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 Delegate of the Board of Examiners one week before P2 at the latest.

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

Personal information	
Name	Jianing Liu
Student number	4849841
Telephone number	
Private e-mail address	

Studio		
Name / Theme	Flowscape / LAB: Urban forestry	
Main mentor	Rene van der Veld	Landscape Architecture
Second mentor	Willemijn Wilms Floet	Architecture
Argumentation of choice of the studio	Landscape in urban context and its social value for a more sustainable future attracts me to this lab.	

Graduation project	
Title of the graduation project	Green bond Amsterdam-Noord

Goal	
Location:	Amsterdam Noord, Amsterdam, Noord-holland, Nederlands
The posed problem,	**Exclusive and homogeneous transformation of post-industrial area in Amsterdam Noord** With pressure of over-population and lack of housing, more and more suburb areas are transformed into residential area, to quench the urgent need of the main city structure. However, the plan made is sometimes not sustainable in a long term. The former harbor and industrial area, Buiksloterham, located in Amsterdam Noord, is going through transformation. According to the plan of municipality of Amsterdam, it will be changed into residential neighborhoods with very little public wooded spaces, together with plans for facilities designed most appealing to the youngsters, for instance, night clubs and high-tech museums. Amsterdam Noord has been a testbed of social and spatial engineering(Werf, H. H., Verhagen, K., & Vroomen, L. (2009), Waterfront Visions, Transformations in North Amsterdam).The development of the Noord began in late 19th century,with reclaiming land from water for industrial purpose. Later on, garden city villages (tuindorpen) was built as residential facilities, together with green

infrastructure in picturesque style to match the "garden city" vision. After decades of development, Amsterdam Noord has built up an identity of its own, which can be simply pictured as post-industrial waterfront with massive green interweaving in the urban fabric in the back, a green get-away from the lousy city.

Also worth mentioning, the garden city villages currently have a population with much more elderly people compared to other parts of Amsterdam.

The new exclusive plan brings little benefit to the elderly population of Amsterdam Noord. The new residential area lacking green spaces would also deteriorate the identity of Amsterdam Noord. Another plan will be needed to connect Amsterdam Noord to the bigger context of Amsterdam, while keeping its own identity.

Poor health situation of the elderly and uneven development of cultural facilities in Amsterdam

Population aging and urbanization are defined as major challenges for this century by World Health Organization. The world is rapidly aging. By 2050, there will be more people aged 60 years or over than children (aged 0–14 years) in the population for the first time in human history. At the same time, our world is a growing city: as of 2007, over half of the global population now lives in cities.

The existing caring facility and city structure are not sufficient for the physical and mental health of aging population.

Though Amsterdam has less population of 65 years and over (12.5%)compared to the whole Nederland(14.9%) in 2019, the elderly in Amsterdam have more health issues. Research shows that 50% of people aged 65 and over in Amsterdam are moderately to (very) seriously lonely. 11% are even (very) seriously lonely. This is 9% throughout the Netherlands. Social exclusion is more common among Amsterdam residents aged 65 and over than the average in the Netherlands (7% versus 3%). (Data from: Startnotitie Amsterdam Age-friendly City)

Populations of different age gathered in different area of Amsterdam. Young people tends to move into the city center, while the elderly tends to move out as they getting aged. Compared with the whole city of Amsterdam, Amsterdam center area with and within the canal belt is a concentration of cultural facilities (cafe, theaters, retail stores, markets, museums), which can be a good source for stimulating the elderly and re-engaging them with the society. Yet the elderly of Amsterdam live mostly outside or even far from this area. This imbalance seems to barrier the elderly from the dynamic social life in the city, which has a negative impact on their mental health.

	Amsterdam Noord has a big share of aged population, with the industrial area in-between going under transformation, Amsterdam Noord has the potential to re-connect the elderly to the city again. Age-friendly city is not only beneficial for the elderly, everyone living in the city will benefit from it. It is needed that we build a supportive and enabling environment to re-engage the elderly and make Amsterdam Noord more socially-sustainable.

research questions and	**Main research question**
	    In the process of city expansion, how can Amsterdam Noord be transformed, in coherence with its identity, to facilitate an age-friendly city?
	
	Sub-question
	    What defines the identity of a city/area/space?
	    How do people perceive identity?
	    How is the identity represented in landscape elements?
	    How is identity of a place formed and developed?
	
	    What is age-friendly city?
	    How to make an age-friendly city? How can landscape contribute to it?
	
	    How to build a multi-sensory landscape experience, co-memory space, and walking experience, that would contribute to emphasizing identity of the space and providing age-friendly experience?

design assignment in which these result.	To create a spatial framework for the transformation of Amsterdam Noord, to develop the unique identity and build an age-friendly system that would benefit the city.
	
	    To design an urban forest complex in Buiksloterham, as a key activating point of this framework, with residential area and cultural facilities embodied in open green environment.
	    To design green facilities inside the complex as narrative landscape about identity of Amsterdam Noord being a green get-away, as well as age-friendly wooded space where the elderly are enabled to mingle into social life, get positive exposure to nature, and enjoy healthy activities.

[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

Starting from the main research question, there are 4 parts in this research: research of city identity, research of age friendly city, research of design method, and research of Amsterdam.

The research of city identity is done by literature study and case study. From literature study together with case study, the origin of identity and principle of identity development is defined, which provide lens to look into the elements that contribute or represent the identity of the site. One of the principle, "environmental learning and direct experience", leads to further literature study related to design method.

The research of age-friendly city is done by literature study and case study. From literature study, the framework of age-friendly city is defined. From case study, principle of designing caring facilities/green facilities are defined, which provides lens to look into potential program and spatial quality of the site. One of the principle,"restorative landscape for the elderly", leads to further literature study related to design method.

The research of design method is an complement part of city identity and age-friendly city, targeting at a more detailed scale. It is done by literature study and case study. From the study, design principles of narrative landscape, multi-sensory landscape and levels of maintenance are concluded as complement design principle for city identity; restorative nature are concluded as complement design principle for age-friendly city.

The research of Amsterdam is done with lens provided by the first 3 parts of research. It is done by literature study, historical map study, site visit and spatial mapping. This research is conducted in 3 scales, Amsterdam municipality region, Amsterdam Noord and Buiksloterham. Research of Amsterdam municipality region gives a picture of the relation between Amsterdam and Amsterdam Noord; research of Amsterdam Noord defined its unique identity; research of Buiksloterham leads to the plan of age-friendly urban forest complex.

With the principles and outcomings from these researches, a regional plan for Amsterdam Noord and design of urban forestry complex for Buiksloterham will be generated.

Literature and general practical preference

Alex Kudryavtsev, Richard C. Stedman & Marianne E. Krasny (2012) Sense of place in environmental education, Environmental Education Research, 18:2, 229-250, DOI: 10.1080/13504622.2011.609615

Daalder, R. (2005). The Amsterdam Harbour, 1275-2005. Amsterdam, D'ARTS.

Hayden, D., & MIT Press. (2006). The power of place: Urban landscapes as public history. Cambridge, Mass: The Mit Press.

Hoog, M. ., & Vermeulen, R. (2009). New rhythms of the city: Moulding the metropolis in Amsterdam. Bussum: Thoth.

Hough, M. (1992). Out of place: Restoring identity to the regional landscape. New Haven: Yale University Press.

Kaplan, R., and S. Kaplan. (2005). Preference, restoration, and meaningful action in the context of nearby nature. In Urban place: Reconnecting with the natural world, ed. P.F. Barlett, 271–98. Cambridge, MA: The MIT Press.

Komossa, S. (2010). The Dutch urban block and the public realm: Models, rules, ideals.

Neill, W. J. V. (2004). Urban planning and cultural identity. London: Routledge.

NVTL(2010) . Gezond Ontwerp! . Utrecht

Pistor, R., & Aluvihare, R. (1994). A city in progress: Physical planning in Amsterdam. Amsterdam: Dienst Riumtelijke Ordening.

Potteiger, M., & Purinton, J. (1998). Landscape narratives: Design practices for telling stories. New York: J. Wiley.

Richards, G., & Palmer, R. (2015). Eventful cities: Cultural management and urban revitalisation.

Riza,M., Doratli, N., Fasli, M.(2012). City Branding and Identity. Procedia - Social and Behavioral Sciences, Volume 35, 2012, Pages 293-300, ISSN 1877-0428, https://doi.org/10.1016/j.sbspro.2012.02.091.

Schreijnders, R., & Woningbedrijf Amsterdam. (1991). De droom van Howard: Het verleden en de toekomst van de tuindorpen. Rijswijk: Elmar.

Sennett, R. (2008). The uses of disorder: Personal identity and city life.

Stiller, L., & Blankers, E. (2011). Het Amsterdamse bomenboek. Amsterdam: Atlas.

Werf, H. H., Verhagen, K., & Vroomen, L. (2009). Waterfront visions: Transformations in North Amsterdam = Waterfront visies : transformaties in Amsterdam-Noord. Rotterdam: NAi Uitgevers/Publishers.

WHO, . (2007). Global Age-friendly Cities: A Guide. Geneva: World Health Organization.

Wit, S. . (2018). Hidden Landscapes: The metropolitan garden as a multi-sensory expression of place. Amsterdam: Architectura & Natura.

Gemeente Amsterdam https://maps.amsterdam.nl/?LANG=en

Kerncijfers Amsterdam 2019 (Gemeente Amsterdam) https://www.ois.amsterdam.nl/downloads/pdf/2019_kerncijfers.pdf

Startnotitie Amsterdam Age-friendly City http://onbeperktoost.nl/wp-content/uploads/2016/05/concept-startnotitie-age-friendly-city-1.pdf

Gezondheid in Beeld Resultaten Amsterdamse Gezondheidsmonitor 2016
https://www.ggd.amsterdam.nl/beleid-onderzoek/gezondheidsmonitors/amsterdamse-0/

http://worldpopulationreview.com/countries/netherlands- population/

https://en.wikipedia.org/wiki/Ageing_of_ Europe#Effects

https://www.studiohartzema.com/werken/leiden-bio-science-park/

https://www.waterfrontoronto.ca/nbe/portal/waterfront/Home

https://www.ndsm.nl/praktische-informatie/geschiedenis/

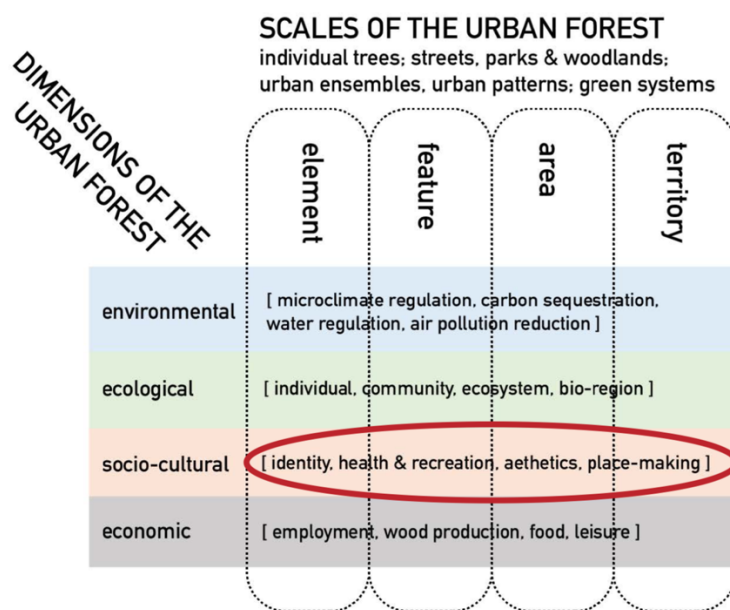https://tolhuistuin.nl/verhuur/

https://www.geschiedenis-van-amsterdam-noord.nl/tuindorp-oostzaan/

https://www.vpro.nl/speel~POMS_VPRO_501736~de-tuindorpen-in-amsterdam-noord-1-het-spoor-terug~.html

https://www.amsterdamnoord.com/amsterdam-noord-in-de-vorige-eeuw/noord-vorige-eeuw-afl-10-18/15-hoe-noord-zwom-in-de-vorige-eeuw/

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)?

    In the Urban Forestry matrix, which is a framework of Urban Forestry graduation lab, this project matches mainly social-cultural section in various scales. The green syntax research of the lab provide an important lens for identity research.

SCALES OF THE URBAN FOREST
individual trees; streets, parks & woodlands;
urban ensembles, urban patterns; green systems

DIMENSIONS OF THE URBAN FOREST

element | feature | area | territory

environmental — [microclimate regulation, carbon sequestration, water regulation, air pollution reduction]

ecological — [individual, community, ecosystem, bio-region]

socio-cultural — [identity, health & recreation, aethetics, place-making]

economic — [employment, wood production, food, leisure]

As for track L.A., this project explores the design of landscape architecture in the urban transformation area and the benefit it can bring to social sustainability (in this case, age-friendly city and sense of identity).

As for MSc AUBS, it explores a general approach to understand identity of a built environment and principles to develop the identity, thus to build an environment that is sustainable with its natural process and its cultural context. This project also explores how green infrastructure, taking the elderly as main users, can contribute to age-friendly city.

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

This project would bring more ideas for police making in city expansion, related to city identity development, age-friendly city. The project itself is also a complement to existing polices, with a landscape design.

While re-developing an area, it's usually taken as an "expansion" of the existing part of the city. Thus in expansion plan, the identity and unique quality of the taken area is sometimes sacrificed for the urgent need of the main city. This project would provide a new lens to city expansion: to define developing/ transforming potential by the identity of the area itself, to provide guidelines for coherent and sustainable (re)development.

Many policies and care-center design has been made for age-friendly city, however, few specific green space for the elderly has been seen. While landscape and the perception of the nature would bring large benefit. Thus a green infrastructure for the elderly would be explored as a complement for age-friendly city.