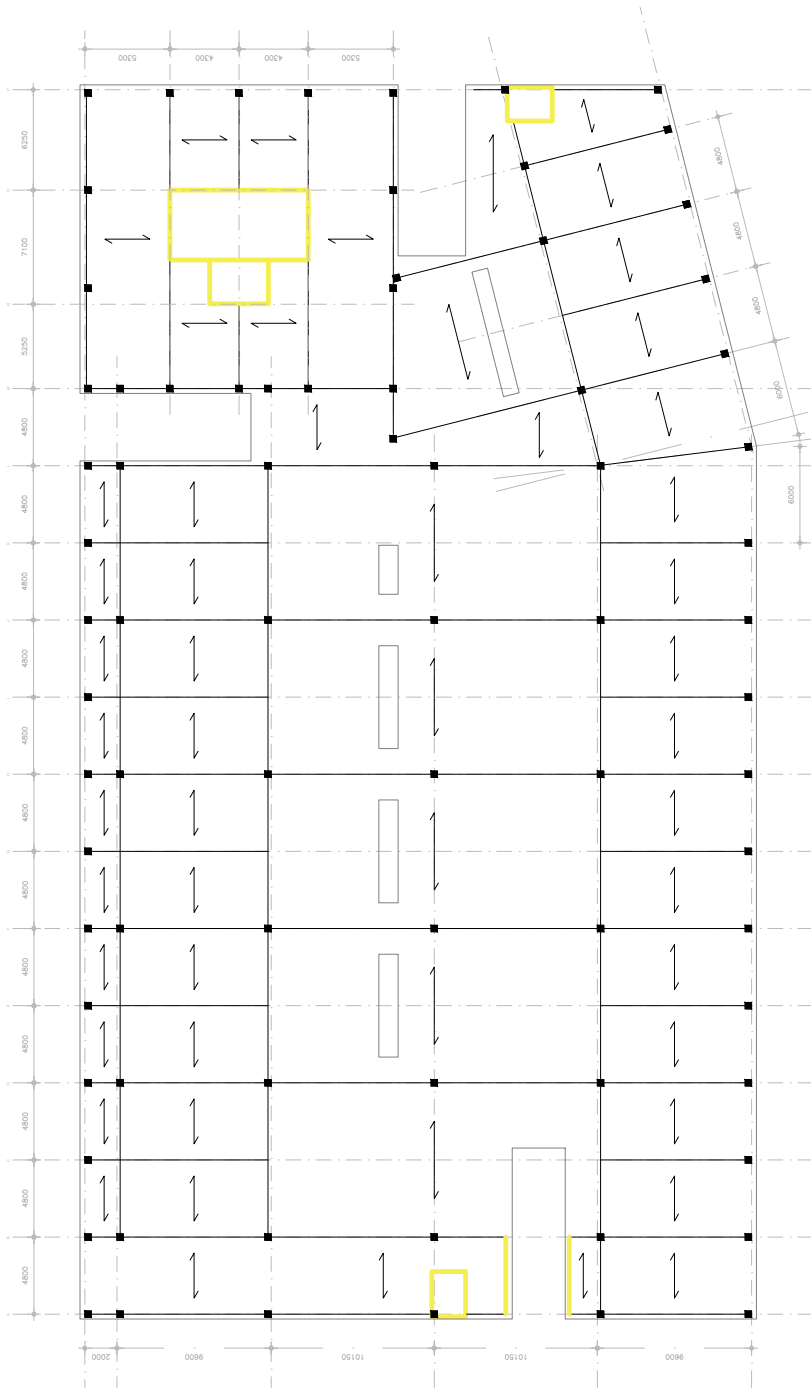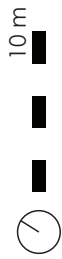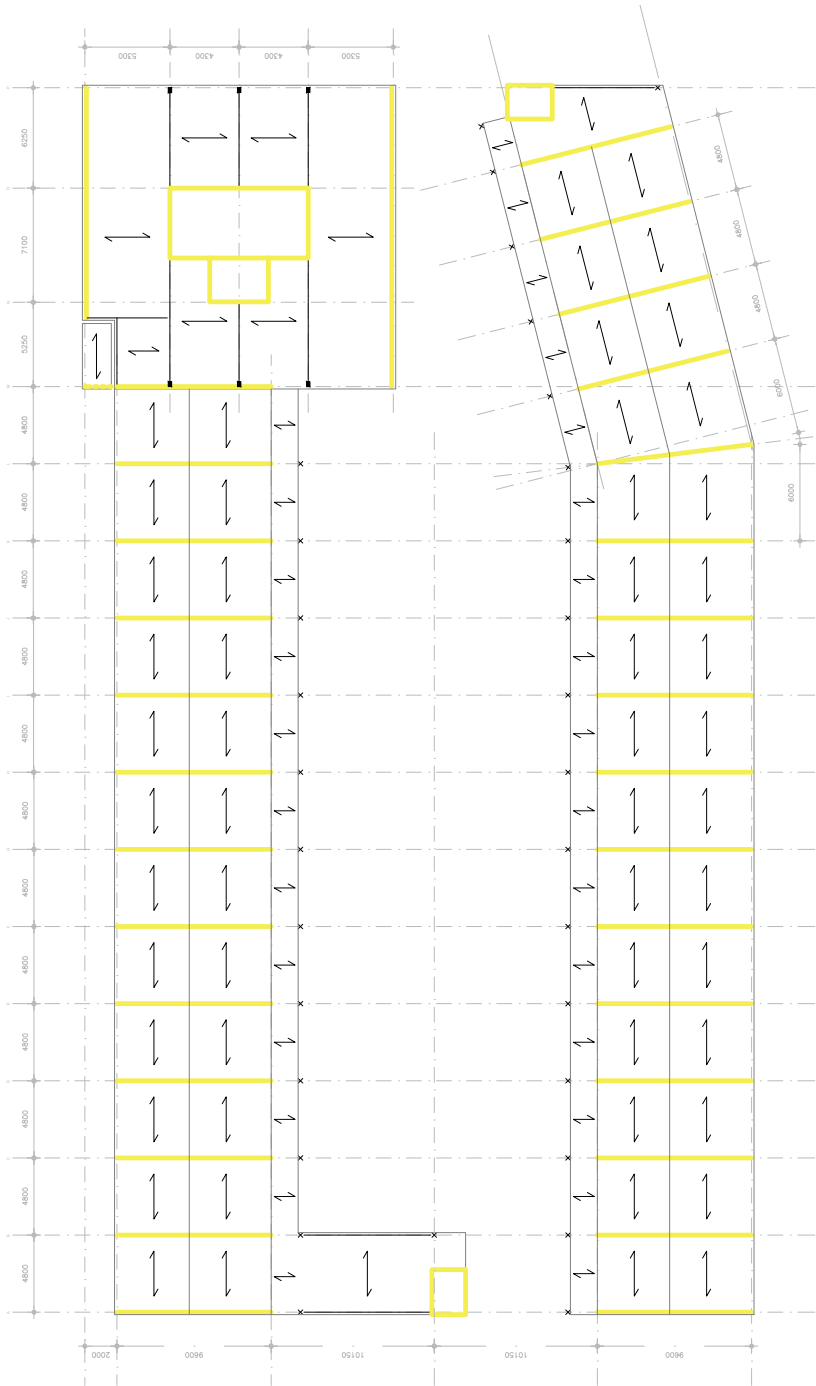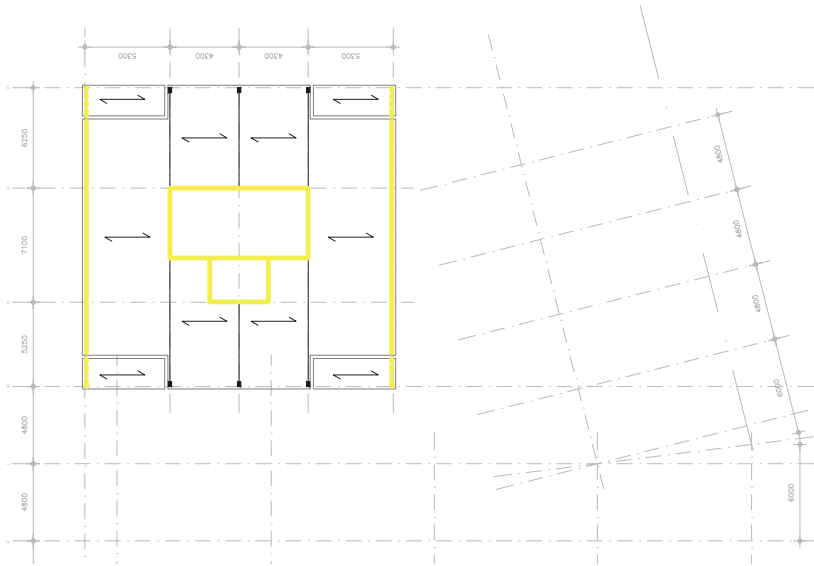
PRINCIPLE TOWER BALCONY
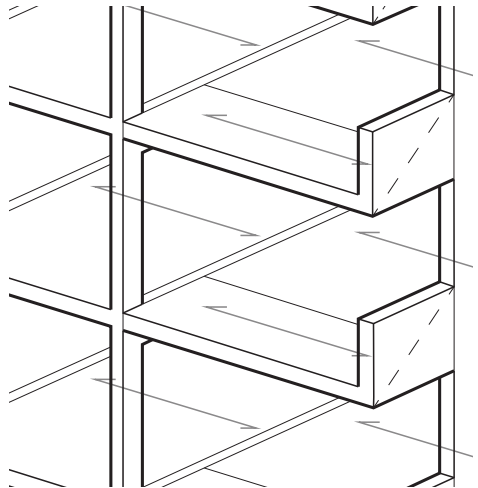
CONSTRUCTION PRINCIPLES
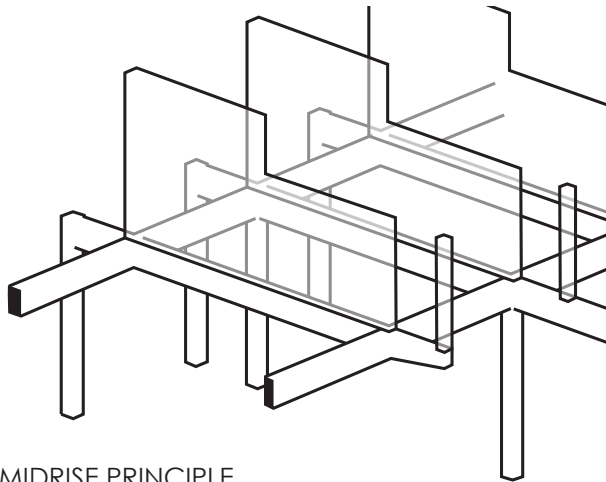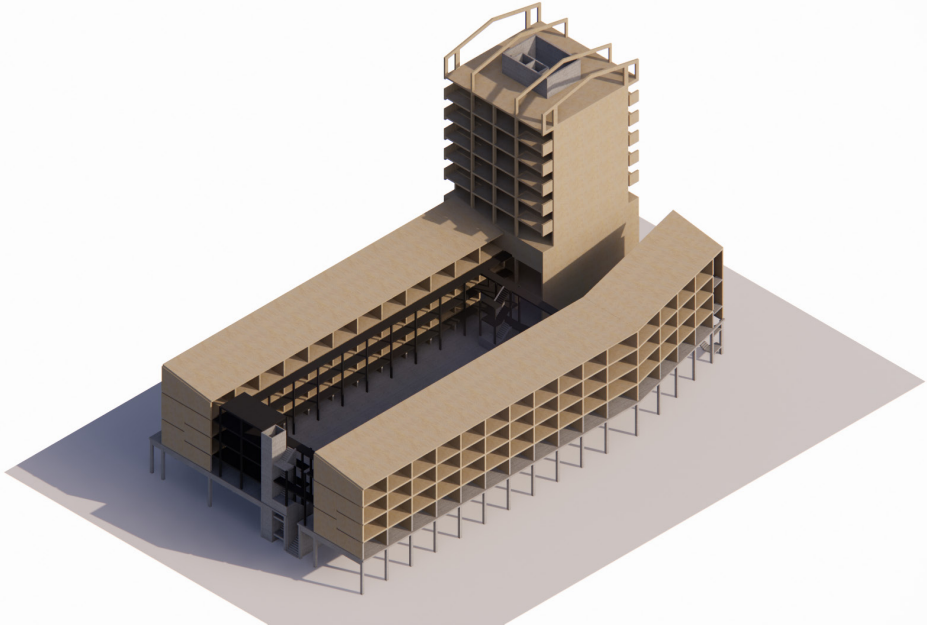
MIDRISE PRINCIPLE

CONSTRUCTION MATERIALS
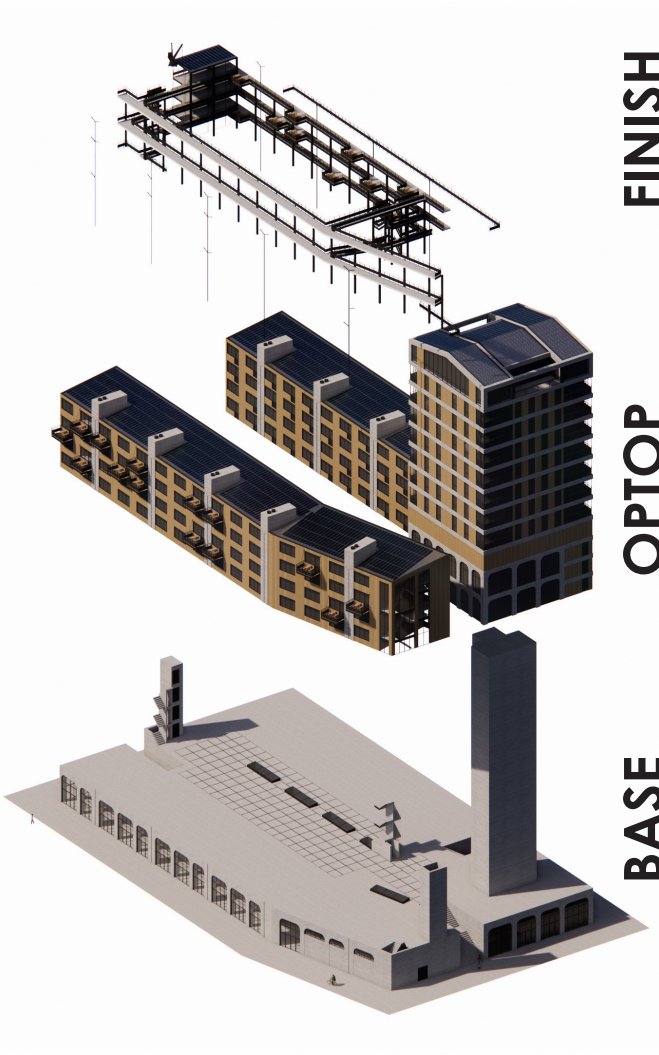
BLACK STEEL & ALUMINIUM

THERMOWOOD
(norway spruce)

PRECAST CONCRETE PANELS

MIDRISE SECTION

15000

12000

10500

9000

6000

0

FACADE FRAGMENT

FACADE CONSTRUCTION

Step 0: Base construction

Step 1: Balcony braces (lower)

Step 2: Prefab facade

Step 3: Balcony Braces (upper)

Step 4: Balcony

Step 5: Cladding

PREFAB FACADE ELEMENT

window frame finishing
multiplex interior finish
gypsum board
timber frame
EPS rigid insulation
wood fibre board
vapour-open foil
windowsil
window
exterior framing
& shading

BALCONY

1:5 DETAIL 1

PV cell

	riverclack 550 aluminium roofing
15mm	filler insulation
300mm	XPS rigid insulation
	vapour barrier
175mm	CLT structure

flood drain

rain gutter

sunshading

reynears slimline cubic
aluminium window frames

HR+++ glazing

1:5 DETAIL 2

10mm	linoleum, light grey
2mm	fermacell egalization grains
18mm	fermacell dry underfloor heating
20mm	rigid insulation
75mm	sand for mass and pipes
175mm	CLT structure

wooden deck
rainwater drainage
wooden finishing

1:5 DETAIL 3

10mm	triplex surface plating
10mm	gypsum plating
	vapour barrier
200mm	HSB with EPS insulation
20mm	rigid insulation
	vapour-open foil, black
50mm	battening
20mm	vertical timber clading

10mm	linoleum, light grey
2mm	fermacell egalization grains
18mm	fermacell dry underfloor heating
20mm	rigid insulation
75mm	sand for mass and pipes
175mm	CLT structure

1:5 DETAIL 4

10mm	linoleum, light grey
2mm	fermacell egalization grains
18mm	fermacell dry underfloor heating
200mm	XPS rigid insulation
150mm	hollowcore concrete floor

vertical baffle

10mm	triplex surface plating
10mm	gypsum plating
	vapour barrier
200mm	woodframe with EPS insulation
20mm	rigid insulation
	vapour-open foil, black
40mm	ventilation cavity
100mm	concrete facade panel

CLIMATE SYSTEMS

SOLAR POWER

The building has 229x0.5m2 panels and 799x1m2 panels. For a total of about 910 m2 in panels. These produce about 130 000 kWh a year. For approximately 150 people in my building are spread out over 100 apartments. Together they would use about 230 000 kWh per year. This may be reduced as we become more conscious of our energy consumption, but even a generous reduction to 200 000 kWh per year would not be entirely covered by the electricity provided by the solar panels on the building.
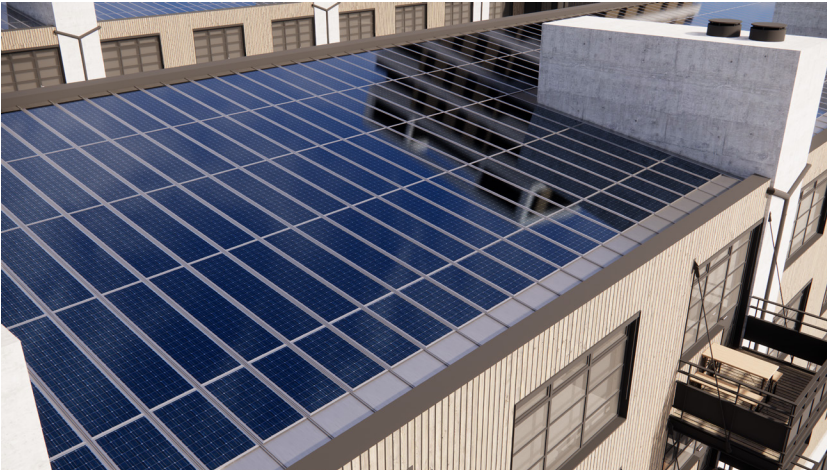
RAINWATER

The yearly downpour in the Rotterdam is about 815 mm. My building is about 3170 m2. So per year about 2580 m3 of rainwater falls onto my building. We use about 46 m3 of water per person per year in a household. 57% of that is used for functions like washing and flushing the toilet. In these cases filtered rainwater could replace drinking water.

There are 46 tiny apartments, with 54 larger apartments (24 of them in the tower). Based on that I estimate that there may be about 150 people living in my building. They would use about 3900 m3 of water that can be replaced by rainwater. Rainwater would cover a good chunk of that, but there is still 1320 m2

CLIMATE SYSTEMS

TOWER APARTMENTS
ventilation type D
individual

ARTIST STUDIOHOMES
ventilation type D
combined

LOGGIAS
outside in summer
inside during winter

HEAT PUMP
for summer
cooling and
winter heating
through the floor

RAINWATER
2580 m3 rainwater per year
of 3900 m3 water used that
can be replaced
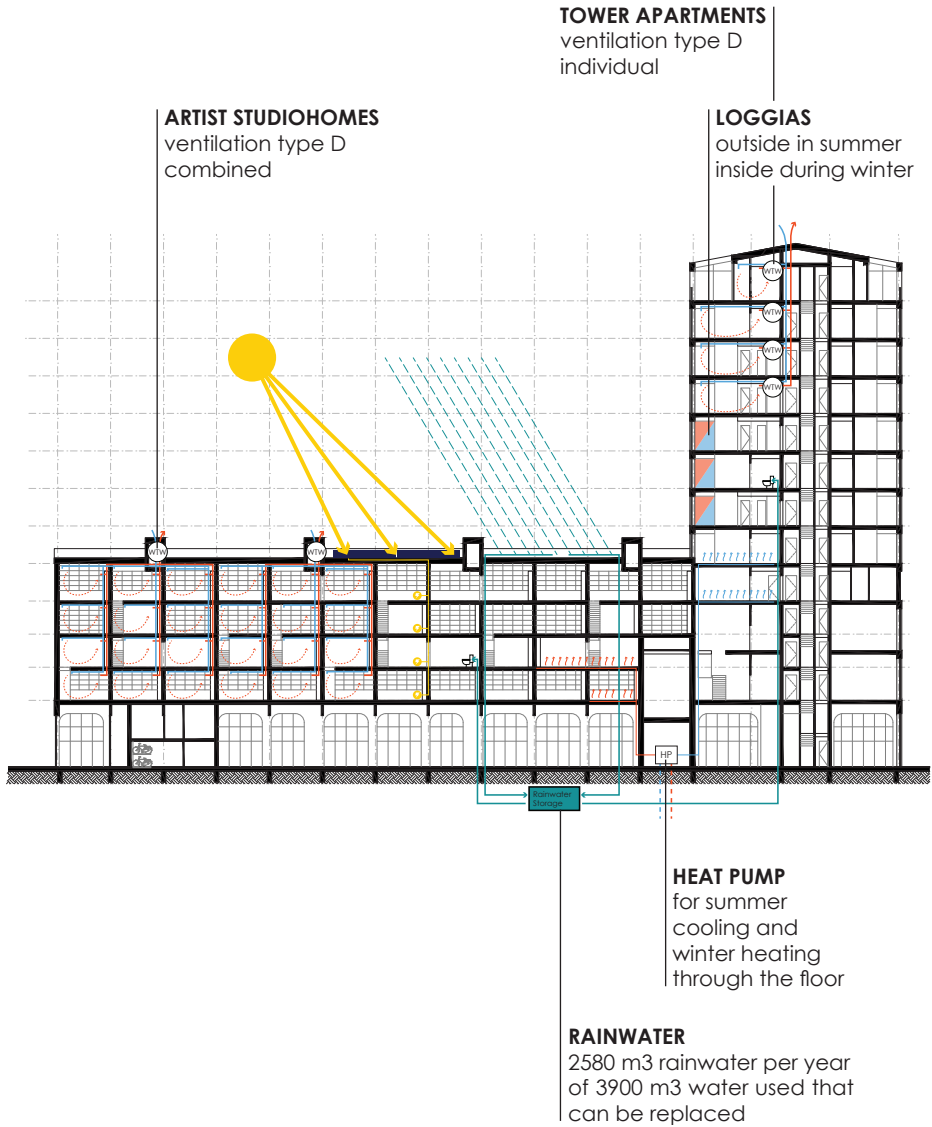
VENTILATION SYSTEMS

ARTIST STUDIOHOMES
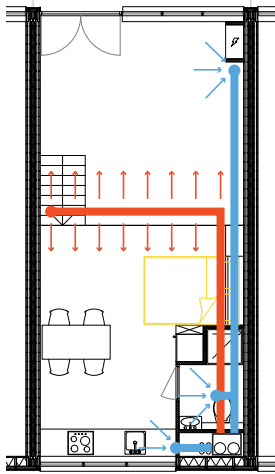
SYSTEM D, COMBINED

TOWER APARTMENTS
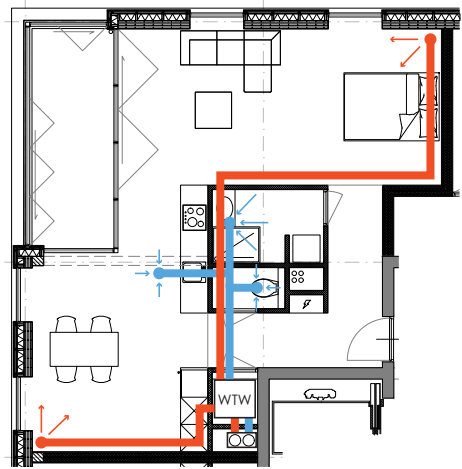
SYSTEM D, INDIVIDUAL

REFLECTION

INTRODUCTION

One of the aspects of architectural design that is often overlooked, is research. As architects we spend many hours trying to solve our design problems, problems that are immensely intricate. We try to fit buildings within regulations, make them function well, keep them affordable, all the while still hoping to retain the sculptural form we have conjured before our mind's eye. However, at the core of architecture lies a network of factors that are perhaps too complicated to understand by any one person. The design of a house is informed by the architect's understanding of sociology, psychology, history, physics and many other things. However few, if any, architects truly are experts in any of these fields, and none are experts in all. Perhaps as a consequence, but certainly also as a cause, we have discarded the search for in-depth knowledge within architectural education. Instead we analyse the work of our peers and predecessors, with all the surface level understanding that comes from the study of architectural design. Our understanding of practices and phenomena comes from those design decisions. But architecture students are rarely asked to fully analyse the exact impact of those designs, at least not based on evidence. We are not asked to research the psychological impact of a dark space, for instance. Nor is much emphasis put on whether those projects they often analyse are even 'good' designs. We just assume so because they have been given to use by our tutors or professors. But I would argue that architects are often more attracted to designs that are interesting or unique, rather than designs that have proven popular or successful, especially since modernism. So the quality of a design that is part of the Delft architectural Canon is always up for debate.

Of course, as architecture students we don't have the knowledge nor the means to gain a complete understanding of the effect of a design. The full analysis of a single case takes a lot of time and there is much else to learn. Still, it is almost criminal that those who are to shape the spaces that we live in, work in and impact many other aspects of our life would have so little understanding of what the exact consequences of their choices would

be. It is a regrettable consequence of specialization, but also a certain level of pragmatism. I don't know the precise impact of a dark space. I just need to know how I can use it as a design tool or what sort of thing happens if I use it. And if I don't but have my own ideas? Well in that case I can make a dark space! Later I'll find out whether it was a good idea or not. We architects have the world as our laboratory and its people as our guinea pigs, with the only things holding back our mad science being finances and regulations. We rely on common sense and reference projects to avoid having to do our own research and to avoid reinventing the wheel. In the end all of this is a time saving measure. We need to deal with so many different fields of knowledge that we cannot make a competition deadline, or do a 5 year education, if we were to try and do studies on everything. We only read what we need, or what we thing we need, and the run off to play in the playground to maybe apply those things correctly, maybe not. As a consequence architects are on the edge of science and art. We bring together both. We know a little of everything but lack specific knowledge. Some expertise does help though, which is why the graduation project has an emphasis on research that will help us make more informed decisions about our work once we step out into the world and start our own mad experiments.

Research comes in many forms. Within the education at the TU Delft we encountered a few. Some are scientific research, while others were less systematic and transparent. We learn from both, however, and so both were used. We especially learned how to do scientific research, even if we did not often execute it. The lessons we learned from this have given us a greater understanding of how to find sources and judge their trustworthiness. We now know how to draw better and more accurate conclusions from whatever sources we find, even if we are not writing a scientific paper. Armed with this knowledge we can also approach the research for our graduation. Not all research I have done would be considered scientific, but I have approached the research with a critical eye at my source and hopefully my conclusions will have led to a better design.

HISTORIOGRAPHY

The first approach that I would like to highlight is research into history. The history of what? The history of every element, because it informs us about what is current, so that we may design for the future. The first and foremost way in which this method is applied was for the identification and elaboration of a problem that exists within our society which we could solve through our building. Specifically, the identification of a group of people for whom we should build. In my case, after some indecisiveness, this group became artists. They, like many others, are suffering from a lack of affordable living space in Rotterdam. But uniquely they also suffer from a lack of affordable working space. Historically artists have been attracted to buildings and areas that are abandoned and made them their own. The primary reason for this is that these are either very cheap, or free to use, albeit illegally at times. This sort of space is increasingly becoming unavailable to artists. While this was generally prior knowledge to me through hearsay, the specifics of the processes and how they applied to Rotterdam were not. Seeing the exact steps play out in news articles gave me a better understanding of what I needed to solve. Which in turn allowed me to find solutions. It was especially clear that our location was one such locations and it needed to help
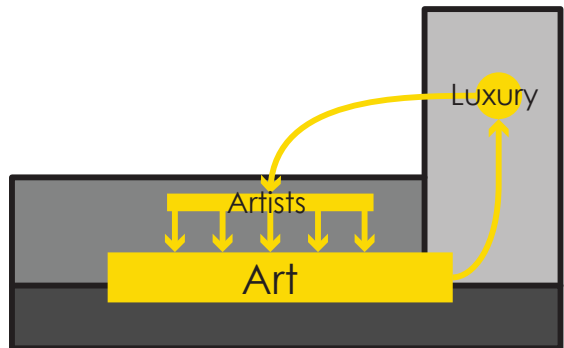
Funding strategy to freeze gentrification

resolve the problem, not exacerbate it. Newspaper articles often only described the problem, but scientific articles and books also took a step at looking into potential approaches in its unravelling. These functioned as both inspiration for my funding strategy and this research would later also support my case.

The primary issue that rose up in my research was that of gentrification. Where artists settle an area and as a consequence they create culture and commodities that are desirable to wealthier classes, which attracts them and pushes out artists. So my strategy has become to try and freeze this process in time with the two groups tied together in an accord and financial arrangement. With this I am following in the footsteps of the Station North district in Baltimore, where the income of wealthier and often commercial tenants is supposed to provide the subsidies for the cheaper
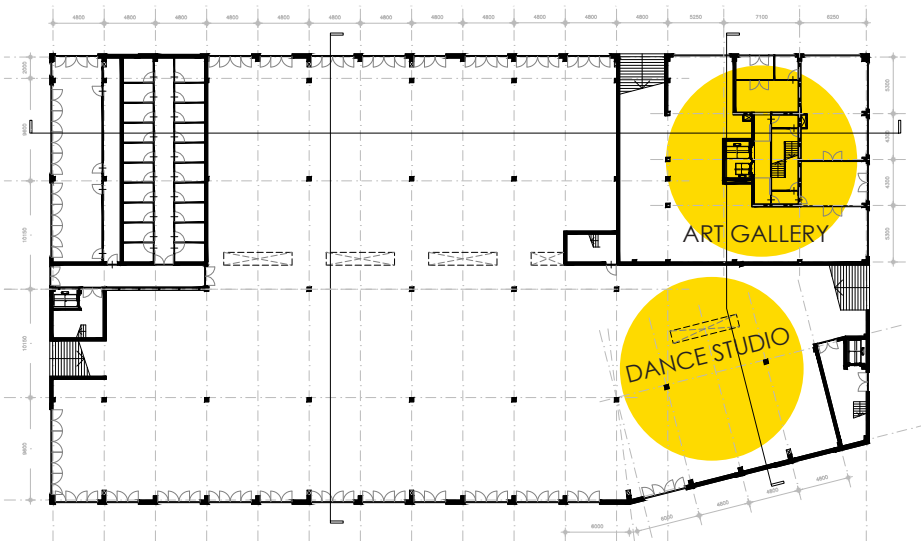
Cultural facilities in the plinth

artist housing. While in Baltimore this is still an ongoing experiment I decided to combine this idea with that of co-housing, where all the tenants of the building own the building together, allowing the wealthier tenants to support the less wealthier artists. This of course had its own research attached to it as I needed to understand the history and different examples of co-housing. The way in which this returns in my design is that the plinth has spaces reserved for several cultural facilities: Below the tower there is space for an art gallery, while elsewhere in the plinth I suggest the creation of a dance studio.

This method touches on typological research, which I discuss later on, in that both occur within the same strategies. Case studies and literature research both contain historical information and the understanding of whether a typology functions well is based on historical evidence. One of my main sources, Beyond Live-Work by Frances Holliss, is in part a historical analysis of the work-home typology, thus interlinking the two fields. The case studies too are impossible to conduct without an understanding of their history. Clearly these fields aren't as separate as they may appear.

HISTORIOGRAPHY

Perhaps my least 'scientific' approach were my interviews. They lack many of the hallmarks of what would be considered proper research by the scientific community. I did not set up a specific set of questions, small sample size and I did not make an audio recording or transcript of the responses I got, but merely took notes for future reference to cover the topics that I wanted to know. This could be considered a major flaw, but I did not conduct these interviews with the intent of achieving scientifically infallible results. Rather, they were a way for me to gain insight without necessarily finding an irrefutable truth. Conversations would be a better way to describe them than interviews.

I conducted interviews on two separate occasions. One occasion stood at the start of the process as I was still trying to find who I wanted to design for and what those groups required. This initial set of 4 interviews revolved around the (spatial) relationship between work and home among tenants of the Keilewerf. I also wanted to know what their experience was working there and what aspects they considered positive and negative. The other occasion was after the P2. This time I was looking into the origins

The Keilewerf (from www.keilewerf.nl)

and dynamics in an artist community, specifically the community of Kunsthaus Tacheles. For that I contacted a Dutch artist who had lived and worked in several locations in Berlin throughout the years, amongst them Tacheles. This interview as especially insightful.

The initial round of interviews with the artisans from the Keilewerf were conducted at a stage when I did not yet know that I would be designing for artists. My questions were primarily aimed towards uncovering the living and working preferences of artisans. However through this I did learn both directly and indirectly that at least some artists have a greater preference for living in a 'commune', where your average artisan seems to rather keep work and life separate. This is something that would be corroborated by examples of artist housing later on. Aside from this insight the other goal of these interviews was to understand what made the Keilewerf function quite as well as it did. The unanimous response to this question was that the Keilewerf works well because it is a gathering of many people with different skills that could help each other out with their work when they needed it. This is a

Atelier at Tacheles (from www.berlin.de)

dynamic that can also be a great benefit to artists and why them sharing workspace or working nearby one another allows them to push their projects further. I also decided to create a space in the plinth of my building that is supposed to function much like the Keilewerf, with many smaller plots of space for artisans and artists to do their work.

The second time I did an interview I was after my P2. I had done research on past artist communes and artist live-work buildings, and while I had looked into areas where artists congregated, I wanted a more clear first-hand account of the origins of artist communities. So I talked to an artist who formerly worked in the Kunsthaus Tacheles, an artist commune in a former mall in Berlin. There were several such places in Berlin, as there were many unused spaces that artists could claim and use for free. Those are the spaces that attract artists. Artists moved from place to place, finding somewhere to sleep among those studio locations. This fluidity could be a hallmark of an artist building, but it create some problems within the assignment. One major feature was that artists rented work space and slept there also, illegally. But the great strength of Tacheles was the collective. Just like in Keilewerf were there many different skillsets available and artists could help one another in the productions of their artworks. This made it especially important for me to emphasize that there would be a variety of working spaces within the building for artists to work together or work individually on projects of various sizes.

These interviews were immensely helpful and informative. In hindsight I regret not having conducted more interviews. They may have made me shape the building in a different way. Potentially shifting the focus away from individual studiohomes. Regurgitating these thoughts seems to suggest that some part of the building should have been more focused on communal living.

TYPOLOGICAL RESEARCH

Central to architectural education is learning from our peers and predecessors, and while I was critical about that in my introduction, it is no different for me. Many useful lessons can be learned from previous work, though it needs to be carefully examined and it needs to be clearly understood what conclusions we can really draw. A way in which my research into these previous designs can be classified is the study of typology; the research into archetypes and types in the built environment. The identification of specific typologies and their characteristics, along with the variations and design solutions applied within those typologies, allows us to build up a database of inspiration for when we are designing within those typologies. The primary strategy through which I conducted this typological research was through case studies, but literature on the specific topics highlighted within my design also helped me understand the typologies that I was dealing with, and arguably gave greater information and insight. As this literature had already covered many case studies and distilled the important data from it.

Case studies: Collectivity

Collectivity in dwelling is a broad topic with a great deal of variation in cases and many examples. So it was good that we did the case studies for collectivity with the entire studio group. This allowed us to analyse many more buildings of different typologies than we would have been able to if we had approached this individually. Consequently we could generalize and draw inspiration from a broader range of examples for our own designs, giving a benefit similar to reading literature in which such case studies have already been conducted and their conclusions distilled. One drawback of our case study research (besides a major drawback of all case study research within the TU Delft education) was that they were done individually. This lack of cooperation means that we did not gain as much understanding about

all the buildings that were studied within the group as we could have. It was only towards the end of this case study research that we sat together with part of the group to draw a conclusion, and this was done in haste with only a shallow reading of the individual analyses. If the group had done these in closer cooperation perhaps we could have learned more. As it stands we mainly learned from the buildings analysed within the group in which we did our first case study, that for the urban scale. One way in which these analyses were helpful was in the quickstart, where we pasted together several different plans from the reference projects into our own plot, to create a quick and dirty design. While I personally discarded my quickstart design shortly after doing that workshop, it was a very effective way of gaining an idea of the scale of my building.

The common characteristic of all buildings analysed within the group is that they are each live-work buildings of a sort, but how those functions relate varies per building. That was but one of the aspects we analysed. We also looked at the pattern of movement through different buildings, along with the visual connec-

Narkomfin's stack of collective facilities (reconstructed by archirost)

tions and the way in which collectivity manifested itself. While I find it difficult to point to one specific building that influenced the way in which I approached my design, it was more so the method of thinking about collectivity that influenced my design. The route through my building became quite important, along with visual connection to neighbours. This led me to turn the building inward, with its galleries and central deck functioning as a major communal space, even though that may not have been optimal for the artist studios and their light. The addition of additional communal spaces at the end of the building for washing, cooking and relaxing were inspired by the collective facilities of Narkomfin. While the inwards turning of the working and making space is partially inspired by the Pullens Estate.
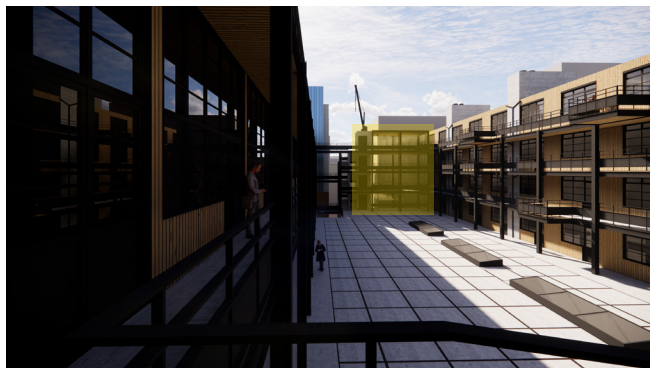
The building has turned inwards with a stack of collective facilities on one end

Case studies: Collectivity

Aside from case studies within the group I also did case studies on artist housing. I call them case studies, but they aren't case studies exactly in the style of a traditional TU Delft case study such as we have done them during preceding education. I relied much more heavily on literature about the social aspects of these buildings than we would normally. That is the gripe I have with the way in which case studies are often done. We look at plans and pictures and analyse a building based on that. We judge a case studie solely based on the object and our own interpretation of it. This building has a series of arches in a row. That is a quality. Put the pen down. We now know what this building is about. What a masterful design. Rarely ever do we interview, or read interviews with the residents of a building, talk about the social structure or legibility of a design for visually impaired. I may have been critical about an architect's lack of in depth knowledge in my introduction, but that is quite forgivable. We don't need to know exactly what something means or does, we just need to know enough to be able to use it in our own design. But with many case studies we don't actually know enough. If we judge an object based solely on it's physical characteristics, we cannot make a value statement about a design. It makes us like a biologist describing a heart solely based on its physical characteristics: It is a muscle that functions like a pump which two chambers. Completely disregarding the crucial fact that it pumps a liquid called blood through a body which allows that body to function like a living being. We should also describe the effects, not just the physical and visible characteristics to create the full image. Now, often we assume the effects of a design are 'good', because we have been given these projects to study by the university. We can hope that because they are part of the Canon of architecture that they are indeed 'good' designs. And if they are, which I don't think is as easy a claim as that, we can assume that if we use the design elements from those buildings, or use them as inspiration, that our designs will also be 'good'. But we don't do the same with our doctors. Students of medicine

aren't handed a list of substances which are 'good' and then told to describe their chemical structure. That does not make for a good medical career. They need to know why those substances are beneficial, and if they really are beneficial in all cases. As architects we rely on common sense and guesswork to make this judgement. That is why I have approached my case studies from a perspective of literature before plan analysis.

I analysed two buildings: Atelierwoningen Zomerdijkstraat in Amsterdam, and La Ruche in Paris. The former had a wealth of information, both about the form of the building and its apartments, as well as about the project setup and the social structures within the project and throughout its existence. The latter was starved of information on its form, but much was written about its functionality and society. The Zomerdijkstraat building became especially influential on my design and it formed the basis for my artist studios in dimension, division and orientation. The north facing studio spaces of the Zomerdijkstraat with their adjacent residential space are very recognisable in my own designs. Supplementary
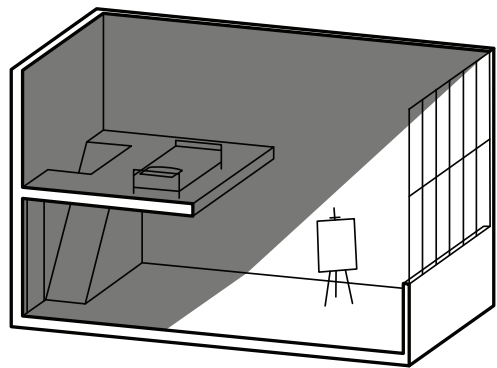
Typical artist studio

literature research showed that this orientation and layout was very popular among artists due to the northern light being diffuse and unchanging throughout the day. The literature on the building also showed, however, that there was little in its organization to reinforce community, as it was a building for studios first and foremost. Even so, in its early years there was a thriving community of artists in the building that did much work together. However this slowly fell apart. While this cannot be entirely attributed to the building, the design didn't help. La Ruche in contrast was a building with a thriving community. Its studios were less optimally placed, as the building was not designed for artists originally, but instead retrofitted. This meant that the building was circular with studios around a central hall. This shape certainly helped with the creating of a feeling of collectivity among the artists, because they shared facilities and often saw each other as they entered and left the building. Additionally these were poor artists, with nowhere else to go. Creating a feeling of shared hardship. These two case studies did not allow overly much analysis of the physical shape, but they greatly informed me on some of the social dynamics that could play out within such a building and among

La Ruche

this group of people. For the shape of the studios I used auxiliary research into other examples of artist studios. In the end I tried to create a combination of the two plans, optimizing the orientation of the studios, but keeping a central courtyard for socializing and hosting expositions of the artists, in the same way that La Ruche's central space was used. A last important take-away from the Zomerdijkstraat building was the variety of different sizes dwellings, that also returns in my design in an adjusted form.
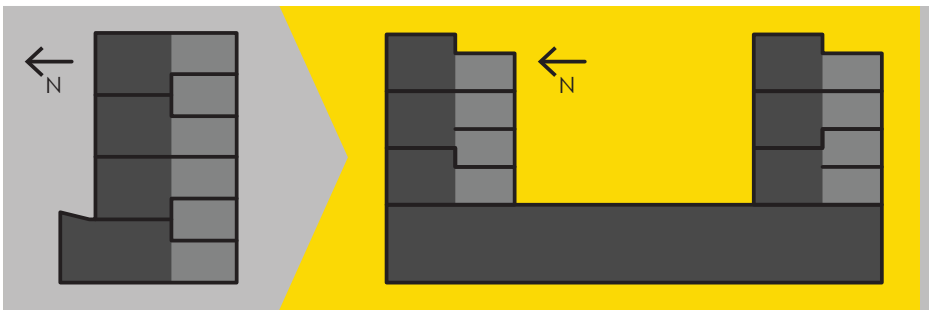
The adaptation of the Zomerdijkstraat building into my own design

Beyond Live-Work: Workhomes

As mentioned before, one of my main sources of information was Frances Holliss' book Beyond Live-Work. She covers a great variation of different live-work homes throughout history and describes how they are or were used and the effects of their type on the lives of their inhabitants. She lifts several cases out and describes them in detail and highlights interesting aspects of many others. This allows her to cover much more information than a select sample of case studies can. This book filled in many gaps of information that other research had left and it also was the catalyst for other research. Importantly it gave concrete examples of effects certain design elements could have on the life in a building. For example, how the presence of a central staircase in a live-work building for artists served to promote a feeling of community as it was both a space for meeting but also served to allow the artists to help one another. While not necessarily always the direct source for information, the knowledge gleaned from this book permeated a lot of my research and design. It may perhaps have been the single most important source for my research
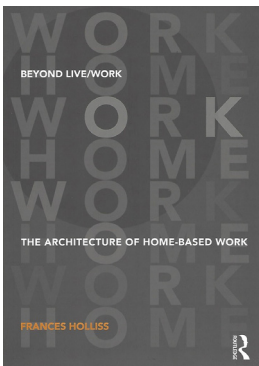
Beyond Live/Work by Francess Holliss

but also my design as it didn't only teach me, it also inspired me and made me more enthusiastic about the project I was allowed to work on. I would argue that it should even be made required reading for the studio as it changes the way you look at dwelling. It broadens your perception of what goes on within a home and what sort of activities should you accommodate when designing a dwelling. And its supplementary website theworkhome.com has an excellent series of examples of different workhome 'patterns' as distilled from the design guide from the book. While I did not those patterns, the design guide is an excellent tool for the conceptualization of a workhome. It is a shame that the book was written when it was, as the current COVID-19 pandemic has everyone working from home. Driving Holliss' point home even further that architects and designers should accommodate and investigate the typology of workhomes more.

The book encourages you to consider the relationship between working and living. How do you incorporate both into a workhome. The interviews mentioned earlier in this reflection already showed that not everyone shares the same desires for intertwined
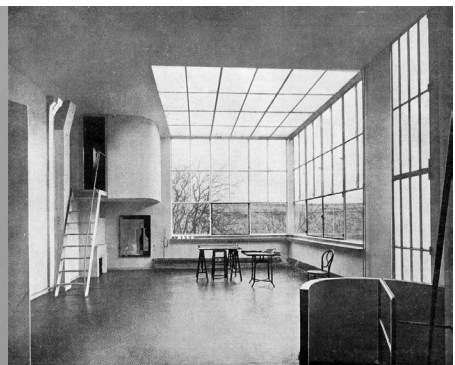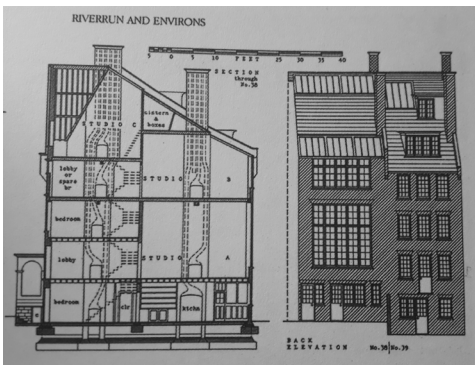
Some of the buildings discussed in the book

work and life. Artists seem to be more inclined to combine living and working space, but even residents of the Zomerdijkstraat apartments with their excellent studios did not all work at their homes. This stress on the different relationships of life and work even within the same group drove me to allow for different potential accommodations for different preferences. All artists in my block can work at home, but they have the option of working elsewhere in the building too, or to do part of their work at home and part of their work elsewhere. In hindsight I may not have accommodated it enough. There are no micro apartments without studio space attached, or communal living area with detached working space.

WORK
HOME

HOME

EXPLORE

RESEARCH

HISTORY AND PRECEDENTS

DESIGN GUIDE

PATTERN BOOK

POLICY AND GOVERNANCE

PUBLICATIONS

BLOG

DESIGN AS RESEARCH

CONTACT & TEAM

MAILING LIST

DESIGN GUIDE

Introducing the design guide
Basic Principles
Site
Building

The aim of this design guide is to set out a series of design considerations, including a number of typologies, that particularly apply to workhomes. These are presented in diagrammatic form. They do not represent design decisions but serve to indicate the potential scope inherent in designing the workhome.

The Design Guide operates at the level of principle rather than prescription.

PRINCIPLES

Dominant function
Public/ private
User groups
Spatial strategy
Types of workplace
Patterns of Use
Employees
Flexibility and adaptability
Legibility and inscrutibility

SITE

Urban design strategy

BUILDING

Entrance
Windows
Stairs

INTRODUCING THE DESIGN GUIDE
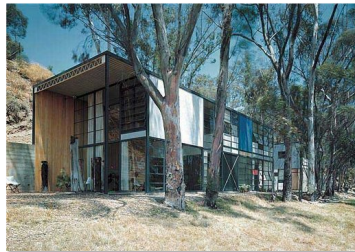
Charles and Ray Eames' workhome | LA, USA | 1949

Building types are, conventionally, mono-functional. Niklaus Pevsner's 'A History of Building Types' illustrates this. Focusing on theatres, shops, prisons, hospitals, market halls and factories amongst others, it ignores the complex world of dual-use buildings.

An analysis of 76 contemporary buildings that combine dwelling and workplace in urban, suburban and rural contexts in England reveals buildings with a large number of design variables. These workhomes accommodate a range of different occupations, from car mechanic to fine artist, hairdresser to British Telecom manager. Some are organised around individuals living and working alone, some around families and others around collective living and working situations. The buildings come in a variety of sizes and volumes. They include dual-use spaces, dedicated living space and dedicated workplace space in differing proportions. And they adopt a number of different spatial strategies. The design considerations included in the Workhome Design Guide have been distilled from this analysis.

In the twenty-first century this building type has renewed relevance as, enabled by developments in IT and telecommunications, an increasing number of people return to home-based work . This inherently environmental sustainable, popular, family-friendly working practice offers a variety of social benefits.

www.theworkhome.com, the supplementary website to the book

DASH: Luxury Apartments

Luxury apartments became a key part of my design strategy, and so I supplemented my research about artist apartments with research into Luxury apartments. My main source for this was the DASH issue on the luxury city apartment. With a series of interviews and articles about luxury apartments in the Netherlands and abroad, as well as several example projects, it gave a good overview of some of the characteristics of what is generally considered important in the design of luxury apartments. What characterizes them and what amenities are included. I also got an impression of the type of people who live in luxury apartments and what their expectations would be in regards to service and privacy. I used the information from those articles to create a design guide for my own luxury apartments. And the examples served as a frame of reference for me to compare my apartments to during the later design phase. The challenge for me was primarily in discovering what made an apartment truly a luxury apartment, instead of just a large normal apartment. What features could be included within the apartment to make it more luxurious. For apartments it appears that most features that you would expect

DASH: Luxury City Apartments

from a high-end individual dwelling become communal amenities. Luxury apartments may have a shared gym, swimming pool, screening room or garden. Within the apartment itself the more subtle qualities seem to be good systems for climate, higher ceilings, luxury materials, and larger rooms. These were also the features that I decided to include in my building. The luxury apartments were given more privacy by being placed the tower, separate from the artist apartments, with their own entrance and doorman. They have access to a collective gym and screening room and they have their own storage rooms separate from the artist apartments. However they do still have a connection to the artist area, through several exits from the tower onto the deck. One of these also leads through a communal work space for the artists of the building. I also increased the floor height for the tower, giving the luxury apartments a 3000 mm ceiling height, as opposed to a 2700 mm ceiling height in the living space of the artist apartments, as that extra ceiling height came out of my finds to be quite a significant quality of luxury living. It adds a great deal to the spaciousness of a room.

Some of the projects from DASH that functioned as the references for my design

While I did search for more articles on luxury apartments, I could not find a whole lot of new information that DASH hadn't already covered. That gives me the impression that it was not a very deep topic. Luxury is, in a sense, just excess of things we would all like to have. Space, quality furniture, views, orientation. I did not get the impression that it requires special features, just that the features are in great quality. And special features in an apartment building can be shared. Since this was not the focus of my design I did not look into this much further, however.

Luxury functions combined in one floor, high ceiling luxury apartments above

TYPOLOGICAL RESEARCH

While I am not entirely certain I should count this as research, I would like to highlight a continuous process of what would probably be classified as 'looking up' during the design phase. We are neither inventors nor do we reinvent the wheel. So as designers we rely a lot on the work of others. I made extensive use of pinterest to gather inspiration on materialization and aesthetics. But the most heavy use of other people's work would in the form of detailing. I don't know how to create an architectural detail from scratch or do I know exactly how to create a wall that has the right sound proofing. I make an estimation and then look up a reference to base my own wall on, or to copy directly. And so my construction details consist of a mix and match of other people's reference details.

Pinterest as well has been a good source. However personally it does not function as a guide nearly as much as the search for details does. In my own process pinterest serves to prickle the brain, to inspire and to stimulate the creation of my own images. I look at it at the very beginning, but later on let it go and do my own thing. I don't tend to look back at the moodboards I do create at the start. Perhaps I should, as it may give me more grip to find the exact aesthetic that I'm going for. That is something that has been challenging at times during this process, even if I know the general feeling I wish to invoke.

CONCLUSION

As for the final statement of this reflection I would like to amend my introductory remarks. Us architects deal with a great many issues and factors during our design process. We do indeed need to understand sociology, psychology, history, physics and many other things. We need to understand use patterns, composition and material properties. Because these topics are so broad we research them on a surface level. We don't have time to dive into them in-depth, we need to make our design deadline. Besides, we have more things to research. That is the reason why we do case studies instead of scientific research into elements. We're designing, so there is no time to go for individual elements. Some-one else will do that for us. Instead we analyse designs which we think do well. With the assumption that those designs really did do well and that we can learn good lessons from them. That is where, at least within education, we miss a step. Case studies are great to do, but we must really understand what makes a design good or bad, not simply assume that a design is good and ana-lyse its form. I'm certain that not all case studies within our edu-cation here were conducted in such a way. Some students, if not some courses or teachers, will have realised that blindly analysing the object without its context of effect is not particularly effec-tive and they may have actually learned something from those case studies since they would have done them properly. But in my personal experience that was really lacking. So I am glad that I had this opportunity to dive into some cases with more depth and not look at the object as much as looking at their context and results. Though perhaps I went too far, as sometimes I lacked understanding about some physical aspects of the designs. Even so, hopefully future architecture students will see the same. Since we aren't doing an art education, we are doing design with a basis in science. Science asks us to understand, not to imagine and give our own interpretation of an object we are barely ac-quainted with.

OTHER REFLECTIONS

The relationship between my graduation project topic, the studio topic, my master track, and my master programme.

The studio topic is the inclusive city. And inclusive means for everyone, regardless of race, class, profession or anything else. Artists are one of the groups that are threatened to be pushed out of cities, so their fight is one that directly impacts the inclusivity of the city. No one should be left out, including artists. That is something you would expect from a contemporary architect, to design for inclusivity, not just in dwelling, but maybe even more importantly: in public building. Themes of affordability also return from my project topic in aspects of the studio and of the master programme as a whole. It is not surprising therefor that I take a detour in my strategy into building management territory, as many of our issues cannot be solved from a single field, but have to be approached from many angles.

Elaboration on my research method and approach in relation to the graduation studio methodical line of inquiry, reflecting thereby upon the scientific relevance of the work.

As I have widely elaborated upon before and been critical about, the way in which we do case studies within the education of architecture is quite limited by the process. I attempted to broaden the aspects in which I did case studies, but perhaps went too far away from physical analysis. Instead I primarily relied on literature reports about the lives in and around these cases. I think this creates a more complete image of those sites, however I did miss a step in the traditional way of analysing cases. This makes those studies less reliable than I would have liked in terms of completeness of information.

Elaboration on the relationship between the graduation project and the wider social, professional and scientific framework, touching upon the transferability of the project results.

The topic of artist housing is broader than just the design of a building, aspects of urbanism and management play a significant role in the topic. Artist housing and facilities and designated space has been a tool and an issue for planners the world over. While some seek to keep them in a location against the tide of gentrification, others are perfectly happy to use them for gentrification purposes and then move them elsewhere. These factors fall outside of the realms of my control. To some extent, that is, for I do use them as tools and information for the setup of my project. Hopefully the way I approach this issue can be used as a strategy beyond my own project, however I won't know the exact results since the project is entirely theoretical.

Discussion of the ethical issues and dilemmas I encountered in elaborating the design.

he dilemmas I encountered within the project I wouldn't as much count as ethical dilemmas. The dilemmas I would count are mainly on the grounds of financing and behaviour. How much can I force the behaviour of the tenants of this building? My belief is that as architects we have less influence on that than we like to think. The real question I ran in to is whether I should really design a living space of 20 square meters for artists, with an adjacent 20 square meters in working space. Small living is required for densification and affordability, but it feels like an odd step to take to confine someone to a space that small, even if I attempt to give them good quality in their environment.

GRADUATION PROJECT

Teun Theijse
4474406

Dutch Housing Studio
29 - 1 - 2021

Theo Kupers
Ferry Adema
Pierijn van der Putt