OMBURO:
the link between water access, re-housing and mycelium

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from too little *to too much*

WATERBODIES &
NOMADIC CULTURES:

What is the relation between waterbodies and nomadic cultures - in the context of Namibia?

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abstract

Namibia has been home to some of the world's oldest ethnic groups since the dawn of civilization. One of these cultures is the Himba, often referred to as 'the last true pastoral nomads' of Africa. They are known for inhabiting the water-scarce desert region of Kunene in Namibia for centuries. Now, various factors, including climate change and the absence of governmental support, are forcing the Himba population to decide which aspects of 'modern' culture to incorporate into their everyday lives.

After decades of declining rainfall and rising temperatures, drought and *omakururukiro yokuti* (over-utilized land and vegetation) are the reality. The Himba is therefore forced to rely on their nomadic origins for survival, and to travel southwards, 'following the water', to Windhoek which is the capital of Namibia. On arrival, they are confronted with inequality apparent in the African urban built environment and take part in the rapid urbanization of Windhoek. They settle in *townships*, in *shacks*, located on the outskirts of the city, where access to water and sanitation is limited. Due to landscape topology, climate change and other factors, the high possibility of flooding poses a new risk. Indeed a life-threatening choice: surviving drought in Kunene or surviving floods in Windhoek.

As a result, water is not only important in culture, migration, and climate change. It also has an impact on the built environment and livelihoods in Windhoek townships, particularly Katutura (meaning "the place we do not want to be"), where access to water is limited, creating a disconnect from "access to citizenship." Consequently, the project is centered around the African proverb: *Return to old watering holes for more than water; friends and dreams are there to meet you*, with the goal of creating a communal area for the community to gather and engage in water-related activities, translated to *Omburo* (waterhole).

Omburo raises the following question: "*How can we rethink architecture in a world with finite resources*?" by generating the search for novel indigenous building materials. This then led to the introduction of mycelium in conjunction with local indigenous encroachment bushes, which can be used to create sustainable building elements (building blocks) and serve as the primary construction for incremental housing in the township, all while creating job opportunities and improving Katutura's socioeconomic conditions.

As a whole, *Omburo* can be regarded as a waterhole integrated with mycelium spores that spreads across the township while establishing a community area where 'friends and dreams' can be met.

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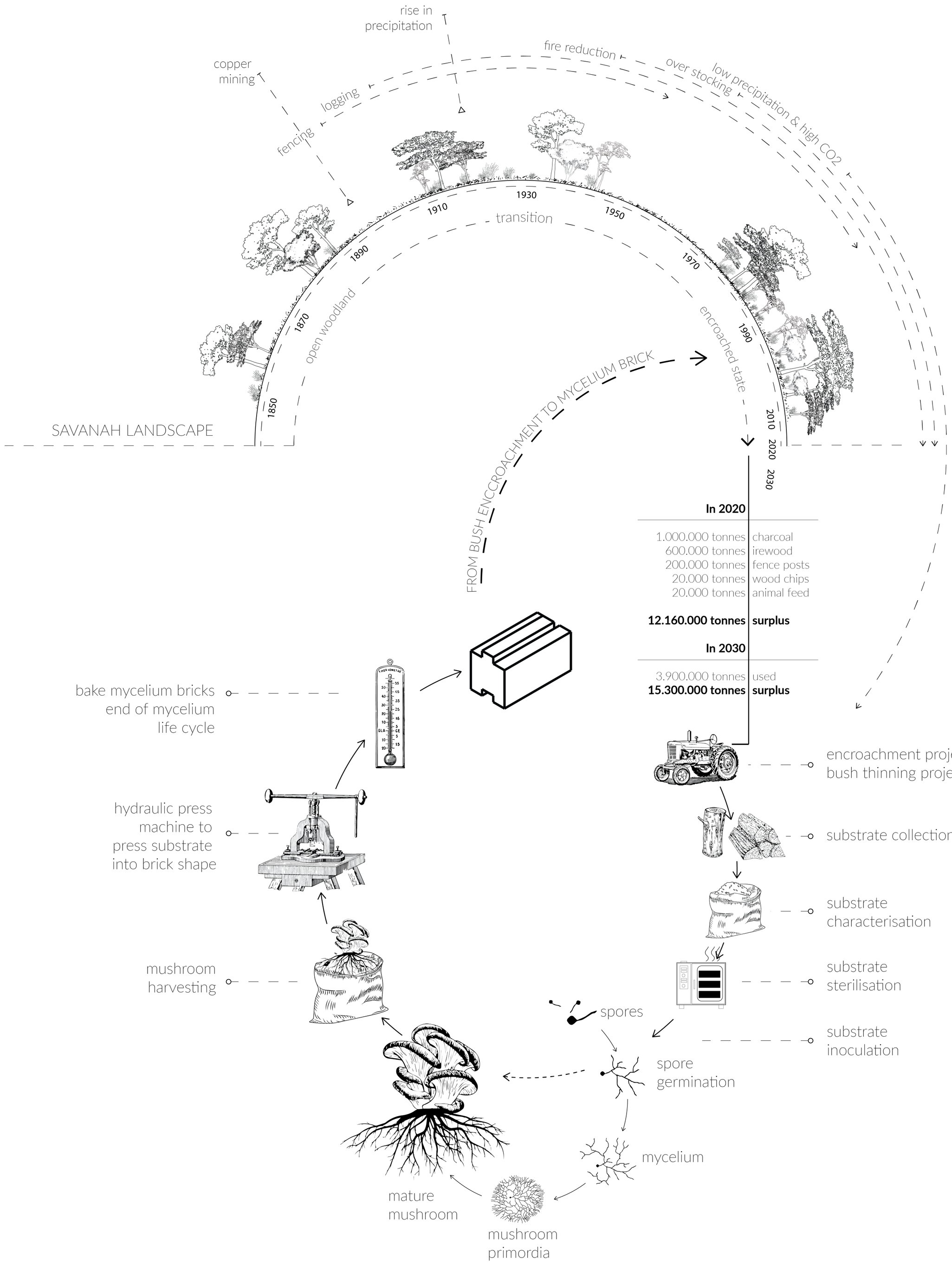
FROM BUSH TO BRICK

Omburu's mycelium brick-making process. The materialisation project intends to use new and innovative indigenous materials as a new medium for developing a more sustainable vernacular architectural type. To begin, work is focused on utilising encroachment bushes in Namiba. Second, in conjunction with oyster mushroom (mycelium spore), that might potentially be harvested as a source of income for the community.



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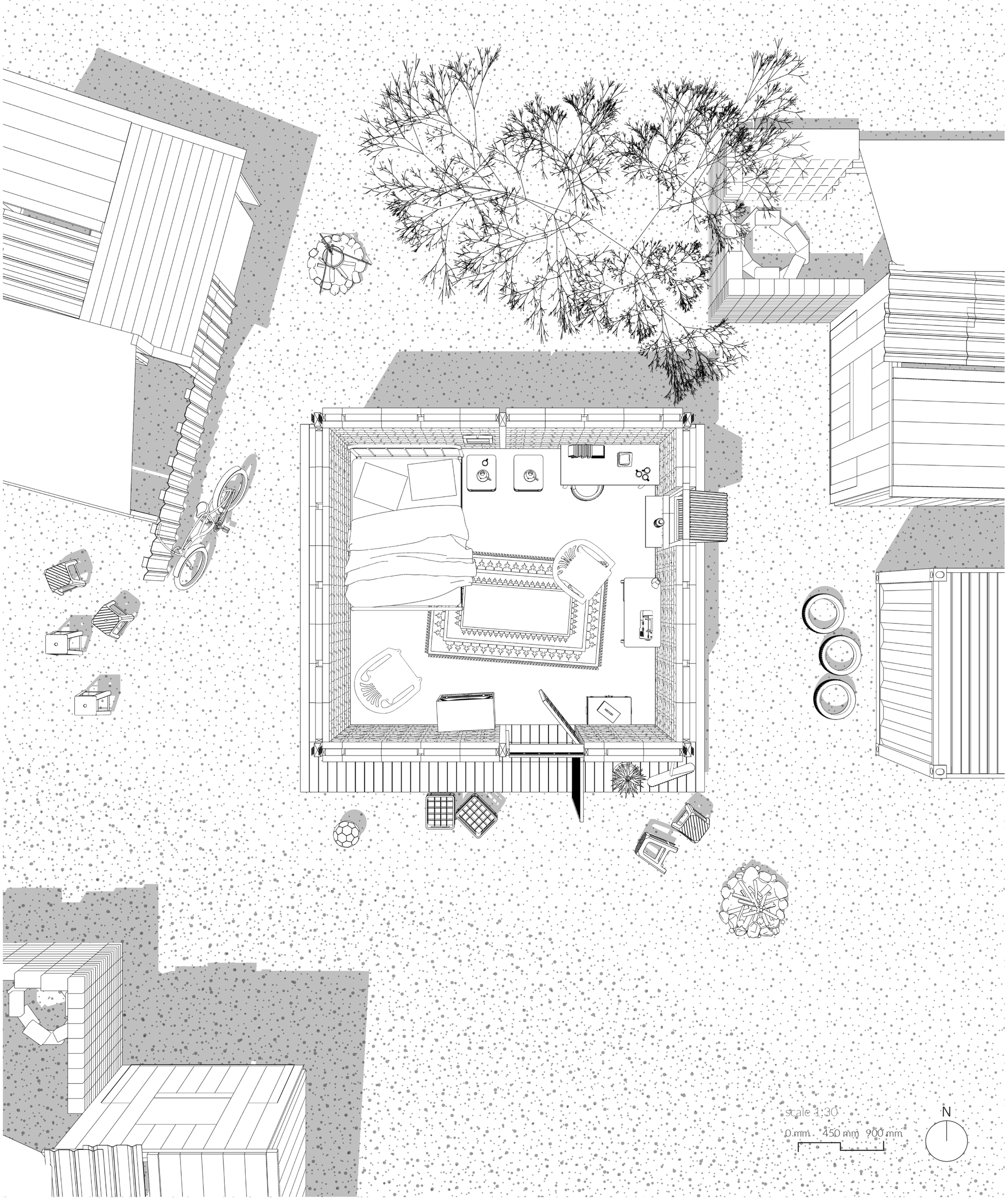
INCREMENTAL HOUSING: MYCELIUM

The 'Incremental Housing' proposal focuses on the inhabitation and urban fabric that surrounds a private dwelling constructed from mycelium. The dwelling is composed with locally manufactured mycelium building blocks and conventional construction materials. The house has a dubble roof that protects it from the sun and high temperatures common in Namibia. The dwelling is also constructed in relation to its neighbours and the scale of dwellings commonly found in Katutua, however, there is the option of expanding linearly.



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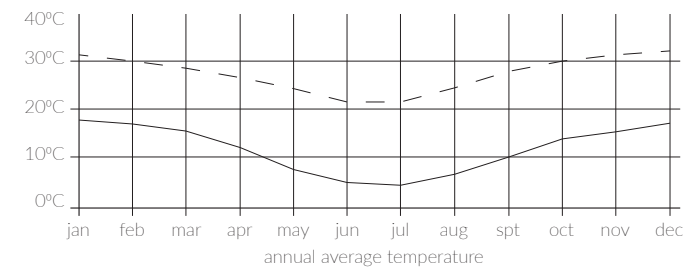
LANDSCAPE & CLIMATE INTEGRATION

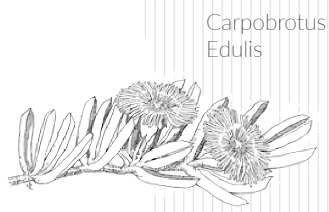
Agapanthus
praecox

Aptenia
cordifolia

Tulbaghia
violacea

Plectranthus
neochilus





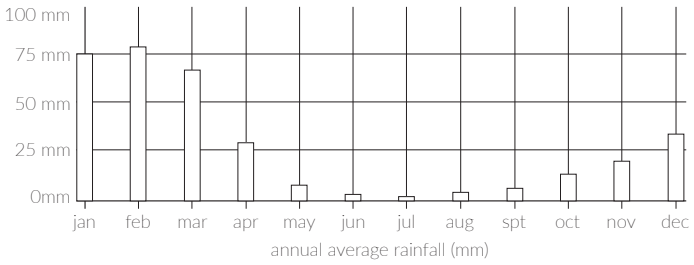
Carpobrotus
Edulis

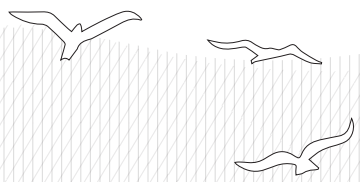
Chlorophytum
comosum

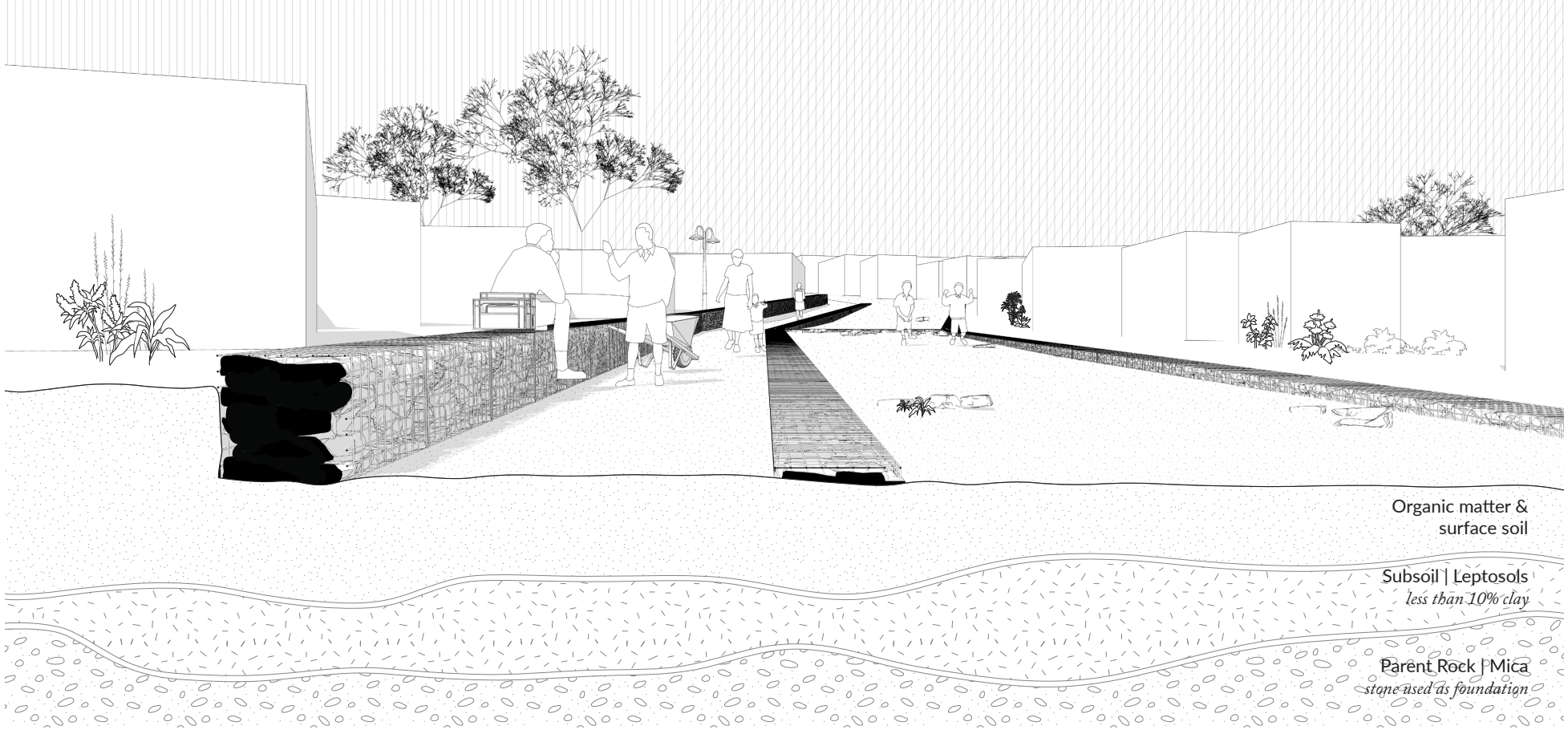
Aloe
arborescens

Strelitzia
reginae

Asparagus
densiflorus







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INCREMENTAL HOUSING

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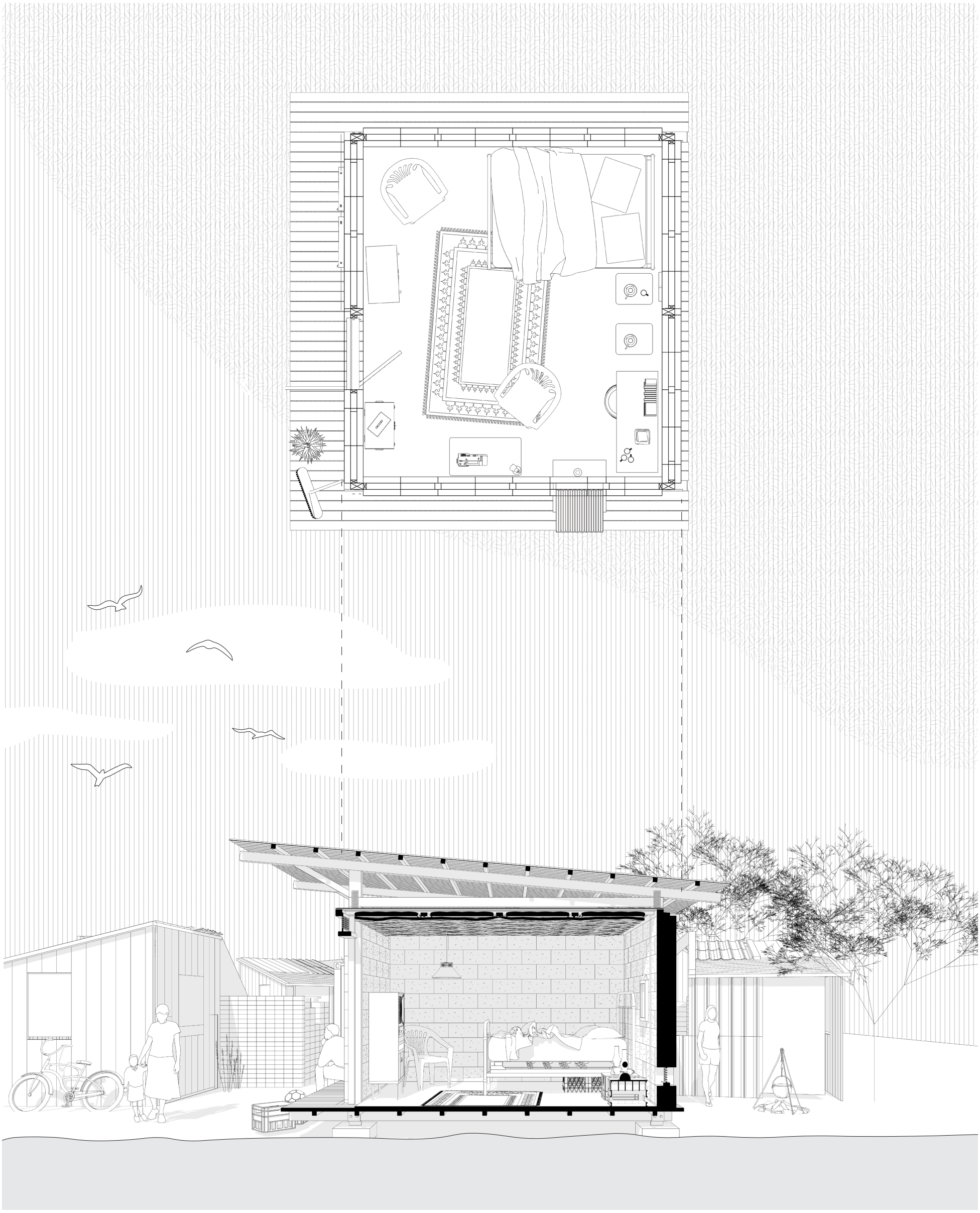
INCREMENTAL HOUSING



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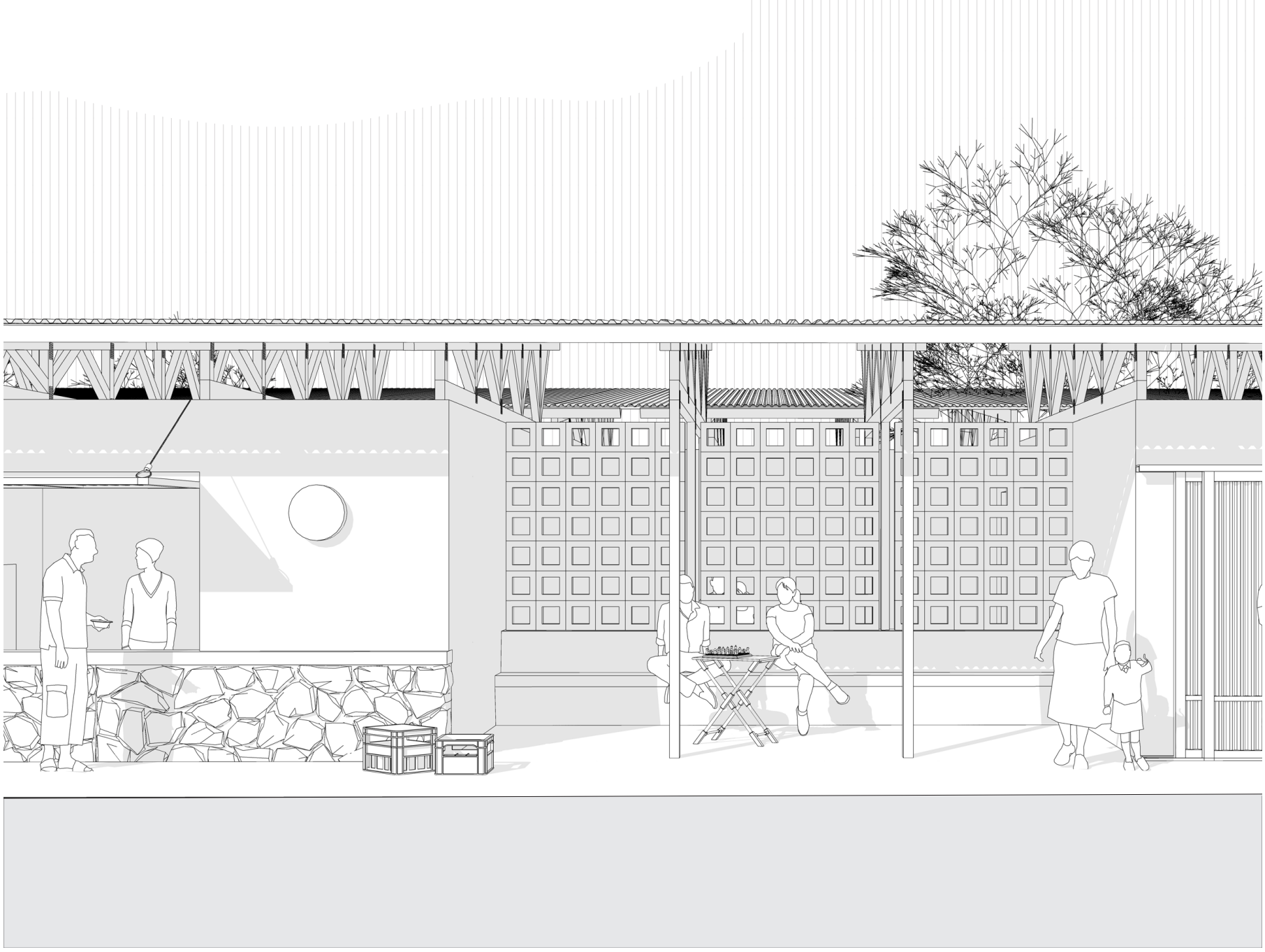
MYCELIUM FACTORY



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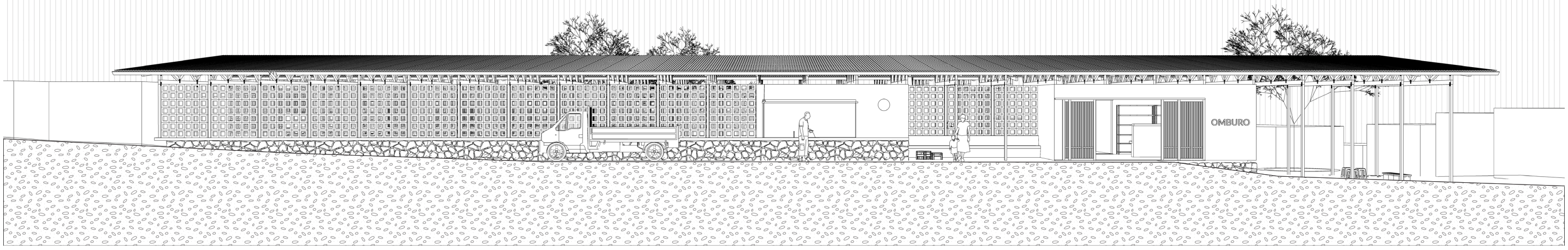
OMBURO: WATERHOLE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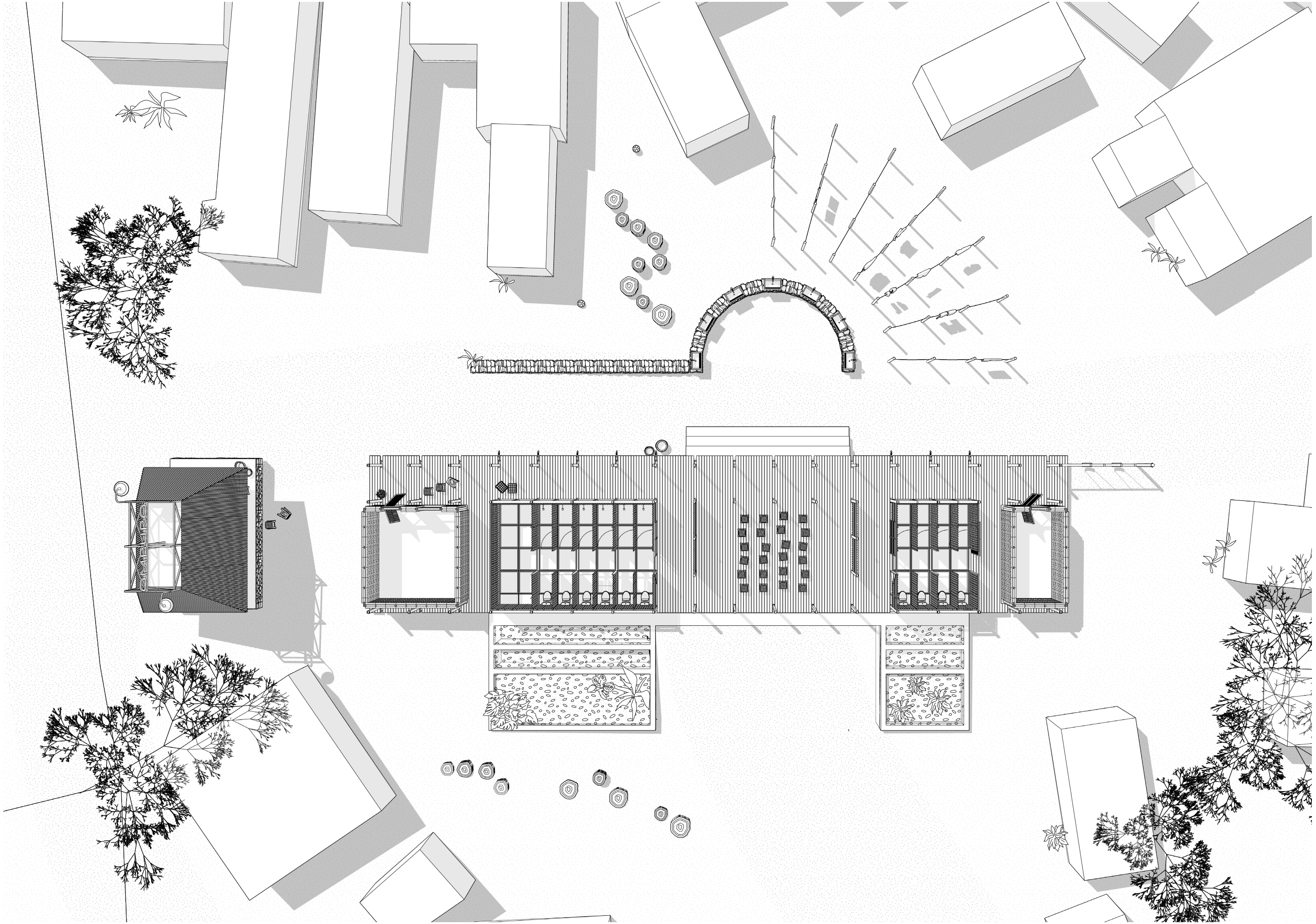

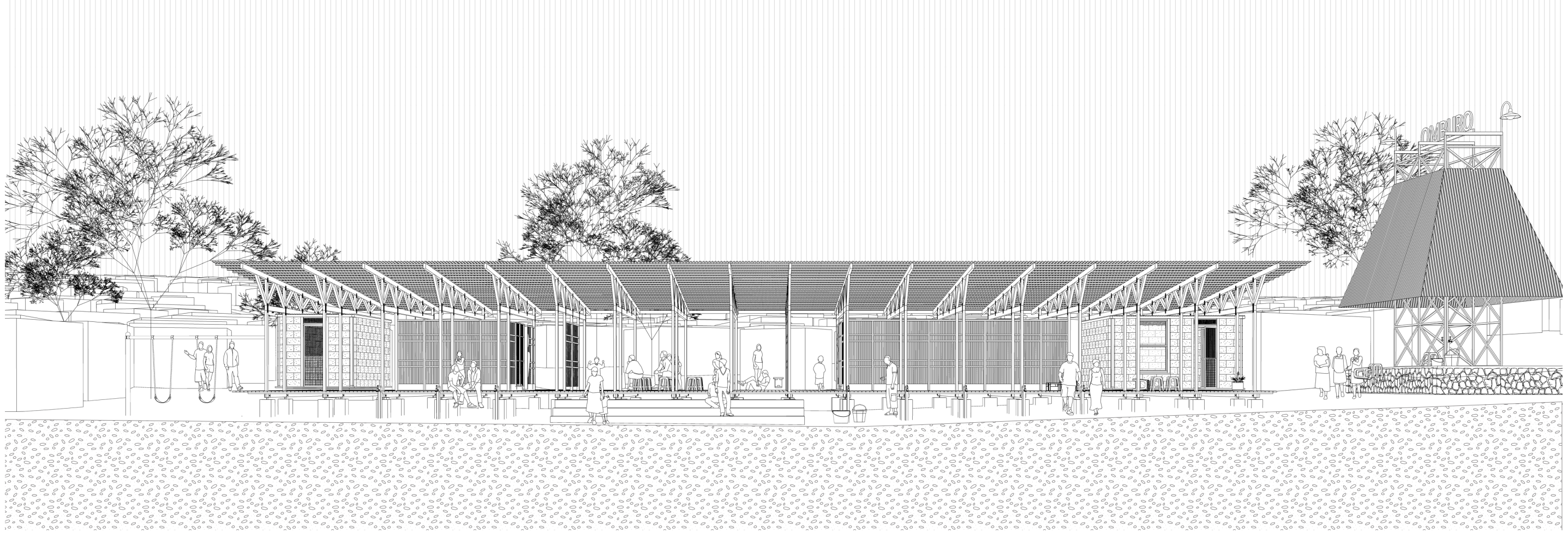
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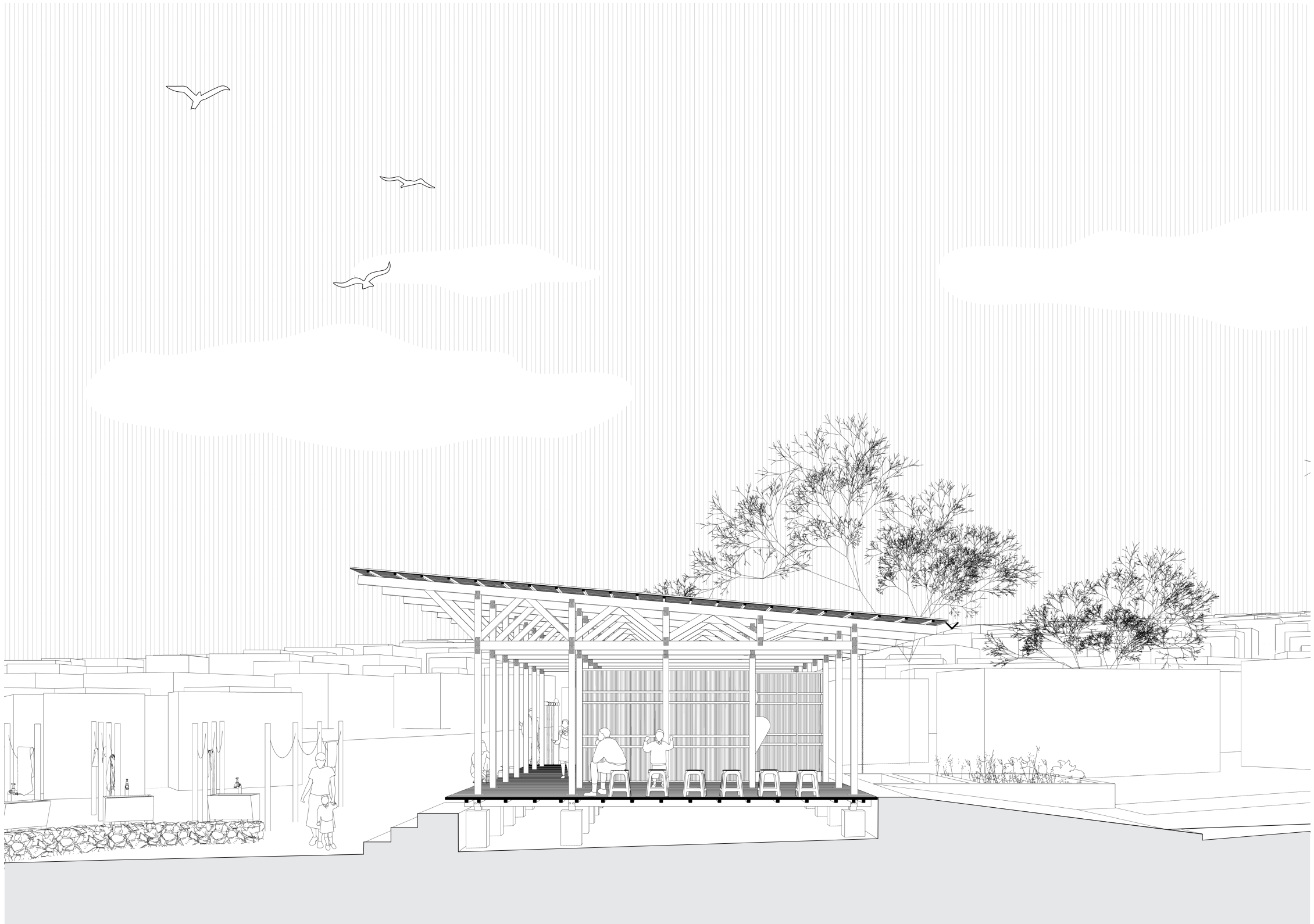


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