

# redefining schooling:

Co-crafting a community waterscape for the Bajau Laut

## Research Plan

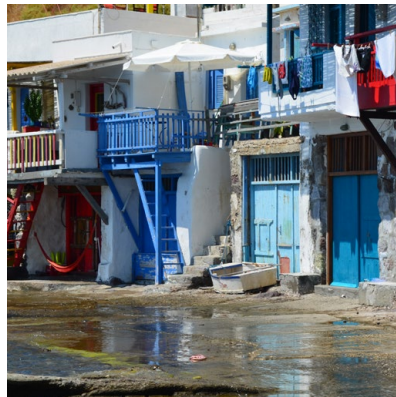
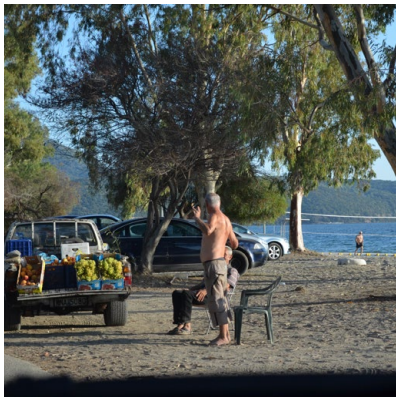
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Explore Lab



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Personal Archive

## Introduction

For many peoples, seascapes are a normalized sight; hence, they retreat into the background of awareness as part of inconspicuous actions and habits in space<sup>1</sup>. Often, people perceive the sea as a border, capable of separating and connecting people, allowing mobility in a sedentary world, and encouraging the burgeoning of commerce. It is not rare that the human perspective can be egocentric since there is a prominent tendency to dissociate humans from nature. As Armiero and Sedrez state, the environmentalist viewpoint serves as a reminder that humans are part of ecosystems consisting of numerous biotic and abiotic relationships<sup>2</sup>.

My fascination with people's interactions and everyday practices with and along the sea developed into an urge to explore more primitive ways of humans interacting with water and discover cases where the ocean becomes the epicenter of peoples' knowledge, incomes, and livelihoods. By examining different marine contexts where such pristine lifestyles unfold, I focused on the case of the *Bajau Laut*, a sea-faring people which is based in Malaysia, Indonesia, and the Philippines. With a focus on the Malaysian context, this research aims to explore the two-way relationship between the community's educational status quo and the importance of indigenous knowledge of ecosystems in today's world.

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<sup>1</sup> Zoë Sofoulis, "Big Water, Everyday Water: A Sociotechnical Perspective," *Continuum* 19, no. 4 (2005): p. 448, <https://doi.org/10.1080/10304310500322685>.

<sup>2</sup> Marco Armiero and Lise Sedrez, in *A History of Environmentalism: Local Struggles, Global Histories* (London: Bloomsbury, 2014), pp. 1-2.

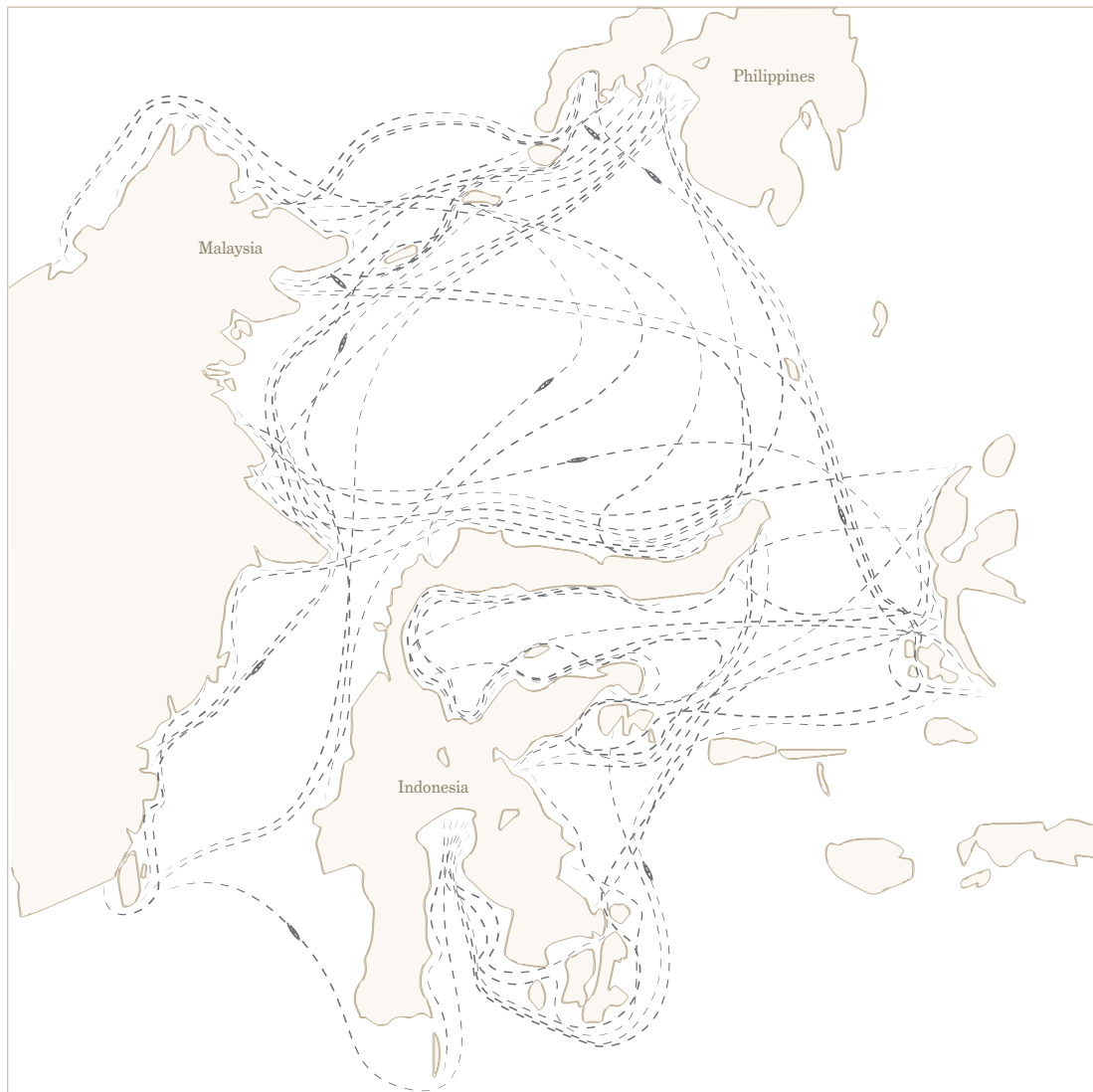


Diagram Created by Author

## The Bajau Laut marine way of living

The *Bajau Laut* or *Sama Dilaut* people are an ethnic group of sea nomads who used to roam between the Filipino, Malaysian, and Indonesian maritime landscapes<sup>3</sup>. Until 1964 the Bajau used to live entirely afloat as fishing communities in self-built boat houses and frequently roam in search of fish and other marine life since they used to make livelihood mainly out of fishing and boat building<sup>4</sup>. The Bajau are known to be amazing freedivers, being able to dive in depths of up to 30 meters and having the ability to hold their breath for more than 5 minutes, making them a group of people that biologically adapted into an amphibious lifestyle<sup>5</sup>.

What makes this group of people distinctive is their intuitive knowledge of the oceans and the nature of water as an element, as well as their exceptional understanding of orientation and lunar phases. Being exquisite fishermen, the Bajau Laut can name more than 200 fish species, all of which can be caught and consumed<sup>6</sup>. Tides, wind conditions, and the directions of currents highly determine fishing, and the Bajau knowledge of the laws of nature is highly detailed as it passes down from the elder to the younger generations<sup>7</sup>.

Between the 16<sup>th</sup> and 19<sup>th</sup> centuries and during the existence of the Sulu Sultanate, roaming was frequently done. Therefore, this activity enabled the Bajaus to define some main trade routes since they were historically associated with the geographic edges of the Sultanate, which were the zones of power, trade, and political clientage<sup>8</sup>. Although their significance as skilled seamen and interisland traders of maritime commodities in the Sulu Archipelago was high, the communities of sea nomads had the least respected and lowest-ranking status within the Sultanate<sup>9</sup>.

However, since the end of the 19<sup>th</sup> century and with the decay of the Sulu Sultanate, which was taken over by colonial forces, the Bajau Laut identity underwent alterations due to the adoption of a drastically different way of life.

<sup>3</sup> Claudio Sieber, "Life of the Bajau: What It's like to Live in the Middle of the Ocean," *Vice*, September 24, 2019, <https://www.vice.com/en/article/evjbye/bajau-life-photos-sea-nomads-sulu-malaysia-philippines>.

<sup>4</sup> *Ibid.*

<sup>5</sup> Johnny Langenheim, "The Last of the Sea Nomads," *The Guardian* (Guardian News and Media, September 18, 2010), <https://www.theguardian.com/environment/2010/sep/18/last-sea-nomads>.

<sup>6</sup> Clifford Sather, in *The Bajau Laut: Adaptation, History, and Fate in a Maritime Fishing Society of South-Eastern Sabah* (Kuala Lumpur: Oxford University Press, 1997), pp. 95.

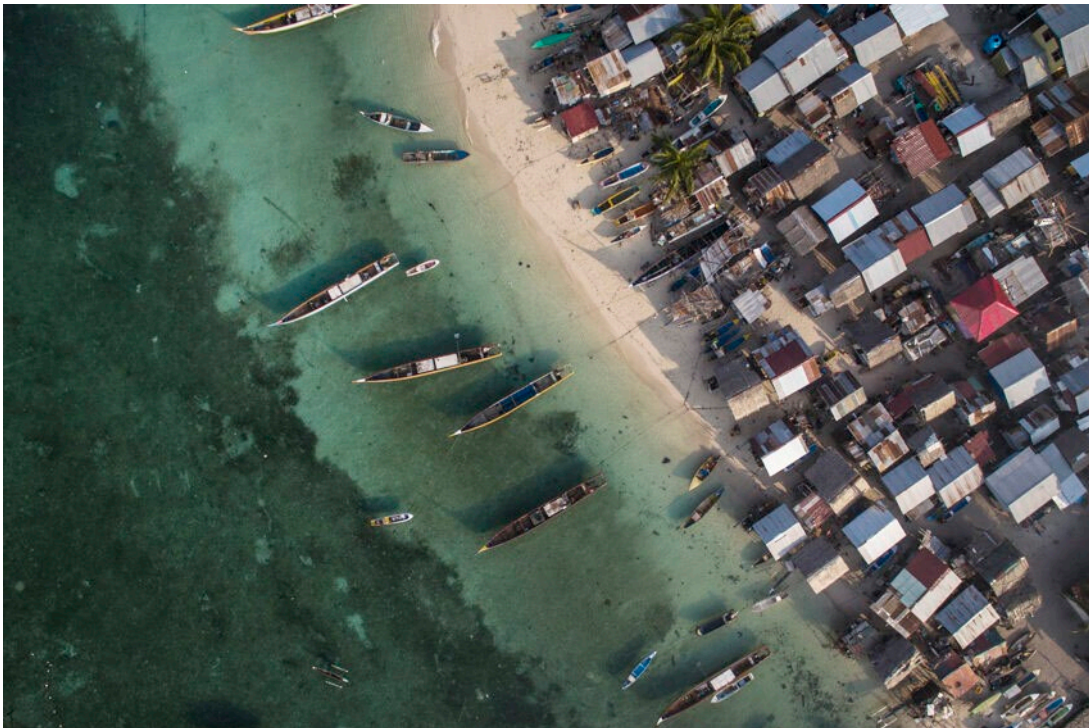
<sup>7</sup> *Ibid.*, pp. 97.

<sup>8</sup> *Ibid.*, pp. 44.

<sup>9</sup> *Ibid.*, pp. 41.

*“Though undoubtedly of Malay origin, they are much larger in stature, and stronger and darker than ordinary Malays. Not caring to store up property, and rarely troubling themselves as to where next week’s meals are to come from, they pick up a precarious livelihood, along the shore line, by catching fish, finding sea slugs and turtle eggs, spearing sharks, and so forth. They lead a wild, free, roving life in the open air, untroubled by any care or thought for the morrow”.*

*Handbook of British North Borneo, 1890, pp. 34.*



Makeshift squatter settlements on the Malaysian shoreline, Courtesy of Scubazoo Images  
<https://www.sfbusa.org/sama-dilaut-or-bajau-laut>



## Colonization

In 1877, most of present-day Sabah, Malaysia, was surrendered to the newly constituted British North Borneo Chartered Company, while other parts of the former Sulu Sultanate were under Spanish rule (modern-day Philippines). Soon after, European governors established several centers of trade and administration as well as experimental gardens for testing potential plantation crops. Developments as such began attracting a small number of Chinese and Bajau traders in the area, who were perceived as essential assets and would be subsidized by the Company in case they agreed to act as Company agents<sup>10</sup>. Gradually, Semporna -the largest city in Sabah state- was governed by natives and it had transformed into a flourishing center of regional trade.

During the beginning of the 20<sup>th</sup> century, the Company introduced numerous policies aiming to monitor the mobility of the Bajau Laut to increase its control over them. One measure taken was the plantation of coconut trees on the coastline that would attract the Bajau labor force. This initiative provided additional income opportunities, luring enough to attract sea nomads closer to the shoreline. As another restrictive policy, the Company introduced a system of boat licensing aiming to track the sea movement of the Bajau Laut to collect revenues and boat license fees. Moreover, they attempted to move the Bajau to Semporna by encouraging their relocation to the mainland<sup>11</sup>.

Due to their nomadic nature, the Bajau Laut were considered irresponsible and lawless, since until then, they were self-governed and lived independently afloat<sup>12</sup>. However, the reforms constituted by the Company gradually forced them to self-build the first pile house settlements in 1955 and abandon nomadism for a sedentary lifestyle along the shore in 1979<sup>13</sup>. During that time, Bajau Laut children and several adults started receiving education in government schools established in Semporna, some of which were located on the grounds of the Bajau Laut squatting settlements. Although the Bajau Laut are Sama-Bajau-speaking people, both at the elementary and secondary level, instruction happened in Bahasa Malaysia and followed a national curriculum structured by the Malaysian Ministry of Education<sup>14</sup>.

<sup>10</sup> Ibid., pp. 44-45.

<sup>11</sup> Ibid., pp. 47.

<sup>12</sup> William Clowes, *Handbook of British North Borneo: Compiled from Reports of the Governor and Officers of the Residential Staff in Borneo and Other Sources of Information of an Authentic Nature* (Charring Cross, London: William Clowes & Sons, 1890), pp. 34.

<sup>13</sup> Clifford Sather, in *The Bajau Laut: Adaptation, History, and Fate in a Maritime Fishing Society of South-Eastern Sabah* (Kuala Lumpur: Oxford University Press, 1997), pp. 67.

<sup>14</sup> Ibid., pp. 73.



Makeshift spaces of instruction, Courtesy of Borneo Komrad  
<https://borneokomrad.com/sekolah-alternatif/>

## Problem Statement | Status Quo

The colonial impact on the Bajau Laut identity and daily life was massive. After the formation of the Malaysian Federation and the constitution of precise maritime borders between Malaysia, the Philippines, and Indonesia, roving was limited. Because of their inherited nomadic background and despite their continuous presence in the area historically, the Malaysian government doesn't recognize the Bajau Laut as indigenous.

Thus, they are not protected by the 2007 UN Declaration of the Rights of Indigenous people, making the Bajau Laut officially stateless and invisible to the Malaysian government, and are not recognized by any other country<sup>15</sup>. Automatically, this situation has created an array of problems, such as the deprivation of access to fundamental human rights such as civil registry, subsidized healthcare, education, and social protection. Therefore, contemporary Bajau Laut are trapped in an intergenerational cycle of inherited poverty, poor living conditions, and a constant fear of detention.

There is an amount of 18.781 children that are undocumented in Sabah, and it is estimated that 2 out of 5 attend primary school while 1 out of 5 attend secondary school<sup>16</sup>. By entering adulthood, child workers will likely remain unskilled with low chances of increasing their income<sup>17</sup>. In Malaysia, the 2017 amendment of the Education Act made six years of primary education compulsory for children aged 6-12 years with Malaysian citizenship or not. However, Malaysia's "Zero Reject Policy" states that everyone should have access to education. Still, it is only addressed to poorly documented children with Malaysian parents or guardians, excluding this way stateless children<sup>18</sup>. Hence, Bajau Laut children can only access education via Alternative Learning Centers (ALCS), NGO-founded or community-led initiatives, and volunteers. However, these informal education centers often lack fixed curricula, resources, accreditation, and commercial value<sup>19</sup>. Based on the facts mentioned above, specific research questions arise:

**RQ1: How culturally responsive are the educational curricula used to educate Bajau Laut children?**

**RQ2: How can indigenous experience and knowledge be utilized to protect and sustain the ecosystems we are part of?**

15 Greg Acciaoli, Helen Brunt, and Julian Clifton, "Foreigners Everywhere, Nationals Nowhere: Exclusion, Irregularity, and Invisibility of Stateless Bajau Laut in Eastern Sabah, Malaysia," *Journal of Immigrant & Refugee Studies* 15, no. 3 (March 2017): pp. 242, <https://doi.org/10.1080/15562948.2017.1319526>.

16 UNICEF, *Children Out of School: Malaysia, The Sabah Context* (Putrajaya, Malaysia: United Nations Children's Fund, 2019): pp. 16.

17 Ibid., pp. 28.

18 Tharani Loganathan et al., "Undocumented: An Examination of Legal Identity and Education Provision for Children in Malaysia," *PLOS ONE* 17, no. 2 (February 2022): pp. 11, <https://doi.org/10.1371/journal.pone.0263404>.

19 UNICEF, *Children Out of School: Malaysia, The Sabah Context* (Putrajaya, Malaysia: United Nations Children's Fund, 2019): pp. 34.

Courtesy of James Morgan  
<https://www.jamesmorgan.co.uk/last-of-the-sea-nomads>



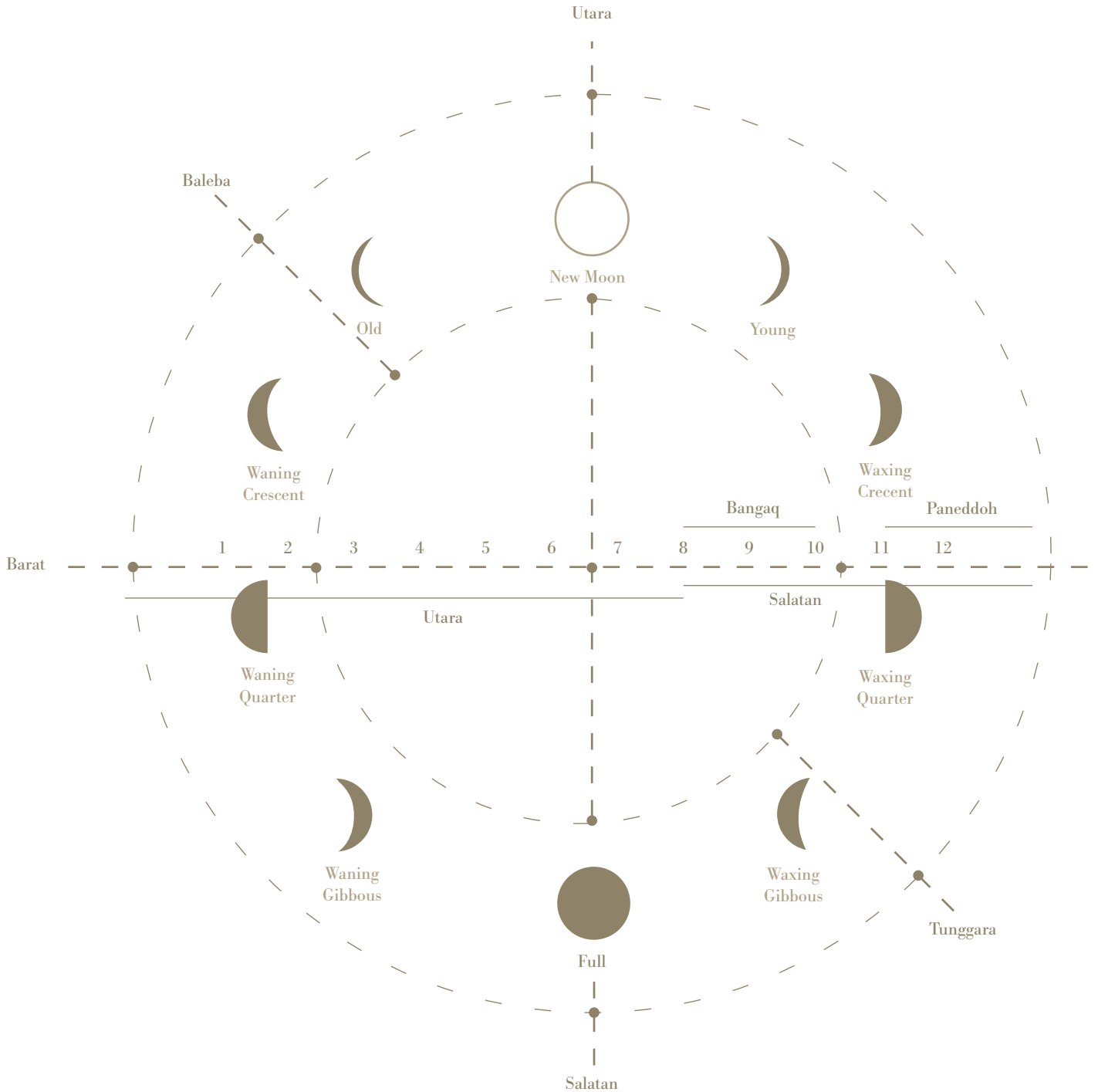
## Methodology

There are some universal constants that human life has historically evolved around. In an individualistic world, the commons are the means by which people stay connected. Avermaete recognizes other theorists' urge to address urban commons as a matter of collective practices in the built environment. However, by introducing three categories of commons, he investigates their fundamental principles and contribution to the city's architectural development<sup>20</sup>.

The three categories are presented as: "*Res Communis*", "*Lex Communis*", and "*Praxis Communis*". In establishing the methodological framework of the present research plan, the three definitions of commons were utilized as tools to identify and describe the parameters I intend to investigate in the Research Project. The three categories are presented as follows.

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<sup>20</sup> Tom Avermaete, "Constructing the Commons," in *The New Urban Condition: Criticism and Theory from Architecture and Urbanism*, ed. Leandro Medrano and Recamán Luiz (New York: Routledge, 2021), pp. 55.



The Bajau Laut knowledge of natural phenomena  
Collage created by Author

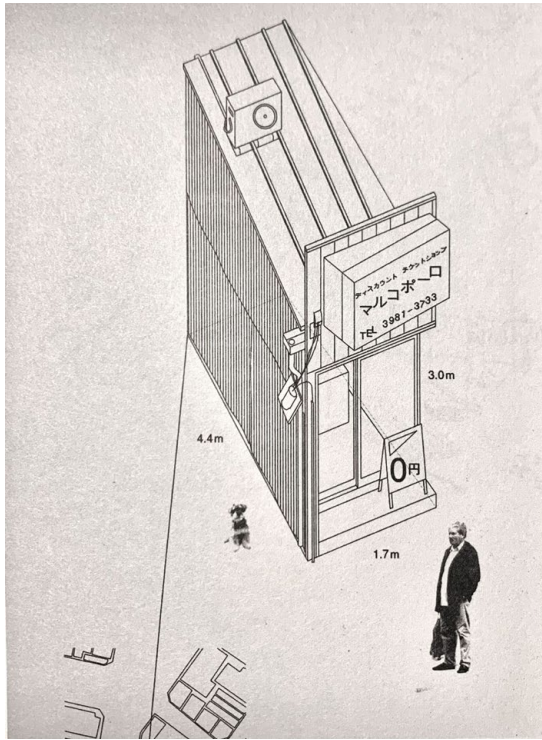
## Res Communis

*Res Communis* refers to collective resources and shared assets found in our environment. This category describes common-pool resources, comprised of a resource system such as fishing grounds, crops, groundwater basins, and resource units such as harvested fish or agricultural produce and collected water out of groundwater basins<sup>21</sup>. As a resource system of great importance, the sea is an inherited common that the Bajau Laut have extended knowledge about as they have been inhabiting within it and utilizing its resource units -entailing fish, seaweed, pearls, and shark fin- for their livelihoods. Meanwhile, their intuitive knowledge of the laws of nature that affect marine ecosystems can provide the community insight into how they can be protected and sustained. Therefore, Res Communis attempts to give answers to Research Question 2.

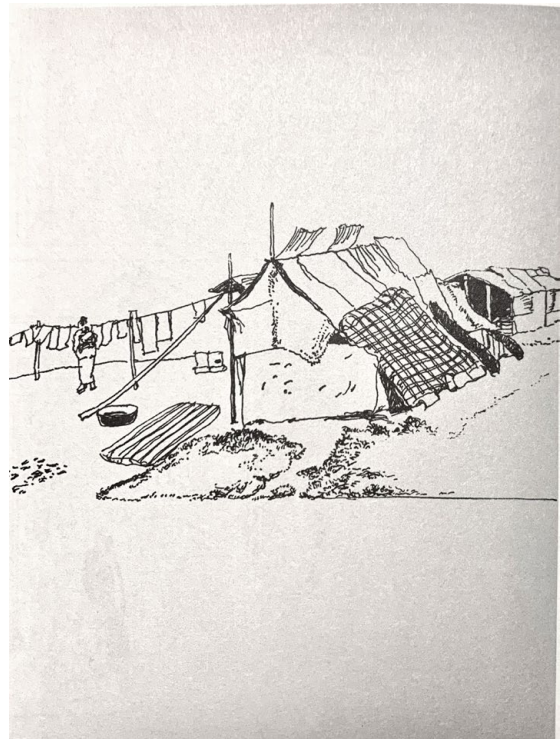
The Bajau didactics on marine living will be investigated through literature and the extraction of relevant information from educational documentaries and videos from social media (Youtube, Facebook, TikTok).

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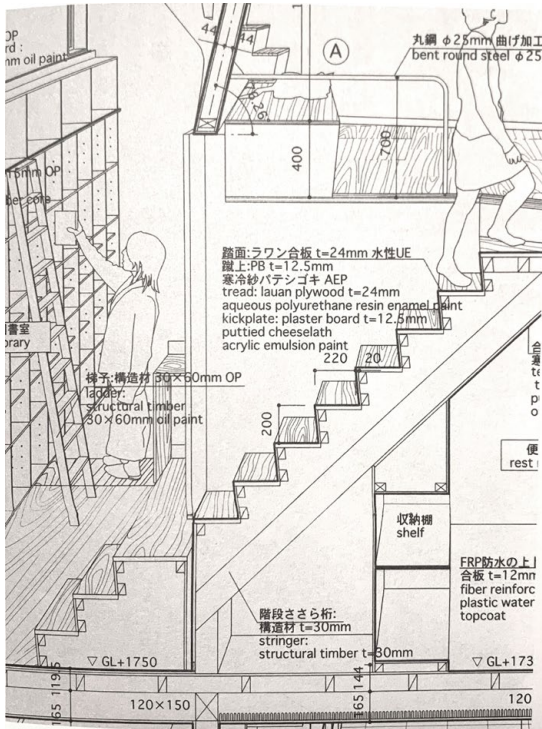
<sup>21</sup> Ibid., pp. 57.



Marco Polo  
Pet Architecture Guide Book, 2001.



Wajiro Kon  
Sketch of post-earthquake barracks, 1971.



Ako House (2005)  
Graphic Anatomy, Atelier Bow-Bow, 2007.



Saul Steinberg  
Doubling Up, 1946.



## Lex Communis

*Lex Communis* refers to a set of communal codes and conventions regarding the built environment surrounding us<sup>22</sup>. In this case, architecture becomes a common denominator for designers and users. This category entails all components that define a spatial setting, such as spatial configurations, architectural elements (benches, trees, bridges, docks), typologies, and materiality<sup>23</sup>. Squatter settlements inhabited by the Bajau Laut are a paradigm of the force of this common and how anonymous and self-built architecture can establish new sets of conventions that further the causes of its creators. By investigating the commons of the Bajau Laut settlements, I intend to record how various architectural instruments and spatial conditions enable social encounters and daily movements in space. This perspective can provide insight into how architectural tools enable a community's access to Res Communis, such as the sea, and how everyday life unrolls in this common. Hence, Lex Communis will be informing both research questions.

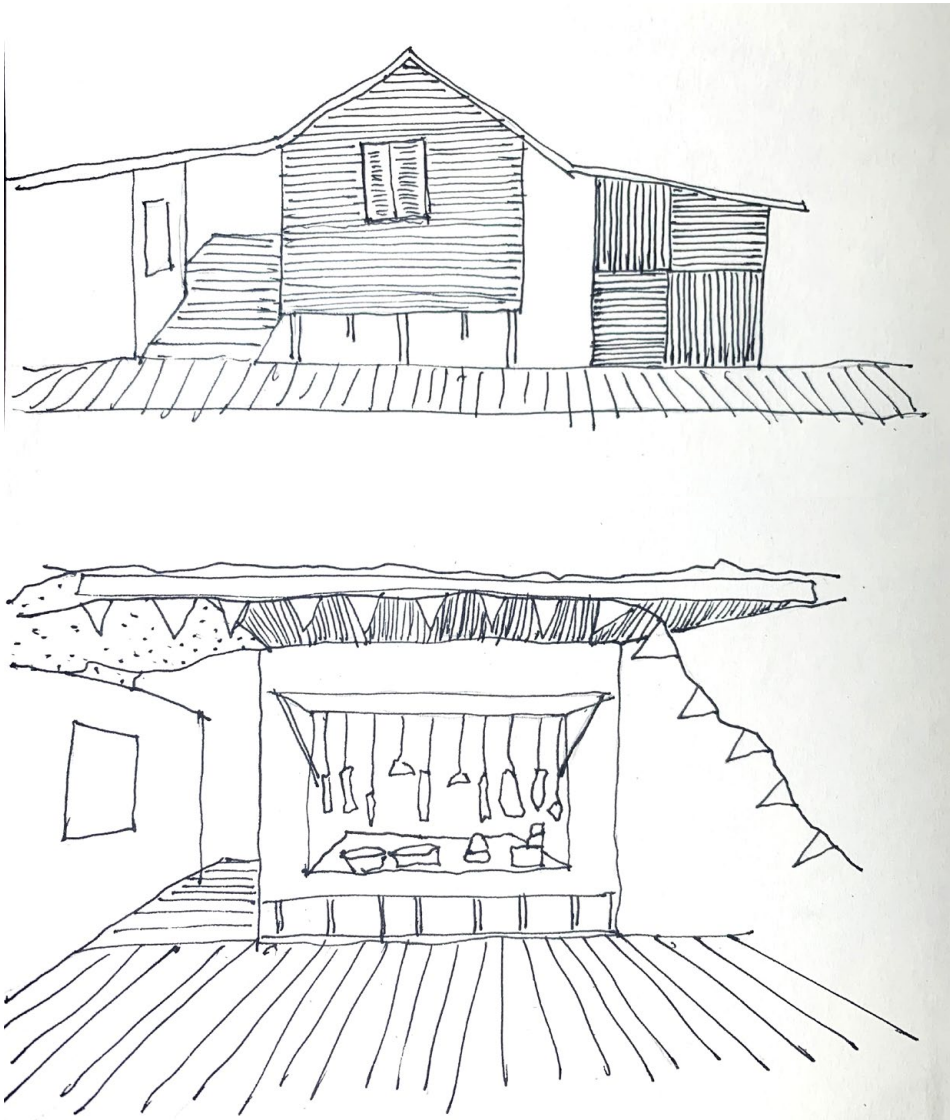
This common will be investigated via "Public Drawings" as defined by Kaijima<sup>24</sup>, which is the term used to describe public space drawings that showcase construction elements combined with traces of occupation. This approach focuses on the ecology around architecture, which derives from the bilateral relationship between architectural devices (roof, wall, column, window) and non-architectural elements (water, gravity, earth, trees)<sup>25</sup>.

<sup>22</sup> Ibid., pp. 59.

<sup>23</sup> Ibid., pp. 61.

<sup>24</sup> Yoshiharu Tsukamoto and Momoyo Kaijima, *Architectural Ethnography: Atelier Bow-Wow*, ed. Jennifer Sigler and Leah Whitman-Salkin (Cambridge, MA: Harvard University, Graduate School of Design, 2017), pp.11.

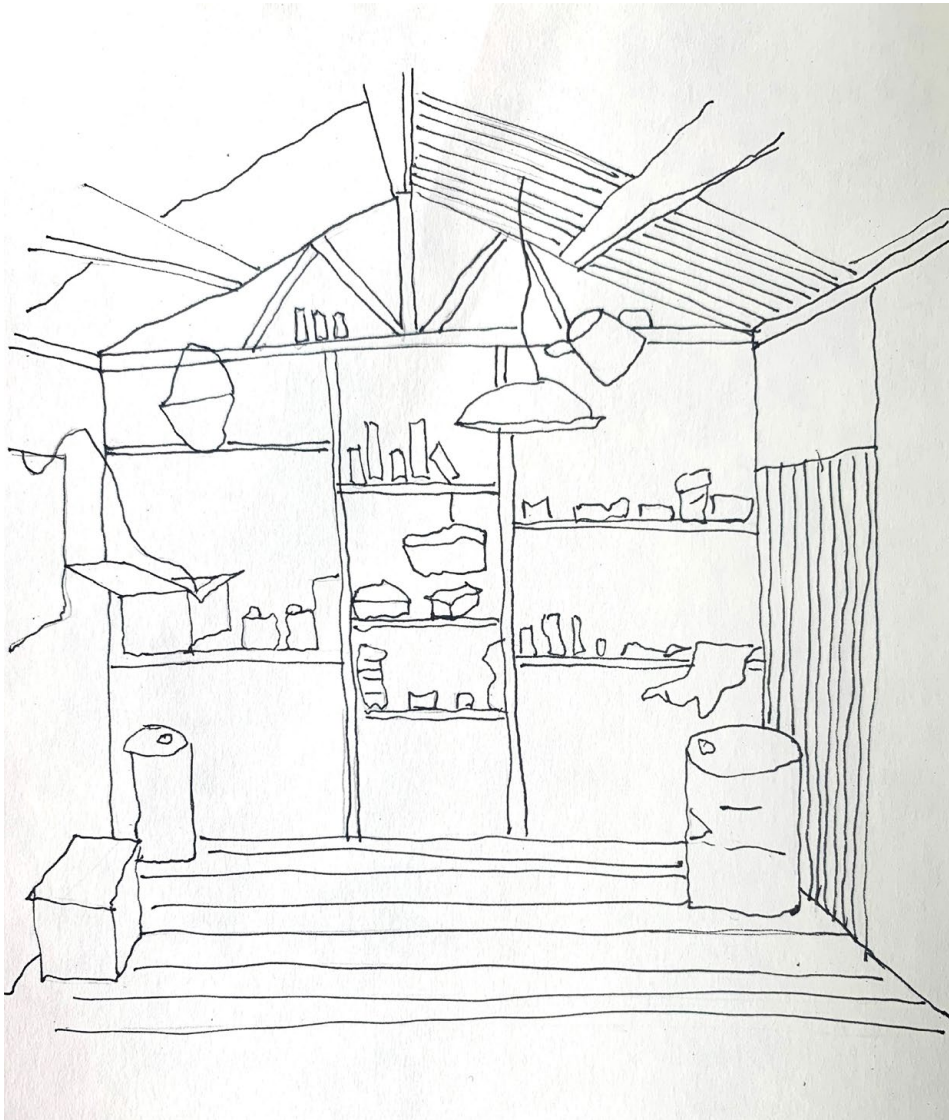
<sup>25</sup> Ibid., pp. 13.



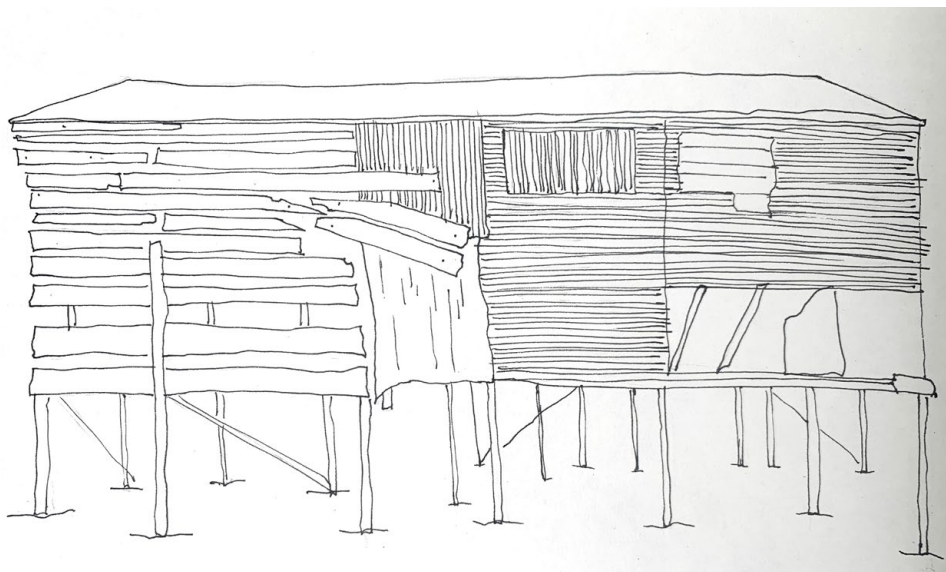
Typologies of Residential and Commercial spaces  
Drawing created by Author



Spatial Configuration of Kampung Bangau Bangau, Semporna, Malaysia  
Drawing created by Author



Signs of Occupation in a Residential Space  
Drawing created by Author



Patchwork of self-built unit  
Drawing created by Author



Settlements in proximity to Semporna City, Courtesy of Huiyee Chiew  
<https://m.malaysiakini.com/news/476595>

## Praxis Communis

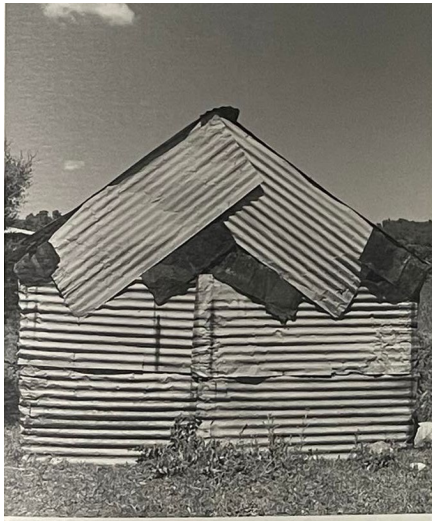
*Praxis Communis* refers to the social dimensions of the commons. It describes values such as mutual support, cooperation, and communication essential to managing common-pool resources and engaging with common codes and conventions<sup>26</sup>. Praxis Communis is about the “care work” put into creating sustainable situations that can be utilized to help and support others<sup>27</sup>. In this context, care work could be described as the initiatives taken by NGOs, local communities, and volunteers to educate the Bajau children. Via this research, I intend to research the educational frameworks and the pedagogical methods followed in Alternative Learning Centers (ALC). Furthermore, the research aims to identify whether “care work” in education is considerate of the heritage of Bajau Laut children and whether it nurtures their ability to understand and manage common-pool resources and units (Res Communis).

The research method I intend to utilize for the investigation of Praxis communis is open-ended interviews with ALC staff and volunteers in the region of Sabah, Malaysia. The main focus will be to come in touch with learning centers located within squatter villages where most Bajau Laut reside to understand better the activities children do when not attending school.

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<sup>26</sup> Tom Avermaete, “Constructing the Commons,” in *The New Urban Condition: Criticism and Theory from Architecture and Urbanism*, ed. Leandro Medrano and Recamán Luiz (New York: Routledge, 2021), pp. 63.

<sup>27</sup> Ibid., pp. 65.



Anonymity in Architecture: Self-built huts found in Greece  
Giorgos Triantaphyllou, *Archetypa: Apo Tis Kalyves Kai Ta Mantria Stis Synchrones  
Technes Kai Architektonikes*, 2010

## Design Agenda

Via the research of the three intertwining parameters, I intend to extract qualitative data that will be used to determine a design program deriving from the vision and needs of the communities participating in the Praxis of educating the younger generations of Bajau Laut.

Meanwhile, the input gained from investigating Res Communis will help achieve a better understanding of the climatic challenges, the local marine ecosystems, and the resources they offer. Via the Design Project, I intend to provide spatial premises that will encourage interactions and allow the Bajau Laut to share knowledge about managing and protecting our natural resources.

Taking into consideration Malaysia's capitalist financial network, encouraging traditional and sustainable economic activities that the Bajau Laut have been involved in for centuries could be the starting point in reimagining an educational system that does not promote working in the industry.

Therefore, the design project could function as an establishment functioning as a bilateral learning center that will bridge the gap between the microeconomic activities of the settlements and school education through spaces of mutual support and community formation. Finally, Lex Communis will provide the design and fundamental construction tools to reinforce and materialize the abovementioned intentions.





## Bibliography

- [1] Acciaiola, Greg, Helen Brunt, and Julian Clifton. "Foreigners Everywhere, Nationals Nowhere: Exclusion, Irregularity, and Invisibility of Stateless Bajau Laut in Eastern Sabah, Malaysia." *Journal of Immigrant & Refugee Studies* 15, no. 3 (2017): 232–49. <https://doi.org/10.1080/15562948.2017.1319526>.
- [2] Armiero, Marco, and Lise Sedrez. Essay. In *A History of Environmentalism: Local Struggles, Global Histories*, 1–2. London: Bloomsbury, 2014.
- [3] Avermaete, Tom. "Constructing the Commons." Essay. In *The New Urban Condition: Criticism and Theory from Architecture and Urbanism*, edited by Leandro Medrano and Recamán Luiz, 54–72. New York: Routledge, 2021.
- [4] Clowes, William. *Handbook of British North Borneo: Compiled from Reports of the Governor and Officers of the Residential Staff in Borneo and Other Sources of Information of an Authentic Nature*. Charring Cross, London: William Clowes & Sons, 1890.
- [5] Langenheim, Johnny. "The Last of the Sea Nomads." *The Guardian*. Guardian News and Media, September 18, 2010. <https://www.theguardian.com/environment/2010/sep/18/last-sea-nomads>.
- [6] Loganathan, Tharani, Zhie X. Chan, Fikri Hassan, Zhen Ling Ong, and Hazreen Abdul Majid. "Undocumented: An Examination of Legal Identity and Education Provision for Children in Malaysia." *PLOS ONE* 17, no. 2 (2022): 11–12. <https://doi.org/10.1371/journal.pone.0263404>.
- [7] Sather, Clifford. Essay. In *The Bajau Laut: Adaptation, History, and Fate in a Maritime Fishing Society of South-Eastern Sabah*, 13–97. Kuala Lumpur: Oxford University Press, 1997.
- [8] Sieber, Claudio. "Life of the Bajau: What It's like to Live in the Middle of the Ocean." *Vice*, September 24, 2019. <https://www.vice.com/en/article/ejbye/bajau-life-photos-sea-nomads-sulu-malaysia-philippines>.
- [9] Sofoulis, Zoë. "Big Water, Everyday Water: A Sociotechnical Perspective." *Continuum* 19, no. 4 (2005): 448. <https://doi.org/10.1080/10304310500322685>.
- [10] Tsukamoto, Yoshiharu, and Momoyo Kaijima. *Architectural Ethnography: Atelier Bow-Wow*. Edited by Jennifer Sigler and Leah Whitman-Salkin. Cambridge, MA: Harvard University, Graduate School of Design, 2017.
- [11] UNICEF. *Children Out of School: Malaysia, The Sabah Context*. Putrajaya, Malaysia: United Nations Children's Fund, 2019.