

Workhome

Combining Dwelling and Production in the City

Thesis Programme

Spatial Design, Perception & Detail, IBD

The Royal Danish Academy of Fine Arts
Schools of Architecture, Design and Conservation

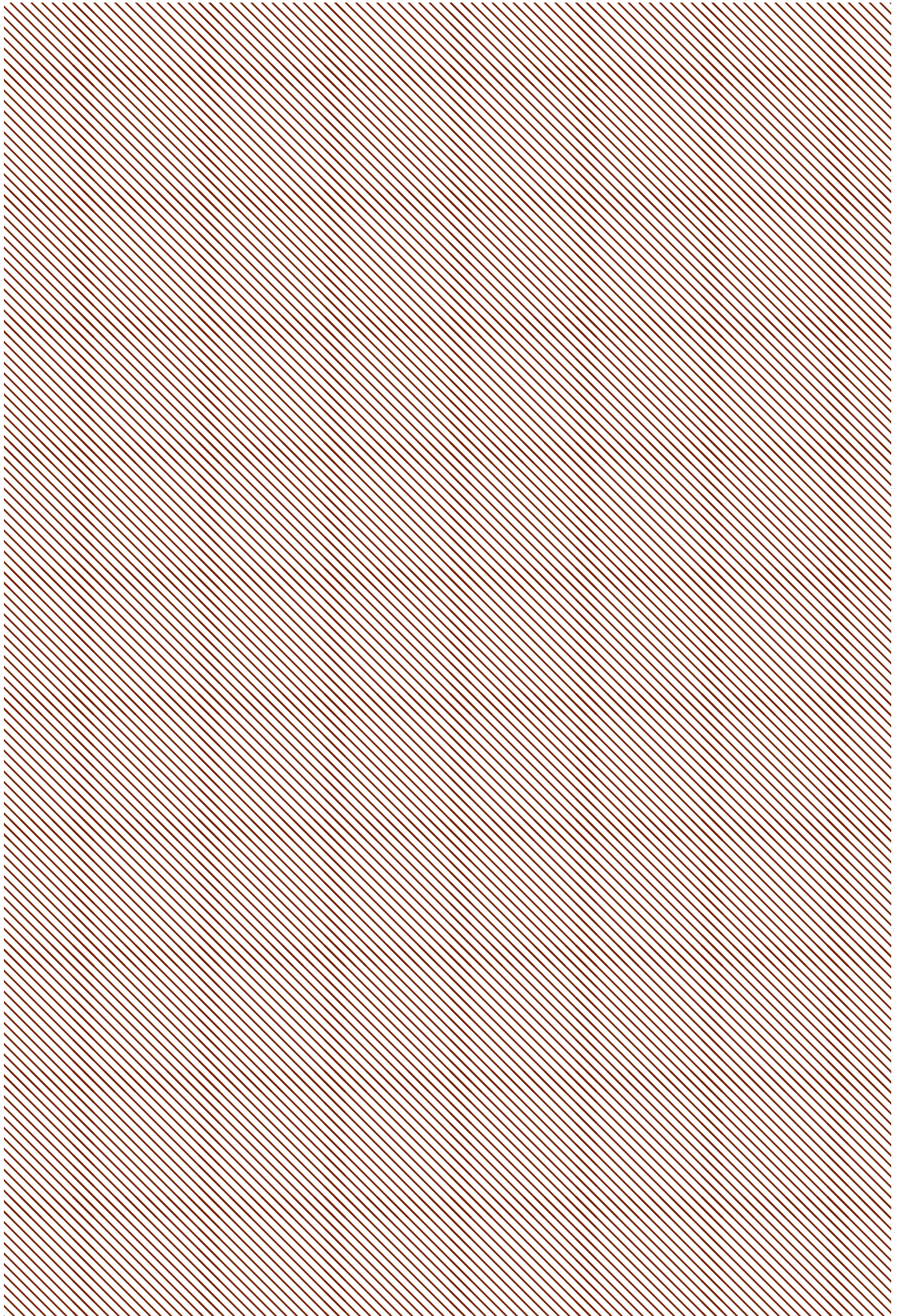
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Spring 2017



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Topic

*Making and dwelling in the city.
Combining dwelling and production as a model for sustainable urban living.*

Question

*How can buildings that combine living and working contribute to the city?
How to incorporate the idea of sharing into this?*

Vision

Workhome - an urban live/work scheme where a single room constitutes a basic unit attached to communal spaces. These shared spaces provide a flexible framework for dwelling, working and production.

Introduction

Our project is concerned with the spatial qualities of architecture where dwelling and making overlap and their contribution to the city. We are fascinated by the gradations and thresholds of public and private within these spaces and question the nature of how we live and work. We see production activities as a part of shared everyday life that should be encouraged in the city as they create opportunities for more social interaction and meaningful work. We are interested in dwelling in the dense city and how architecture can assist people in creating sustainable communities.

The project advocates for an inclusive city. Like in many other large European cities today, the prices of real-estate in Copenhagen have continuously been on the rise, but demand is still larger than supply. In this unbalanced market the quality of housing is often undermined in favour of availability. It is becoming a widely accepted norm that people resort to living in smaller spaces to afford them. We want to challenge this condition with our proposal.

The Spatial Design course focuses on the articulation of physical and social spaces through the design of precise architectural components. At its core lies the conviction that considered composition, proportions and details enrich the experience of space. Thus, we have chosen to work in a progression of scales to convey the relevance and feasibility of our proposal to the city and address elements from the scale of the urban to the doorknob. This will allow us to appropriately explore the chosen typologies, their relationship and the possibilities offered by the site.

One of the strengths of architecture is to carefully identify and raise questions, which ultimately can lead to a better quality of life. Our chosen typology is a valuable idea that could contribute to a more sustainable future. It is our intention that working with this topic will help us better understand the city and the wider context we live and work in.



Hermann Linde
Brewhall in Lübeck house
(Davis, 2012, plate 32)

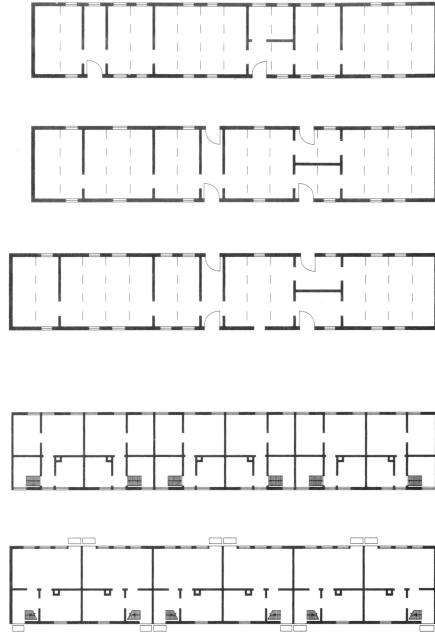
Workhome

A Tradition Woven into the City Fabric

A building type that combines dwelling and workplace has existed for hundreds, even thousands of years, in every country and culture across the world in both vernacular and elite architectural traditions, from the Japanese *machiya* to the Dutch merchant's house and Danish *længe* (Holliss 2015, p.6) It is distinct according to culture and often hidden, disguised as house, shop, workshop or studio and the lives and occupations of the inhabitants can be so closely interwoven that there is, ultimately, no difference between them. Taking different forms according to culture, climate and specific circumstances or purposes, they are often so familiar that they are no longer noticed.

There is a long tradition to draw on at both the building and the urban scale. Part of the essence of the historic city is a fine-grained morphology that results from it having grown up organically around home-based work. Short blocks, mews, courtyards, squares and alleyways housed a myriad of home-based occupations, and in many places continue to do so (Holliss, p. 201).

They are inseparably connected to the rise and development of cities and the urban society. These can be spaces where civic life manifests itself, where society is formed and people make a contribution to their environment, mentally and physically. They are deeply rooted within the urban grain and life of our cities.



Danish længe typology and its transformations, Helsingør
 Dutch merchant houses and its plans, Amsterdam
(Davis 2012, p.52-54)

Rethinking Dwelling and Working

These types are gaining relevance today as people across the globe increasingly work from home or live at their workplace. The binary separation between life and work is unravelling and becoming more fluid. Developments in infrastructure and digital world allow people to work in different settings. The dinner table, the sofa, the bed, a café, libraries, rented or shared desk spaces, studios, airports, aircraft, and even places abroad. It is a phenomenon of the zeitgeist and all indications are that this practice will continue to spread.

Thomas Dolan advocates the benefits and significance of live-work schemes in all scales of the post-industrial society. He stresses that live-work is not merely about buildings or lifestyles. Ultimately, to stop commuting - and the provision of a built environment that allows for it - is about rediscovering settlement patterns and urban designs that bring life's disparate functions back together, that shorten or eliminate the separation between the most important parts of our lives, and that result in more liveable, life-affirming environments for all (2012, p. xi).

Frances Holliss, Emeritus Reader in Architecture at London Metropolitan University has coined the term *workhome* to describe all the buildings from longhouse to live/work unit that combine dwelling and workplace. She suggests that in the context of the information revolution and a global environmental crisis it is vital to (re)establish the existence of this type, to study the archetypes, the body of architectural culture available to us and reconsider its contemporary relevance and potential. Holliss argues that the *workhome* is transforming our cities, offering not only a vital economic driver, but a sustainable model for the future (2015, p. 1-6). We see this term as an appropriate shorthand to employ in our project.

However, we cannot ignore that working at home or living at our workplace can also be problematic and not suitable for everyone. This may be because of noisy neighbours behind thin walls or floors; or because of isolation and loneliness; or a result of combining family and work in already-too-small accommodation or of inhabiting cheap, but cold and damp space (Holliss 2015, p.201). Hence, we find it especially important to discuss the appropriateness of the site and its possibilities and spatial qualities of the proposal across the spectrum of public and private.



Tikøbgade 5, Nørrebro

The Site

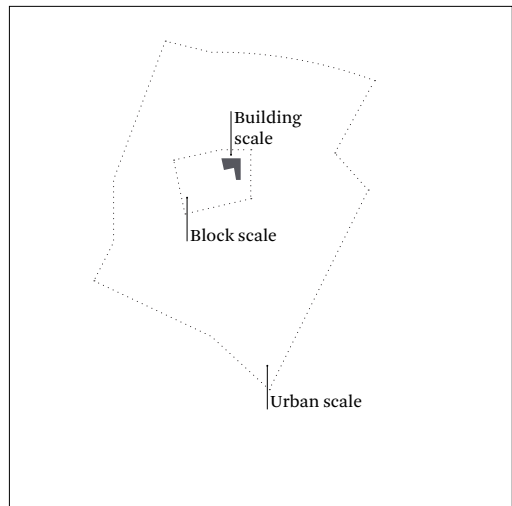
The site of our project is located where Bispebjerg, Nørrebro and Frederiksberg meet, bordered by Tikøbgade to the North, Hillerødgade to the South, Nordre Fasanvej to the West and Lundtoftegade to the East. We are interested in the entirety of the urban block and its capacity to absorb a broad variety of spaces. The site has been designated by the municipality for a mix of dwelling and service activities for future developments.

Our live-work project will benefit from the location that is characterised by spatial flexibility, mixed use, and proximities. We highlight the many aspects of the location that can be seen as appropriate for our scheme. The site is within walking distance from Nørrebro station, the largest local travel hub, with the new Metro station opening in 2019 and Nørrebrogade, one of the main commercial streets of Copenhagen.

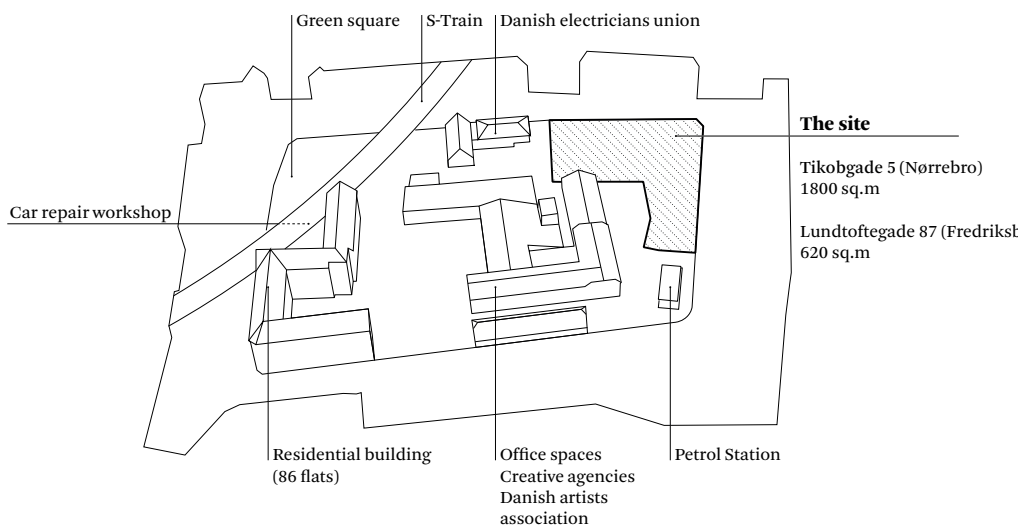
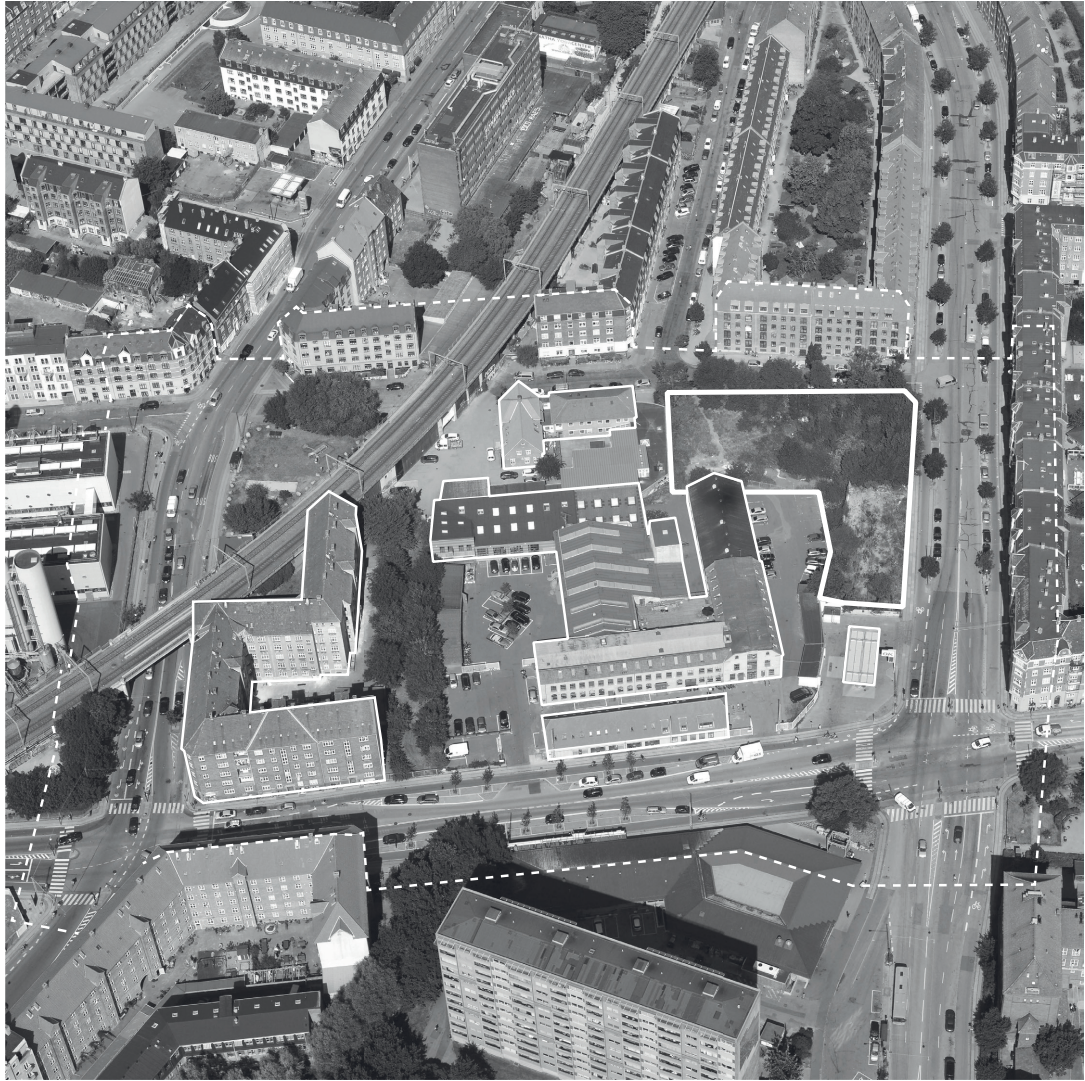
The block currently houses residential, commercial, office and light-industrial spaces, e.g. a car repair shop on the other side of the S-train tracks. The offices are occupied by Dansk Kunstnerråd (Association of Artists), media and ad agencies, and photography studios. The building for the Union of Danish Electricians and a petrol station adjacent to the site contribute to this unusual mix. The building types range from traditional Copenhagen residential building from the beginning of the last century to light-steel semi-industrial structures and the heavy-infrastructure of the train viaduct. High percentage of low-rise buildings contributes to a relatively low density of the block. Moreover, their overall composition does not align to the urbanism of the surroundings.

The diversity of this urban block is exciting and we seek to engage with it in full awareness. The currently unoccupied sites in the block allow for further development and it can be expected that they will undergo substantial changes in the coming years. Said that, we are convinced that the characteristics of the block have to be used sensitively to create a part of the city where people of different occupations and backgrounds dwell and work. The proposal has to be placed carefully to provide a full spectrum of zones from private to public, from loud and messy to quiet and most importantly avoid mundaneness.

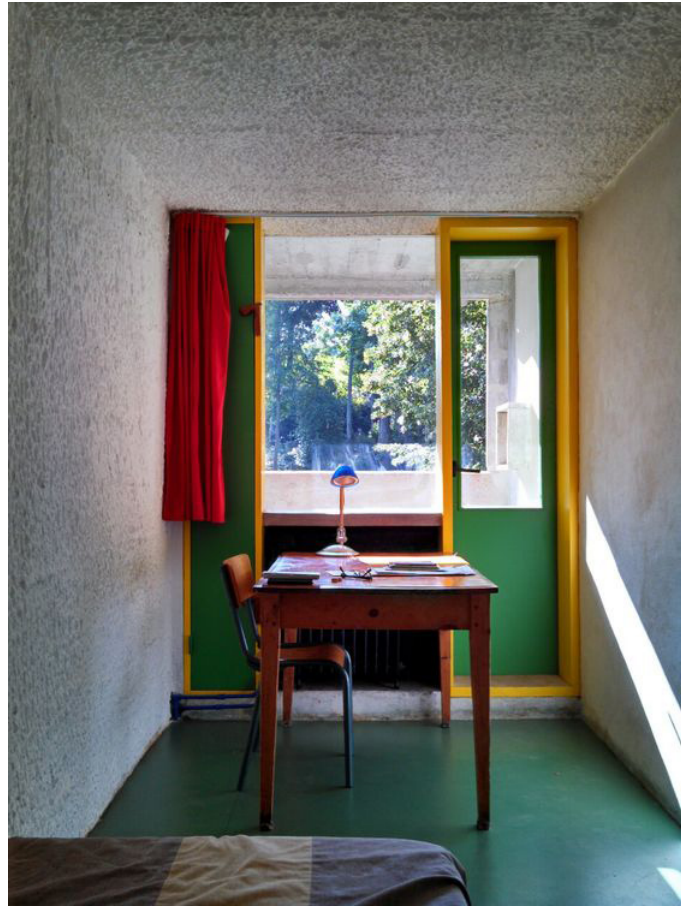
Looking beyond the block, the surrounding areas offer a range of takes on urban living, from traditional Copenhagen urban blocks to tower blocks from the second half of 20th century. Industry in variety of scales is interwoven with housing fabric. Examples are the extensive Novozymes factory with elements from Arne Jacobsen, as well as small scale automobile workshops and various production in nearby streets of Nordvest.



Project Scales



Block Uses



Le Corbusier
La Tourette Convent
1960

New Patterns of Urban Living

We are interested in the patterns and habits, which shape the way people dwell and work today. These two activities constitute the majority of our lives and the ways they are performed are not fixed. They are changing and it is important to respond to this with appropriate architectural typologies.

Over the recent years, we have experienced a rapid emergence of sharing economy. New forms of sharing are - to a high extent - a result of the Internet and a technological revolution. Airbnb, uber, ebay, craigslist, crowdfunding, cow-orking, book/clothes swapping, bike/car sharing, carpooling are among many examples of collaborative consumption. A wide group of young adults are most active using these innovations. We know for a fact (from our own and our peer's experience) that sharing economy does not merely affect the way we consume, but also the way we work and dwell in cities. It is a widely accepted norm in big cities in Europe - including Copenhagen - that young people are living in flatshares.

In this context, traditional houses and apartments are often adapted to provide living conditions for collectives, groups of people who are not families, but have decided to live together. Nonetheless, newly built proposals for collectives are relatively scarce. A relevant Danish example with strong emphasis on the idea of common living is Urbania. It is a non-profit association founded in 2009 with a goal to build an economically and socially sustainable housing project within 5km distance from the Town Hall Square in Copenhagen. Although it remains unrealised, Urbania has a strong vision towards sharing of spaces by the inhabitants. The vision is a building of similar density to a typical housing block in Copenhagen. The project's authors acknowledge that living densely in small private units bears the potential to free up area and budget for common spaces, which naturally encourages and necessitates social relations. In this light, the members consider desirable an average dwelling size of approximately 77.5 m² (38m²/person), which is below the average for Copenhagen (42m²/person). A few members indicated to the private cells in the convent of La Tourette as a reference to their preferred private dwelling, assuming that the common areas would be correspondingly bigger (Romme, 2014).

Alternative typologies and configurations for living together must be considered. With our project, we want to propose an alternative to the nuclear family flat, as there is a growing group of people for whom this typology is both unaffordable and undesirable. Additionally, we are interested in the tangible benefits of sharing - such as reduced living costs, access to better and bigger facilities, higher quality of amenities, social interaction and a stronger sense of community with a potential for collaboration.



Creo Arkitekter, Emaljehaven, Copenhagen Nordvest, 2007. A five-storey residential building with 192 units, equally divided among rental apartments, co-ops, and condos and also contains a café and a store. A short distance from our site, we bring it as an example of a contemporary housing scheme that contributes little to the street life, despite including green areas in its programme.

The Productive City

A Collective Project

The city is a collective project and production is a part of it. A good city will find space for both messy and neat and let us see the filigree of its industrial spaces. It will allow us to witness the diversity of the skills and industry that make it stronger and richer. We believe that places of production should be visible and nurtured. The city-serving economy, the everyday support of urban life is vital and always evolving. We would argue that cities should not reduce its supply of accommodation for non-residential uses.

Housing is the main programme of majority of urban development projects of the post-industrial era. Office spaces and public amenities are often added, but developers remain keen on stimulating bars, shops and restaurants to create a 'genuine vibrant urban neighbourhood' (European, 2017). However, competition for space is intense and housing growth is stripping out the dynamic everyday economy, leading to a broader accommodation crisis. In this wave of urban regeneration the productive economy has been systematically excluded and displaced to the periphery. Productive economy, manufacturing, maintenance and repair jobs make an essential part of city life. Urban renewal that does not include these leads to a more standardised and monotonous city.

Mark Brearley of the Cass Cities unit at London Metropolitan University invites to embrace the urban industry, welcome the economic diversity of cities, and push back against the accelerated de-mixing process and suburbanisation. He calls for new developments of greater density with a generous mix of uses that include industry and bolder overlaps between them. In this lies an architectural challenge of urban invention and reappraisal of building types and configurations (Brearley, 2016).



Unto this Last workshop/showroom, London, Brick Lane. A small-scale open furniture workshop with a point of sale, exemplifying the wave of new makers, artists and creators, bringing production back to the city and utilising the newest, most efficient and compact technology. By creating a streamlined process, these type of businesses manage to compress production, storage and selling into a fairly small area.

The New Makers

The development of new technologies and manufacturing methods has led to a reconsideration of the city as potential location for production activities. Besides the return of these activities due to purely economical reasons such as the rise of living standards and salaries in low income countries, manual work and the synergy of thinking and making has been rediscovered by people as a key to holistic well-being. Increasing prosperity has led to an interest in local origin and bespoke products.

Cities will need more, not less, as the demands and needs of customers are ever more specific. There are now more small-scale wood workshops, cabinet-makers, leather goods workshops, bakeries, coffee and beer breweries, tailors and seamstresses, bike shops and other similar places in the city. People with high technical and creative skills and entrepreneurial drive are tapping into this potential. There is a desire and the expertise to produce (Brearley, 2016).

It can be argued that these activities have the potential to contribute to the robustness of the life of our cities and create streets, neighbourhoods and communities that people would like to be a part of. Bringing the location of production close to that of consumption offers the possibility for independent, sustainable economic circuits and an asset for the cultural and social coherence of the community. Ultimately, these are activities that play a part in achieving more global goals (UN Sustainable Development, 2017).



Dorte Mandrup, Lange Eng Co-housing Community, Albertslund 2009. An example of contemporary Danish co-housing project where there is a strong emphasis of common spaces, both interior and exterior. We appreciate its attention to communal spaces in its programme and would like to extend this discussion to an urban typology that combines living and working.

State of the Art

Copenhagen Plan

Our thinking for the project aligns with a number of aims in the current Copenhagen municipal plan 2015 “The Coherent City”. In the chapter “Good Housing for Everyone”, the authors acknowledge that much of recent residential construction has been relatively homogenous and expensive, especially in the new development areas. One of the proposed strategies to deal with this problem is to promote living collectively:

“The people of Copenhagen are living in new ways and desire new ways to share housing. Larger homes can be shared by multiple people, but there is also a new demand for actual collective housing, for example for seniors. Copenhagen must be an attractive metropolis that allows for the creation of new forms of living that strengthens diversity, ownership, housing quality and modern communities. Therefore, the Municipal Plan grants leeway in many respects to facilitate the establishment of collective housing arrangements with good shared facilities in Copenhagen.”

Copenhagen Municipal Plan 2015, p.33

In the section “Quality in City Life”, the municipality expresses its interest in exploring multi-functionality of buildings. It is acknowledged that it is more environmentally sustainable to use buildings for a greater portion of the day than it is to have activities spread out among many different buildings that are empty for parts of the day. In Copenhagen, collective living is a tradition and there is already good experience with co-locating schools, libraries and sports facilities. For us, the combination of living and working is an exciting example of such multi-functionality.



OMMX
Artist Live Work for 24
2016

Vision

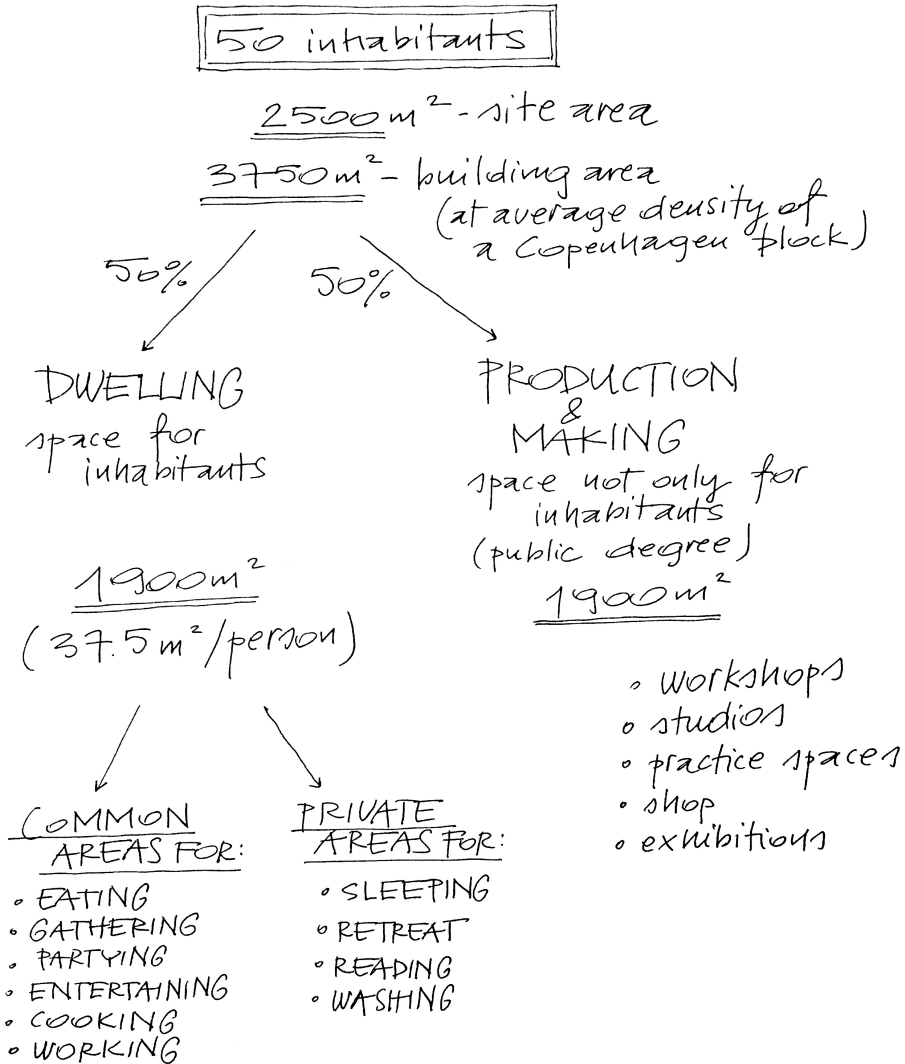
Users

Our scheme concentrates on artists, makers and creators as the main user group. They form the creative industry that ranges from advertising/marketing, architecture, crafts and various fields of design to media production, IT services, music and performing/visual arts. We see this group appropriate for the project as we broadly define production within our project as both the act of manufacturing/making as well as establishing firm social networks. In the spatial coexistence of this mix of people there is potential for mutual exchange and critique.

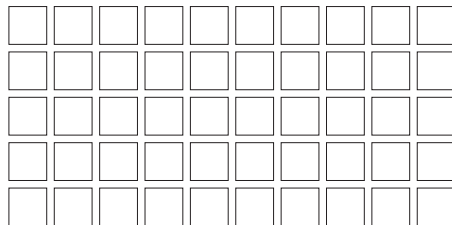
In the chosen user group there are often people who seek alternatives to traditional living models. We do not imagine our scheme as homes for life, but rather as rental accommodation where people stay for a few years. We are also looking into artist residency programmes that have the possibility to enrich the mix.

We intend to design generous living conditions to a group of approximately 50 people and include a collection of various additional communal spaces, ranging from loud workshops to quiet desk spaces (see diagram next page). Architecture provides the framework that can create cues for social interaction and professional collaboration. It is up to the individual residents to drive and shape its life.

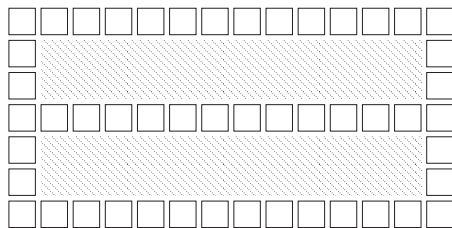
Scale



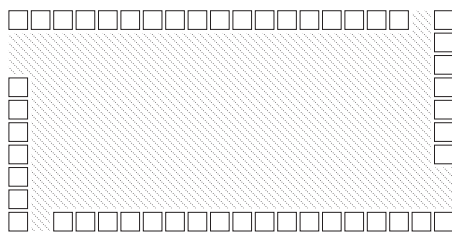
Provisional scale of the proposal and distribution of areas. As a departure point we will look into density similar to a regular Copenhagen parameter block (150%). The floor area of the building can be equally divided between dwelling spaces and production / making spaces.



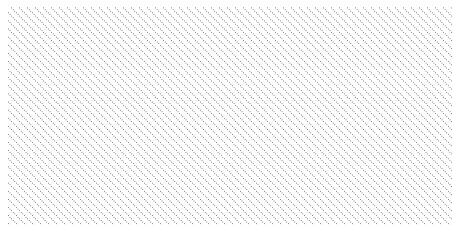
private units: 2000 m² (50 x 40 m²)
common areas: 0 m²



private units: 1000 m² (50 x 20 m²)
common areas: 1000 m²



private units: 500 m² (50 x 10 m²)
common areas: 1000 m²

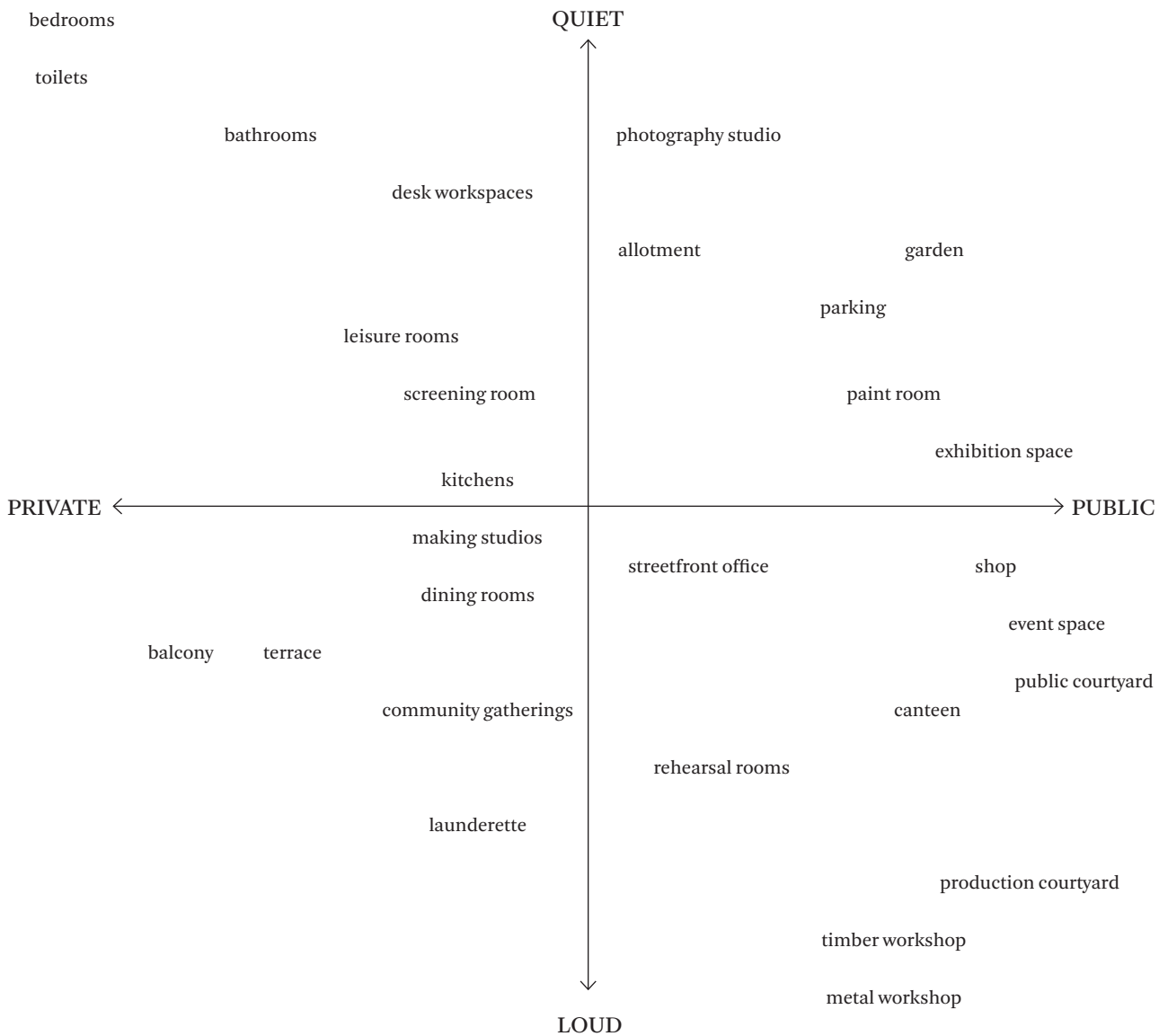


private units: 0 m²
common areas: 2000 m²

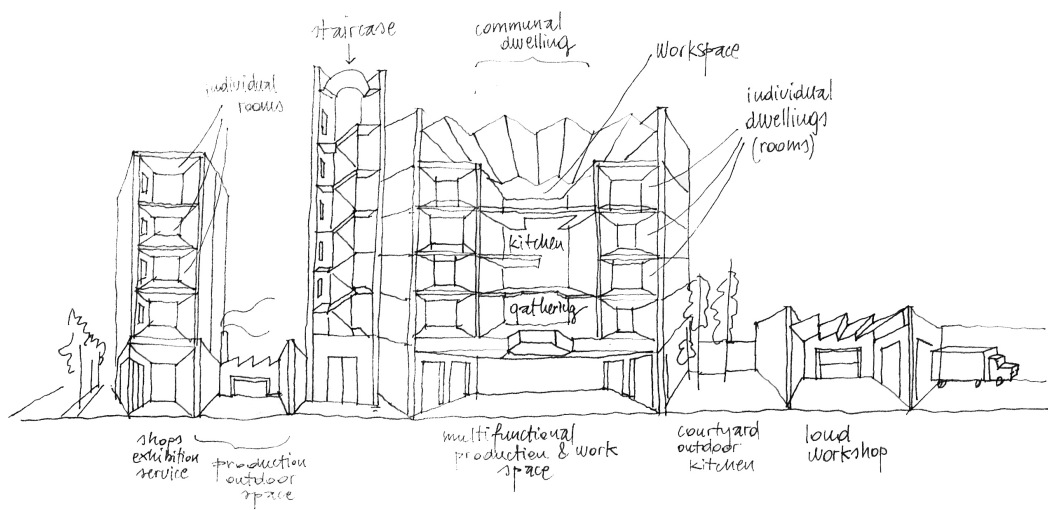
Relation of private and communal spaces in a dwelling scheme for 50 inhabitants. The top diagram depicts a scenario where the floor area is compartmentalised into separate units - 40 m² per inhabitant [Copenhagen average - 42 m² (Romme, 2014)]. The bottom diagram shows the radical scenario where there are only common areas and no private living spaces.

One of the aims of our project is to find an appropriate balance between communal spaces for sharing and private units where one can sleep, rest and retreat.

Spaces



Provisional amenities placement within the proposal. We think the primary concern while designing a comfortable dwelling arrangement is the degree of privacy (private - public axis). In terms of working and production arrangement, one of many important aspects is to control noise levels (quiet - loud axis).



Conceptual Sketch

Method and Framing

We will work with a progression of scales to convey the relevance and feasibility of our proposal to the city and address architectural elements from the scale of the urban to the detail. The project will be presented in the urban/city, block, building and room scale. We will solve the general arrangement of the proposal in 1:200 and concentrate on more specific parts in the following stages. The focus will be on the threshold between the private dwelling and communal components of the project. Furthermore, we will look into examples of loud and quiet working spaces.

This sequence of scales, where each scale informs the next, enables us to have a discussion on the relationship between every stage of the project and helps to clarify our ideas and aspirations. In this way, where we think ahead and at times work simultaneously on different scales, the details will become something that have a strong impact on the whole and a tool for getting closer to the image that will be developing in our minds.

On the block, building and room scale we place a high emphasis on the production of models. They will be an essential tool in our design process and producing visuals for the final presentation. We see quick working models and crafted final models as an appropriate medium to represent the ideas behind the project. In addition to the set of models, each scale will be accompanied with a set of relevant drawings and/or visuals that will best communicate our objectives.

The urban scale analyses the role of the programme in the city and how it intends to plug into and benefit from the immediate context and infrastructure. We intend to look into the diversity in surrounding urban approaches and architectural typologies, e.g. factories, workshops, distinct housing blocks and the spaces between.

The block scale examines the architectural qualities of this portion of the city and the project in relation to its immediate surroundings. We anticipate the proposal to be a set of buildings rather than a single building. By including the urban block and adjacent buildings in our scope, we will be able to study the relationship of the proposal to the other buildings within the block and the resulting arrangement. This scale will be studied through a 1:200 context model. It will also be used to determine the massing of the proposal and allows us to have a discussion about a potential wider approach to the whole block and its

permeability. The set of general arrangement drawings giving an overview of our project and contextual understanding will be provided in the block scale.

The research from the urban and block scale will be presented as an atlas of site engagement in various mediums, e.g. mapping drawings, sketches, diagrams, typology studies, and photographs. The atlas will communicate the vital contextual information to proceed in the building scale. We see it as another principal tool to aid us in the design process of our architectural proposal.

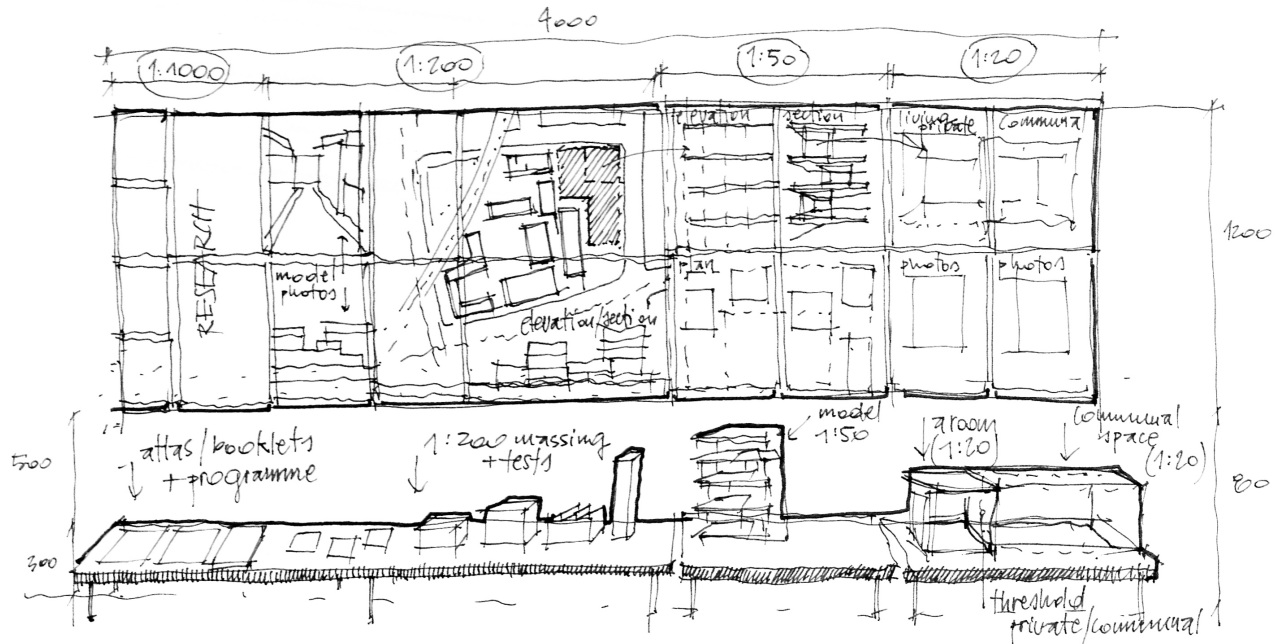
In the detail scale of a building we are looking to investigate the set of buildings more closely. It will be utilised to work on the structure and façade composition, the spaces between the components of the proposal, the relationship of the ground floor spaces to the street and the connection/overlap between floors/living and working spaces. It is our intention to produce a 1:50 model in this stage of the project.

The room scale will be used to explore the details of the workhome typology - living and working spaces and their overlap. Here we are interested in the thresholds and links between the two most important aspects of the project and want to study the interior atmosphere and materiality of the proposal. We propose to build a 1:20 model, seen as a stage set, highlighting relevant architectural components and demonstrating a space where our intentions for the project are concentrated.

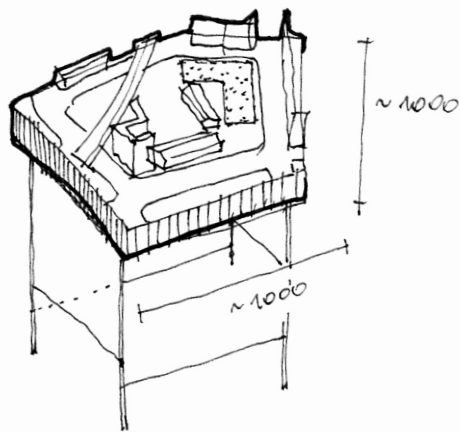
Our chosen methods will allow us to closely investigate the chosen typologies, their relationship and the possibilities offered by the site. Additionally, beside the atlas, our process work in all scales as well as main references will be presented in booklets. As a part of the collection of references, we seek to conduct a study of typologies that include a degree of communal spaces, e.g. student and elderly housing and understand the spatial requirements for typologies that include production in their programme.

We will be working as a small studio, where every component of the proposal will be discussed together, as this is a collective effort. There will be shared and individual responsibilities, which will be clearly identified. We take into account moments in the design process when we will be progressing various elements of the project individually. This will allow us to go further in depth, tackle more issues and take full advantage of our skillsets.

Presentation Plan



1:200 block model



Deliverables

provisional list of submission material

context / atlas / city scale

site engagement/research, including drawings, diagrams, historical background, mapping exercises, sketches etc.

1:200 urban block scale

contextual mapping/drawing
plans/sections/elevations of proposal
investigation of uses
physical model + immediate context
massing studies in different mediums - process booklet
sketches - process booklet
final model of the proposal
model photographs

1:50 building scale

model experiments - process booklet
sketches - process booklet
accompanying drawings
model photographs

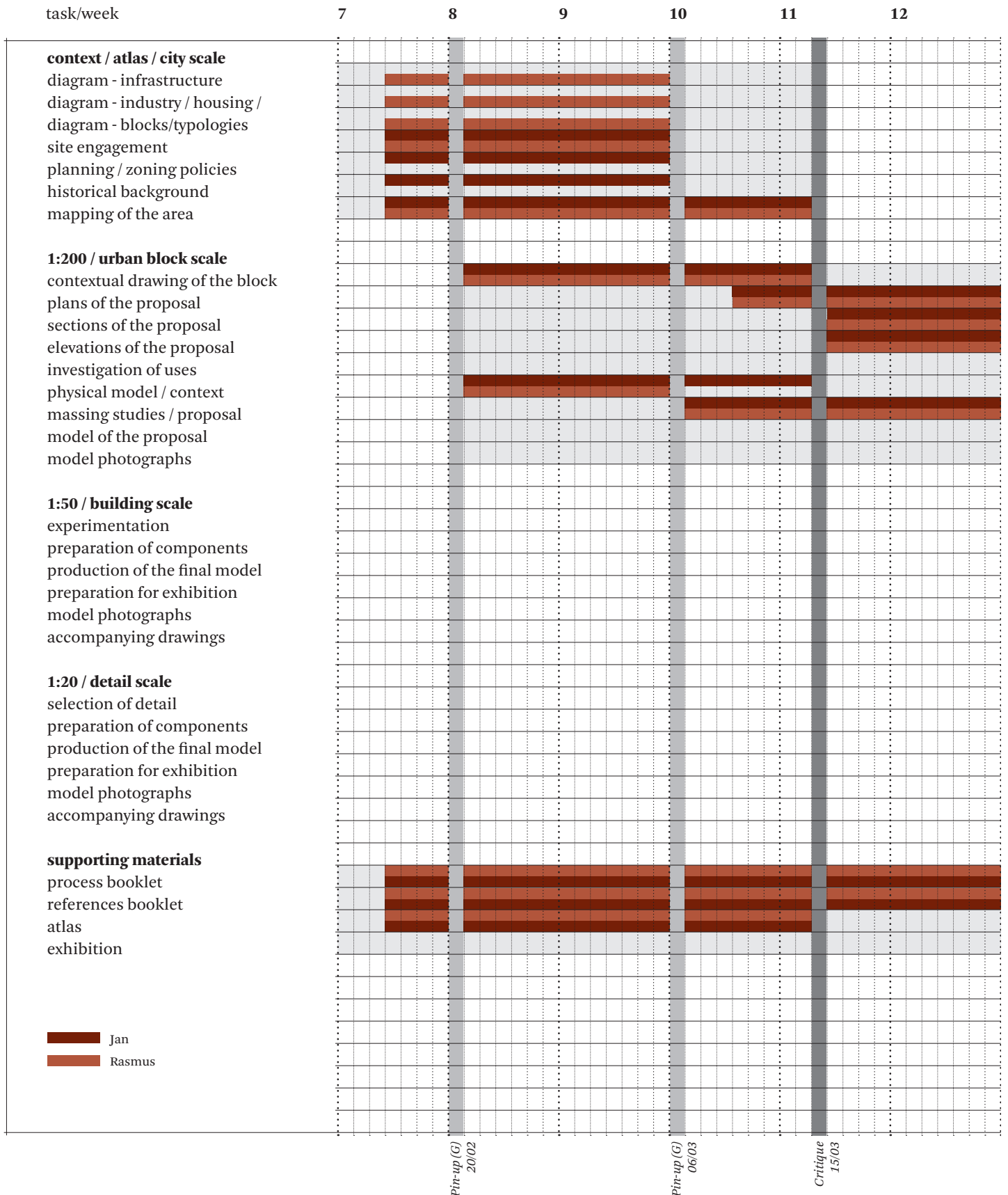
1:20 detail scale

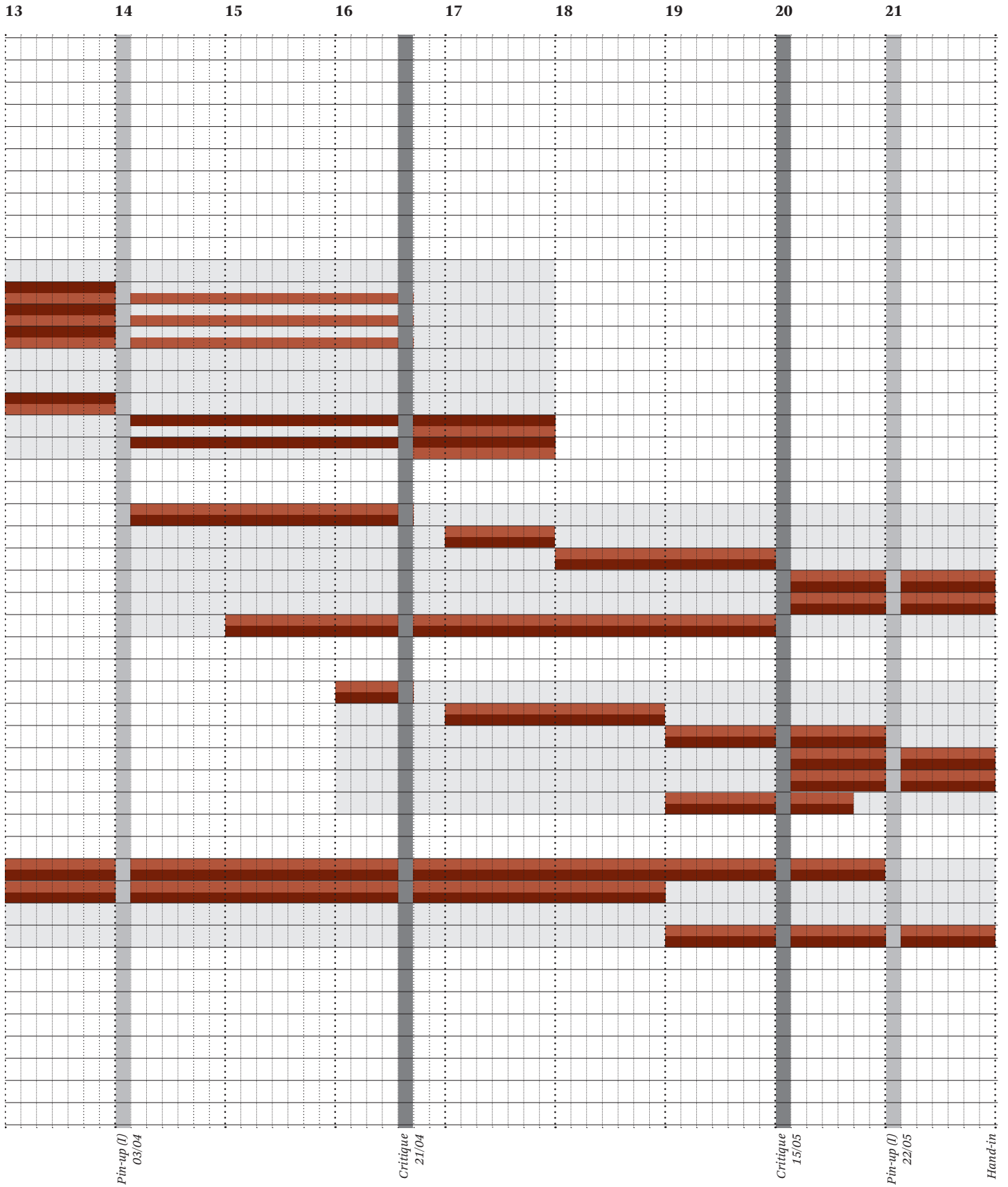
stage-set model
model photographs
accompanying drawings

supporting documents

references booklet
process booklet
atlas

Schedule





Rasmus Pikk

Date of Birth: 25.11.1989

Nationality: Estonian

Education

- | | |
|-----------|--|
| 2015-2017 | The Royal Danish Academy of Fine Arts
Schools of Architecture, Design and Conservation
Spatial Design Perception & Detail
MA Architecture |
| 2016 | Delft University of Technology
Interiors, Buildings, Cities
MSc Architecture, exchange semester |
| 2010-2013 | Manchester School of Architecture
BA(Hons) Architecture |

Work Experience

- | | |
|-----------|---|
| 2013-2015 | Hawkins\Brown, London
Part I Architectural Assistant |
| 2012 | Peil Projekt OÜ, Tallinn
Architectural Assistant |



The Workshop
TU Delft, 2016, Susanne Pietsch & Laura Alvarez



Clubhouse for Psychiatric Patients
KADK, 2016, Tom Mose Petersen
in collaboration with: Jan Szkarlat

Jan Szkarlat

Date of Birth: 13.06.1991

Nationality: Polish

Education

- | | |
|-----------|--|
| 2015-2017 | The Royal Danish Academy of Fine Arts
Schools of Architecture, Design and Conservation
Spatial Design Perception & Detail
MA Architecture |
| 2016 | Universität der Künste Berlin
School of Architecture
Design and Urban Renewal
MA Architecture, exchange semester |
| 2010-2013 | Gdansk University of Technology
School of Architecture and Urbanism
BA Architecture |
| 2012 | VIA University College Horsens
Architectural Technology and Construction Management
BA Architecture, two exchange semesters |

Work Experience

- | | |
|-----------|--|
| 2013-2015 | Projekt Praga, Warsaw
Architectural Assistant |
| 2016 | Freelance CGI artist |
| 2015-2016 | Freelance furniture and interior designer |



Revisiting the Berliner Block
 UdK Berlin, 2016, Jean-Philippe Vassal
 in collaboration with: Samuel Coolidge, Luis Lecea



Clubhouse for Psychiatric Patients
 KADK, 2016, Tom Mose Petersen
 in collaboration with: Rasmus Pikk

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