Graduation Plan

Master of Science Architecture, Urbanism & Building Sciences

Graduation Plan: All tracks

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

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

Personal information	
Name	Marloes Drijver
Student number	4480880

Studio		
Name / Theme	Graduation Studio Revitalising Heritage: Faro Convention Lab (AR3AH115)	
Main mentor	Ana Pereira Roders	UNESCO Chair in Heritage and Values: Heritage and the Reshaping of Urban Conservation for Sustainability
Second mentor	Bruno Amaral de Andrade	UNESCO Chair in Heritage and Values: Heritage and the Reshaping of Urban Conservation for Sustainability
Argumentation of choice of the studio	My personal interest in the field of architecture is pointing mainly towards heritage. In previous design courses during my educational period on the TU Delft, I always tried to incorporate the historic (urban)context and, if relevant, to represent the aesthetic values of the historic buildings in my design. With this studio I desire to learn more about heritage conservation, to later on use this knowledge during my career as future architect.	

Graduation project	
Title of the graduation project	Play for change: Using games to engage the community for healthier cities: A case study in Faro, Portugal.

Goal	
Location:	Faro, Portugal
The posed problem,	People living in cities need a greener environment to stay healthy and fulfill their social needs. The necessity to spend time and relax in nature and green spaces became especially urgent in the context of pandemics that the world has been facing in recent years. Additionally, problems related to climate change, like rising temperature in the cities, are issues that future urbanists and architects need to address. The neighborhood of Estação in Faro, in Portugal, was chosen as the graduation project case study due to its location and the challenges this place faces. The municipality of Faro developed a rehabilitation program in 2018 for the city, with intense concentration on the center and waterfront. [25] The neighborhood of Estação is part of an area called

	Frente Ribeirinha, which means riverfront. This area directly borders the Ria Formosa Natural Park. It, therefore, has a privileged territorial and landscape framework that needs recognition during the requalification process of the riverfront. Furthermore, the railway station and tracks are physical obstacles between the city and nature and prevent the population and visitors from enjoying the city's proximity to the Ria Formosa. Additionally, the neighborhood of Estação lacks green spaces where citizens can meet and spend time in the public realm. Furthermore, the neighborhood does not take advantage of its connection to the national park, which harms people's well-being and understanding of nature values. Furthermore, in the demolition program of the old factory, such rapid renovation on the block with conspicuous volume and historical value might negatively affect the legibility of the neighborhood and the place attachment of the community. Furthermore, high-rise dwelling buildings appear due to the city's rapid growth, which will cause little interaction and separated values between older and younger generations. Reference: [25] Departamento de infraestruturas e urbanismo. (2018). *Área de Reabilitação Urbana Operação de Reabilitação Urbana: Programa estratégico de reabilitação urbana*. Câmara municipal de Faro.
research questions and	This graduation project is partly done as group work and partly as individual work. To clarify this, we will indicate on the end of each question who will work on this particular question. The research aims to understand the values on nature of the different stakeholders in the context of emotional attachment and how this knowledge can serve in the following redesign phase. The research question is formulated below, and the following sub-questions are meant to support answering the main question. How can the values on nature of different generations influence the emotional attachment to Estação, Faro and support the redesign of a vacant building? Sub-questions: 1. How can an intergenerational relation be created by using the values on nature of the local community of Estação? (Willem Elskamp) 2. How could the tangible and intangible attributes affect different generations' place attachment to Estação? (Tao Qiyang) **3. How does the younger generation feel emotionally attached to nature in Estação? (Marloes Drijver)** 4. How can children's values on nature be applied to redesigning vacant buildings? (Sara Szulc) Individual sub-questions: - Which natural attributes do people feel emotional attachment with? - Why do people feel attached to specific nature attributes?
design assignment in which these result.	Redesign of vacant buildings in Faro, Portugal: Estr. do Passeio Ribeirinho 38, 40, 42.

Process

Method description

This research will add to the development of new methods in participatory practices, and particular gaming will be used to explore stakeholders' values. Gaming is a participatory method that enables co-creation in redesigning the urban landscape. Both sides can learn by engaging the local community in research about values and the redesign process. We, as future

architects, can learn to understand the needs of people better. Citizens can learn about the importance of the quality of their living environment and enable them to be part of the design process. Each sub-question will use a different method that will be explained in the next paragraphs. The method in bold letters will be used to answer the individual sub-question.

1. Card Game

The card game was made (based upon the existing game of "Reigns") to understand the values of both children and the elderly. The game is set around a set of proposal cards that need to be accepted or declined. In total, 72 cards have been made that each is containing a proposal for the city of Faro. Each card is linked to a value type (in total, 9 cards per value type) and a secondary value. Participants will play the game in groups of 4 to 6 people. One person will play as the "mayor" and decide which proposals to accept, while the other players will be their "advisors" and choose which cards to propose. Participants will be asked to explain their choice of a particular card and then negotiate with the group over which cards they find essential. The game also contains a board with sliders linked to the values on the back of each proposal card. The board has been added to increase the game aspect and allow for more engagement in the game.

2. Cultural mapping

Cultural mapping is a method suitable for adult and elderly participants familiar with the Estação neighborhood. During the cultural mapping street interview, the participants will be asked first to write down what they like or dislike in the area from three perspectives: environment, activity, and meaning. They will write the answers on sticky notes, simultaneously marking them on the map. Then, participants will answer yes or no to five questions measuring their level of place attachment, like "whether I want to stay in Estação." Based on the number of "*yes*" and "*no,*" they need to choose only five positive or negative attributes that support the choice from the list they wrote at the beginning and explain the reason. In this way, the attributes related more to place attachment can be coded.

3. Photographic walking tour

The focus of the photographic walking tour will be to identify the relationship between emotional attachment and natural attributes in the area. People will be asked to take photos using the app 'Wikiloc' of natural elements in their neighborhood to which they feel emotionally connected based on their memories. Emotions and memories can be both positive and negative. During the introduction of the tour, the five different senses wherewith nature can be observed will be explained to make the participants aware of the different perspectives. They will also be asked to add a short description to each photo to explain why the specific photo was taken. In this way, both attributes and values of emotional attachment towards nature will be derived during the tour. The tour will lead through Estação for approximately 45 minutes.

4. Minecraft

Gaming is used in architecture to enable co-creation in redesigning the urban landscape. Minecraft as a tool for visualization and collaboration can provide possibilities for opening a debate between children and architects. The workshops based on the use of Minecraft engage children to provide their perspective on their neighborhood and provide input for architects to develop more inclusive designs. The workshop aims to determine which values and attributes are essential for children. Firstly, each child will be given a set of cards with pictures of different places in the neighborhood, focusing on nature, vacant buildings, and public spaces. Children have to answer the question "How important is the element in the photo?" and "Why?". The purpose of the cards is to learn about the values and attributes essential to children. Secondly, children will be redesigning the vacant building and its area using the game Minecraft.

Literature and general practical preference

The presence of nature in the city enhances peaceful feelings and provides spaces for relaxation, exercise, and meeting with other people, according to Kim and Miller's (2019) research. [4] Additionally, it helps to reduce anxiety and supports thinking and reflecting. Nature makes people proud of the place where they live and make them care about their neighborhood—taking those environmental and social aspects into account when designing cities is an essential factor in enhancing the health and well-being of the users. Urban green spaces are a crucial catalyst for "the quality of the environment and human health and well-being" in cities. [5, p.23] Trees and green spaces participate in filtering air pollution, stabilizing ground surfaces, enhancing biodiversity, and lowering the temperature, which is especially meaningful in climate change. Walking in a green environment raises social interaction and "increases the ability to function better at work and home." [5, p.24] Furthermore, green spaces can support economic regeneration by creating more attractive spaces for new employers, and as a result, new employment opportunities are generated.

Heritage is considered to have a distinctive ability to contribute to physical and mental well-being on an individual and social level. For example, in a survey described in the Heritage Alliance Report [3], 94% of adults admitted that caring about heritage is very important, underlining the value of heritage for people and their place of living. In addition, National Trust [2] research indicates that 74% of the respondents value the presence of nature in areas where they like to spend their time, which positively impacts their wellbeing. Other research [6] proved that walking in green spaces, considered of high natural and heritage value, significantly reduced feelings of anger, depression, tension, and confusion.

Another concept that is used for this research is place attachment. Place attachment is a bond between an individual or group and a place that can vary in terms of spatial level, degree of specificity, and social or physical features of the site. Because this concept is focused on places with a high level of agreement, it is mainly associated with positive emotions and experiences of people. [7] In addition, emotional attachment is derived from place attachment because it says something about the symbolic relationship that an individual can have based on cultural, social, and individual bonds with a place. This relationship describes the experiences and memories of an individual based on their perception of the area. [8] However, place attachment may also lead to adverse effects, such as prejudice against other regions or neglecting the potential risks around the neighborhood. [9] What does the *place* of place attachment mean? Previous studies have proposed several different models to clarify the definition of *place*. Based on research, we could assume that *place* is a geographic scale [10] as the collection of three factors to which people can directly feel attached to activities with people [11], physical settings, and meanings of conceptions. [12] According to the extended attribute typology of Veldpaus (2015), physical setting belongs to tangible attributes, social network belongs to intangible societal attributes network, and meaning belongs to intangible relation attributes.

Because this research is conducted among different stakeholders, the term *intergenerational* needs more elaboration. Intergenerational reflects something involving people of different generations. The term focuses on involvement in which there is an interaction between the different generations. [13] This means a relation or connection is present between these generation groups. Within this research, the different generation groups will be divided into categories based on the work of P. Laslett. This system aims to understand the life rhythms of each generation. "Age groups" are not separated due to a specific age but by a period characterized by lifestyle and needs. [14]

"1st age"
The period of childhood dependancy and socialization

"2nd age"
The period of responsibility and work life

"3rd age"
The period of fulfillment

"4th age"
The period of dependancy and frailty

Figure 1: Intergenerational division of stakeholders. Diagram made by authors.

Furthermore, this research is organized around a values-based design approach developed by Pereira Roders and Tarrafa Silva (2012). [15] The foundation of this approach is the cultural significance of heritage. Cultural significance considers two elements: *values* and *attributes*. *The value* of heritage is referred to as importance. It is understood as "the importance or worth of something for someone." [16] Attributes refer to "a quality or characteristic that someone or something has." [17] Cultural significance is defined as: "Aesthetic, historical, scientific, social or spiritual value for past, present or future generations. Cultural significance is embodied in the place itself, its fabric, setting, use, associations, meanings, records, related places, and objects. Places may have a range of values for different individuals or groups." [18] However, Pereira Roders expanded the list of values with additional ones: economic, political, age, and ecological, and assigned other secondary values to them. [19]

ECOLOGICAL	SOCIAL	ECONOMIC
SPIRITUAL ESSENTIAL EXISTENTIAL	SPIRITUAL EMOTIONAL (IND.) EMOTIONAL (COL.) ALLEGORICAL	USE NON-USE ENTERTAINMENT ALLEGORICAL
AGE	**VALUES**	**POLITICAL**
WORKMANSHIP EXISTENTIAL MATURITY	OTHER	EDUCATIONAL MANAGEMENT ENTERTAINMENT SYMBOLIC
SCIENTIFIC	**AESTHETICAL**	**HISTORIC**
WORKMANSHIP TECHNOLOGICAL CONCEPTUAL	ARTISTIC NOTABLE CONCEPTUAL EVIDENTIAL	EDUCATIONAL HISTORIC-ARTISTIC HISTORIC-CONCEPTUAL SYMBOLIC ARCHAEOLOGICAL

Figure 2: Values framework by Pereira Roders. [19]

The question *what?* is answered by the attributes, while the question *why?* is linked to values. [20] According to the attributes taxonomy made by Veldpaus, attributes are divided into tangible and intangible. The tangible attributes are divided as follows:

- asset: building, building elements, urban elements, a natural element
- area: ensemble, context, setting, area
- landscape: landscape, layering

Intangible attributes are the following:

- product: concept, artistic tend, relations to context, character
- practice: use, function, knowledge, traditions, customs, relation to meaning, community, people
- process

References:
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[7] Scannell, L., & Gifford, R. (2009). Defining place attachment: A tripartite organizing framework. *Department of Environmental Psychology*, 30(1), 1-10. https://doi.org/10.1016/j.jenvp.2009.09.006
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[16] Cambridge English Corpus. (2022). Value. In *Cambridge Dictionary*. https://dictionary.cambridge.org/pl/dictionary/english/value
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[18] International Council on Monuments and Sites (ICOMOS). (2013). *The Burra Charter, Australia, Charter for Places of Cultural Significance*. ICOMOS.
[19] Pereira Roders, A. R. (2007). *Re-architecture: lifespan rehabilitation of built heritage - capitellum*. Technische Universiteit Eindhoven. https://doi.org/10.6100/IR631784
[20] Veldpaus, L. (2015). *Historic urban landscapes: framing the integration of urban and heritage planning in multilevel governance*. Technische Universiteit Eindhoven.

Reflection

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

This studio is part of the master track Architecture which in MSc Architecture, Urbanism and Building Sciences. The studio is called Revitalising Heritage: Faro Convention Lab, and is part of the Heritage & Architecture Chair. The graduation topic is related to participation methods which can be used in research and design process to engage local communities in order to create more inclusive architecture. Our group topic is strongly related to the importance of nature in architecture, what is a currently valid topic in this field to create more healthier cities.

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

There is still a gap in using participation methods during the design process in architecture and heritage research. Avrami stated that it is generally agreed that bottom-up participation by the community will lead to better choices for values-based conservation, but the applications are still largely understudied. This values-based approach aims to reveal the interests and perspectives of different stakeholders in terms of the cultural significance of places by assessing the values held by different generations. [21] This research will add to the development of new methods in participatory practices, and particular gaming will be used to explore stakeholders' values. Gaming is a participatory method that enables co-creation in redesigning the urban landscape. Both sides can learn by engaging the local community in research about values and the redesign process. We, as future architects, can learn to understand the needs of people better. Citizens can learn about the importance of the quality of their living environment and enable them to be part of the design process. [22]

The municipality of Faro supports this research to underline the importance of the Faro Convention for cultural heritage for society. This framework aims to put people and human values at the center of cultural heritage management and underline the potential of cultural heritage as a source for sustainable development and the well-being of the community. [23] The outcomes of this study will lead to inspiration for the community and raise attention for the Faro Convention.

References:
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