EXPLORE LAB - GRADUATION PROJECT

REFLECTION

by Marta Carvalho

In the realm of architecture, my research project "Architecture on the Move" and the development of "AURA" as my final design thesis are situated within the architectural domain, both endeavours are rooted in a core character of minimalism and a unwavering prioritization of function over form. The Explore Lab, with its conducive studio setting, provided an ideal environment for me to embark on this transformative and eye opening project. Motivated by a deep-seated fascination with compact, mobile, and intelligent architectural solutions, I set out to explore new and innovated architectural pieces that challenge established norms.

From the beginning, I was drawn to the idea of creating a housing system inspired by the tiny house movement and mobility. However, recognizing my lack of prior experience in such projects, I understood the importance of delving deeply into the subject matter. Consequently, my research project became a comprehensive exploration of mobile homes, challenging the norms set by static buildings and proposing innovative designs that seamlessly integrate movement and function. This endeavour led to the creation of my research book titled "Architecture on the Move: How to Design for Nomads".

This Book not only offered me a greater insight into this world of unexpected housing solutions but most importantly formulated a series of conclusions driven from an analysis of various case studies, evaluating how different movements impact the design fundamentals essential for creating user-cantered spaces. The insights gleaned from my research profoundly influenced my creative process. Throughout the design stage, I continually found myself referring to the conclusions drawn from my research, which served as a collection of both unexpected realizations and fundamental principles crucial to mobile architecture.

To strengthen the connection between my research and design, I ensured that the AURA module, developed as part of my design thesis, underwent the same analysis process outlined in my research book. By incorporating the module into the case studies and demonstrating how the conclusions were applied, I aimed to solidify the mutual relationship between my research findings and design outcomes.

I would characterize not only my way of designing and researching but also of thinking as deeply methodical and analytical. Reflecting on a method that drives away from metaphors and connections to a greater sense of meaning. A process that in my view can be simplified by the identification of a problem and evaluating if the proposed solutions are successful. My research book reflects my simple desire to obtain knowledge and use it later. Just as the design is approached trough a very rational concept, focusing not on the creation of one building in specific but on a working system composed by a rules, constants (like incorporation of movement and smart space design) and variations (like user personalization, level of freedom and locations) that aims to prove that if properly applied the result should be a deeply personalized prefab home, that can not only travel with you but also grow with you and seamlessly adapt to future changes.

When I consider the world of architecture, I discern two types of successful approaches: The intemporal one, that stays in the world to reflect the memory of the past and represents important times in history. And the architecture that simply and purely provides what the users need in a blunt necessary way. It's quite obvious that I believe my project to check this second box, but for it to do that one my first questions were "If architecture is all about fulfilling the user's needs, and this needs easily change with time and circumstance, how can architecture follow these changes?" So even though a big part of the project focuses on providing the user with a house to move with them, I also applied my system to a growing family to test its adaptability to changing needs and priorities. With the aim of designing Aura modules that could not only provide nice comfortable spaces for the now but also for the future where new necessities arise and priorities or even locations change.

My research emphasizes the importance of movement in creating smart, compact designs. However, attempting to incorporate every innovative idea into one design proved overwhelming. Simplifying the approach was crucial, focusing on essential movements driven by reason rather than complexity.

Despite challenges, my project's methodology has yielded positive results. However, I encountered difficulties in simplifying concepts, which is ironic given the emphasis on doing more with less in mobile smart architecture. The design process suffered through numerous changes and unsuccessful experimentations until I reached a combination of simplicity and innovation that I was satisfied with, and even so I realized that espetially in this type of projects experimentation is key, so I could spend double the time doing so. This underscored the complexity inherent in designing compact structures, showing actually how much reason and tough is behind these tiny buildings. Additionally, I grappled with aesthetics, aiming to create something distinct from conventional timber-based nature evoking prefab homes, but after extensive experimentation, I embraced the more conventional design aesthetics not for its simplicity but for its effectiveness.

When considering the societal and ethical significance of my research and project, there are several angles to explore. While I didn't specifically select a social case study to assess my system, the core concept of Aura modules lies in their adaptability, both over time and for the user and occasion. This versatility suggests that Aura modules could serve as effective solutions in emergency situations or as a more economically viable housing option. The overarching aim was to create a spectrum of applications ranging from luxury homes to addressing social needs.

Ethically, my project is deeply intertwined with sustainability. The goal is to contribute to an architectural realm that minimizes disruption to natural sites. This involves not only employing less intrusive foundation building methods but also establishing a circular path for these buildings. This means designing structures that can be easily repurposed, reused, and constructed using recyclable materials.

Reflecting on the evolution of "Architecture on the Move" and "AURA," I am compelled to acknowledge the limitations and shortcomings of my approach. While driven by a genuine desire to design to provoke, I recognize the tendency to overlook complexities and the allure of simplicity.

As a concluding part of this personal reflection, I am also motivated to underscore the transformative potential of architectural innovation when driven by purpose and guided by principles of Modularity, functionality, and mobility. From the initial ideation to the culmination of design outcomes, my approach has been characterized by a methodical and analytical mindset, emphasizing practical problem-solving over abstract concepts. As I navigate the complexities of the architectural landscape, I remain committed to pushing the boundaries of innovation, addressing societal needs, and contributing to a more sustainable built environment. Through projects like "AURA," I aspire to leave a lasting impact, not only in the realm of architecture but also in shaping a more equitable, adaptable, and environmentally conscious future.