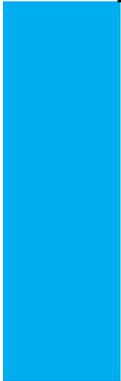


Graduation Plan

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 | Mary Elizabeth Perez | |
| Student number | 5771595 | |
| Studio | | |
| Name / Theme | Architectural Design Crossovers | |
| Main mentor | Agnes van der Meij | Architecture Mentor |
| Second mentor | Freek Speksnijder | Building Technology Mentor |
| Third mentor | Joran Kuijper | Research Mentor |
| Argumentation of choice of the studio | <p>I was drawn to the Architectural Design Crossovers studio's multi-disciplinary approach to form a deep understanding of a heterogeneous city, like Madrid. The studio advocates us to explore our passions via the lens of urban commons. My interpretation of the 'mobility' lens is applied to the scale of the individual within the community and the built environment's role in shaping spaces to allow locals to live authentically and interact with their surroundings to suit their immediate needs. This concept of 'living authentically' has appeared throughout my architecture career as I have carried an enthusiasm for user-centric design – with a specific attentiveness to how detail-oriented architecture can play an integral role in how the space effects the individual.</p> <p>My MSc 2 research paper, <i>Extrospective Design</i>, dissected the architect and client disconnect and explored the potential of integrating approaches used by method actors to understand their characters via the analysis of a case study. Since then, the concept of architect and client relation has fascinated me and I continued this research in this research paper, <i>Learning from Amateurs: How Madrid Balcony Appropriations can Instruct Architects</i>. This paper expands on the client and architect relationship by adding the other crucial figure in the project development process: the building user. This research integrates a developed multi-disciplinary methodology that further analyze the themes by blending theory, anthropological understanding, and applying it to a practical sense; a cross-disciplinary framework that the</p> | |

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| | <p>Architecture Design Crossover’s studio encompasses. This studio’s research and process driven structure encourages and challenges me to develop a grounded and cognizant project that addresses my research interests and concludes solutions to propose a suitable design intervention.</p> |
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Graduation project

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| <p>Title of the graduation project</p> | <p>Research Paper Title: <i>Learning from Amateurs: How Madrid’s Balcony Appropriations Can Instruct Architects</i></p> <p>Design Project Title: <i>Housing for Amateurs</i></p> |
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Goal

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| <p>Location:</p> | <p>The main site is a vacant lot located in the west of the Lavapiés neighborhood in the Embajadores District of Madrid. The exact address of the main site is: Calle de Embajadores, 40, 28005 Madrid, Spain.</p> <p>This is the ‘example’ site used to explain the concept of my project and demonstrate how it is constructed and the defined ‘architectural language’ that can be replicated in future sites. There are two other vacant lots located within one block from this site (that are of similar size and condition) that are referenced in my project as being a potential site candidate suitable for also having “Housing for Amateurs”.</p> |
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| <p>The posed problem:</p> | <p>The physical interactions that people have with surrounding spaces are key indicators exhibiting how individuals adjust to their environment and spatially navigate their lives. This can be evident through ‘make-shift’ adjustments implemented by habitants to adapt their surroundings to best suit their needs; revealing how people currently cope with the existing conditions and how it could better function. Whether it be in private or public settings, these ‘jury-rigged’ adaptations to existing architectural conditions provide valuable insights for architects to better understand <i>who</i> exactly they are designing for. This understanding is especially relevant when applied to buildings that feature public and private programs, such as apartments. The apartment has a rich overlap between an individual’s public and private life and is especially pertinent to the Madrileño lifestyle.</p> |
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| | <p>In Madrid, balconies are a defining architectural characteristic that have a unique position merging public and private, indoor and outdoor, and leisure and utility qualities. Balconies host numerous household dynamics and have become a cultural and functional staple. These program-defying spaces are used freely and have been historically appropriated to accommodate a wide range of programs imposed by the users. The theoretical and psychological research on understanding human interaction and interpretation of space proves that learning from the occupant's 'make-shift' modifications can reveal the embedded issues within current housing design that restricts users from fully serving their individual needs and lifestyles.</p> <p>The aim of this project is to investigate the user's informal approaches through cross-disciplinary research and analysis methods and apply this process to the Spanish balcony to propose an architectural solution that authentically caters to its current and future users. Through this research and project proposal, I will exercise its potential to meet new and emerging societal demands and needs.</p> |
| <p>The research questions:</p> | <ol style="list-style-type: none">1. How do an individual's spatial adjustments, interventions, and affordances on their balconies reveal more embedded issues within the apartment design or issues undress in the affected community?2. What changes can architects implement into their design process to bridge the gap between users and clients?3. How will the proposal of architecture that responds to user interactions improve the lives of individuals on a personal and communal level?4. How would implementing a more integrated indoor /outdoor building encourage people to further appropriate their design process to bridge the gap between users and clients?5. To what extent should designers allow the space to be designed?6. What aspects of typical Madrid Apartment design and architecture are inhibiting users from fixing other things or arising needs? |

The design assignment in which these results:

My design process begins with a photographic analysis process. I photographed balcony appropriations during the Madrid site visit and highlighted the moments in the user appropriation that define the interaction's main purpose and appropriative intention. These photographs with highlighted appropriative moments are collected in *The Catalogue of Balcony Appropriations* and then organized into one of the seven main motives of local spatial appropriations. These seven spatial qualities are defined as: spatial limitation, productivity, leisure, climate, privacy, security, and community engagement. These conclusions are formed by the site research, interviews, observation, and theoretical understanding presented in my research. Analyzing these seven spatial qualities provide the foundational understanding of a broader four overarching conclusions that form an analytical framework applicable beyond Lavapies and into other sites.

Housing for Amateurs is a proposal driven by the aforementioned conclusions and features aspects of traditional Madrid housing typologies and features (such as the corrala and gallery spaces) with the typical Madrileño lifestyle (blending private and social preferences with the prevalent outdoor and indoor lifestyle) to respond to local preferences, familiarity, and embedded social fabric. *Housing for Amateurs* proposes an architectural and structural framework that can be applied to other sites, such as the numerous small vacant lots scattered throughout the city. To address the appropriative and adjustable local needs, I propose the "appropriative brick". This brick is the core principle of the housing design and provides the resident with the adjustable and free-plan nature desired by the modern-day apartment dweller. The appropriative brick has three variants and contains a steel track system that is sturdy to handle the weight of the potential appropriations that cater to all seven spatial qualities – ranging from curtains to hammocks. The appropriative brick is featured throughout the apartment's interior and exterior creating opportunity for private and shared appropriations – connecting to the research's conclusions.

This proposed framework is not only responsive to its neighborly surroundings by respecting daylight and

site conditions, but also providing the adjacent building with access into the project's proposed 'workshop'. This 'in-house makerspace' provides the tools, machinery, and scrap materials (supplied by residents or salvaged) necessary for residents and neighboring locals to modify and use to craft appropriative solutions that suit their needs. Considering Madrid's density, it is common for many apartment properties to be divided by a low-wall or gate. This quality makes it easy to connect spaces and unite adjacent neighbors with a useful, private, and collaborative communal space.

In conclusion, the appropriative brick proposal is a formal approach that responds to resident's appropriative needs and provides an accessible modifiable desired way of living. This solution originates from my investigative interests at the scale of the individual – exhibiting the connection of detail to the built-up space. *Housing for Amateurs* aims to challenge the limitations of the typical Madrid apartment with a multifunctional tool that caters to the personal, familial, and communal scale. The appropriative brick can be applied throughout the project and cater to a variety of needs such as climate refugee, communal storage spaces, and shared item solutions; all of which are stemmed from the observations and analysis of my on-site research.

Process

Method description

The *Learning from Amateurs* methodology and theoretical framework is derived from an amalgam of influences within architecture and across the fields of social philosophy, psychology, and anthropology. I present acclaimed sources from these fields throughout my research paper's six domains: defining needs and desires, methods of appropriation, theorizing the user and architect disconnect, balconies as a frame of reference, seven conclusions, and four overarching themes. Some of the methods and theories present include the Actor Network Theory, John Dewey Theory, Theory of Affordances (with references to Herman Herzberger), as well as some psychology studies for understanding user-spatial interaction. Moreover, this paper's research is exercised and applied to practice through *The Catalogue of Balcony Appropriations* and draws conclusions through this investigative application of the proposed theory and methodology.

Learning from Amateurs utilizes the methods of analysis, photography, interview, and reproduction. Photography plays an integral role in my on-site research to record the

balcony appropriations. Photography becomes the core analytical tool in *The Catalogue of Appropriations* to organize my findings and compare, contrast, dissect, and analyze the balcony appropriations and the user's intention and make-shift approach. This process results in revealing unforeseen patterns, especially regarding its implications on social or public issues influencing individual private responses - especially through the lens of privacy and security. My research paper features selected images from the *Catalogue* to support my analysis and conclusions. Besides photography, I conducted a series of planned and impromptu interviews with six Lavapies locals and utilized questions integrating *Participatory Action Research* (Lewin) strategies.

Maria Jose (Lavapies local and has lived in her Corrala apartment for over 60 years)

Paul (Lavapies local and has lived in the same Corrala as Maria for 4 years)

Ana (Corrala Museum Curator)

Shira (American expat living in a Lavapies flat for the past five years)

Dani (tattoo artist who tattoos from his flat's living room in Lavapies)

Pablo (Lives in the Entrepatis Cooperative, located slightly south of Lavapies)

I had the opportunity to tour the homes of Maria, Paul, Shira, and Dani and ask about their balcony and gallery appropriations (as well as some interior interventions) and what these 'make-shift adaptations' mean to them. Combining the information and perspective gained from the interviews with the photographic analysis and site research forms a contextual understanding that lays the groundwork for the design development phase. This research is then applied via a balcony and gallery architectural feature analysis matrix (Figure 43 and 44 in the research paper) that highlights the architecture feature, how users typically modify it, and what components of it are useful for users. Dedicating the initial stages of the design development phase to understanding the balcony's role, its relationship to the surrounding environment, and its functionality provided me with the framework to guide the housing proposal.

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Reflection

Relate your master track (A,U,BT,LA,MBE) and master programme (MSc AUBS) to the relevance of your graduation work in the larger social, professional and scientific framework.

The Architectural Design Crossover graduation studio encourages exploration of our passions via the lens of urban commons and strategies. Among these, I gravitated toward the concept of *mobility* and was interested in analyzing it at the scale of an individual and how the way they socially respond is reflected via appropriations and modifications to the built environment. For instance, whether it be protest signs or bamboo privacy screens tied onto their balcony railings, residents react to their individual and shared social issues through the make-shift appropriations on their balcony. This studio's emphasis on integrating methods and theories from various fields encourages me to explore more 'unconventional paths' within the category of mobility and pursue my interest in user-centric architecture and its effect on the individual, community within the building, the neighbourhood (Lavapiés), and the city (Madrid).

Prior to conducting my on-site investigation, I was not anticipating the research to reveal how social issues facing the neighborhood are embedded and reflected through the user's spatial adjustments. The research's conclusions broadened my perspective on how architecture is one of the ways they cope with these issues. A metropolitan city like Madrid hosts a multitude of social, cultural, and political dynamics that my site-research revealed are reflected in the local balcony appropriations and user interviews. Designers carry the responsibility of crafting buildings that work congruently with people and allow users to authentically shape their private or shared spaces to reflect needs. I believe designers should more often turn to user's informal interventions to meet the current and emerging societal demands to result in user-catered projects.

People will continue to appropriate so architecture should adapt and evolve alongside its residents. My research points to the substantial impact of memory and experience on an architect's design decisions, therefore I conclude the significance of incorporating a narrative-driven design approach to cater the human scale. Observing behavior, particularly informal actions like spatial appropriations, is an often-overlooked tool for generating authentic, accessible, and effective solutions. Moreover, conversations with locals can reveal hidden stories behind certain interventions that may not have been apparent otherwise. Therefore, as a future architect, I strive to gather as many stories, observe behavior as much as possible, and draw from sources beyond architecture to enrich my internal library of perspectives. Moreover, my research paper theorizes the architect and user disconnect (at a surface and inner level) to better understand the core of this issue. This is a topic that has originated since the profession's origin and is something that I feel is important to grasp as a young professional about to re-enter the field. Crafting user-centric projects is a theme throughout my projects in architecture school, and I aspire to continue doing so throughout my career – whether that be at an architecture office or a practice of my own.