seminars, master- and graduation projects architecture + urbanism semester b, 2017-2018

architectural urban design and engineering

deptartment of the built environment

eindhoven university of technology
Summerschools

RA01 Summerschool: Springacademy Ruhr 2018 'Urban Wastelands'
prof. Dipl.-Ing. Christian Rapp, Dipl.-Ing. Haike Apelt
c.rapp@tue.nl, h.apelt@tue.nl
The chair of Rational Architecture is participating for the fifth time in the Springacademy Ruhr which is being organized by the TU Dortmund. Participating also will be students from the universities of Potsdam, Turin and Dortmund. The Springacademy will involve participation in an international design workshop in Dortmund, together with some preparatory work pre- and postproduction (analysis of an urban fragment, preparation of an exhibition in Eindhoven). Parallel to the workshop, lectures and excursions will be organized. During the workshop you will work together in small mixed groups, thereby getting acquainted with a different cultural and academic background of their peers. Supervised by teaching staff from the different universities, the workshop involves skills of communication and collaboration, the exploration of different design methods, and most importantly, significant aspects of international experience which will broaden your horizon and may provide useful contacts for your future career. This year’s assignment is titled “urban wastelands”. We will try to tackle the difficult urban situation at the Southern Railway station in Dortmund (destroyed in the last world war) and provide answers by ways of analytic and experimental design.

prof. Dipl.-Ing. Christian Rapp
Dipl.-Ing. Haike Apelt
Fachhochschule Potsdam/Politecnico di Torino (partner):
prof. dr. Silvia Malcovati
Technische Universität Dortmund (partner):
prof. Olaf Schmidt
prof. Michael Schwarz

Heilige Weg, 1926, Dortmund (DE)
7QQ5Mo, quartile 3
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Introduction

Seminars Architecture and Urbanism

This brochure aims to give an overview of the themes and subjects that will be offered in the coming semester, so that you can make an informed choice you can be happy about.

There are four chairs offering seminars:
- Architectural Design and Engineering (ADE) led by prof. ir. Juliette Bekkering
- Architectural History and Theory (AHT) led by prof. dr. Bernard Colenbrander
- Rational Architecture (RA) led by prof. Dipl.-Ing. Christian Rapp
- Urbanism and Urban Architecture (UUA) led by prof. dr. ir. Pieter van Wesemael

The short introductory descriptions of the seminars given here will be supplemented with more elaborate descriptions and exact planning schedules closer to their actual starting date. It is possible that some seminars slightly alter their theme or emphasis as a result of changes in staff.

Enrolling in a seminar:
1. You need to enrol in Osiris before the closing of the registration term (7th of January). If you register too late the first possibility to start with your seminar is Sem B 2017-2018, quartile 4.
2. We work with a maximum amount of 10 students per seminar. So the subscriptions are according to the principle ‘first come, first served’. If the seminar of your first choice has no places left, subscribe for another one.
3. During the first week of the new quartile students are invited by their tutors to visit the seminar.

Be aware: If the number of registrations for a specific seminar does not reach a minimum of ten students, it is possible that this specific seminar will not proceed!

Looking forward to meeting you in our seminars!
The neighbourhood ’t Hool in Eindhoven, founded as an initiative of its inhabitants and designed by Van den Broek and Bakema, has been titled as a “wederopbouw-monument” by the Rijksdienst voor Cultureel Erfgoed, RCE, last year. Now that this settlement is heading for its fiftieth birthday the question arises how and if we have to preserve the strong urban plan and architecture. Documentation of the plan in urban and architectural scale of the original plan and its changes during the last decades could give a good base for the discussion how can this monument survive another 50 years in a changing society with different technical and programmatic demands.

The seminar will focus on this question and the outcome will be a research at urban scale as well as on the richness of various dwelling types, from splitlevel highrise types NOP, ABC terraced row-houses, DEJ patio-dwellings, F freestanding, G splitlevelbajonet, H drive-in dwelling and K back to back patio-dwelling. Each student should adapt one type of dwelling and document the type in drawings plans, section and model scale 1:50. This will take 4 weeks. The final 3 weeks of the seminar will be an intervention in ’t Hool, based on the research. The results will be shown in an exposition and in a booklet at the 50th anniversary of ’t Hool.

ir. John Swagten

ADE01
When Le Corbusier started to design and work with concrete, what affect did this ‘new’ material have on his architectural designs? When Tadao Ando started to work with concrete, what did it mean? What can you do with biobased materials such as straw? Which building materials can be 3D printed, and what possibilities do these offer?

In this seminar we will freely explore the use of innovative materials, and the effect on architecture and spatial design. We will also study innovation in building techniques, and the relation between these innovative materials and building techniques, such as 3D concrete printing.

Our research will be broad, unconventional and daring. The research will also include innovation in sustainable materials and techniques. Key is to structure the research well; we will first come up with a broad list of innovative materials, and research the issues, the limitations and potentials. We will index these innovative materials and study their influence on building techniques, their influence on architecture and space, and their influence on aesthetes. Organizing them in groups according to materials properties and potential applications.

We will do this by both looking forward and looking back in history. Searching for ‘new’ materials of the past that were challenging in their time, and how these influenced the architectural design and possibilities. And we will look into the more recent developments and further forward to research innovations in materials, its applications, its limitations and potentials for architecture.

We will do this by critically analyzing and redrawing architectural examples, and explaining techniques with the use of diagrams that we will draw ourselves. We will do this by organizing, ordering and indexing. And we will do this hands on, by studying physical material samples, and building techniques.

The result of the seminar will be a joint catalogue, in which we compare the innovative materials, place them in a logic order; listing these on size, technique, application and so on.

Our aim for this catalogue will be for it to be a ‘Design Handbook’ which will be usable for each contributing student, to further use in your own architectural design and detail design.
The seminar **MUSA: Mapping and Urban Spatial Analysis** aims to coach students on mapping and analysing cities on spatial qualities. Geographic Information Systems (GIS) have become an important analysis tool to varied fields, including architecture, urbanism and planning. GIS enables one to easily represent data through maps, but also to query, manipulate, and analyze those data. This seminar focuses on conservation areas designated as UNESCO World Heritage in the Netherlands e.g. Grachtengordel, in Amsterdam or Willemstad, Curacao. Students will reveal and compare these areas to their (urban) context, e.g. architectural and urban quality, use and function, transformation. This seminar combines lectures, field visits and workshops, ending with a public presentation and exhibition. After following this seminar, students will have a better understanding on how GIS (Mapinfo) can assist them to analyse cities and spatial qualities, when searching to answer these and many other spatially based research questions, to better tackle complex spatial problems.
In numerous publications methods have been proposed to classify types of floorplans. One can think of *The Place of Houses* by Charles Moore, O.M. Ungers’ *Architekturlehre*, anthologies of floorplans like the *Grundrißatlas Wohnungsbau / Floor Plan Manual Housing*, or texts specifically dealing with the structure of floorplans like *Figures, Doors and Passages* by Robin Evans, Court & Garden by Michael Dennis or Housing Design by Bernard Leupen and Harald Moolij. A mathematical way of approaching the structure of floorplans has been proposed by Bill Hillier and Julianne Hanson, for example in *A Social Logic of Space*, under the name Space Syntax. All these classification methods work well in the area of their specific subjects (Ungers for museums, Leupen and Moolij and the *Grundrißatlas* for contemporary housing, etc.), are very general (Moore) or focus on use instead of on architecture (Space Syntax). The goal of this seminar will be to develop a modest attempt towards a general classification tool to analyse the structure of floorplans.

With the observations of Robin Evans in *Figures, Doors and Passages*, Ungers’ *Architekturlehre* and Hilliers and Hansons *Space Syntax* as starting points we will try to find out what is needed to make possible a sensible and general classification of the structure of floorplans.

What information is needed (floorplans, sections, interior elevations), how does this have to be presented graphically, can we use Space Syntax for classification or what other way of abstraction could we devise, etc.? In the first half of the seminar case studies will be collected and graphical analysis methods will be tested. In the second half, we will try to organise everything that has been found in the first half, to arrive at a set of classification criteria for the structure of floorplans. The result of the seminar will be a collection of case studies and a proposal for a classification method.

**The Syntax of Space**

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The Syntax of Space

ir. Wouter Hilhorst

7Q5sMo

semester B, quartile 3

5 ects

10 students
Urban Lab #16: 
Reflecting on Planning for Heritage

In this seminar we will reflect on the planning and transformation processes of big heritage complexes in Noord-Brabant. We are interested in the way memory and history have an effect on the transformation process and what role design (and the designer) has played in this process. We will do this by looking into a couple of case studies that have been part of a transformation program of the Province of Noord-Brabant. We will follow the development and describe the proposed changes in the building as process a possible. In describing the changes we will follow the format as offered by the various theorists. For the analysis we will also develop a (axonometric or isometric) drawing method to represent the (proposed) changes in the building.

To accompany our research we will read some classics on heritage literature by Ruskin, Viollet-Le-Duc, Boito and others. Also we will look into some examples of the Dutch practise of heritage value assessment and heritage listing.

We recommend students who signed up for the Architecture Master Project ‘Factory in the Village’ (7QX1M0) that will be given in the third quartile (2017 – 2018) to participate in this seminar since the contents of both are related.
Transitional Spatial Identities

The spatial exploration of complex architectural spaces and hybrid social practices is the key research subject of this master seminar. The research will be mainly based on data mapping, critical literature study and the preparation of sophisticated cartographical drawings. The study will be elaborated in a co-operation with the ‘NatLab’ in Eindhoven or with the ‘New Institute’ in Rotterdam. The selection and documentation of relevant case studies which are connected to the upcoming research agenda of these institutions will be important matters of the seminar. The outcome will be exhibited during the ‘Monumentendag 2018’. The activities of the seminar will be assembled in a collective research document. It will used for further explorations in the master course ‘Architectural Analysis’. Consequently, we recommend *explicitly* students who signed in for the course Architectural Analysis (7QX7MO) that will be given in the second quartile (2017 – 2018) to also participate in this seminar since the contents of both are related. Please keep in mind that the number of students who can participate in this seminar is limited up to 10.

The seminar is linked to the ongoing broader research ‘Chronotopos’ of the chair UUA (www.chronotopos.com). The seminar will be supervised by Jochem Groenland and Hüsnü Yegenoglu.

*Recommended for students of the Architectural Analysis course (7QX7MO).*

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**Witte Dame, Eindhoven, (NL)**

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**UUA02**

**dr. Dipl.-Ing. Hüsnü Yegenoglu**

**ir. Jochem Groenland**

**NatLab Eindhoven (partner)**

**New Institute Rotterdam (partner)**

7QX7MO

Semester B, quartile 3

5 ects

10 students
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ADE03  D-Lightful Architecture
ir. Tom Veeger
t.t.veeger@tue.nl

AHT02  The Axis
dr. Jacob Voorthuis
j.c.t.voorthuis@tue.nl

RA02  Building Types 4: The City Apartment
Dipl.-Ing. Haike Apelt or Ir. Wouter Hilhorst
h.apelt@tue.nl, w.hilhorst@tue.nl

UUA03  Urban Lab #17: A History of Mobile Futures
ir. Marcel Musch
m.w.musch@tue.nl
Introduction
Seminars Architecture and Urbanism

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- Urbanism and Urban Architecture (UUA) led by prof. dr. ir. Pieter van Wesemael.

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Enrolling in a seminar:
1 You need to enrol in Osiris before the closing of the registration term (25th of March). If you register too late the first possibility to start with your seminar is Sem B 2018-2019, quartile 1.
2 We work with a maximum amount of 10 students per seminar. So the subscriptions are according to the principle ‘first come, first served’. If the seminar of your first choice has no places left, subscribe for another one.
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Looking forward to meeting you in our seminars!
In the work of architects like Tadao Ando, Le Corbusier, Steven Holl, Peter Zumthor and Louis Kahn daylight is considered an essential part of architecture and therefore has an influence in the way we experience a building. Le Corbusier writes “Architecture is the masterly, correct and magnificent play of masses brought together in light”.

The quest for sustainability, the knowledge that a natural environment might be beneficial to people as well as the free availability of this energy source has added to the renewed interest in light. The aim of this seminar is to analyze and apply the different features of daylight in the built environment. The result of these analyses should lead to defining daylight design guidelines.

The method to do this is to first search for specific values of daylight in architecture, based on real buildings. In this seminar we will focus on international and Dutch buildings (see for inspiration www.livingdaylights.nl). It is important to distill the architectural purpose of design, to analyze the role of daylight and to describe the way in which this was realized. Research will include some interviews with the architect and user. You will demonstrate the role of daylight by making a model of the building (or a part of) and placing it in the daylight simulator and/or solar simulator in search of specific characteristics. The final step is to search for different ways (think about material, composition, etc.) to realize, a similar architectural purpose. The analysis whether the effects are really similar should be based on quantitative measures as well as qualitative ones. This can be done by creating a more abstract model. The products are posters and short papers on the research and its results.

ir. Tom Veeger

Model light study (Tom Veeger)
An axis is a line around which the elements of a building or the urban fabric organize themselves. If you look carefully at Greek buildings, you will see that their use of the axis is surprising. In Miletus for example axes are not carried through, one building obstructs the axis formed by the organization of others. On the Acropolis, axes appear not to “add up”, the buildings appear to be arranged arbitrarily. In Roman Architecture on the other hand the axis is reduced to a simple line of vacancy, of uninterrupted void. During the Baroque the axis became a subtle ploy for the display of power and the punctuation of the urban fabric. The beaux Art tradition used major axes and minor axes, while Victor Horta made axes jump. The last great architect to use and innovative approach to the axis was Aldo van Eyck, he wanted to use the axis to de-hierarchize his space. In this seminar we are going to create an typological encyclopedia of axes. The way they are enforced and the ways they can be broken or dissolved and we are going to look at the scenography of the axis, the way sequences of spaces are influences by their organization relative to one another.

The Axis

Speelplaats, Design for Zeedijk, 1955, a subtle play with axes (Aldo van Eyck)

dr. Jacob Voorthuis

7QX5Mo
semester B, quartile 4
5 ects
10 students
With the industrialization, starting in the 18th century, and the growth of cities and the simultaneous rise of the middle class that came with it, a new type in residential architecture emerged: the city apartment. Although perhaps taking or mimicking characteristics of larger aristocratic examples of city palaces, of course the representational role of the dwelling changed, because of the different size. But in the type of the city apartment itself this did also change in the course of time - from the earliest examples in the 18th century to the apartments we design today. The other aspect that needed a completely new formulation was the relation between the public, the collective and the private, with the collective finding its place in the communal circulation spaces - entrance, stairwell - but also in the shared, collective, facade as a face of the private towards the public.

This seminar will have as objective to gain insight in the usefulness of typology as a tool to gather architectural knowledge by studying the specific type of the city apartment. The additional goal will be to gain knowledge of the historical development of this type in European architectural history, especially regarding floorplans and their relation to living culture, looking into the subjects of representation and the relation of public, collective and private. To do so the course will have three subjects: the study of important texts on typology, floorplans, representation and city apartments, the architectural analysis of a series of examples, and the writing of a short essay.

The result of the seminar will be a book, with the summaries of the relevant texts, the drawn analyses of case studies, and the essays.
Urban Lab #17: A History of Mobile Futures

The future of mobility has a long history. In this seminar we will dive into the literature of urban utopias and dystopias based on the hopes, fears, expectations and predictions of the development of mobility. At the other side we see the critics of the incessantly modernizing city and the ruthless growing pressure of modern traffic. What can we learn from these contrasting optimistic and pessimistic readings? The occasion to return to these historic future visions on mobility and the city is the imminent revolution of our own mobility. However, this time round we don’t see a lot of fully fledged utopian visions. Nor do we see a lot of anxiety because of the changes in mobility. The future looks bright but no one seems to expect a new(!) utopia. Sure, we all see the benefits: self-driving cars will kill less people, electric cars will result in less pollution, cities will be less full. But surprisingly few people do an effort to imagine the impact of new mobility on the city as a whole.

We will read classics on urban mobility utopias e.g. Reyner Banham’s book on Los Angeles, The Architecture of Four Ecologies (the chapter on Autopia) and Motopia, A Study in the Evolution of Urban Landscape by G.A. Jellicoe, more contemporary books such as: Door to door, Future of the vehicle, future of the city by Dominique Rouillard and Alain Guiheux. We will read critical reports on the impact of the city such as Jane Jacob’s classic The Death and Life Great American Cities and Marshall Berman’s All that is Solid Melts into Air.

The aim of the seminar is to write a compact essay on what could be a contemporary utopia of mobility. To accompany it you will produce an isometric perspective of the future city.

ir. Marcel Musch
Provincie Noord-Brabant (partner)
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Masterprojects Architecture

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ADE01 **BRUSSELS the Making Of**
dr. ir. Faas Moonen, ir. Tom Veeger
s.p.g.moonen@tue.nl, t.t.veeger@tue.nl

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ADE02 **Cultivating the Ordinary**
ir. Jan Schevers
j.p.a.schevers@tue.nl

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ADE03 **Learning Landscapes: the Green and Sustainable Schoolcampus**
prof. ir. Juliette Bekkering
j.d.bekkering@tue.nl

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ADE04 **The Nobility of Making**
André Walraven arch. AvB
a.j.m.walraven@tue.nl

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AHT01 **Architectural Fictions**
dr. Sergio De Sousa Lopes Figueiredo
s.m.figueiredo@tue.nl

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RA01 **La Città Ideale**
ir. Wouter Hilhorst
w.hilhorst@tue.nl

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RA02 **Tectonic Exercises**
ir. Ralph Brodruck, ir. Renato Kindt
r.p.g.brodruck@tue.nl, r.r.w.i.kindt@tue.nl

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RA-TD01 **Anvers: L’Abbaye Transformé**
prof. ir. Paul Diederen, ir. Bram van Kaathoven, ir. Anne Marie Peters
p.j.r.diederen@tue.nl, b.a.h.lv.kaathoven@tue.nl, a.peters@tue.nl
This brochure aims to give an overview of the themes and subjects that will be offered in the upcoming semester, so that you can make an informed choice you can be happy about.

There are six chairs offering masterprojects:
- Architectural History and Theory (AHT) led by prof. dr. Bernard Colenbrander.
- Smart Architectural Technologies (SAT) led by prof. dr. ir. Masi Mohammadi.
- Transformational Design (TD) led by prof. ir. Paul Diederen
- Urbanism and Urban Architecture (UUA) led by prof. dr. ir. Pieter van Wesemael.

The short introductory description of the studios given here will be supplemented with more elaborate descriptions and exact planning schedules closer to their actual starting date. It is possible that some projects alter the theme or emphasis slightly as a result of changes in staff.

Enrolling in a masterproject:
1. You need to enrol in Osiris before the closing of the registration term. If you register too late the first possibility to start with your Master project is Sem A 2018-2019.
2. You have to subscribe with a first, second and third choice. This is possible until Sunday 7th of January, if you subscribe after this date you can only choose from the projects in which there are still places available.
3. During the first week of the new quartile students are invited by their tutors to visit the master project of their first or (if that particular project has been oversubscribed) their second or third choice.
4. The tutor of your masterproject will be -for the duration of that project- your master coach.

Be aware: If the number of registrations for a specific master project does not reach a minimum of ten students, it is possible that this specific project will not proceed!

Looking forward to meeting you in our masterprojects!
A healthy city is a productive city. International challenges and trends underline the need to reintroduce the manufacturing industry to our regions: from manufacturing that makes the link between knowledge, innovation and production, to a circular economy committed to shorter chains and flows of materials and energy. The Flemish-Brussels metropolitan region has a large number of low-skilled unemployed, while old industrial zones languish in the city and its outskirts. The city as a melting pot of knowledge and labour is seen as the ideal breeding ground, with opportunities for the Brussels Canal Zone for developing a circular economy, and for local assembly coupled with a global logistics system (www.architectureworkroom.eu).

The assignment is divided in three parts, Small, Medium and Large, two locations in the metropole of Brussels (M, L) and one (S) at the TU/e. During the semester we will visit Brussels.

LARGE (8 weeks): To make more room in the city for an urban economy, we need to combine better, we need to stack more compactly and more efficiently. After doing research in teams, students will choose a location in the area of the Canal Zone of Brussels and combine the two worlds of living and working into one building complex. Various individual architectural research studies will result in a concrete architectural design proposal. A critical analysis of the district and a reflection of the urban design and the social context (Manuel de Sola Morales and Jamie Lerner, urban acupuncture) in relation to the design form part of the final result. Construction, use of material and the details of the design are an integral part of the project (www.architectureworkroom.eu/nl/work/atelier_brussels_expo_a_good_city_has_industry/videos/1601).

MEDIUM (4 weeks): the assignment will be to design a small info point or shop that can host different activities linked to the “Maker Movement” located in the center of Brussels. The goal of the proposed space is to become an icon for this new culture. Construction, use of material and the details of the design are an integral part of the project.

SMALL (3 weeks): workshop Summerlab: a three week hands on workshop with research by design on the pros and cons in the use of the organic and sustainable material mycelium in the development of a pavilion for “SummerLab” a showcase on sustainability at festivals and events (www.summerlab.nl). Second tutor will be Faas Moonen of the unit SD.

dr. ir. Faas Moonen
Ir. Tom Veeger
In this Master studio you will work on the revitalization of an area at the backside of the city center of Veldhoven, a mid-size town near Eindhoven. To make sure we will find the extraordinary potential of this very ordinary location we will look at what we can learn from the current generation of Flemish architecture firms. The way many of these firms seem to approach their design task shows tremendous attention to the things we tend to overlook in our built environment. Recognizing the quality in these ordinary elements and working with it to enhance these qualities has some great potential as a design strategy. This typically Flemish approach is currently being recognized internationally as a necessary alternative to the icon-obsessed building culture we seem to treasure in the Netherlands.

We will talk to several young influential Belgian architecture firms and visit their work. Critically reflecting on their design approach will form the basis of your own design.

The municipality of Veldhoven will be closely involved in this project. Since it is a real location asking for a real solution to its problems, the city's planning department is very interested in the results of this studio and willing to contribute in the form of workshops and critics. With your design the existing swimming pool on this site will be replaced with a new one and new dwellings will be added to the location. With a group you will work on a masterplan and individually you will design one of the new buildings.

Working with physical scale models will be an important part of your design process. This will allow you to find the perfect fit for your building in its surroundings as well as the desired spatial character within the building itself. Finding a sense of continuity with the surroundings and lending a self-evident character to the building will prove to be much harder than merely making a statement. But then again; good things never come easy.

Cultivating the Ordinary

ir. Jan Schevers
Municipality of Veldhoven (partner)

7QX2Mo
semester B, quartile 3-4
10 ects
10 students
Learning Landscapes:
the Green and Sustainable Schoolcampus

Educational approaches are rapidly transforming due to innovation and the ongoing technological development in our contemporary society. Do we witness the moment that the school, as we know, will vanish since all knowledge is available on internet, or will they emerge transformed and renewed due to the increasing demands of a knowledge oriented society where learning never stops?

Schools are taking a new role by developing into places of engagement, lifelong learning and public-life: forming the beating heart of the community. In this studio we will design the schoolcampus of the future. We will formulate new scenario’s where schools develop into learning environments that are more than just the sum of classrooms and facilities, but are green architectural ensembles where learning and public life features 24/7. As Herman Hertzberger defines it “schools are like small cities”.

The assignment is a technical schoolcampus in Sint-Truiden, Flanders (to be confirmed and in consultation with the commissioner). There are different options at the moment, in a lush green area in the heart of the city. We will work in close corporation with the Flemish state department: “Scholen van Morgen” who is developing a range of schools in Flanders on the moment, of which this is one. They will be involved in the progress of the studio work. We will analyse examples of schools and research sustainable design tools and assemble it in a catalogue.

We will develop new scenario’s and make an architectural-design for the schoolcampus that can accommodate all kind of learning activities: classrooms, studylandscapes, auditorium, playgrounds and sportfacilities: the perfect location for lifelong learning, reading, sporting and culture.

The core of the assignment is to design strong spacial interiors that work as a catalyst for interaction and activities. These cores are the places for interaction: during and after school-time; for pupils and adults. And to develop sustainable design tools to be implemented in the design, forming a green sustainable campus.

We will work from inside to outside: building big scale models of interior fragments, exploring spatial expression, light fall and materiality. And from the outside to the inside, building mass-models of the cluster of buildings, exploring sculptural settings, public space and integrating greenery and sustainable solutions. Excursions, visit of the location, lectures by experts and presentations to people from Scholen van Morgen are part of the studio.

prof. ir. Juliette Bekkering
Flemish State Department (partner)

7QX2Mo
semester B, quartile 3-4
10 ects
10 students
The Nobility of Making

The studio “The Nobility of Making” offers the opportunity to focus on the relationship between architecture and engineering. In particular the mutual influence of architecture and the logic of making will be highlighted. This master project will emphasize on the work of Jean Englebert. Jean Englebert (89) is a Belgian architect-engineer. He is relatively unknown in the Netherlands. Currently there is a rediscovery of his work. Most of the buildings he created are located in the idyllic Belgium Ardennes, in a radius of 175km from Eindhoven. Characteristic of his work is that it is calm and plain, with a special interest for the combination of modern and vernacular architecture.

The aim of this project is to gain insight into the work of Jean Englebert. Special interest will go to the relation between architecture and the logic of making. A selection of his work will be examined by models scale 1:50 and self-made detailed technical drawings. Part of the analysis is a meeting with the architect and an excursion tour.

In this project you will design a private dwelling in a sensitive rural environment according to the design principles of Jean Englebert (program and location according to further specification).

Literature
- Les utopies de Jean Englebert, Archidoc # 02
- Jean Englebert, Pierre Henrion, Musée en plein Air du Sart Tilman

André Walraven arch. AvB

7QX2Mo
semester B, quartile 3-4
10 ects
10 students
Filip Dujardin studied History of Art at the University of Ghent, with a specialization in architecture, before studying photography at the Academy of Ghent. In 2007 he established himself as an independent photographer for private and public clients, in the fields of architecture, interior and product design. In 2008 he presented Fictions, his first series of independent artworks where photography’s role as a transparent medium for the documentation of architecture was directly questioned. This studio will explore the underlying elements of Filip Dujardin’s work to better understand how architecture photography can affect the perception of architecture as well as enhance spatial qualities of any given architectural project.

The format of this studio is just as important as its content, since students will be introduced to an alternative discursive territory for architecture: architecture exhibitions. Specifically, this research studio will culminate in an exhibition that students will organize from start to finish, first by developing curatorial strategies and then by designing its installation. Thus, this exhibition will be curated, organized, produced, and built by students in order to be installed and presented at Plaza Vertigo at the end of the semester. Since students will develop curatorial concepts, translate them into an installation, and finally build them, the exhibition itself will form the basic design task for this studio. This exhibition, however, is to challenge the conventional presentation of architectural photography and instead inquire how architectural photography can be presented as spatial experience.
The outcome of this project will be a design for a decidedly urban building: a 
building that benefits of all advantages of being in a city, but which at the same 
time enhances and enriches this city with its characteristics. In order to have as 
clear conditions as possible, the context will also be designed as a new part of a 
city fabric: a città ideale, an ideal city.

In the first part of the project this urban plan will be made in a group effort.
Short assignments about facades, programmatic variety, street profiles, density,
and analyses of good examples will prepare for the group design of the urban
plan. The second part of the project is the individual design of a building in the 
urban plan: each student designs one building in it. These buildings should fit 
in the whole, the contribution of each individual building to the collective whole 
should be carefully designed and negotiated. The choice for the program of the 
buildings depends on the role each building plays in the urban plan (residential,
library, theatre, commercial, offices, city hall, school, etc.). The site has yet to be 
decided but could be in Ghent, Brussels, Düsseldorf, Dordrecht or Maastricht.
Examples for such a fragment of an ideal city could be planned city districts,
recent and less recent: the new Hafencity district in Hamburg seems to be suc-
cessful with a vibrant city life and a considerable mix of functions. La Strada Nuova
in Genua could be an example of much earlier times, as is the Paris of Hausmann,
perhaps.

The result of this project is a collection of individual designs for urban buildings,
housing a variety of functions, together forming a coherent - ideal - fragment of 
a city. The idea of this fragment will become manifest at the presentation day:
when all models are put together. The whole is more than the sum of its parts.

ir. Wouter Hilhorst

7QX2M0
semester B, quartile 3-4
10 ects
10 students

La Città Ideale
The church the Danish architect Jørn Utzon designed in Bagsvaerd, near Copenhagen, is a beautiful example of how construction, the logic of making, and the utilisation of the specific qualities of materials can be made to work together to achieve architecture in the true sense of the word. In this church the materials used, the way they are used for the construction, the way this construction organises space and coincides with the typology of the building, the way the materials, construction and typology determines the way daylight enters the building, and these four together – materials, construction, typology and daylight – constitute an inextricable unity in complete harmony with the function of the building. In this way this church can be seen as a perfect illustration of Frampton’s saying “The full tectonic potential of any building stems from its capacity to articulate both the poetic and the cognitive aspects of its substance” (Kenneth Frampton, Studies in Tectonic Culture). This design project will explore this tectonic potential. This exploration will be done in different stages: by reading the appropriate literature on the subject in bilateral relationships with analysing an in its tectonic aspects exemplary building, by multiple small exercises exploring these bilateral relationships and by two design exercises, a small and an elaborate one.

Tectonic Exercises

The church the Danish architect Jørn Utzon designed in Bagsvaerd, near Copenhagen, is a beautiful example of how construction, the logic of making, and the utilisation of the specific qualities of materials can be made to work together to achieve architecture in the true sense of the word. In this church the materials used, the way they are used for the construction, the way this construction organises space and coincides with the typology of the building, the way the materials, construction and typology determines the way daylight enters the building, and these four together – materials, construction, typology and daylight – constitute an inextricable unity in complete harmony with the function of the building. In this way this church can be seen as a perfect illustration of Frampton’s saying “The full tectonic potential of any building stems from its capacity to articulate both the poetic and the cognitive aspects of its substance” (Kenneth Frampton, Studies in Tectonic Culture). This design project will explore this tectonic potential. This exploration will be done in different stages: by reading the appropriate literature on the subject in bilateral relationships with analysing an in its tectonic aspects exemplary building, by multiple small exercises exploring these bilateral relationships and by two design exercises, a small and an elaborate one.

ir. Ralph Brodruck
ir. Renato Kindt

7QX2Mo
semester B, quartile 3-4
10 ects
10 students
This master project is part of a series of redevelopment projects in which the transformation of reconstruction architecture (wederopbouwarchitectuur) is crucial. The existing building as a basis for re-use - and coherent with that - the re-designing of the city. The question for the architect is to progress on existing qualities and to add new qualities. Or in other words; how to make a ‘new’ architecture upon and within ‘old’ architecture?

In the first part of the project the focus is primarily on the existing building, the context is being disregarded. On the one hand the typology is being analysed thoroughly by means of reference projects and texts ('On Typology' by Rafael Moneo for instance), on the other hand the quality of the existing by means of the following concepts: structure, materialization and scale.

On the basis of this analysis an individual design is made for a given program. Not until the second part of the project will the building be visited. The context in the widest sense of the word is being analysed, social-cultural, historical, urban design, morphology. Besides, the existing (hidden) qualities of the existing building are being explored in depth by means of the following concepts: light, texture, detail, sequence. The initial design in which typology, structure, materialization and scale are central will finally be embedded within the context, whereby one concept obtained from the second analysis serves as “Leitmotiv”.

Research by design and representing the analysis and the design by means of different kinds of drawings, collages and the making of several models runs as a red thread through the project.

Anvers: L’Abbatoir Transformé

Slachthuis Antwerpen (BE)

This master project is part of a series of redevelopment projects in which the transformation of reconstruction architecture (wederopbouwarchitectuur) is crucial. The existing building as a basis for re-use - and coherent with that - the re-designing of the city. The question for the architect is to progress on existing qualities and to add new qualities. Or in other words; how to make a ‘new’ architecture upon and within ‘old’ architecture?

In the first part of the project the focus is primarily on the existing building, the context is being disregarded. On the one hand the typology is being analysed thoroughly by means of reference projects and texts ('On Typology' by Rafael Moneo for instance), on the other hand the quality of the existing by means of the following concepts: structure, materialization and scale.

On the basis of this analysis an individual design is made for a given program. Not until the second part of the project will the building be visited. The context in the widest sense of the word is being analysed, social-cultural, historical, urban design, morphology. Besides, the existing (hidden) qualities of the existing building are being explored in depth by means of the following concepts: light, texture, detail, sequence. The initial design in which typology, structure, materialization and scale are central will finally be embedded within the context, whereby one concept obtained from the second analysis serves as “Leitmotiv”.

Research by design and representing the analysis and the design by means of different kinds of drawings, collages and the making of several models runs as a red thread through the project.

Anvers: L’Abbatoir Transformé

Slachthuis site Antwerpen (BE)
Intro: The industrialisation of Noord-Brabant in the 19th century had an enduring impact on the architecture and the spatial structure of villages and cities in the province. Despite its historical significance, it wasn't until very long ago that buildings from this period started to raise some interest. For a long time, the industrial buildings of the 19th century were not considered to be very valuable. Mostly they were seen as mere functional artefacts. Furthermore, characteristics such as the dilapidated condition, the poor energy standard, and the big size of many industrial buildings make it difficult to re-use these buildings and save them from destruction or slow decay.

The renewed interest in industrial production and its historical roots and a growing appreciation of 19th century industrial architecture has helped to create an awareness on the urgency to preserve the industrial buildings of the 19th century. The Province of Noord-Brabant and many cities and villages took actions to preserve industrial heritage. Many 19th century industrial buildings are now listed.

Content: This Architecture Master Project will develop an architectural and urban approach that will focus on the development of meaning. Meaning will be based on knowledge of the historical past as well as its future potential, both in terms of its historical and potential use and its aesthetics. This studio will also focus on the (lasting) impact of big factories on the urban context in three relatively small villages of Noord-Brabant (Batadorp and Budel-Dorplein, a third one will be decided later).

Exhibition: In this Master Project we will produce an exhibition that will be linked with the exhibition that is currently being prepared by the Master Project group of semester A.

Website: This Master Project is part of the Urban Heritage series. A selection of previous results can be found on: www.urbanlab.cc.

ir. Marcel Musch
Provincie Noord-Brabant (partner)
Making Places

The vocabulary of place making will be studied in the inner city areas of Maastricht and Liège. What is studied are the habits of opening building blocks – alleys and gates - as well as the practice of closing off the inner side of a building block by means of walls and/or fences. A special focus in this project goes to how the inside of the urban building block can become better used and designed (often it is pure functional storage place with no attention for how it is designed; such places may become redesigned for reuse).

The local habit of place making, that is studied here, focuses on specific elements in the appearance of a street that are involved in the experience of an urban spatial motif. Types of spatial motifs that do not limit themselves to the way how one goes in and out singular buildings/houses, but especially those that communicate about the experience of a spatial layering: of how buildings function inside of the urban tissue, with the building block as the common denominator.

The studio practices, in its analysis method, the art of leaving out as much as possible, in order to find out and discover what may become recognizable as the specific architectural elements that define the experience between street side and interior building block, the role of individual buildings, and the way the back sides of building blocks are or may become involved in the practice and art of place making. The design challenge is to propose a new building (or rebuild or replace an existing one) that intensifies the practice and art of place making in the inner centre of Maastricht or Liège.

dr. ir. Jos Bosman
Maastricht Academy of Architecture (partner):
Ingeborg Meulendijks
Nadine Nievergeld, MSc
7Q2XM0
semester B, quartile 3-4
10 ects
10 students
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Introduction
Masterprojects Urbanism

UUA01 In Between Brabant
Ing. Hans Snijders
j.p.f.a.snimijers@tue.nl

UUA02 Isabella, the Caring Fortress
Ir. Marcel Musch
m.w.muschi@tue.nl
Introduction
Masterprojects Urbanism

This brochure aims to give an overview of the themes and subjects that will be offered in the coming semester, so that you can make an informed choice you can be happy about.

There is one chair offering masterprojects urbanism:
- Urbanism and Urban Architecture (UUA) led by prof. dr. ir. Pieter van Wesemael.

The short introductory description of the studios given here will be supplemented with more elaborate descriptions and exact planning schedules closer to their actual starting date. It is possible that some projects alter the theme or emphasis slightly as a result of changes in staff.

Enrolling in a masterproject:
1. You need to enrol in Osiris before the closing of the registration term. If you register too late the first possibility to start with your Master project is Sem B 2017-2018.
2. You have to subscribe with a first and second choice. This is possible until Sunday the 7th of January. If you subscribe after this date you will be assigned to a studio that still has places left.
3. During the first week of the new quartile students are invited by their tutors to visit the master project of their first or (if that particular project has been oversubscribed) their second choice.
4. The tutor of your masterproject will be -for the duration of that project- your master coach.

Be aware: If the number of registrations for a specific master project does not reach a minimum of ten students, it is possible that this specific project will not proceed!

Looking forward to meeting you in our masterprojects!
The studio starts to connect regional conditions with social trends, by mapping the analysis of the context and the territorial capital of the area. The contemporary focus of developments in the region are now focused on the cities and the towns themselves. But, what is the value of the area in between the towns and villages? What does it mean for the typical rural qualities of the green areas? This green 'in between' is a typical space of ‘de Brabantse Stedenrij’. How could we direct developments that cities become more urban and villages will remain their petite atmosphere and how do we keep the rural area vital? To answer these questions, the students search for the hidden qualities of the area between the borders of both cities and they will sketch their vision of the landscape in-between.

With help of the local key actors students will give insight into the local dynamics of the area. What options are possible to link the long term program with the short term plans and ideas of the local parties. In other words how can we combine a total vision with a long term assignments with local projects and actors. The project gives an insight into the local dynamics which can be used to vitalize the landscape, to strength the cities and to take care of the countryside.

The attractiveness of the cities is largely determined by the veining of the urban area with streams, green areas and parks. With 'the landscape in between' the students develop a vision for the area with space for changes in agriculture, stronger tourist-recreational networks and hubs, space for water management and landscape for well-being and care. A vision that’s creating attractive prospects for the future with help of local dynamics and smart cooperation’s.

In Between Brabant

In between Breda and Tilburg

ing. Hans Snijders

7QW2Mo
semester B, quartile 3-4
10 ects
10 students
Intro: the historical Fortress Isabella in Vught was built in 1617 to protect the south side of the city of 's Hertogenbosch. In modern times the Fortress functioned as military barracks. Two self-made project developers (a doctor and a business consultant) have the ambition to develop the fortress into a small-scale community. A community that combines housing, education, health care and leisure. Their ideal is that the right mix of people can empower everybody.

Content: this Urbanism Master Project will elaborate the concept of Fortress Isabella into a viable plan. The existing concept consists of a diverse set of small scale functions, e.g.: housing and health care for elderly or people with disabilities, student housing, small start up companies, educational facilities and restaurants). Each of these functions follows a specific business case and needs to comply to its own set of regulations. Combining these functions is a complex matter. Putting together these different functions could give a lot of synergy but a good combination is also a delicate balance.

Such a concept can only be ‘grown’ step by step, in an organic way. The project can therefore also be seen as an example of ‘slow urbanism’. The aim of this project is to elaborate the strategy and explore how the synergy can be combined by a clever design/combination of the various business models. A spatial design is part of this elaborated concept.

Partners: in this Master Project we will work together with the Isabella Groep and with prof. Masi Mohammadi (chair of Smart Architectural Technologies).

Website: for more information about the location: www.isabellagroep.nl.

ir. Marcel Musch
Isabella Groep (partner)
prof. dr. ir. Masi Mohammadi (partner)
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7QW1Mo, quartile 3-4
Combined Masterproject

7X45Mo, quartile 3-4
Graduation studios Architecture

7W45Mo, quartile 3-4
Graduation studios Urbanism
There is a special subject package for students who want to register both as an architect and as an urban designer in the Dutch register of architects, the combined master project is part of this package.

Being a completely unique program in the Netherlands, students have the chance to combine the two disciplines of Architecture and Urban Design in their MSc study without following two completely separate MSc programs. A special subject package has been designed for students who want to register both as an architect and as an urban designer in the Dutch register of architects. This subject package counts 150 ects instead of the regular 120 ects. Students who want to develop themselves in both ways, must take into account a study extension of at least 6 months.

This study package consists of regular courses and projects that are also part of the study packages of future Architects and/or Urban Designers. Two new projects, combining Architecture and Urban Design, have been added to the study package: a combined master project Architecture and Urbanism and a graduation project that combines Architecture and Urban Design. The combined projects ‘Architecture and Urbanism’ are organized by the chair of Rational Architecture (prof. Dipl.-Ing. Christian Rapp) and the chair of Urbanism and Urban Architecture (prof. dr. ir. Pieter van Wesemael), representing both disciplines within the Unit AUDE.

For details see: https://static.studiegids.tue.nl/fileadmin/content/Faculteit_BWK/Graduate_programs/Master_programs/Register_program_ABP_2017-2018_170331_incl_links.pdf
The combined Masterproject Architecture and Urbanism is organized by the chair of Rational Architecture (prof. Christian Rapp) and the chair of Urbanism and Urban Architecture (prof. Pieter van Wesemael), representing both disciplines within the Unit AUDE. The studio is aimed at students who want to earn a double degree in Architecture and Urbanism.

The project will be devoted to the typo-morphological analysis of the city of Antwerp, focusing on a specific urban situation around which the actual debate about the future of the city is evolving. The project aims at developing an understanding of the critical relationship between the urban condition and the architectural project. We will start with a typo-morphological analysis of the location and its greater context. This research is supported by a literature study to explain the interrelationship between societal, political and economic changes and the transformation of the city and the location. The analysis will form the basis for individual design projects that will cover a wide span of scales and questions of both urbanistic and architectural nature: from the reflection on the greater urban scale to a masterplan for the site, the design of an ensemble of buildings and the surrounding urban space, up to the elaboration of the constructive and spatial structure of the buildings and their architectural-material detail. The interrelation of urban and architectural aspects is herein of utmost importance.

prof. Dipl.-Ing. Christian Rapp
prof. dr. ir. Pieter van Wesemael
Dipl.-Ing. Haike Apelt

Antwerpen

The figure-ground plan and water of Antwerp.
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Graduation studios Architecture

7W45Mo, quartile 3-4
Graduation studios Urbanism

7X45Mo, quartile 3-4
Graduation studios Architecture

Introduction
Graduation studios Architecture

ADE01 De Centrale Gent
prof. ir. Juliette Bekkering, Sjef van Hoof arch. AvB,
ir. arch. Barbara Kuit, Zeeshan Ahmed (PhD-student)
j.d.bekkering@tue.nl, j.v.hoof@bwk.tue.nl,
b.c.i.m.kuit@tue.nl, z.y.ahmed@tue.nl

ADE-AHT01 Masterly Apprenticeship
dr. Jacob Voorthuis, ir. Jan Schevers
j.c.t.voorthuis@tue.nl, j.p.a.schevers@tue.nl

ADE-SAT01 Stimulating and Healthy Home Environments (SHE):
The Design and Science of Smart Architecture
prof. dr. ir. Masi Mohammadi, Sjef van Hoof arch. AvB,
ir. Leonie van Buuren, ir. Joyce Fisscher (tentative supervisors)
m.mohammadi@tue.nl, j.v.hoof@bwk.tue.nl,
l.p.g.v.buuren@tue.nl, j.l.fisscher@tue.nl

ADE-UUA01 The Architecture of the Intermediate Size
prof. dr. ir. Pieter van Wesemael, dr. Dipl.-Ing. Hüsnü Yegenoglu,
ir. Jochem Groenland, Sjef van Hoof arch. AvB
p.j.v.v.wesemael@tue.nl, h.h.yegenoglu@tue.nl,
j.groenland@tue.nl, j.v.hoof@bwk.tue.nl

AHT-UUA01 IMAGINE: Co-creating the future of our cities
prof. dr. Bernard Colenbrander, prof. dr. ir. Pieter van Wesemael,
dr. Sukanya Krishnamurthy, dr. Ana Pereira Roders
b.j.f.colenbrander@tue.nl, p.j.v.v.wesemael@tue.nl,
s.krishnamurthy@tue.nl, a.r.pereira-roders@tue.nl

RA01 Tallness
prof. Dipl.-Ing. Christian Rapp, ir. Ruurd Roorda, ir. Bram van Kaathoven
c.rapp@tue.nl, r.p.j.roorda@tue.nl, b.a.h.l.v.kaathoven@tue.nl
Every quartile architecture and urbanism students are given the opportunity to start a graduation studio. This brochure means to give you an overview of the themes and subjects that will be offered over the coming semester so that you can make an informed choice you can be happy about. For a detailed explanation of the objectives, requirements and planning of the graduation studios we would like to refer to the Step by Step Guide to Graduation December 2017. A link may be found at the AUDE website: https://www.tue.nl/en/university/departments/built-environment/research/research-programs/living-cities/

There are six chairs offering Graduation Studios. Most of them collaborate with other chairs in the Architecture and Urban Design (AUDE) unit. The names of people listed below are names of those tutors who can chair the various studios available:

- Architectural History and Theory (AHT) led by prof. dr. Bernard Colenbrander, associate professor dr. Jacob Voorhuis and associate professor dr. ir. Ana Pereira Roders.
- Smart Architectural Technologies (SAT) led by prof. dr. ir. Masi Mohammadi.
- Transformational Design (TD) led by prof. ir. Paul Diederen.
- Urbanism and Urban Architecture (UUA) led by prof. dr. ir. Pieter van Wesemael and associate professor dr. ir. Jos Bosman.

The short introductory description of the studios given here will be supplemented with more elaborate descriptions and exact planning schedules closer to their actual starting date. It is possible that some studios alter the theme or emphasis slightly as a result of changes in staff.

Enrolling in a graduation studio – quartile 3 and quartile 4:

1. Students eligible for entering the graduation phase need to enroll in Osiris before the closing of the registration term. If you register too late the first possibility to start with your graduation project is SEM B 2017-2018 – quartile 4 or SEM A 2018-2019 – quartile 1.

2. You have to subscribe with a first and second choice. This is possible until Sunday the 7th of January for quartile 3 and Sunday the 25th of March for quartile 4. If you subscribe after those dates you can only choose from the projects in which there are still places available.

3. The students are required to prepare a written motivation for their first and second choice of their studio and upload this motivation letter in Canvas before Sunday the 7th of January (start quartile 3) and Sunday the 25th of March (start quartile four). First subscribe in Osiris, after that upload your motivation letter in Canvas. Use the correct course code (7X45M0).

   The motivation letter should be no longer than 1 A4 (.pdf file) and name this file as following: your last name – code studio 1st choice/code studio 2nd choice (for instance: Hemesath – ADE-UUA01/RA01). Mind you: without motivation letter you won’t be assigned to a studio.

4. During the first week of the new quartile students are invited by their tutors to visit the graduation studio of their first or (if that particular studio has been oversubscribed) their second choice. Students are required to present their grade list (fully up to date) to the Supervisory Committee.

5. For the requirements to start we would like to refer to the Step by Step Guide to Graduation December 2017 which may be found at the AUDE website: https://www.tue.nl/en/university/departments/built-environment/research/research-programs/living-cities/

   Be aware: If the number of registrations for a specific graduation studio does not reach a minimum of twelve students and in the case of the continuous studios four students, it is possible that this specific studio will not proceed!

Looking forward to meeting you in our graduation studios!
Revising environment of a former electricity factory in Gent, Belgium, with 3D concrete printing.

Gent is a monumental city in the western part of Belgium. In the Middle Ages this city flourished due to the production of wool. The harbor with connection to the sea made the industrial revolution most noticeable in the vicinity of the docks. Currently, some of these factories are designated as cultural heritage, as is the case in the old parts of the power plant. Nowadays the docks are being developed into a modern residential area. The monumental power plant, which has always been in the periphery of the city, will now be surrounded by the old city, the central station, a number of forgotten residential areas and the new city district at the dock. Part of the power station is still in use. A small part of the old building has been used as a theatre; a large part of the complex is not used.

This research will focus on how this building and its immediate environment can play a leading role in developing a cultural city center.

The project starts researching the environment as a group process with as result 2 or 3 masterplans. These masterplans will make suggestions for public space, building shape but also new functions. They will be presented to the local government and the (future) users of the building.

After this you will design and work out a building of this masterplan. In this design studio an intensive exploration into the application of an innovative technique will be integrated, using 3D printing. Elements of the design will result in the actual 3D printing of designed parts. Students will be asked to contribute and work hands-on with the 3D printer on a regular basis.

prof. ir. Juliette Bekkering
Sjef van Hoof arch. AvB
ir. arch. Barbara Kuit
Zeeshan Ahmed (PhD-student)
Masterly Apprenticeship

We are continuously bombarded with the most astoundingly beautiful images of architecture around the world, through websites, virtual communities, books and magazines. How can you be an original designer in the midst of all this? One answer would be to log off and lock everything out. Just do your own thing. Another perhaps more fruitful approach however could be to attentively look at the buildings that inspire you and see what you can truly learn from them. That is what we will be doing in this studio.

Research: with the research we will focus on how architects learn from looking at buildings. How can we trace the influence of Le Thoronet within the work of Le Corbusier? What did Robert Venturi actually learn from Las Vegas and Rem Koolhaas from New York or Mies’ buildings? Why do Sergison Bates feel indebted to the Smithsons and what is going on between Caruso St John and Lewerentz?

In this studio we will explore the ways we can learn from specific precedents in recent architectural history. With your personal research you will explore everything there is to know about one ‘sub-iconic’ building of your choice and how it has influenced others before you.

Design: your design is closely related to your research topic and will evolve simultaneously throughout the course of the project. You will design a new building within visual range from the building you choose to investigate. The program and exact location of the new building will be determined by yourself. Besides letting yourself be inspired by the original building, you will during the course of the project develop a critical stance towards it and be challenged to articulate your own response.

Studio setup: you will become part of an on-going studio to which each quartile four new students are allowed in and four students graduate and leave. This way the setup of the studio may be regarded as a laboratory exploring the master-apprentice relation on several levels. You will thus learn from the generation before you and in turn pass on the knowledge you have gained to the next.

During the project research and design will be of equal importance from the beginning to end. Both parts of the academic process will interact and influence each other.

dr. Jacob Voorthuis
ir. Jan Schevers

7X45Mo
semester B, quartile 3-4-1 (+2) / quartile 4-1-2 (+3)
45 ects
4 students each quartile
In this graduation studio we will take a renewed look at transforming smart home concepts to "active & healthy homes". It addresses design of home environments to empower the ageing population to live a more meaningful, active, and autonomous life with self-esteem and independence. The scope of the graduation studio goes beyond the technological possibilities, and the students will also perform research into the state of the art of emerging social movements, active lifestyle, and social engagement. It's about both designing healthy homes that support healthy lifestyles, and having active design features that support resident's health (e.g. stairs that encourage everyday use or 'special facades' that promote interaction, or roof community gardens that facilitate qualitative nutrition and interaction). The overall goal of the studio is to boost knowledge in a new demand-led vision for 'Smart architecture', and its result serves as a design reflection on the implications of smart technologies, and prompts a discussion of how we imagine and define an 'active and healthy home' using modern technological possibilities. We work in close collaboration with a real-life project (Smart Care Homes) in a village nearby Eindhoven. Using participatory design approach and active involvement of senior citizens and care-givers we want to design homes (or re-design existing ones) that stimulate mental and physical health of the users through sensorial and cognitive interventions.

Stimulating and Healthy Home Environments (SHE): The Design and Science of Smart Architecture

prof. dr. ir. Masi Mohammadi
Sjef van Hoof arch. AvB
ir. Leonie van Buuren (tentative supervisor)
ir. Joyce Fisscher (tentative supervisor)

7X45Mo
semester B, quartile 4-1-2 (+3)
45 ects
12 students
Theme: Within every city one can find – with close observation – inner worlds: intimate courtyards, alleys, patios, enclosed gardens. Enclosed in private buildings or building block, these spaces harbour the collective domain. According to Manuel de Solà-Morales these spaces are "a social domain – just as much as, or indeed even more than the public domain". They form "the wealth of historic cities and are the most important structure for the city of the future". The studio will follow three lines of research & design:

- A cultural comparison of residing and living in the inner cities of Antwerp, Rotterdam and a third city (southern Europe)
- The design of housing types that can meet contemporary requirements and patterns of living
- The design of robust urban-architectural ensembles that can incorporate social, functional transitions and spontaneous developments

The intermediate size is defined first of all simply as a concept of scale - connecting architectural and urban design. But it is also defined as an ‘in-between’ domain, connecting the public and the private. An area that demonstrates splendidly the coherence between the spatial, physical city and its social and cultural heritage. In this project we connect both notions, first looking closely at different European examples where the ‘in-between’ is shaped in fascinating architectonical types and urban spaces – defining the cultural and social wealth of these cities: Antwerp, Rotterdam and Genua.

Two distinctive approaches are used in order to describe characteristics of the collective domain: a typo morphological analysis and city walks: ‘participatory observation’ as a means to describe processes and transitions of urban life, urban space and urban architecture more intensely and more accurately.

Product: the research insights will be translated into design instruments. First, by developing architectonical types with collective space as a principal element. These are then used (as ‘smallest nucleus of urban planning’ – see The Intermediate Size, p.56 ff.) to develop inner city architectural ensembles.

prof. dr. ir. Pieter van Wesemael
dr. Dipl.-Ing. Hüsnü Yegenoglu
ir. Jochem Groenland
Sjef van Hoof arch. AvB
University of Antwerp (partner)

semester B, quartile 3-4-1 (+2) / quartile 4-1-2 (+3)
45 ects
4 students each quartile
Urbanization is transforming social, economic, cultural and spatial conditions of cities. Given this importance, cities have been recognized by international organizations as a preferential site for initiating change, and are key players in sustainable development (WBGU, 2011; 2016). This research based graduation studio aims at contributing to the “how” of urban sustainable development by identifying ongoing urban and architectural practices and policies in the North and South. IMAGINE is a new series of graduation studios linking architecture and urban design students with a common aim to advance co-production practises for more inclusive development. Following IMAGINE Ballarat footsteps, communities are to be asked what they love, what they want to retain and what they imagine for the future of their cities. Based on their replies, students will focus on two thematic lines of enquiry (1) urban heritage and (2) child focused vision of cities, while exploring how local communities and users can be involved in the production of the future of their cities.

MQ: How to develop a co-production process towards sustainable urban development that focus on diversity of local resources and communities?

Q1. What are the current policies, architectural and urban practices in the selected cities?
Q2. Who are the stakeholders involved within decision-making processes of urban practices?
Q3. How can we create better inclusive policies or practices?
Q4. How do Global North and Global South cities compare in policies and practices?

Logistical information: We will undertake field research for one quarter (8-10 weeks) on the selected locations in the Global North & South (abroad). As the studio focuses on two themes, you will be able to choose which one you would like to focus on through the year, yet still teaming up on the main research question. This studio includes an international component (1 extra quartile).

IMAGINE:
Co-creating the future of our cities

prof. dr. Bernard Colenbrander
prof. dr. ir. Pieter van Wesemael
dr. Sukanya Krishnamurthy
dr. Ana Pereira Roders

7X45Mo/7W45Mo
semester B, quartile 3-4-1+2
45 + 15 ects (international component)
12 students
Tallness

This studio will be devoted to the way cities develop vertically. At the end of the 19th century the inventions of the elevator and the steel skeleton produced a building type that enabled cities to grow upward: the skyscraper. Rather than driven by the unavailability of plots in the growing city, the success of the skyscraper is primarily caused by capitalist venture. The desire of neighboring the most profitable spot of the town leads to buildings becoming taller and taller, forming an ever-changing skyline. Due to its mere cost, size, height and the endlessness of its façade, the type of the skyscraper and its context of congestion seem to embody the selfishness, isolation and pressure usually associated with human life in the modern world: a human life detached from soil and society. This association will possibly be countered in this studio.

In the studio, collective and individual comparative research will be carried out to this upward urban and architectural development, that has finally reached The Netherlands. Focus is on the contemporary condition. In the research, different sources may be used, that contribute to an understanding of type, technique and context. Furthermore, a design for the vertically expanding city center of Eindhoven will be made, with a collective (urban) start and an individual (architectural) end, that will fill the town with necessary extra inhabitants, fulfill the presumed contemporary need for collectivity and ecology, and link up all tall structures with the existing urban fabric.

prof. Dipl-Ing. Christian Rapp
ir. Ruurd Roorda
ir. Bram van Kaathoven

7X45Mo
semester B, quartile 3-4-1 (+2)
45 ects
12 students
AHT-UUA01 IMAGINE: Co-creating the future of our cities
prof. dr. Bernard Colenbrander, prof. dr. ir. Pieter van Wesemael,
Dr. Sukanya Krishnamurthy, Dr. Ana Pereira Roders
b.j.f.colenbrander@tue.nl, p.j.v.v.wesemael@tue.nl,
s.krishnamurthy@tue.nl, a.r.pereira-roders@tue.nl

UUA01 Going Smart: Mobility and the Public Domain
Technology, Networks, Governance, Communities
and Space in the Digital Age
prof. dr. ir. Pieter van Wesemael, Ir. Marcel Musch,
Ir. Marian de Vries, George Liu (PhD-student)
p.j.v.v.wesemael@tue.nl, m.w.musch@tue.nl,
m.j.d.vries.2@tue.nl, y.liu.5@tue.nl
Introduction
Graduation studios Urbanism

Every quartile architecture and urbanism students are given the opportunity to start a graduation studio. This brochure means to give you an overview of the themes and subjects that will be offered over the coming semester so that you can make an informed choice you can be happy about. For a detailed explanation of the objectives, requirements and planning of the graduation studios we would like to refer to the Step by Step Guide to Graduation December 2017. A link may be found at the AUDE website: https://www.tue.nl/en/university/departments/built-environment/research/research-programs/living-cities/

There is one chair offering Graduation Studios Urbanism:
- Urbanism and Urban Architecture (UUA) led by prof. dr. ir. Pieter van Wesemael and associate professor dr. ir. Jos Bosman.

The short introductory description of the studios given here will be supplemented with more elaborate descriptions and exact planning schedules closer to their actual starting date. It is possible that some studios alter the theme or emphasis slightly as a result of changes in staff.

Enrolling in a graduation studio – quartile 3 and quartile 4:

1. Students eligible for entering the graduation phase, in quartile 3, need to enroll in Osiris before the closing of the registration term. If you register too late the first possibility to start with your graduation project is Sem B 2017-2018 – quartile 4.

Students eligible for entering the graduation phase, in quartile 4, need to enroll in Osiris before the closing of the registration term. If you register too late the first possibility to start with your graduation project is Sem A 2018-2019 – quartile 1.

2. You have to subscribe with a first and second choice. This is possible until Sunday the 7th of January for quartile 3 and Sunday the 25th of March for quartile 4. If you subscribe after those dates you can only choose from the projects in which there are still places available.

3. The students are required to prepare a written motivation for their first and second choice of their studio and upload this motivation letter in Canvas before Sunday the 7th of January (start quartile 3) and Sunday the 25th of March (start quartile four). First subscribe in Osiris, after that upload your motivation letter in Canvas. Use the correct course code (7W45M0). The motivation letter should be no longer than 1 A4 (.pdf file) and name this file as following: your last name – code studio 1st choice/code studio 2nd choice (for instance: Hemesath – UUA01/AHT-UUA01). Mind you: without motivation letter you won’t be assigned to a studio.

4. During the first week of the new quartile students are invited by their tutors to visit the graduation studio of their first or (if that particular studio has been oversubscribed) their second choice. Students are required to present their grade list (fully up to date) to the Supervisory Committee.

5. For the requirements to start we would like to refer to the Step by Step Guide to Graduation December 2017 which may be found at the AUDE website: https://www.tue.nl/en/university/departments/built-environment/research/research-programs/living-cities/

Be aware: if the number of registrations for a specific graduation studio does not reach a minimum of twelve students twelve students and in the case of the continuous studios four students, it is possible that this specific studio will not proceed!

Looking forward to meeting you in our graduation studios!
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of cities. Given this importance, cities have been recognized by international
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Logistical information: We will undertake field research for one quarter (8-10
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to focus on through the year, yet still teaming up on the main research question.
This studio includes an international component (1 extra quartile).

IMAGINE:
Co-creating the future of our cities

prof. dr. Bernard Colenbrander
prof. dr. ir. Pieter van Wesemael
dr. Sukanya Krishnamurthy
dr. Ana Pereira Roders

7X45Mo/7W45Mo
semester B, quartile 3-4+1+2
45 + 15 ects (international component)
12 students
Theme: we are on the verge of a radical transformation of our systems of mobility. Three technological trends are the drivers for this revolution in mobility: an ongoing digitalisation of society leading to the development of smart city technology (apps and data), the automation of production processes and mobility (driverless driving) and the transition from carbon based to renewable energy resources (electric driving).

Besides these technological changes we are witnessing at the same time huge social and economical changes: an ongoing globalisation of the market, resulting in borderless flow of jobs, capital and goods, an unstoppable rise of mobility (on a local, national and international level) and a growing awareness for the need of healthy lifestyles. These social economical trends lead to seemingly paradoxical trends in mobility, e.g.: more international flights on the one hand, an increase of cycling and walking on the other hand.

This project will explore the impact of these changes in mobility on the public domain. The emergence of smart city technology holds a big promise for improving the quality of life in the city by reducing the impact of traffic on the public domain. Also it might re-connect peripheral locations that are more and more devoid of accessible, public options of transport. New smart technology will probably continue to stimulate new business models that will shake up existing markets (think Uber). This will most likely result in new networks and new nodes.

Location: this Graduation Studio will research and rethink the relationship between the new smart technologies and the public domain on two scales: the regional network and a local traffic node. The intention is to focus on the network between the three campuses that collectively form the Brightlands campus (www.brightlands.com).

Product: the product will be a collective research on mobility and the public domain, scenario designs for different type of regional networks and a design of an urban node.

Partners: we are currently exploring a collaboration with local and regional stakeholders and with international universities in the region.

prof. dr. ir. Pieter van Wesemael
ir. Marcel Musch
ir. Marian de Vries
George Liu (PhD-student)
Equator research (partner)
SPARK (partner)

7W45M0
semester B, quartile 3-4-1 (+2)
45 ects
4 students
List of References

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