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Studio	
Name	Urban Fabric
Teachers/ tutors	1 <sup>st</sup> : Machiel van Dorst 2 <sup>nd</sup> : Leeke Reinders
Argumentation of choice of the studio	The scale and location of the project is taking into account the eye-level perspective. The approach for the project, is an environmental psychology approach. Taking the role of target groups, other disciplines, and governance in account in order to gain an understanding of designing in a multi-actor setting.

Graduation project	
Title of the graduation project	Where rhythms interfere. An exploration of stress, in the city of Amsterdam.

Goal	
Location	Amsterdam City center
The posed problem	<p><i>Phenomenon</i> - Yearly Amsterdam has 5,3 million visitors walking, cycling, moving around the city. Most visitors come to admire the particular and unique cityscapes and enjoying the Dutch freedom. Tourism is one of the seven most lucrative economic sectors of the Amsterdam economy. This is considered a positive thing, as presented last November 2015, during the 'Week van de Stad' organized by Stad Forum. The fact that the city Amsterdam is getting more and more people reveals opportunities. But these opportunities need to be facilitated.</p> <p><i>Friction</i> - In Amsterdam 834 000 people live within the city proper. These inhabitants live in the city and encounter a lot of these visitors every day. Amsterdam residents think the city is too crowded and are making themselves heard. Els Iping from the Association of 'Vrienden van de Amsterdamse binnenstad': "The real Amsterdam is disappearing. The city is focusing on the tourists and their expenses.". Also a survey in the newspaper Het Parool concluded that 68% of the participating inhabitants consider Amsterdam too crowded and want less tourists (nos.nl, article, 'Amsterdam zucht onder drukte').</p> <p><i>Theoretical plan</i> - More people are living and working in urban environments than ever before -these environments affect how we feel. How we people move around and experience the city influence our mental health. Humans adapt to their environment ever since prehistoric evolution. Even though humans are sociable animals who cannot exist without social communities and intimate contact, there are limits to crowds. Adapting to extremes man have developed psychological unawareness to avoid behavioral and physiological disturbances. "In extremely crowded environments each of us lives - as it were - in a world of his own. If carried too far however, this adaptation to crowding decreases the ability to relate to other human beings. Eventually it may lead us to become unaware of their presence and to become anti-social." (Dubos, 1972)</p> <p><i>Specific friction</i> - So, if you relate this theory to Amsterdam (which is getting more and more crowded), the consequences are serious. There is need to research this problem and answer the research questions on p. 3.</p>

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The fact that more and more visitors in Amsterdam is not a bad aspect. But there is need for a plan to facilitate this. The municipality is already experimenting with different kinds of solutions, from moving events to stricter policies. But still, complaints are rising, as well from the inhabitants as people that do not live in Amsterdam who are concerned about the image of Amsterdam. The aim and focus of this design project lies on finding the link between theory and practice on stress in the city. The written context about stress and the city and the real life case of Amsterdam and the growing amount of visitors. The aim is to find where this overlaps and how to resolve possible conflicts.

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## Research questions

How do rhythms of the inhabitants of Amsterdam, interfere in public space, with the rhythms of visitors, which cause stress?

Sub questions

1. When and why do different rhythms of people in the city interfere?
2. How do spatial characteristics influence stress, caused by visitors in the city?
3. What spatial design can relieve stress in daily life in the city?
4. What behavior of passers-by face unwanted encounters with visitors in Amsterdam?

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## Design assignment in which these result

So, eventually the aim of this graduation project is a design (see p. 59). The answers of the main research questions and the sub research questions will lead to analytical drawings and conclusions. From this and the hypothesis the design will arise and be one of the final products. For now the design questions will provide a design goal and deliverable that give an idea of the result of this project. The design question is as following:

**How can a spatial design relieve stress in the daily life of the inhabitants of Amsterdam city center caused by visitors?**

With a spatial design will provide alternatives and choice for the people to cope with stress in the city of Amsterdam.

The aim of the research is to link the theory of stress and the built environment with the situation of Amsterdam and the growing amount of visitors. This translates in unexpected encounters in public space, where the rhythms interfere. This has not only to do with rhythms but also expectation an perception of the people present in that situation. The design goal is to give an alternative to choose and variety in these encounters so they are less stressful. With elements that work relaxing these alternatives should work on the opposite of the stress reaction of people.

Amsterdam is very high in porosity and people move like ants around the maze of houses, grachten, canals and coffeshops. There is a certain order in this chaos but the table is about to turn. The space remains the same but the amount of people going through is increasing. With this project the design objective is to maintain the order in this chaos and facilitate the predicted growth. The aim is a multiple scale design to offer alternatives and variety to reduce the stress-level in the daily hassle of the inhabitants and so the visitors are not a irritation factor in public space of the inhabitants of Amsterdam. The current regeneration strategy is mostly focused on intensifying the existing structures (source interview project leader 'Stad in balans' department of Urban Planning and Sustainability at the municipality of Amsterdam: Eric van der Kooij), but to achieve social sustainability, satisfied inhabitants are key. So it is important to facilitate the cohabitation between the inhabitants and visitors in the city.

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The Goal is

- To drive a spatial design from the theoretical framework,
- From this, a spatial design possibility
- A design resilient to change
- A design meaningful for the inhabitants as well the future visitors

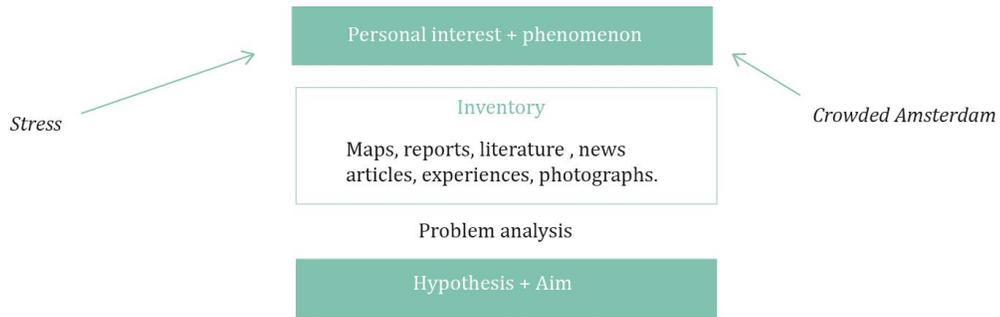
The design challenge is to facilitate the opportunities of the growing amount of people in Amsterdam considering the advantages and disadvantages of tourism and crowding. There by is it important to understand the thinking of the visitors as well as the inhabitants: "(...) making sense out of environment does not depend on extreme simplicity, but on coherence and variety" (Kaplan, 1973)

Coherence and variety are the key words in the design objective. A design that makes the existing space legible for visitors that come for the first time of their life so they don't distort the original way of using the space.

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**Process**  
**Method description**

Project definition



Research question

How do *rhythms* of the *inhabitants* of Amsterdam, interfere in public space, with the *rhythms* of *visitors*, which cause *stress*?

Theoretical and analytical

Theoretical framework  
*Link between built environment and mental state*

Location visits  
Observations and documentation of the real life situation

Sub questions

When and why do different rhythms of people in the city interfere?

*Keywords for analysis: Behaviour, Groups, Time, Lifestyles, Flows, Rythmanalysis.*

Look at the repetition, habits, times of the day and the ambiguity of the location.

How do spatial characteristics influence stress, caused by visitors in the city?

*Techniques for analysis: Mapping, Sketching, Photography.*

What spatial design can relieve stress in daily life in the city?

*Sources for analysis: Literature, Case studies.*

Relate built environment with the movement of the inhabitants of the city of Amsterdam.

What behaviour of passers-by face unwanted encounters with visitors in Amsterdam?

*Techniques for analysis: Interviews, Role-play, Characters, Joining target groups in real life.*

Design objective

Envisioning

*Personal qualities ex. creative thinking, inspiration and thinking outside the box*

*Multiple scale design to facilitate the growing amount of people in public space in Amsterdam and reduce the stress-level in the daily life of the inhabitants.*

*"(...) making sense out of environment does not depend on extreme simplicity, but on coherence and variety" (Kaplan, 1973)*

*Analysis results from research questions*

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### The holistic view of the project

The whole project is subdivided into three phases. The Project definition-phase, the Theory and Analytical-phase and the Envisioning- phase. See diagram on the page before.

The project definition starts with my personal interest and a certain phenomenon. In this case my personal interest of 'Stress in the city' and the phenomenon of Amsterdam getting more and more crowded, initially by the growing amount of visitors, but also the growing population size. The problem will be stated from the problem analysis. From this the hypothesis and aim of the project will arise. Then the main research question will be answered by combining two concepts: the theoretical framework and location visits. These two concepts are the base of this phase. When answering a sub questions the two concepts will provide the tools to give these answers. This is further elaborated in the paragraph 'Connection to research questions'. The envisioning phase will result in an design (see p. 59). Results from the theoretical and analytical phase will be a big input here, but also the hypothesis from the first phase will be taken in account. Because not only the theory and fieldwork will prove a good design. Also the skills of creative thinking, inspiration and thinking outside the box are qualities that will have to play a role in the envisioning phase. This is also the relationship between research and design. The research is one of the inputs that will contribute to the final design product, but not the only input.

### The method

As mentioned before the two concepts will provide tools to answer the sub questions. The theoretical framework provides existing theories in scientific literature that help to create a basis for the link between the built environment and the mental state of human beings. This topic is been broadly explored in the sociology, psychological sciences but not so much related to the built environment yet. The location visits provide a case where the possibility presents itself to test the theories in practice. Connection to research questions Every research question has a different method. The methodology connected to the research question depends on what sources are needed to answer the question.

#### *1. How do different rhythms of the city cause stress?*

Using the theoretical framework the keywords people, behaviour, groups, time, lifestyles, flows and rhythms analysis essential. In literature from different background these keywords will be used to select the right articles and information. The link between these keywords and the spatial environment is key. The theoretical framework will provide the necessary theory on rhythms and behaviour.

#### *2. How do spatial characteristics influence stress, caused by visitors in the city?*

With visits to the location it will become more clear what spatial characteristics influence stress. These characteristics will be documented with photographs, sketches and video's. The spatial characteristics will be mapped in hand drawn and computer illustrated maps. Drawing an object, most certainly give the object an other dimension to the beholders eye. Translating what you see into movement of your hand into pen on paper is such a specific way of observing. It is important translating your idea's into a way to communicate. This method is therefore chosen to be used for analysing the spatial characteristics of the situation. Asking people on location and also using my own experiences of the space will give the spatial environment a taste of the atmosphere. This atmosphere is something that can be considered vital for a place. Eventually these will be linked to the definition of stress that is found in the theoretical framework. Also visitors will be defined in the theoretical framework. In practice I will join tourist walking tours to research the routes they walk and the obstacles they face in the city.

#### *3. What spatial design can relieve stress in daily life in the city?*

Mental state can be influenced by the environment, this is a fact. A glimpse of green from an office window already reduces daily stress. The Kaplans were at the forefront of this statement. Exploring nature's impact on people's mental functioning, social relationships and even physical well-being (Clay, 2001). The theories on stress relieve in urban environment will be researched and defined. This will also be done with case studies. Looking at existing examples with comparable problems. Some existing places already work stress relieving. The elements of these places will be defined.

#### *4. What behaviour of passers-by face stress related to visitors in Amsterdam?*

Behaviour of passers-by will need to be defined with the theoretical framework and with fieldwork. By using interviews people's opinions will become clear, this is important since these are the people that will actively use the final design. This is a part of the location visits. Taking the role of a local and also the role of the visitors will make point of views more clear. Eventually all the gathered information will be crystallized into a few different characters that will represent certain groups that use the city. With these characters scenarios will develop and be used during the design phase.

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## Literature and general practical preference

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The used literature is the theoretical backbone of this graduation project. All kinds of different disciplines are related, this is why the used articles are not only from a urban background.

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**Reflection**  
**Relevance**

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“The real Amsterdam is disappearing. The city is focusing on the tourists and their expenses.”.

This quote is from Els Iping from the Association of ‘Vrienden van de Amsterdamse binnenstad. To say such a thing means something is very wrong. It is time for change. The people are calling it out on social media and in news papers. This is all happening during the past months. During the week van de Stad, organized by Stad Forum, last November the theme was: ‘Amsterdam too crowded? That brings opportunities! It’s the talk of the town. Amsterdam is full. Does this mean: less, less, less? Or does this bring us opportunities to grow, qualitative and quantitative? During this week Stad-Forum explored the opportunities.

The scale and location of the project is taking into account the eye-level perspective. The approach for the project, is an environmental psychology approach. Taking the role of target groups, other disciplines, and governance in account in order to gain an understanding of designing in a multi-actor setting. The actors in this project are the municipality of Amsterdam, the inhabitants of Amsterdam in and around the city centre and the visitors. They are currently working on issues concerning the increasing number of people in Amsterdam. In the interview with project leader ‘Stad in balans’ department of Urban Planning and Sustainability at the municipality of Amsterdam: Eric van der Kooij the current plans were clarified and their goals became clear. By taking an experimental approach the project City in Balance want to provide facilities for the inhabitants of the centre of Amsterdam. So they don’t get overshadowed by all the events and initiatives for the visitors.

With this project I will relate existing theories about stress in the city with the current phenomenon of growing amount of visitors in Amsterdam. In the fields of sociology, psychology and anthropology there is a vast amount of knowledge existing on this subject. Graduating from the Technical University of Delft it is the challenge and opportunity linking these fields with the built environment. Amsterdam provides the perfect case for this. The municipality is currently working on the same issues. This personally gave me the opportunity to do an internship for the next months at the municipality of Amsterdam. From this intership I desire to take as much knowledge into this graduation project as possible. This will give me a insight in what the municipality is planning to do concerting the same issues I will tackle with my graduation project.

**Ethical paragraph**

The design aim is a spatial design that will eventually reduce the stress of daily hassle in the lives of the inhabitants of Amsterdam city centre. The ethical relevance is the impact on the social interactions between different people. The hypothesis states a negative impact between certain encounters. But a spatial design is not always the answer to questions related to sociology and environmental psychology. The built environment definitely has an impact on peoples lives but there always will be exceptions. Since mental state is such a complex and fascinating concept, the built environment is just a small part of it. How much the built environment really can impact is mostly based on theory. The behaviour is like animals, needs and requirements for a comfortable life are able to be designed for them. But the internal influence human organisms have on the mental state are from a whole different field and are outside of context in this project.

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## Time planning

To get a grip on the desired deliverables and the time frame of the graduation project the timeframe below is made. The P moments are showed including the desired deliverables that have to be finished by then.

