

redefining schooling:

Co-crafting a community waterscape for the Bajau Laut

REFLECTION PAPER

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THE VISION -_

After conducting research, the first step was to create a detailed design program for the proposal. In this step, the contribution of research was fundamental in order to take a position regarding the role of a school and architecture for the community. As someone with a Western culture, I realized that my own cultural background could hinder my understanding of the nature of education in this community. Therefore, I focused on understanding the nature of education in these settings in order to determine the nature of my intervention.

Western education prioritizes the development of cognitive skills, limiting nature learning to controlled and highly supervised environments. Conversely, untouched by modern systems, the community's knowledge is shaped by its inextricable relationship with nature. Not only is the Bajau Laut culture framed by the marine environment it was developed, but the community's knowledge framework stems from the unbroken and collective bodily contact with it -both for survival and leisure. In contrast to the West's emphasis on individualism and autonomy, the Bajau Laut thrives on communal interdependence for survival and fellowship.

The intimate connections within the community pass down essential survival skills -fishing, navigation, boat construction, and food preservation- to the younger generation. Beyond the hands-on experience, the older members play a crucial role by imparting wisdom and encouragement, safeguarding cultural practices, and educating the youth on optimal coexistence and survival in harmony with the abundant offerings of their marine environment.

Yet, it's crucial to recognize the significance of literacy and equipping indigenous youth with modern tools and skills. Taking the above into consideration, the design program developed to accommodate a type of hybrid education that prioritizes spaces encouraging community gathering and experiential learning and spaces designed for processing, learning, and studying. The school hosts a workshop space, classrooms, a collective kitchen connected to facilities for preparing and storing food as well as maintaining fishing equipment, a library, a marine specimen archive and a playground.

DESIGNING A WATERSCAPE -_

The Bajau Laut have a close relationship with water, but their settlements are not on sea level. After examining the climatic particularities of the location closely, I realized that the reason behind this was the high fluctuation of tide levels. Going back to the public drawings produced during the research phase, I realized that wooden platforms serve a variety of purposes apart from functioning as a transition medium from point A to B. Platforms are networks framed by liminal spaces that facilitate interactions, connections, community gatherings, everyday rituals, and social activities. Hence, platforms activate the public realm and orchestrate the activities happening on them by differentiating between primary and secondary dock areas, creating soft boundaries and transitions between docks, the built environment, and the landscape.

In order to recreate familiar spatial conditions, a design investigation involved revisiting drawings illustrating public space usage. Mapping these activities on the village map and making story-narrative notes, identified a network of leisure, commerce, production and housing typologies. This process facilitated the initial allocation of uses within two horizontal planes (village and first floor), distinguishing between experiential education (village level) and analytical education (first floor).

After allocating fundamental uses in both planes of intervention, certain questions arose:

Which kind of typologies would optimize the use of the primary spaces of the school, and in what ways do these become incorporated within the landscape and in relationship to the village?

How could the user's experience be appropriated by incorporating familiar elements in a rather unfamiliar setting?

The project's second stage was to map circulation patterns in the water settlement and record behaviors of appropriation of the public space. The objective was to gain profound insights into how the community, albeit unfamiliar to me, utilized their self-built environment. By understanding these qualities, the design aimed to introduce a new language that not only resonated with the users but also facilitated familiar movements, flows, and everyday rituals. The anthropocentric approach sought to establish a strong and meaningful connection between the intervention and the local community.

The design investigation functioned as a transitional step between research and design. Revisiting research and having a clear vision for the proposal, made me realize the value and interrelation between research and design, as it aided in forming an explicit position regarding the scale and concept of the proposal and its contribution to the community.

MEDIA IN USE -_

Modelmaking had a pivotal role in understanding the scale and design language of the proposal. Not only was it a hands-on approach to test different iterations but it also reflected the pragmatic mindset and approach followed in every design and research phase. Cardboard models came with an array of questions regarding the form, levels of intervention, circulation, structure and materiality choices. Some of these questions included:

How does one introduce a non-invasive structure that does not disrupt the village's connection with the sea?

How does the climate and the presence/absence of local resources affect the form and technologies proposed?

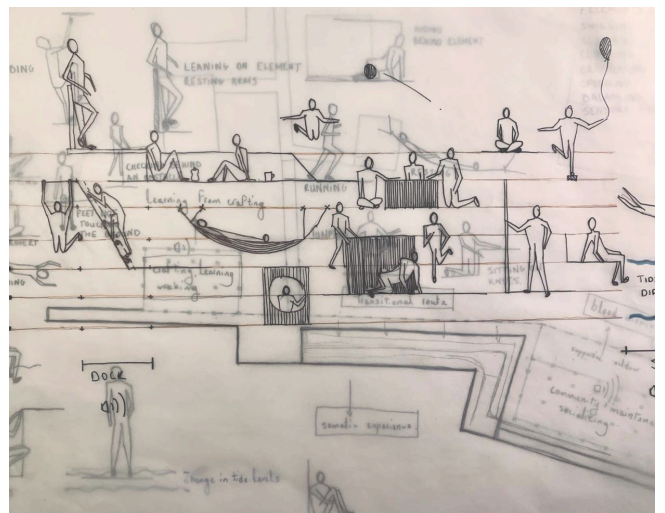
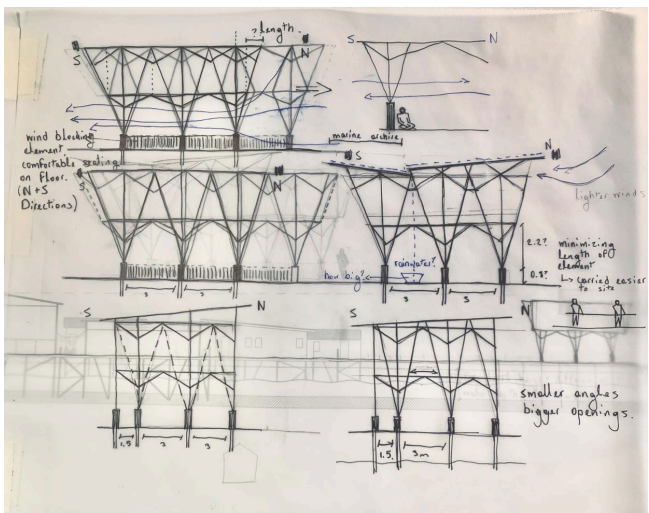
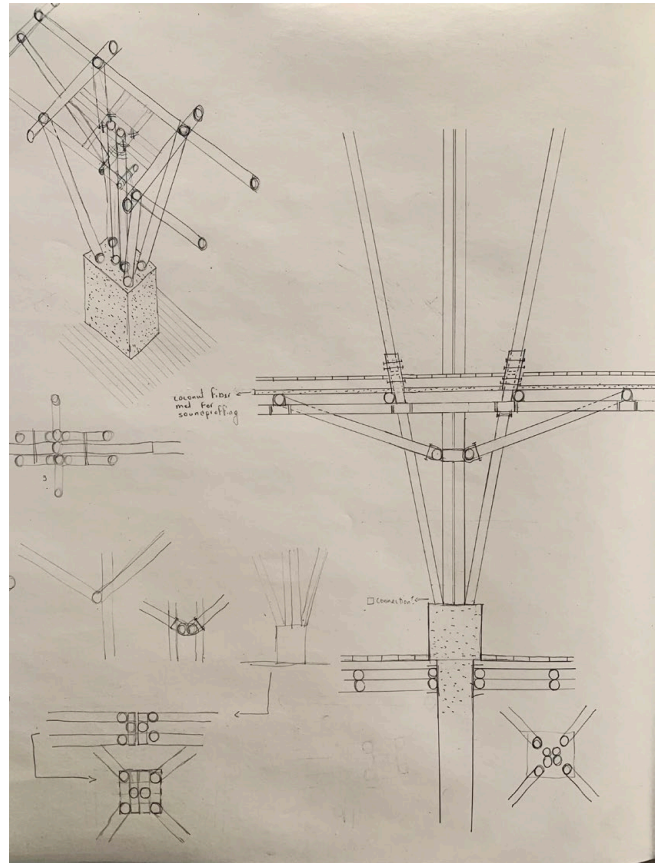
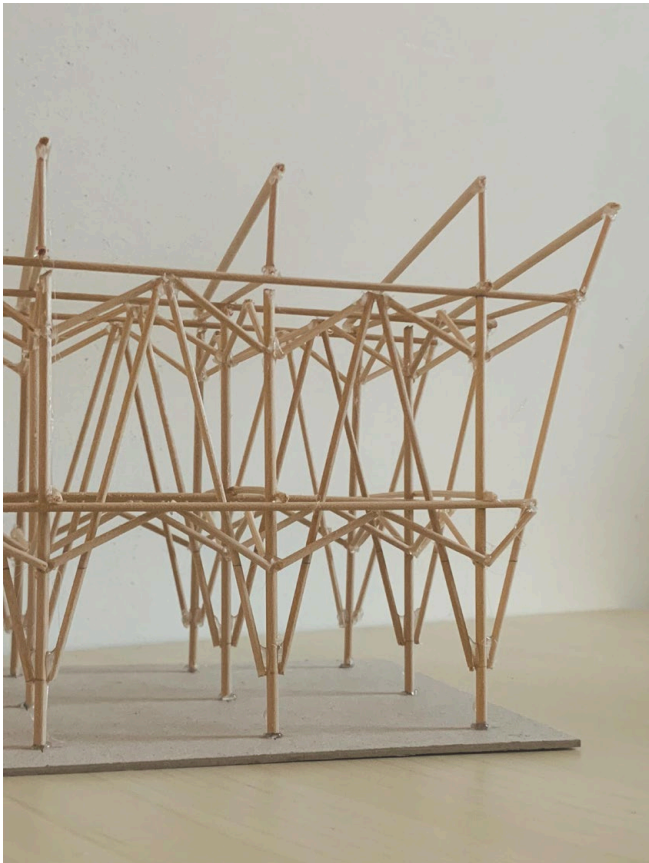
How does the choice of materials and building techniques impact the feasibility of the project and how much does the construction process involve the community?

How does the involvement of the community in the construction process affect the community's sentiments about a planned intervention?

This led to the realization that in a self-built environment such as Kampong Bangau Bangau, any architecture proposed goes hand-by-hand with the realistic needs of the community, the feasibility of the project and therefore the engineering and technologies proposed in response to the climatic particularities of the location.

During our fruitful discussions, my tutors highlighted that the nature of the project calls for a simultaneous exploration of design in relation to engineering and vice versa. Hence, I realized that tackling the project meant conducting simultaneous design, climate, construction, and materiality studies using plans, sections, and models. In every stage of these studies, it became obvious that they were interrelated and each one would answer certain questions arising from another one, thus leading to a more holistically tackled project from the early stages.

Apart from modelmaking as a fundamental design tool, it became evident in the early stages that the use of digital tools impeded the development of design. Throughout the project, I found out that thinking while producing hand-drawn drawings and sketches had immense value both to my design and my understanding of it. The spontaneity of hand drawings equipped me with the freedom to change, adjust, and add to an existing idea without hesitating to restart a drawing anew. Hence, every new layer of information, every imperfect line drawn, kept adding an extra layer of information. Moreover, drawings incorporating human figures and their movements created a constant connection between the development of the proposal in relation to its users and prevented me as a designer from detaching the architectural proposal from its users. The encouragement of my tutors to keep working with hand drawings validated the importance and value of hand drawings and sketches as an experimental medium, which I used until the very final stages of my design.



ACADEMIC/ SOCIETAL VALUE -_

In the rapidly globalizing world where cultural identities are often at risk, it is essential that throughout their academic career, designers learn to work and design for the best interest of the communities that will occupy and co-exist in any architectural piece proposed.

In the case of my graduation project, designing for an indigenous community involved an extensive amount of research in order to comprehend and respect the cultural, social and environmental background of the community. My design and research journey highlighted the importance of creating a piece of architecture that respects the deeply rooted traditions that frame the Bajau Laut community while ensuring that the proposal is sustainable and respects the community's intimate connection with nature.

This process emphasized the significance of crafting architecturally significant structures that not only respect but celebrate the deeply ingrained traditions of the Bajau Laut people. It also underscored the need for sustainability and harmony with the community's intimate connection to nature. Engaging in fruitful discussions with my tutors, I realized the value of providing pragmatic architectural solutions, especially in locations that may not support grandiose and technologically advanced structures commonly designed for first-world countries.

As a designer with a Western background and education, I learned to be critical of the extent to which I incorporate my Western knowledge when designing for unfamiliar settings like Malaysian Borneo. This awareness highlights the ethical responsibility architects bear in creating spaces committed to delivering spatial experiences and technologies that consider factors such as construction processes, maintenance, temporality, and future appropriation and usage.

My conceptual approach to the structure involved the development of lightweight infrastructure that could be collectively self-constructed by the community. Involving the community in the construction process not only empowers and strengthens the sense of community but also promotes the collective learning of valuable skills such as self-building, using predominantly locally sourced materials. Employing participatory construction, the project aimed to instill a sense of ownership, appreciation, and responsibility among the community. The resulting structure functions as a dynamic waterscape, open to constant curation by its users, serving as a mediator between the village and the water.

THE PROJECT AND MASTER EDUCATION -_

Embarking on this graduation project illuminated the profound relevance of the chosen topic to my pursuit of a master's degree in architecture. The project involved delving into the cultural, social and environmental intricacies of the Bajau Laut community and the water village Kampong Bangau Bangau in Semporna, Malaysian Borneo. My ability to synthesize complex information and findings emerging from this extensive research has been an indispensable skill acquired at master's level.

Moreover, the project serves as an example of the interdisciplinary nature of advanced architectural education. Drawing on insights from fields such as sociology, environmental studies and mapping, I navigated toward a proposal supporting my design decisions with the valuable findings of my studies. This interdisciplinary approach fostered a more holistic understanding of the impact of my architecture on society.

The ethical questions that arose during my design process highlighted the importance of cultural sensitivity and responsible architecture which has been an integral part of my education on the architecture track in TU Delft. Furthermore, the awareness of my Western background prompted a critical evaluation of my design choices and position, making me aware of the importance of navigating the delicate balance between cultural preservation and innovative design. Similarly, the emphasis on providing pragmatic solutions tailored to the specific needs of the Bajau Laut community and the logistic and environmental constraints of the region led me to the realization that architectural innovation lies not only in impressiveness but the capability to creatively respond to the unique challenges existing in diverse contexts.

Concluding, my graduation project as a master student in the architecture track has been a multifaceted learning experience. This journey encapsulated interdisciplinary integration, research, ethical considerations and hands-on experiments followed by pragmatic design solutions, aspects playing a pivotal role in forming a strong foundation for a designer to navigate complexities in the ever-evolving field of architecture.