Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

Submit your Graduation Plan to the Board of Examiners (Examencommissie-BK@tudelft.nl), Mentors and Delegateof the Board of Examinersone week before P2 at the latest.

The graduation plan consists of at least the following data/segments:

Personal information	
Name	Li Ka Yiu Karry
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Studio		
Name / Theme	AR3AH105 Graduation Studio Adapting 20th Century Heritage (2020/21 Q1)	
Main mentor	Nicholas Clarke	design
Second mentor	Lidwine Spoormans	research
Argumentation of choice of the studio	Questions breed thoughts, breed questions, and more thoughts. There cannot be an answer before, probably not ever after. But through holistic dialogue among stakeholders, I hope the attempt and may be courage, in recognizing the complexity can reward us with hints of the intricacies of such dichromatic architecture – [1] NEW | HERITAGE In the industrialization of building, its over power had made the architect as craftsman redundant. When the sudden intervention of a new ability of prefabricated masses abruptly solved the unsolvable housing demand, the solution came at a price. The modern architect left the stage. [2] ARCHITECTURE ELIMINATED ARCHITECT? Value of every invention lies in what it makes unnecessary, in the elimination of redundant processes. If the regime of design discussion among architects had been eliminated, whom we should put on the table to seek the bridge for the future of those remaining masses? I reckon the residents get the validation about the past to be remembered and which they remember. [3] FORM FOLLOWS FORM - MEMORY OF MEMORY In the era of mass production, those prefabricated public housing almost became a global solution in housing shortage in the 1960s and 70s. The rectangular buildings from ranges of housing projects feel incredibly familiar that the generic nature of every neighbourhood had become part of a larger story. They have transcended nations and political systems as the by product of universal response to a globally felt urgency. At a poetic level, the prefabricated panels had been representing our collective ideology. Whilst the demolition of buildings stipulates an ideological cleansing, a foreclosure of the historical chapter still leaves the major issue unresolved. Afterall, there should be a time to rethink their definition to the 'contemporary' regionally, if not globally. [4] REGIONAL ISSUE TO UNIVERSAL IDEOLOGY	

Graduation project	
Title of the graduation project	Spatiality of injustice in the form of neighborhood commons amidst COVID-19

Goal	
Location:	Bijlmerplein (Cluster 7), Bijlmer, Netherlands
The posed problem,	**1 Spatiality of injustice in the lack of diversity of the commons** While social justice could be understood as the distribution of goods, such as utility and liberty, 'spatiality of injustice' refers to the physical attributes and social space that sustain the production of injustice (Frenkel and Israel, 2017). To further consolidate this idea, in a context of a neighborhood, it would be interpreted as 'the neighbourhood commons which causes uneven distribution of the common goods - the economic, social and cultural capital'. Rooted in the neoliberal critique of contemporary urban development in commodifying the collective resources of the city, there is a powerful social movement to reclaim control and promote greater access of urban space and resources (Foster and Iaione, 2016). Henri Lefebvre, a French philosopher, first articulated the 'right to the city' movement which has manifested to give more power to city inhabitants in shaping urban space (Lefebvre, 1996). Although the definition of the 'right' to the urban space by the scope of enhanced participation and access to urban resources remains politically unclear, where this research lays the interest in is the 'collective shaping of the urban space' which facilitates the distribution of common goods. Thus, regarding a neighbourhood scale, instead of 'urban commons', 'neighbourhood commons' is the key spatial constituent in the distribution of common goods as an inclusive and obvious confluence of most collective activities. Following the framework of 'neighbourhood commons' and 'injustice' is the clarification of the causal relation in between. Although the issue of justice has been raised in the field of geography, the factors of scale, theme and perspective have made the measurement of this political philosophy in the form of spatial principles particularly challenging. Overtime, among different streams of thoughts about the notion of spatial justice, a just form of social-spatial relationship is best represented by Suan Fainstein's book, The Just City (2010), suggesting three indicators: democracy, equity and diversity (Fainstein, 2010). Referencing these indicators in the context of the Bijlmerplein, the lack of diversity of the commons as a by-product of homogeneity masses, which is explained in the previous chapter, could be read as an underlying cause of social injustice. Based on the collective research, which will be explained in chapter 5, hindrance for an even distribution of all forms of capital can be identified as five categories. *The definition of the 'commons' could be spatially ambiguous with a spectrum of inclusiveness. Unlike 'public space' which is politically well-defined by the negative violation of order, 'commons' is vice versa which reclaims control for groups of heterogeneous users, often with minimal regulatory involvement. To avoid the possible misunderstanding of the form of 'commons', in this thesis, the 'neighborhood commons' refers to any spaces which intend to open up access of the resource in order to produce other common goods or to enhance social utility for a broader class of neighbourhood inhabitants (Foster and Iaione, 2016). Forms of the potential 'commons' could be first, 'raw' land (landscape), second, a variety of open spaces and infrastructure (streets and roads), third, public and private structures and buildings.* **2 Diminishing public realm and the neighborhood commons** First problematic commons is the ground floor public realm. One of the most dominant problematic phenomena is the vacant stores on the street and around the squares. In fall 2020, during site visits in Bijlmerplein, along the pedestrian streets towards the viaducts at the periphery of the neighborhood, there was no single store opened. The 'Carribean' atmosphere in the heyday

	of the neighborhood has been totally replaced by today's deadly ambience. In addition, the super flattened ground floor stores have been barely providing spatial opportunities for extension for unconscious social encounters. Together with the monotone type of stores which are mostly for necessity supplies, there has always been insufficient grounds for cultural capital exchange in the neighborhood. The second spatial form of injustice is the articulation of the plinth itself. Without access to fresh air and open areas within a compact shopping area, the form of a complete enclosure of the shopping plinth has constituted an unsafe consumption condition for public health particularly amidst pandemic. As a consequence, the entire indoor shopping area has to be shut down during the partial lockdown period, which has turned out to be a stagnation of the commons. The third one is the access to the upper deck. Due to the construction of housing above shopping, this dichotomy has been further segregated by the poor connection constituting two very different worlds above and below. The lack of access to the upper commons becomes a barrier for the flow of between two programs. Aside from the access to the deck, the access to the building is also another problem. The dark and compact staircase of the residential building is deprived of sufficient daylight and good ventilation making it a very uncomfortable experience to walk up four stories. While staircases are the circulation space where most of the neighbors encounter one another, a low quality dynamic space exploits the opportunity for neighbor encounters and interactions. Last but not least is the lack of diversity of roofscapes. The failure of the modern movement in highrise building blocks had buried every credit of any beneficial socio-spatial intention which led to the return of low rise and mid rise in the construction of Bijlmerplein as an anti-Bijlmer project. However, the 'dream' of pursuing a good view with fresh air is never wrong. And the homogenous midrise discrediting this idea of the equal opportunity for a good view point has been an exploitation of spatial accessibility in the neighborhood. **3 Amplification of socio-spatial injustice amidst COVID-19** Major global events, such as economic depressions and wars have been shaping our society and the way we experience everyday life throughout history. The war gave the modernist a blank page to experiment with the 'clean and neat' utopian city, followed by the global failure of those mass produced slab housing urging the demolition of them. Pandemics in 2020 is one of them which demands a major shift in functional physical approaches of places as well. As pandemic regulations are being implemented throughout the globe, there is a behaviour shift in the public and human interactions (Gehl, 2020). Socially, environmentally, and also economically, open spaces play an essential role in maintaining a balanced public health amidst Covid-19. Witnessing the adaptation of city and citizens in this crisis, open urban commons has been proven its key to build on the sense of community and social cohesion while overcoming the economic challenges. While high quality of existing commons acts as a catalyst for the transition of the 'new normal', problematic ones, or the lack of neighbourhood commons becomes an amplifying device of social injustice in a neighbourhood. The crisis of pandemic does not only raise a challenge in social activities, but also more significant in the form of economic capital. As an experimental neighborhood serving as a product of Anti-Bijlmer, the idea of separation of function, Bijlmerplein had intention to be a mix-use area with shopping streets, shopping plinth and arcade on the ground level with housing above. Throughout decades since its integration of consumptional leisure, Bijlmerplein has proved its higher level of resilience compared to other monofunctional neighbourhoods. Shops had been bringing more active street life and public realm to Bijlmerplein and hence, attracting higher influx of inhabitants compared to other neighbourhoods in the H-buurt. However, the paradigm shift in consumer behaviour to online in recent decades, with the noticeably escalating trajectory of online consumption amidst the pandemic, a lot of stores have been found vacant today in Bijlmerplein. The decline of the number of people spending time outdoors is limited by the lack of choices

	of outdoor space, as a consequence of less potential customers on the streets, causing closing down of more stores. On the other hand, under a circular effect, the shrinking spectrum of surviving shops on the ground floors has constituted a 'deadly' vibes of the public realm, which further suppresses the residents from getting on the street (Wassenberg, 2020). The diminishing public realm has raised an alarm on the impact of pandemic and potential economic crisis on the social resilience of Bijlmerplein under the paradigm shift in consumer behavior.
research questions and	**How is social injustice deepened in the lack of diversity of neighborhood commons amidst the crisis of pandemic?** 1. What are the existing attributes and corresponding values constituting the neighborhood commons in Bijlmerplein? 2. How is the performance of those neighborhood commons during the COVID-19 partial lockdown? 3. What were the other neighborhood commons and what collective activities (both intended and unintended) had been there in the 80s and heydays before COVID-19? This research begins with the question of what neighborhood commons are in Bijlmerplein and how they are being valued by different groups of stakeholders, of which the answer is retrieved from the collective research. Following the reflections of the neighborhood commons, the research explores how their performance during partial lockdown. And based on the two reports from Gehl about the public space and public life during COVID-19 and in the reopening of Copenhagen (Gehl, 2020), this supports the hypothesis that the commons would be negatively affected by the pandemic, which is elaborated in chapter 3.3. Aside from the research of the current conditions of the commons, the retrospective collective activities will be researched parallely by looking into the archive photos as a comparison in terms of the socio-spatial diversity.
design assignment in which these result.	**How can we strategize the enhancement of neighbourhood commons, based on the value of the existing attributes, towards a more just neighbourhood for the post-covid future?** 1. What are the potential neighborhood commons demanding alteration or enhancement? 2. How to enhance the corresponding valuable attributes in terms of their spatial, social and heritage value? 3. How to create a more pandemic-proof commons which meets the standard of the 'new normal'? The aim of this research is to identify the current neighborhood commons and extract the potential ones as the base of the design. In response to the posed problems and the conclusion of the research question, a set of strategies of interventions corresponding to the neighborhood commons at Bijlmerplein cluster 7 will be explored in a form of 'acupuncture'. Regarding the existing attributes of the neighbourhood commons, the design will anticipate the way of enhancement that would positively impact on its spatial, social and heritage value. In addition to the existing, the newly introduced interventions have to respond to the standard of the 'new normal' to optimize its distribution of common goods in preparation for any next possible pandemic. **Expected design outcomes** In response to the possible social injustice deepend in the form of poor commons amidst the pandemic, the design aims to recreate a more just neighborhood by a set of interventions to improve the five problematic commons: 1. Ground floor public realm 2. Shopping plinth and deck 3. Access to deck

	4. Access to building 5. Public roofscape The acupuncture approach allows redesigning in a spectrum of scale addressing specific challenges identified in the synthesis of data collection from different stakeholders. Collection of interventions are expected to be implemented separately regarding the needs and level of urgency to address respective commons. Instead of a radical insertion of a total new physical entity, various interventions are specifically contextualised in different scales and forms of commons to optimize the values of the preserved surrounding attributes.

[This should be formulated in such a way that the graduation project can answer these questions.
The definition of the problem has to be significant to a clearly defined area of research and design.]

Process

Method description

Research and design is formulated into two parts, collective and individual. The collective parts focus on researching the values and attributes of case studies and the development of corresponding research methods, data collection and interpretation. It answers the question of 'what are the existing attributes and corresponding values constituting the neighborhood commons in Bijlmerplein?' Discovery of main values and attributes of respective neighborhoods will be selected for the development of design tools for the next stage. Bringing the collective code book about values and attributes, and a set of value-based scenario toolkit for 70s/ 80s residential neighbourhoods to the individual part, a more in depth research in cluster scale will be conducted. In response to the key findings and potentials of the existing from the collective part, the individual part will further explore the change of those attributes amidst the pandemic for a more holistic understanding of 'how is social injustice deepened in the lack of diversity of neighborhood commons amidst the crisis of pandemic'.

1 Collective

1.1 Research structure

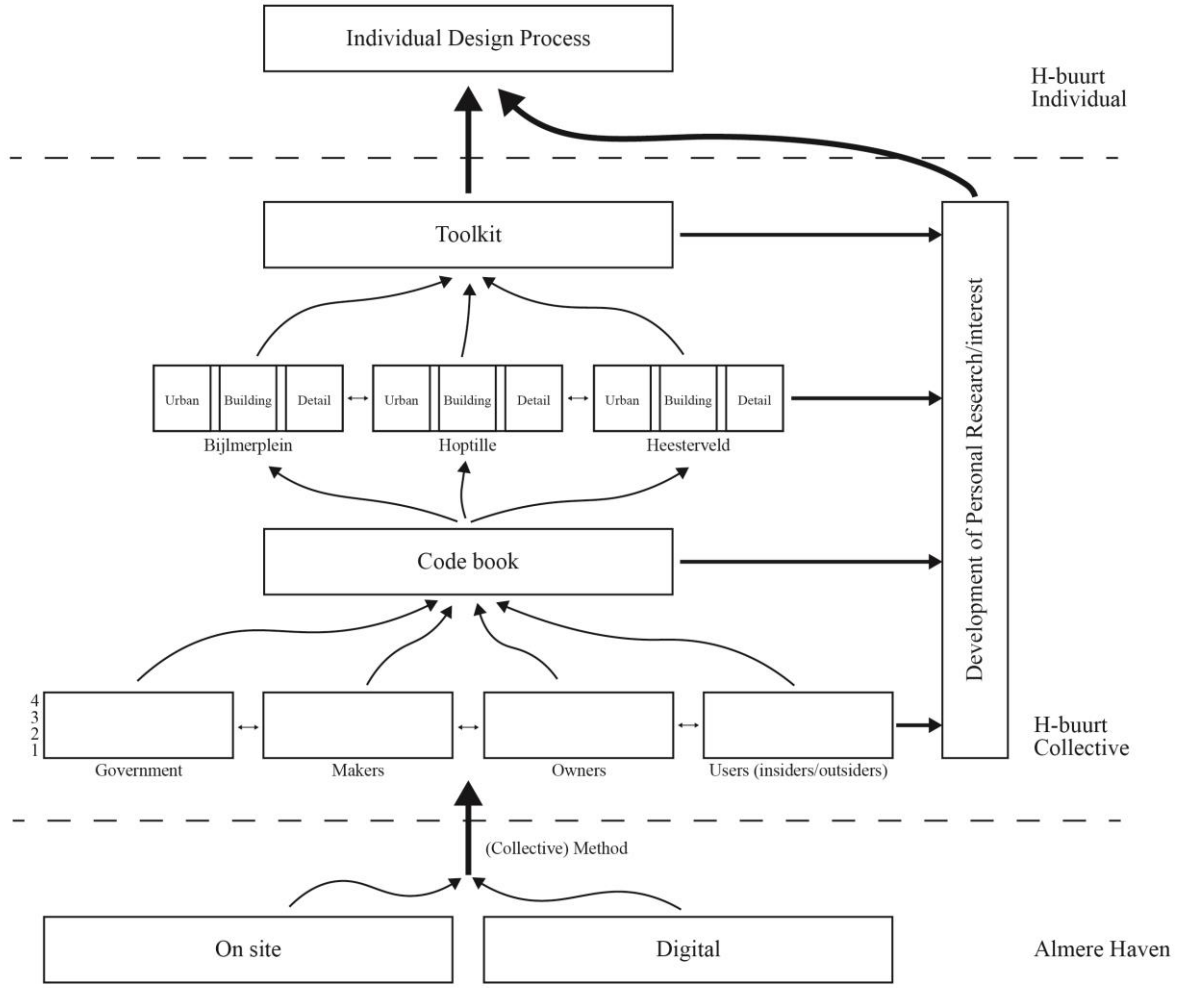
Collective research consists of a research part **(I-IV)**, followed by research by design **(V-VIII)**. The research undertaken in Almere Haven and H-Buurt serves as a foundation for the design process. **(I)** Pilot research exploring values and attributes in Almere Haven is conducted as the beginning of the experimental research. It is to test and adapt the research methods and documentation in values and attributes. **(II)** Research exploring values and attributes in H-Buurt as the target site study follows the test in the pilot research. Four groups are divided to cover four different stakeholders of H-Buurt to get a full insight of important attributes and respective values in the neighborhood. **(III)** Coding of collected attributes from different stakeholders will be conducted with Atlas.ti software to form an explanatory code book of attributes. **(IV)** Interpretation and selection of values and attributes from the code book will inform the tools in the stages of research by design.

Bringing the values and attributes to the confrontation with local issues and challenges which might have raised in the research part, research by design translates the code book into a design toolkit. **(V)** Defining the challenges embedded in the attributes in the code book presents the gap between the ideal attributes and the actual societal situations. **(VI)** Development of value-based tools are developed based on the confrontation of the challenges in (V) and attributes found in (IV). Sets of design scenarios linking values to challenges become a collection of tools for different scale levels, values and perspectives. **(VII)** Impact assessment of each design scenario is conducted based on its impact on the corresponding values which determines the likelihood of the design approach. **(VIII)** Toolkit of the approaches to an architectural intervention and its respective value impact will remain as a constant tool to be used throughout the design process.

1.2 Research methods

As an experimental collective research, different research methods are applied in various stages in the form of group work. **(I)** The research methods explore residents' memories and perception by images, which are carried out in two groups - media and on site. The media group develops on a more holistic perspective based on sources like social media and literature are used for data collection for attributes and values. Synthesis of data is presented in different forms of diagrams, such as Sankey diagram and hotspot map to test the effectiveness of

representations. Parallely, the on site group focuses on street interviews in the forms of open conversation, drawings, questionnaire and picture elicitation to collect the attributes and values from the resident perspective. **(II)** Research methods developed from (I) are further improved and integrated into the research from the perspectives of four stakeholders - government, makers, owners and users, while interviews with the first three stakeholders are conducted as in- depth ones by online meeting and narrative walk. **(III)** Aside from the help of the diagram presentation developed in (I), attributes and values collected are synthesized with the use of Atlas.ti software as a base for qualitative and quantitative analysis. Key words and photos are coded, grouped and rearranged to form inter relations among one another. **(IV)** Code book of both quantitative and qualitative analysis in the form of code network diagrams, dendrogram heatmap, and value matrix sets the foundation for discussion on the values and attributes, design assignments responding to problems and opportunities. **(V)** Identification of challenges and key attributes and values is generated based on a collective conclusion and discussion among groups to get a full insight from all four perspectives. **(VI)** In the theme of socio-spatial diversity, which serves as the starting point of the focus of this research, scenarios for diversity enhancement of social life and collective space are designed covering a spectrum of scale by variants, references and theories. **(VII)** In respect to this theme, social, spatial and heritage values set the metrics to evaluate the impact of involved key attributes in the scenarios. Impact assessment in the form of spider diagrams illustrates the change of value of each attribute when corresponding intervention is applied. **(VIII)** Toolkit of socio-spatial diversity consisting of impact assessment of all tested scenarios becomes the basis for developing approaches to acupuncture interventions in response to the enhancement of the neighbourhood commons. It will be constantly used for the selection of design variants in an iterative design process.



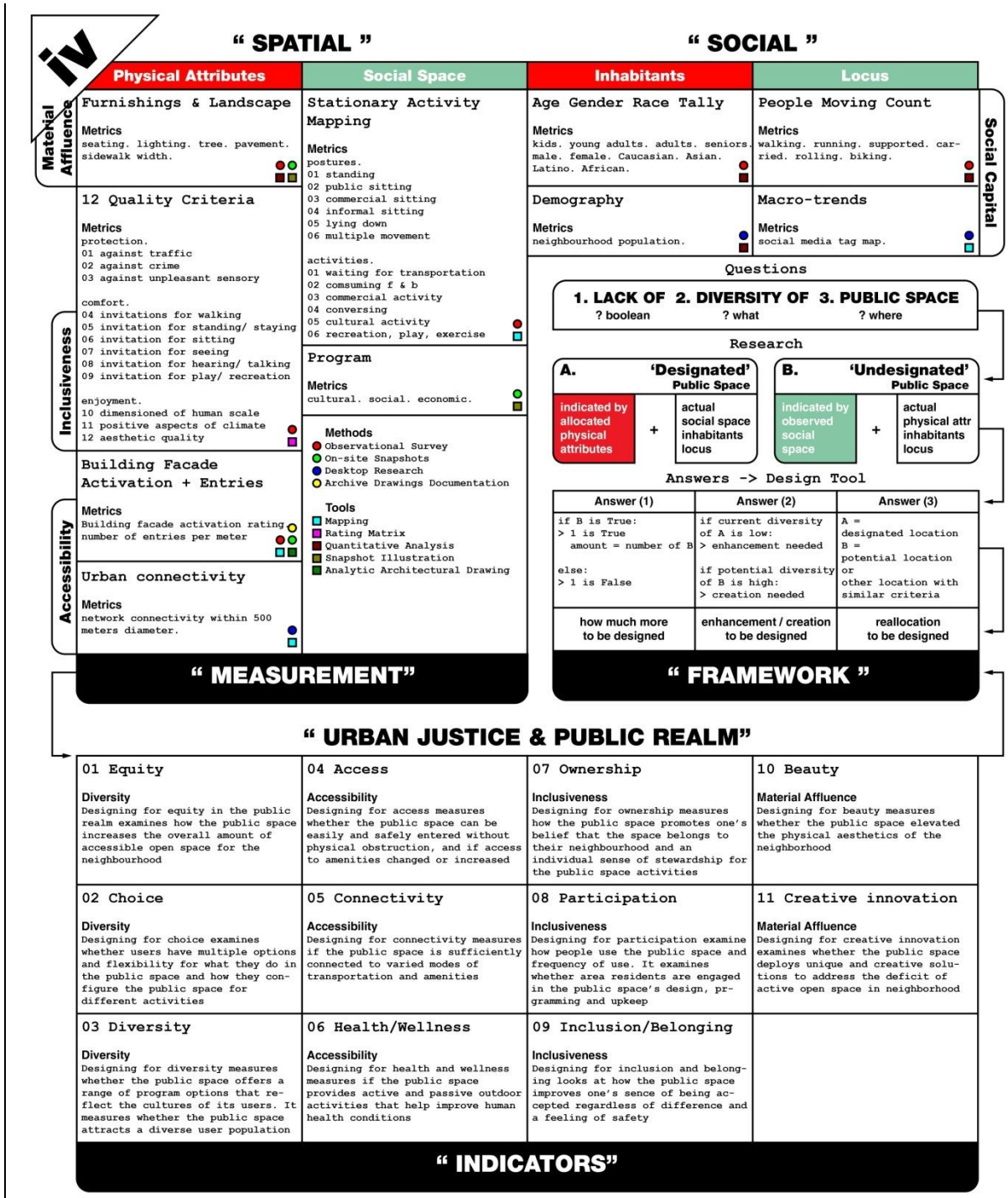
2 Individual

2.1 Research structure

Following the code book guided challenges and value-based toolkit setting up a design strategy framework, the individual research further interrogates the articulation of key attributes and the impact of covid-19 on the neighbourhood commons. The research consists of data collection **(I)**, followed by two other sets of design tools **(II,III)**. **(I)** Research is formulated in the data collection of the current neighbourhood commons and the ones in the old days in the form of physical attributes and social activities. Observation of the current and past forms of neighborhood commons responds to the hypothesis of 'deepened injustice' and feeds to the understanding about the existing key attributes during the pandemic. **(II)** Design tools of a catalogue of design abstractions from the neighbourhood commons and illustrations of pandemic related commons will be synthesized as a conclusion of the analysis. **(III)** Value-based tool box from the collective part will remain as the evaluation tool supporting the design tools from (IV),

2.2 Research method

(I) Regarding the research question setting on the conclusion of the collective part, clarification of the hypothesis of 'lack', 'diversity' and 'crisis of pandemic' is extended into sub questions as the base of the research. Four research methods are used to discover functionality, conditions and behaviour of the neighborhood commons back in the old days and the present days. As a highly sociological driven research, research methods referenced to Gehl's ethnographic public life tool plays an important role in the data collection of the present days. Qualitative methods in cultural anthropology like ethnographic and observational approaches characterized by their humanism and holism allow understanding the complexity of social relations and cultural dynamics for design and reconstruction (De la Torre, 2002). Particularly in this research of the neighborhood commons and its changes amidst pandemic, the data of social space and current performance of key physical attributes can be well attained by **(1)** observational survey and **(2)** on-site snapshots. Aside from the behavioral data collection of the current moment, **(3)** archive drawings documentation gives a more detailed insight of the spatial constituents of neighbourhood commons in terms of the socio-spatial diversity, technical flexibility and anti-pandemic quality of the existing. **(4)** Desktop research is a supplementary method focusing on the neighbourhood commons back in the old days. Snapshots from social media and archive photos provide evidence of the past social space. Besides, desktop research of case studies of the effect of pandemic on other commons gives another insight of the general impact of lock down and reopening on their performance. It serves as an additional reference for the post pandemic design guide. **(II)** Analytic architectural drawings and snapshot illustrations translate the collected data into annotated visual evidence corresponding to the research question. Two sets of design tools will be developed based on (I). First is a catalogue of design abstraction which illustrates the good quality attributes of both the past and present neighborhood commons. It will formulate a set of design language guidance for the acupuncture interventions. Second, a collection of scale of 'new normal' presents how the neighbourhood commons in Bijlmerplein and commons has been reacting to the pandemic. This collection of socio-spatial measurement will set a foundation for a more pandemic-proof design in the future. **(III)** Value-based tool box referenced to the (JMBC) J. Max Bond Center's 'Just City' values (Gehl and JMBC, 2015), 12 quality criteria from Gehl (Gehl and Svarre, 2013), and heritage value from Alois Riegl (Riegl, 1903) will be constantly referred to as an iterative design research, of which the 12 quality criteria will be the main metrics to evaluate the spatial decision in the entire design process.


iv
" SPATIAL "
" SOCIAL "
Physical Attributes
Social Space
Inhabitants
Locus
Material Affluence
Social Capital
Inclusiveness
Accessibility
Furnishings & Landscape
Metrics
seating. lighting. tree. pavement. sidewalk width.
Stationary Activity Mapping
Metrics
postures.
01 standing
02 public sitting
03 commercial sitting
04 informal sitting
05 lying down
06 multiple movement
activities.
01 waiting for transportation
02 comsuming f & b
03 commercial activity
04 conversing
05 cultural activity
06 recreation, play, exercise
Age Gender Race Tally
Metrics
kids. young adults. adults. seniors. male. female. Caucasian. Asian. Latino. African.
People Moving Count
Metrics
walking. running. supported. carried. rolling. biking.
12 Quality Criteria
Metrics
protection.
01 against traffic
02 against crime
03 against unpleasant sensory
comfort.
04 invitations for walking
05 invitation for standing/ staying
06 invitation for sitting
07 invitation for seeing
08 invitation for hearing/ talking
09 invitation for play/ recreation
enjoyment.
10 dimensioned of human scale
11 positive aspects of climate
12 aesthetic quality
Program
Metrics
cultural. social. economic.
Demography
Metrics
neighbourhood population.
Macro-trends
Metrics
social media tag map.
Methods
Observational Survey
On-site Snapshots
Desktop Research
Archive Drawings Documentation
Tools
Mapping
Rating Matrix
Quantitative Analysis
Snapshot Illustration
Analytic Architectural Drawing
Building Facade Activation + Entries
Metrics
Building facade activation rating
number of entries per meter
Urban connectivity
Metrics
network connectivity within 500 meters diameter.
Questions
1. LACK OF ? boolean
2. DIVERSITY OF ? what
3. PUBLIC SPACE ? where
Research
A. 'Designated' Public Space
indicated by allocated physical attributes
+
actual social space inhabitants locus
B. 'Undesignated' Public Space
indicated by observed social space
+
actual physical attr inhabitants locus
Answers -> Design Tool
Answer (1)
if B is True:
> 1 is True
amount = number of B
else:
> 1 is False
how much more to be designed
Answer (2)
if current diversity of A is low:
> enhancement needed
if potential diversity of B is high:
> creation needed
enhancement / creation to be designed
Answer (3)
A = designated location
B = potential location
or
other location with similar criteria
reallocation to be designed
" MEASUREMENT"
" FRAMEWORK "
" URBAN JUSTICE & PUBLIC REALM"
01 Equity
Diversity
Designing for equity in the public realm examines how the public space increases the overall amount of accessible open space for the neighbourhood
04 Access
Accessibility
Designing for access measures whether the public space can be easily and safely entered without physical obstruction, and if access to amenities changed or increased
07 Ownership
Inclusiveness
Designing for ownership measures how the public space promotes one's belief that the space belongs to their neighbourhood and an individual sense of stewardship for the public space activities
10 Beauty
Material Affluence
Designing for beauty measures whether the public space elevated the physical aesthetics of the neighborhood
02 Choice
Diversity
Designing for choice examines whether users have multiple options and flexibility for what they do in the public space and how they configure the public space for different activities
05 Connectivity
Accessibility
Designing for connectivity measures if the public space is sufficiently connected to varied modes of transportation and amenities
08 Participation
Inclusiveness
Designing for participation examine how people use the public space and frequency of use. It examines whether area residents are engaged in the public space's design, programming and upkeep
11 Creative innovation
Material Affluence
Designing for creative innovation examines whether the public space deploys unique and creative solutions to address the deficit of active open space in neighborhood
03 Diversity
Diversity
Designing for diversity measures whether the public space offers a range of program options that reflect the cultures of its users. It measures whether the public space attracts a diverse user population
06 Health/Wellness
Accessibility
Designing for health and wellness measures if the public space improves active and passive outdoor activities that help improve human health conditions
09 Inclusion/Belonging
Inclusiveness
Designing for inclusion and belonging looks at how the public space improves one's sence of being accepted regardless of difference and a feeling of safety
" INDICATORS"

Literature and general practical preference

Revival of the diminishing egalitarian with the notion of just life

The emergence of modern urban movement was originally built up on the egalitarian vision. The early conception of the Bijlmermeer conformed to socialist ideals of equality and collectivism in the form of a uniform landscape (Fainstein, 2010). Yet, after layers of failure and following redemptions, not only did we not achieve social justice, what remained today in Bijlmermeer are segregated heterodox neighbourhoods. Even though liveability problems have been alleviated over time, social injustice is still an unresolved issue in current neighbourhoods, which are indicated by the relatively large size of vulnerable groups and high unemployment rate (Wassenberg, 2013).

To revive this diminishing vision of egalitarianism in Bijlmermeer, an initial step is to define the research framework of social justice, in which architects could find the position to interfere with. 'Social justice' generally refers to the distribution of benefits and burdens in society. And to measure justice in space, Frenkel and Israel have designed a conceptual framework (Fig. 1) entwining the normative sense of justice and the living environments, habitus and thus capital forms (Frenkel and Israel, 2017). Based on the complexion of the spectrum of constitutional roles involved in the cycle of this socio-spatial dynamics, their framework is deconstructed and synthesized in the next step to facilitate the possible positioning of an architect. In addition to the dissection of the intricacy between city and citizen, this research also references the thinking machine by Patrick Geddes in the understanding of the notion of life of four steps (Hysler-Rubin, 2011). With the four aspects - physical attributes, social space, local habitus and political milieu extracted from the rational of Frenkel and Israel (Fig.1), and the four bio-psycho steps - acts, facts, thoughts, deeds from the 'thinking machine' suggested by Patrick Geddes (Fig.2), the superimposition of both socio-spatial sense of justice and bio-psycho translation of justice sets the foundation for the notion of 'just life' (Fig.3). And to complete the inter relationships among those four aspects, additional spiral circulation illustrates the conversion of goods and commodities distributed in society constituting the personal capability set, which is further amplified in the functioning in social fields in a broader context leading to the sense of social justice. As another abstracted thinking machine entwining social justice in the context of a spatial constitution, it lays the basic ingredients for a just life. And among these intercorrelations, as architects, we may find our chances of contribution in the intervention of 'physical attributes' and 'social space', of which will be further elaborated as the foundation of this research.

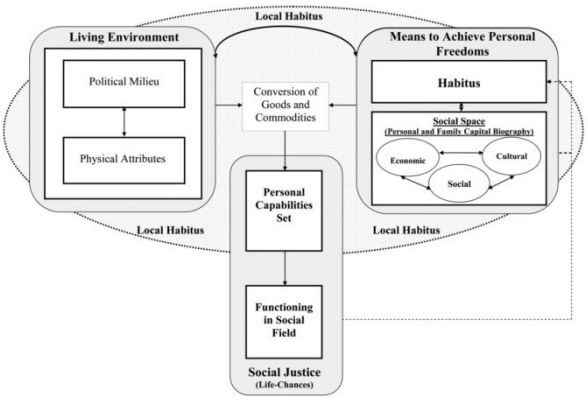


Fig.1 Conceptual framework for the measurement of justice in space by Frenkel and Israel

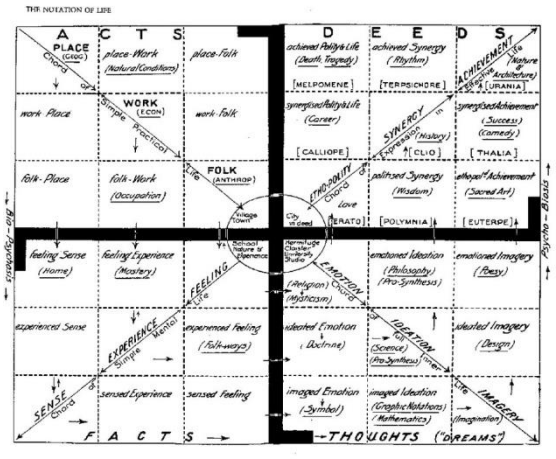


Fig.2 'Thinking machine' by Patrick Geddes

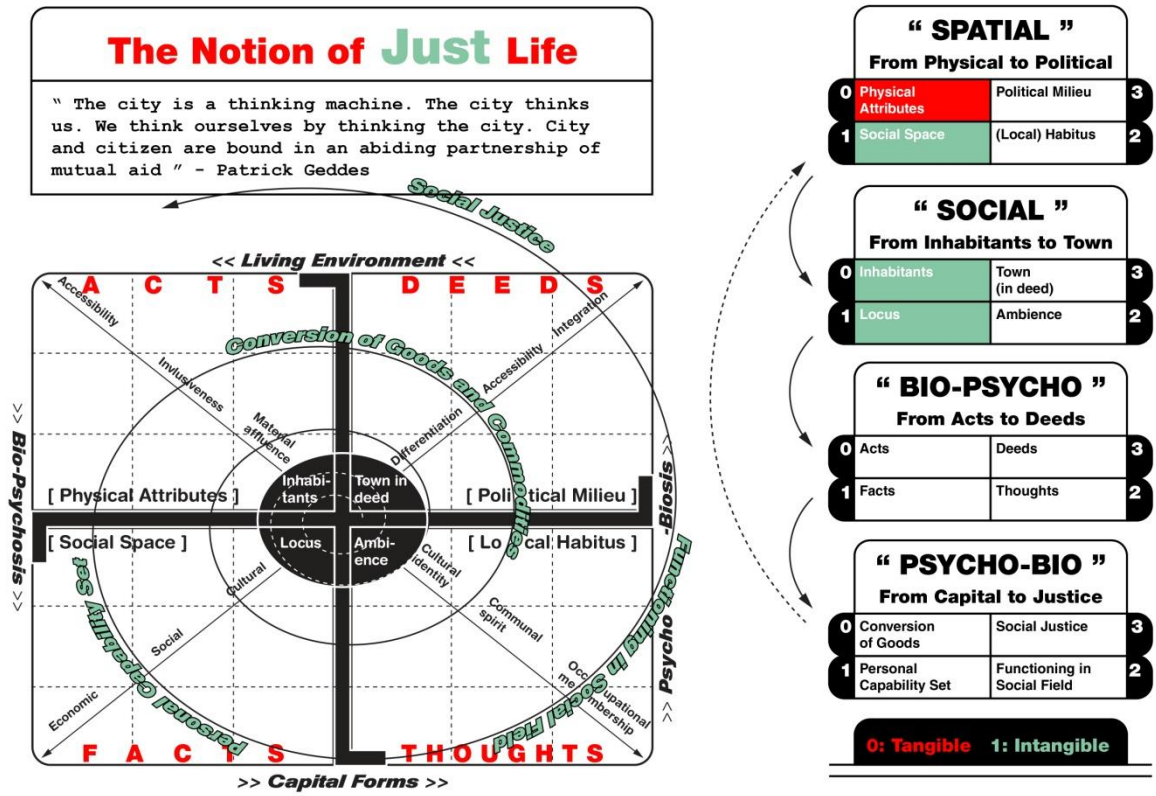


Fig.3 Notion of just life and its constituents, interpretation of (Frenkel and Israel, 2017), (Hysler-Rubin, 2011), (Fainstein, 2010)

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Reflection

1. What is the relation between your graduation (project) topic, the studio topic (if applicable), your master track (A,U,BT,LA,MBE), and your master programme (MSc AUBS)?

Answer to 70s/80s housing as an urban product

Amidst the erection of those 70s/80s housing, including the Bijlmerplein, they were mostly designed in the context of an urban plan. Makers were viewing the 'buildings' in a form of 'maquette' from a top down perspective. It is an aesthetic exercise - it is "maquette" making. As a result of the fictional top down design anticipation, those housings were placed as mere aesthetic solid blocks over a master plan. Under the negligence of building scale, the massive housing was designed as an urban product, however, with spatiality of injustice in the lack of urban quality.

Housings in Bijlmerplein are never referred to as buildings, but clusters. They are an enormous construction that can no longer simply be served as individual living vehicles. Instead, they have become collective clusters constituted by an urban composition of gigantic masses with its consequential void, a by-product as a public space. The homogeneity of solids did not only breed anonymous housings, but also abundance of boring space within the clusters. In reality, the 'poor residents' only spend their everyday lives inside the 'maquette' for the sense of intimacy, leaving the rest of the enormous space being overlooked. However, at the micro level of this urban shelter product, space is the most important commodity, which requires an optimal use not only for catering the immediate demands, but more importantly for reasons of the lifestyle, economics, and culture of the users. In this graduation project, the site, Bijlmerplein is a cluster serving as a collective asset for a spectrum of users, ranging from residents to visitors and from shop owners to workers. And hence, when attention has been paid to the design of building blocks, an optimised answer to a diverse need of the 'commons' should also be explored in this context of 70s/ 80s urban product.

2. What is the relevance of your graduation work in the larger social, professional and scientific framework.

'Non-styled architecture' as an unpurified solution to spatiality of injustice

Never conflict can be avoided, nor can we fully rely on the social system itself in changing incrementally as a consequence of continued pressure for justice. The goal of this research and graduation design is not to seek a solution to the social injustice embedded in the neighbourhood. As explained in the theoretical framework about the notion of just life, the role of architecture in the entire system is limited, however, has set a spatial foundation as the acts and the casual facts in an individual's life. While housing policy on economics and ownerships indeed might play a more effective role in the change of the system, which has also been more discussed and progressed, the impact from the uneven distribution of the commons has been overlooked. Thus, this research attempts to translate the constituents of social justice in the form of spatial metrics to suggest another lens to replant neighborhood justice in the form of commons. The specific acupuncture in the identified neighborhood commons will be anticipated as a catalyst for more even distribution of social resources.

As Saskia Sassen, a Dutch-American sociologist raised a query about 'who owns the city' in an era of plutocracy, public officials have acknowledged the fact that the socially vulnerable populations are being displaced by an urban development machine indifferent to creating an inclusive city (Foster and Iaione, 2016). In the introduction chapter, it has been claimed that the elimination of architects in the design process has led to the 'non-styled architecture' in the 70s/80s. While witnessing the failure of the arrogant heroism of architects in the modern movement, we have also learnt that architects are no god to a solution to egalitarianism. And hence, in response to the question of Saskia Sassen, the 'non-architect' who can justify the value and design of the neighborhood and the city, should be the residents and other heterogeneous groups of users. Through this research, a holistic perspective has always been emphasized in the evaluation of the neighbourhood, as the foundation of the aim of the design. As a result, the acupuncture design is totally responsive to the general opinions, and more importantly the needs and perceptions of the residents. In addition with the bottom up neighbourhood observation survey, this research aims to suggest a form of research, hence a humble design which is inspired by those 'non architects' for their own justice. After half a century, learning from the catastrophe brought by the domination of abstract, instrumental reason with grand architecture concepts over humans and nature, it is aimed that this research can explore the possibility of a heterodoxical unpurified solution regarding the contextualised spatiality of injustice by the means of neighborhood commons.