SINO-AFRICAN COUNTERPOINTS

2018
TU DELFT
P5 PRESENTATION

Figure 1. ‘The African Manhattan’, Modderfontein New City, Johannesburg, South Africa, by Geographical Magazine, 2015, http://geographical.co.uk/places/cities/item/1049-the-african-manhattan

TIMELINE
SINO-AFRICAN RELATIONS

1949 Peoples Republic of China
Western Multinationals ejected by communist government & self-imposed isolation from the global economy

The Great Leap Forward
23,500 communes under Chairman Mao
Widespread famine

The Cultural Revolution
Economic slowdown under Mao Zedong

Prosperity
Deng Xiaoping permitted foreign businesses to be established within China

East moving west?
Increased urbanisation has also seen increased internationalism in China.

Building mega cities
It is estimated that another 350 million Chinese citizens will become urban dwellers by 2025.

1960 1970 1980 1990 2000 2010 2020 2030

Asian-African Conference
Establishes modern era ties

Zhuada fangxiao
'grasping the large and releasing the small'

Going-Out Policy initiated

The Belt and Road Initiative (BRI) inaugurated

Intense diplomatic activity

BOOM
diplomatic upturn

SLUMP
diplomatic downturn

1956
Egypt is the first African country to establish diplomatic ties with the Peoples Republic of China (PRC)

1963-1964
Pres. Zhou Enlai visits 10 African countries.
5 Principles of Peaceful Coexistence

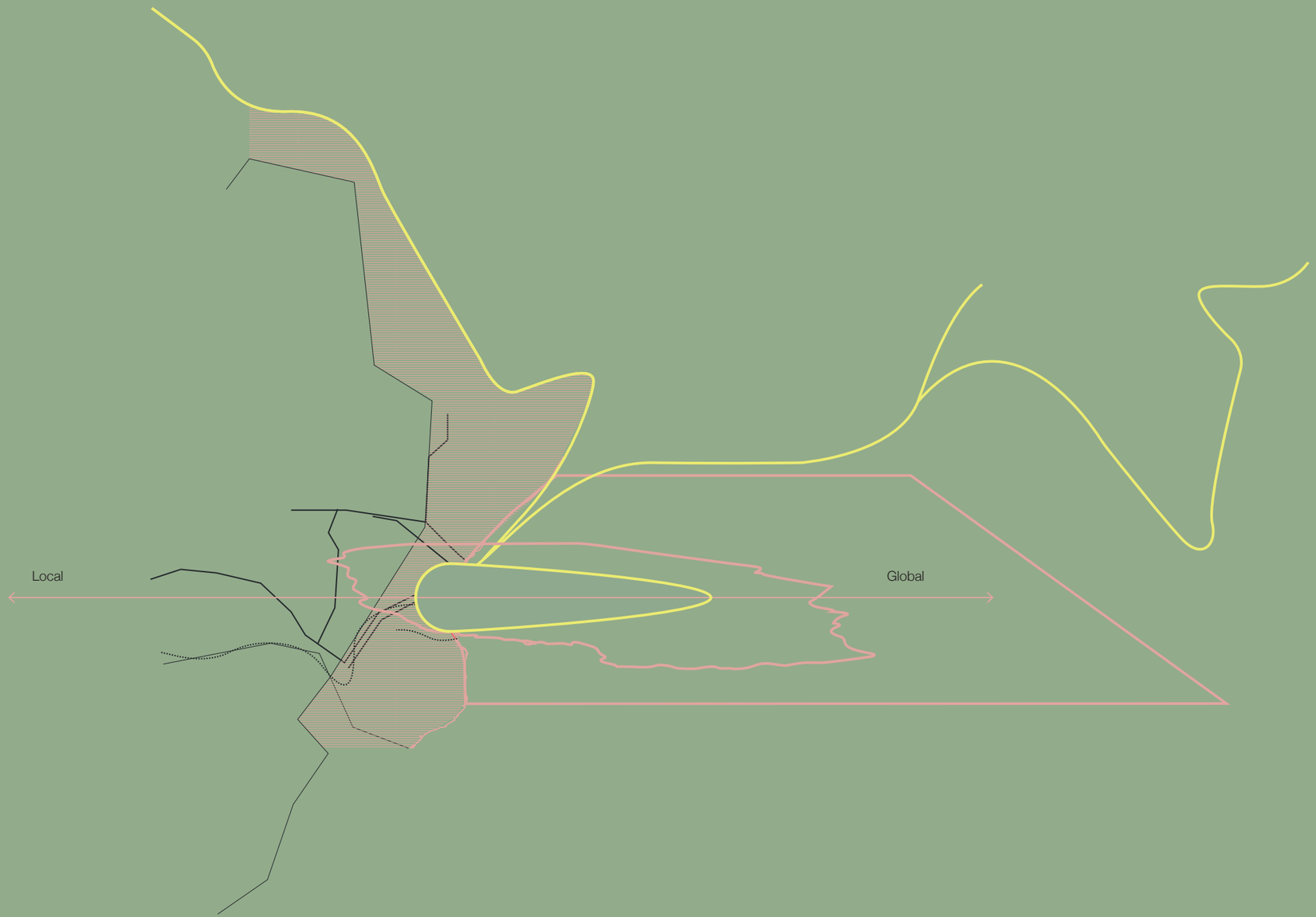
1970
Construction of the 1860 kilometre long TanZam Railway begins. Connects Dar es Salaam (Tanzania) with Kapiri Mposhi (Zambia).

2000
Forum on China-Africa Cooperation (FOCAC) is launched. Signifies the reawakening of intense ties between China and Africa

2006
Beijing Summit of FOCAC
In keeping with its Going-out or *Zou Chuqu* strategy China commits to establishing 5 special economic zones (SEZs) in Africa over a three-year period

2013
Xi Jinping announces the 'project of the century' China's One Belt One Road Initiative: the revival of the ancient Silk Road trading routes. Infrastructure and SEZ development in 60 plus countries across Asia, the Middle East, Europe and Africa.

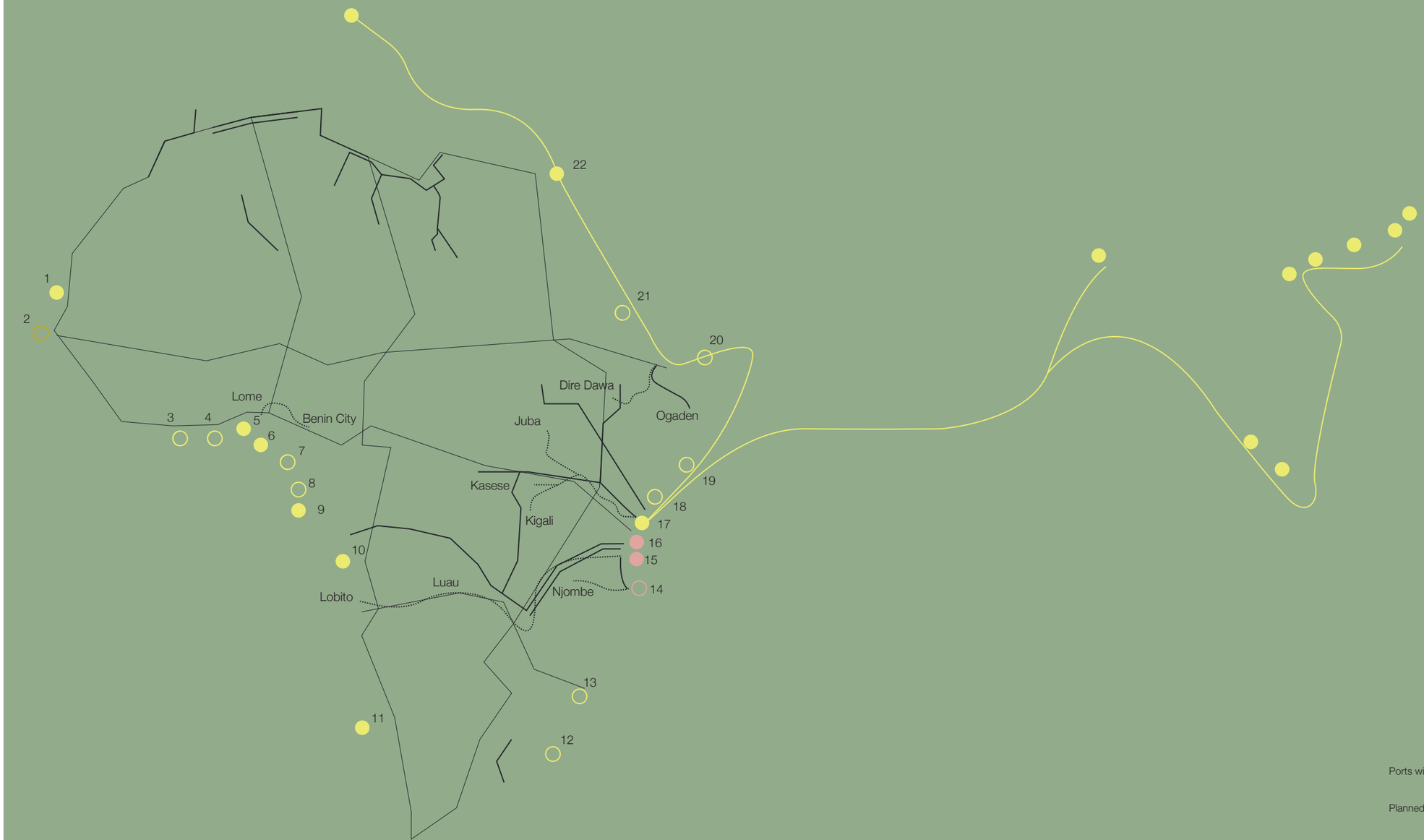
THE SPECIAL ECONOMIC ZONE



The Special Economic Zone (SEZ) is best understood as a morphological type crafted by legislation yet characterised by the distinct absence thereof.

A Global/Abstract Space of policy, planning protocols, trade agreements and TEUs

CHINA'S ONE BELT ONE ROAD INITIATIVE



Ports with Chinese Engagement

Planned Chinese Engagement

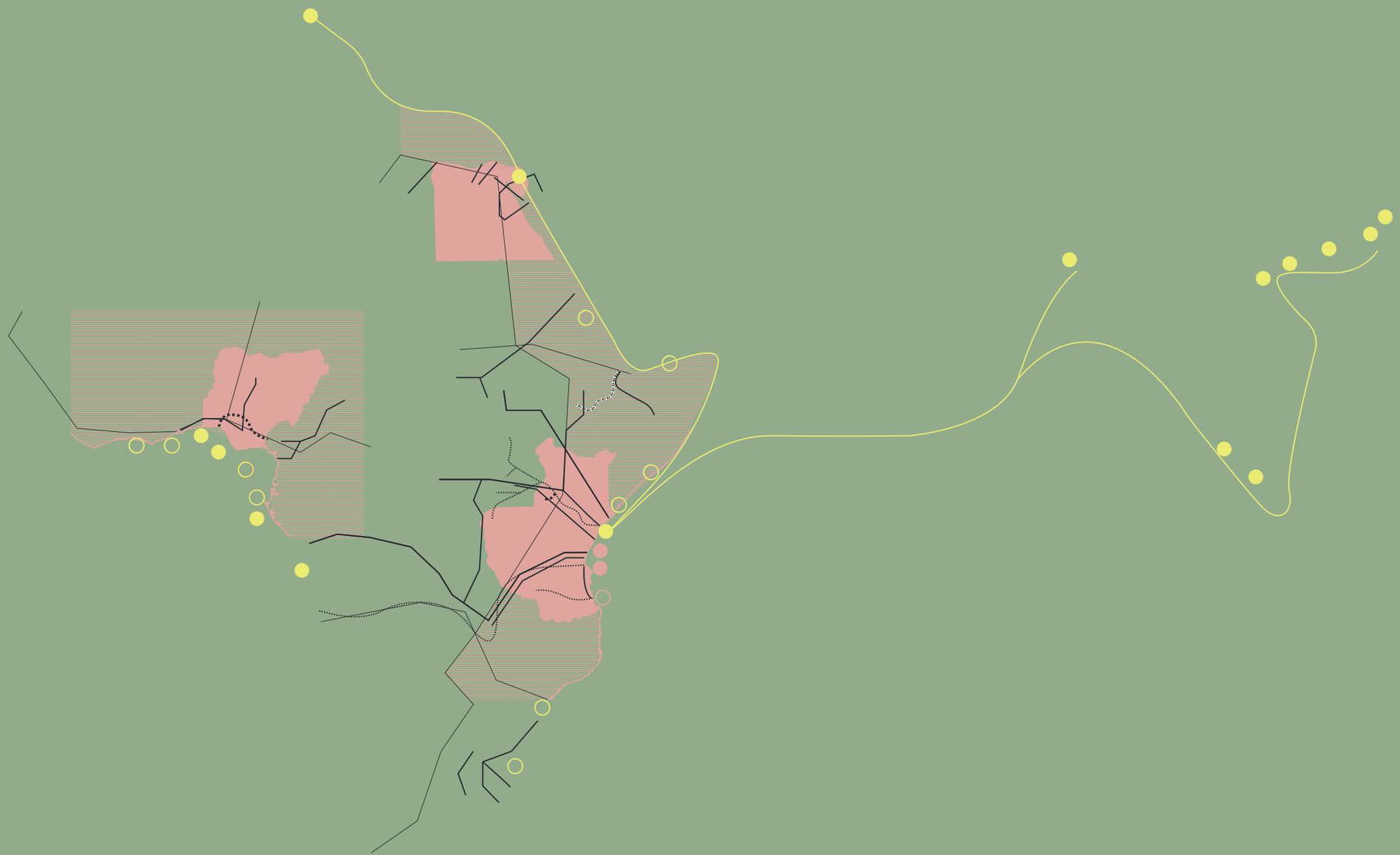
Ports in Tanzania

African Ports of the One Belt One Road Initiative

1.	Nouakchott	12.	Maputo
2.	Dakar	13.	Beira
3.	Abidjan	14.	Mtwara
4.	Tema	15.	Dar es Salaam
5.	Lome	16.	Bagamoyo
6.	Lagos	17.	Mombasa
7.	Kribi	18.	Lamu
8.	Libreville	19.	Mogadishu
9.	Sao Tome & Principe	20.	Djibouti
10.	Luanda	21.	Massawa
11.	Walvis bay	22.	Suez

Source
'One Belt One Road Initiative: With the Silk Road Initiative China Aims to Build a Global Infrastructure Network', Mercator China Studies Institute, 2015

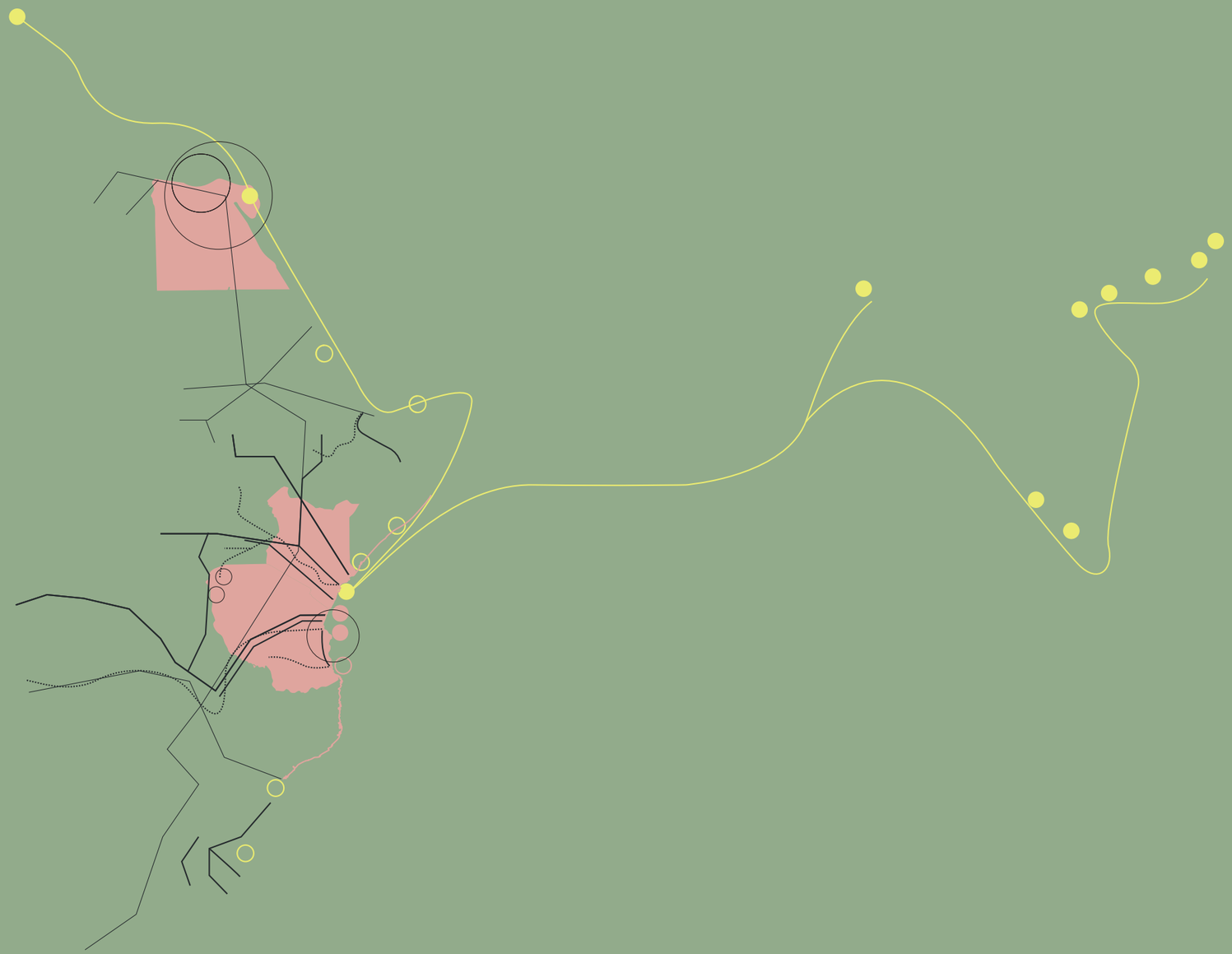
RETERRITORIALISATION OF
EAST AND WEST COAST



Reterritorialisation of the East & West Coast

Chinese FDI in Ports and Infrastructure investment writes into the African landscape new relationships of power, capital and labour.

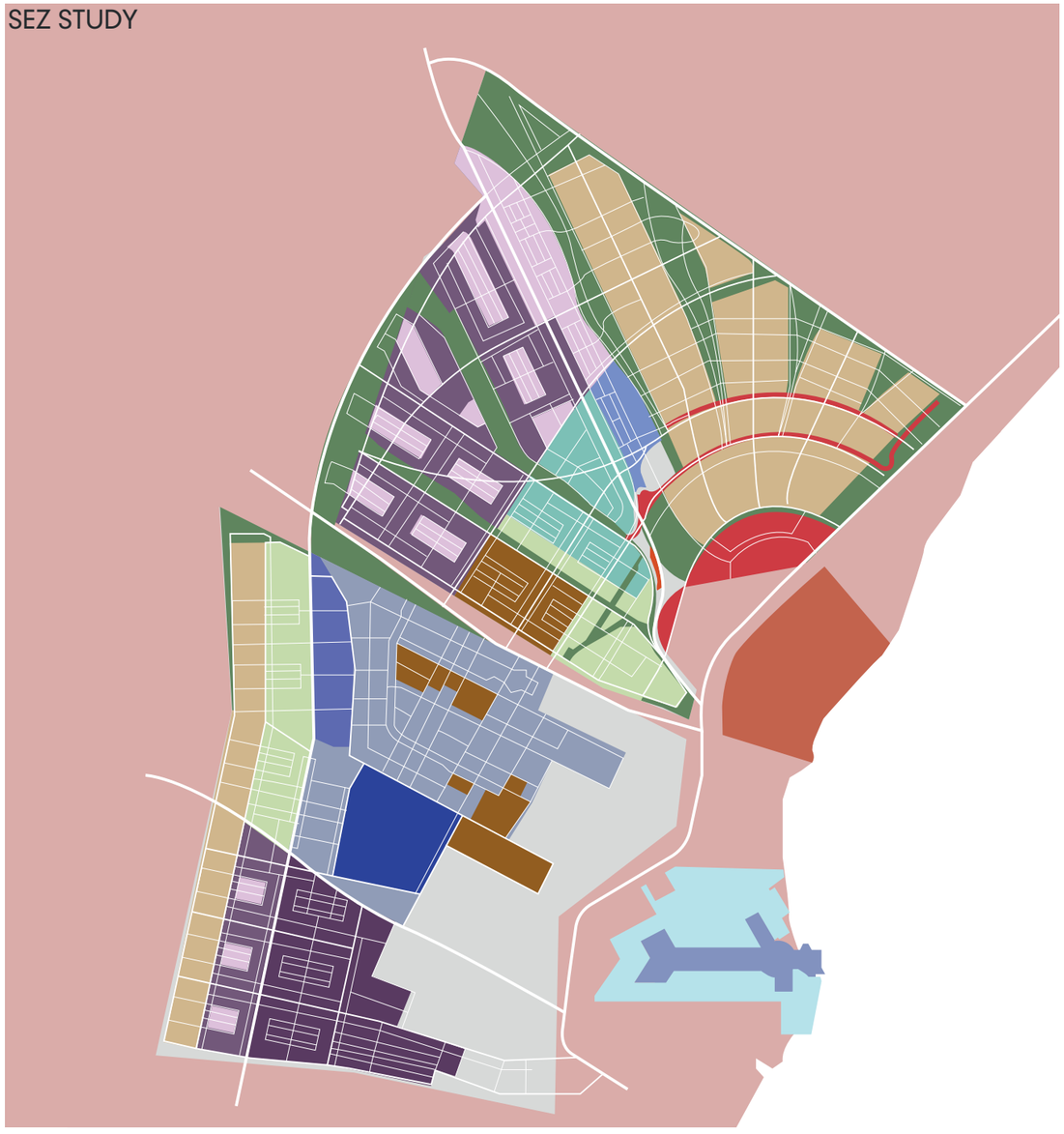
DOMINANCE OF EAST COAST



Dominance of the East Coast

Chinese FDI in Ports and Infrastructure investment is significant on the East Coast of Africa. Examination of SEZs in this region follows.

SEZ STUDY



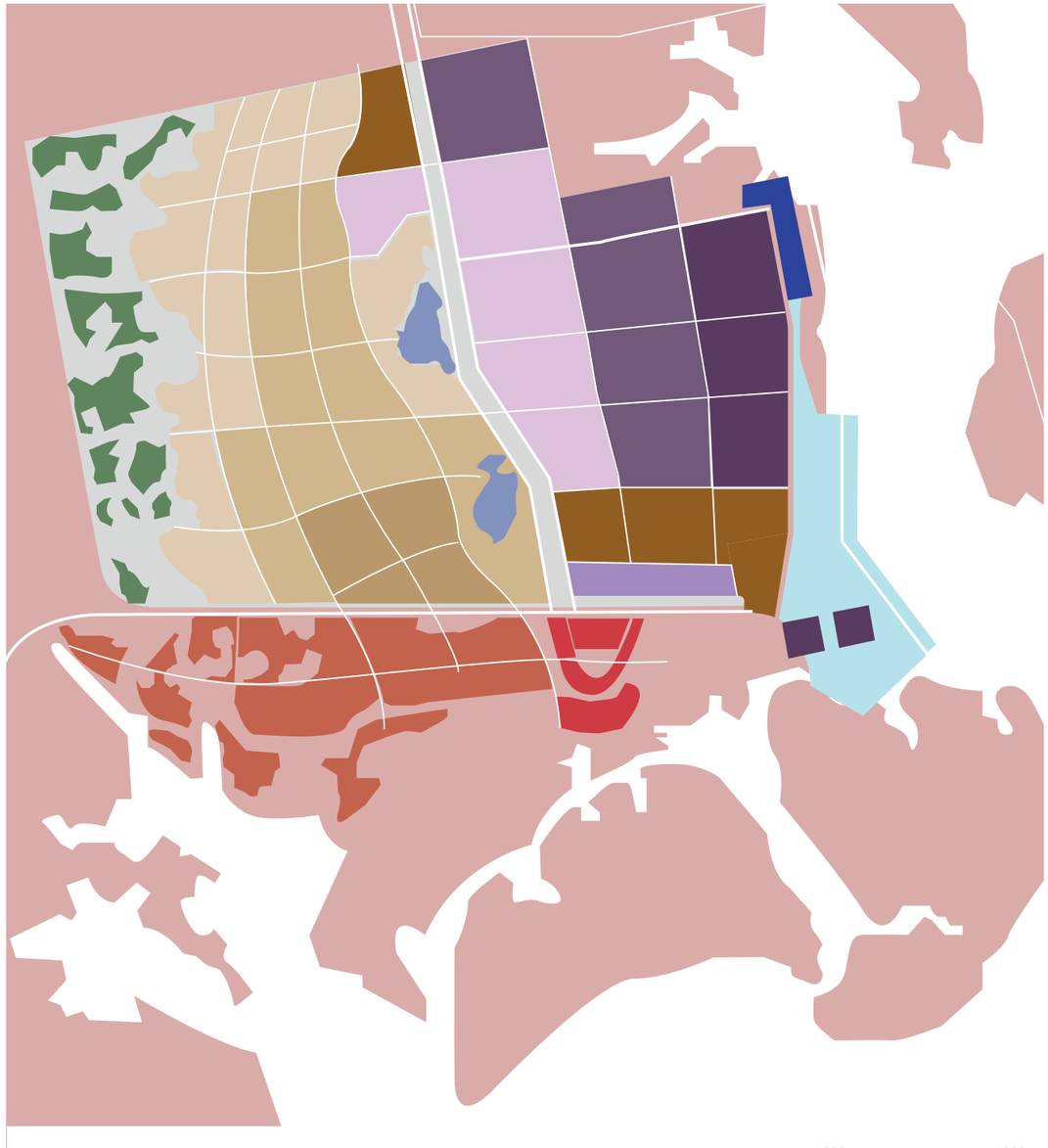
Suez Canal Economic Zone (SCZone)
Ain Sokhna Special Economic Zone (SEZ)

Actor(s)
COSCO Pacific China's largest State Owned Enterprise (SOE)
China Harbor Engineering Company (CHEC)
TEDA Group China's oldest Industrial Developer

Scale
An Industrial Zone of 460m^2 comprising two integrated areas,two development areas and four ports.

Translation
The idea of this behemoth Economic Zone emerged in 1998 following a fortuitous amendment to foreign investment and land usufruct laws[1].

1.See Egyptian Law for Economic Zones of a Special Nature - Law No. 83 for 2002 and its amendment of 2015.

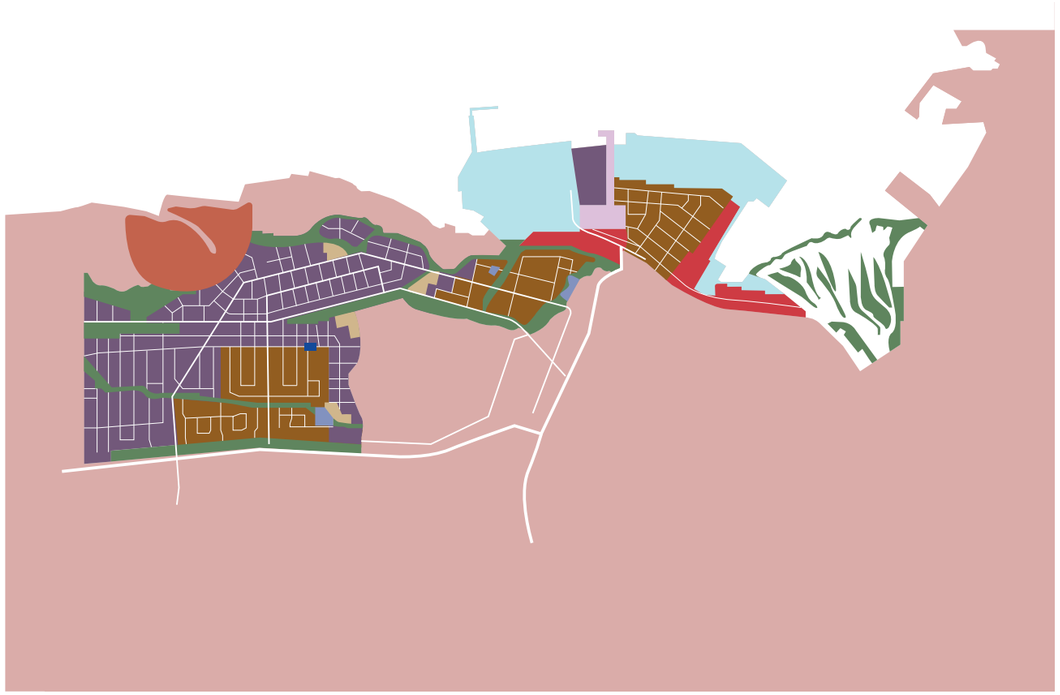


Lamu Port (LAPSSET)

Actor(s)
China Communication Construction Company (CCCC)
Power Construction Corporation of China (PCCC)
Industrial Commercial Bank of China

Scale
CCCC is expected to complete the construction of three berths at Lamu Port by 2020. The PCCC is set to begin construction on the 981.5 megawatt Amu Coal Power Plant pending an environmental impact assessment.

Translation
The plans for Lamu Port were based on a 1977 feasibility study. A second feasibility study, financed by China was conducted in 2010. In response to outrage at the absence of an EIA the state responded by employing the National Environment Management Authority (NEMA) to conduct the EIA study on their behalf. Unsurprisingly the EIA was approved and a planning license readily awarded.



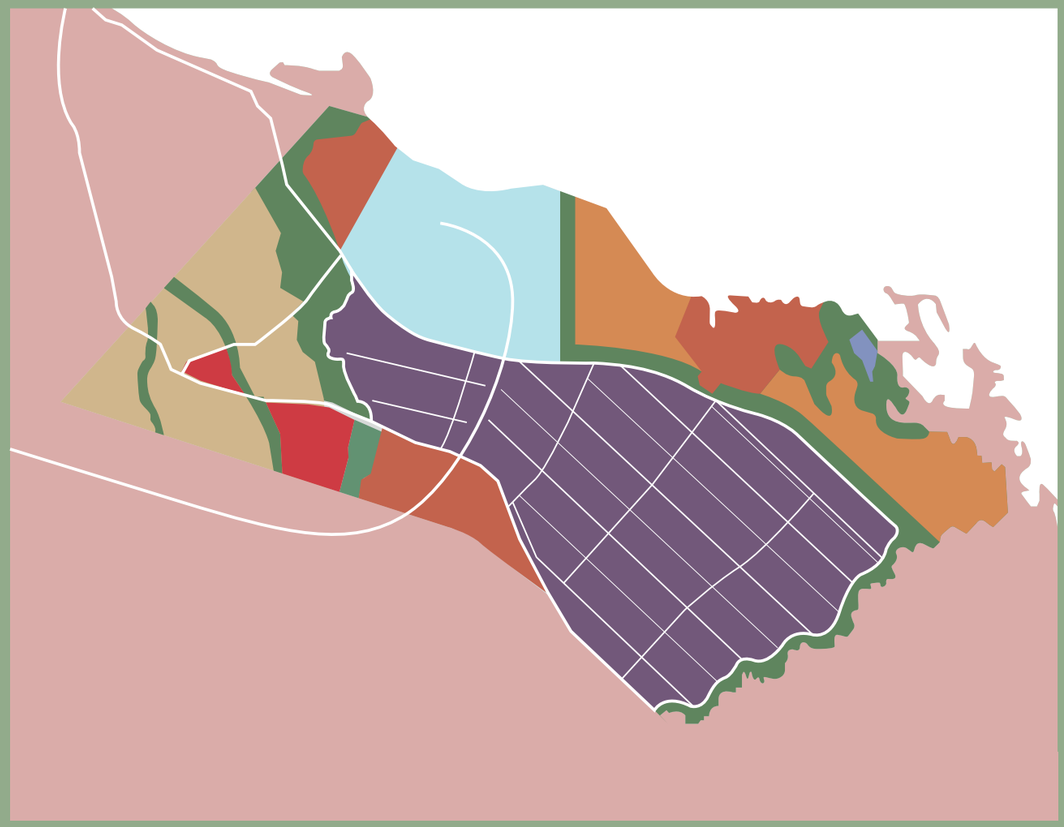
Port of Djibouti

Actor(s)
China Merchants Holdings International (subsidiary of China Merchants Group)

Scale
In addition to the Port upgrades China Merchant Holdings has invested in the development of a 48 km2 Free Trade Zone (FTZ) comprising a trade logistics park and an Export Processing Zone (EPZ)

Translation
Sold to eager tenants as the ‘Shekou of East Africa’ the Port of Djibouti and associated FTZ will be developed along the ‘Port-Park-City’ or ‘PPC’ template first pioneered in the development of it’s twin city. This model sees the development of an industrial and logistics hub followed by a city to ‘supplement the development of a port’[1].

1. <?> http://www.chinadaily.com.cn/business/2017-03/07/content_28455386.htm



Bagamoyo Mega Project

Actor(s)
China Merchants Holdings International (subsidiary of China Merchants Group)
The Sultanate of Oman, represented by the State General Reserve Fund (GSRF)

Scale
CMHI is set to build and manage the Bagamoyo Port upon completion. The port, expected to become the biggest port in Africa, will suture together the central corridor railway and TAZARA railway by means of an extended link.

Translation
The Bagamoyo Mega Project has from the outset been mired in controversy. Deemed a white elephant by sceptics the Port is the poster-child of ex-president Jakaya Kikwete – a native of Bagamoyo. The state, having failed to raise the funds necessary for land compensation claims, has lost its stake in the port. Bagamoyo Port is an enclave in the truest sense.

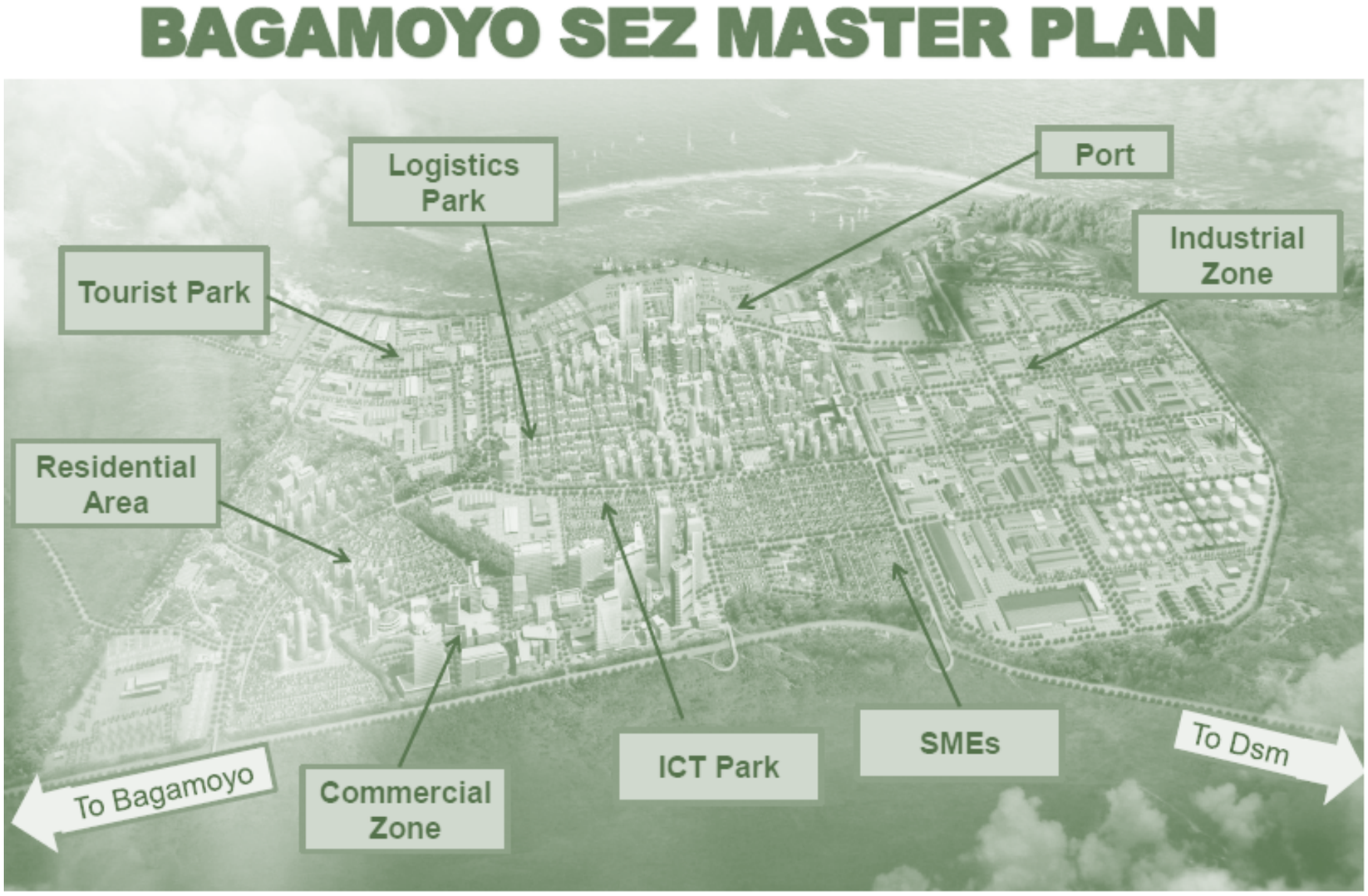
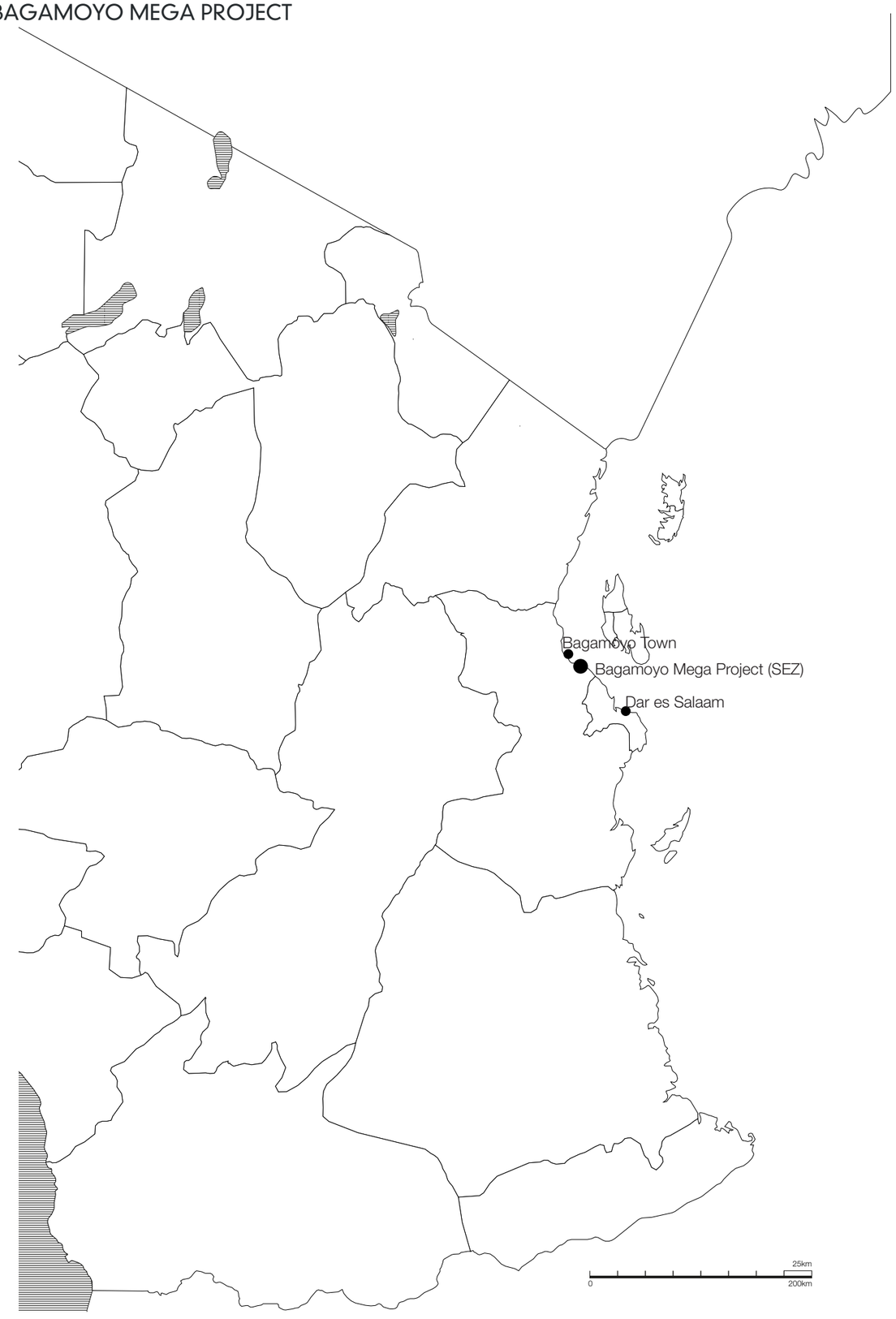


Figure 1. ‘East Africa’s Shekou’, Bagamoyo Mega Project, Tanzania, by Geographical Magazine, 2015, http://geographical.co.uk/places/cities/item/1049-easy-africa

THE BAGAMOYO MEGA PROJECT



MARCH 2013, TANZANIA SIGNS BAGAMOYO PORT DEAL WITH CMHI

The Port of Bagamoyo: A Test for China's New Maritime Silk Road in ...
https://thediplomat.com/.../the-port-of-bagamoyo-a-test-for-chinas-new-maritime-silk-...
Dec 1, 2015 - The project will link **Bagamoyo port** to the central corridor railway and ... of essence as port construction is supposed to be completed by **2017**.

Construction of $10b Bagamoyo port in Tanzania to ... - Construct Africa
www.constructafrica.com/.../construction-10b-bagamoyo-port-tanzania-start-july-year
Construction of the **Bagamoyo port** in Tanzania will start in July this year (2016), ... The $10 billion (Sh22 trillion) **Bagamoyo port** project will occupy 800 hectares, with another ... South African construction prices forecast to rise by 7.4% in **2017**.

The race to become East Africa's biggest port - BBC News - BBC.com
www.bbc.com/news/world-africa-36458946
Jun 7, 2016 - Kenya's planned **Lamu** port is expected to be just as big. ... **Lamu** and **Bagamoyo** have been little used as ports for about a century but at one ...

Tanzania suspends construction of $10bn Bagamoyo port - The East ...
www.theeastafrican.co.ke › News
Jan 8, 2016 - The construction of the $10 billion **Bagamoyo port**, which would be the ... Prof Makame Mbarawa, said the **government** will upgrade berths 1 to ...

China's Bagamoyo port developer: 'We're still waiting for govt decision'
www.azaniapost.com/.../chinas-bagamoyo-port-developer-we-re-still-waiting-for-govt...
Aug 19, 2017 - 'We are waiting for Tanzanian Government say on this project but it has not canceled' **China** Merchants Holding International official told ...

Dar surrenders Bagamoyo port project to Chinese - The East African
www.theeastafrican.co.ke › Business
6 days ago - The **Bagamoyo port** and its affiliate industrial zone is meant to address ... With investors anxious of **losing** the business opportunities envisaged from ... In turn, the **government** will forego an equity stake in the project and only ...

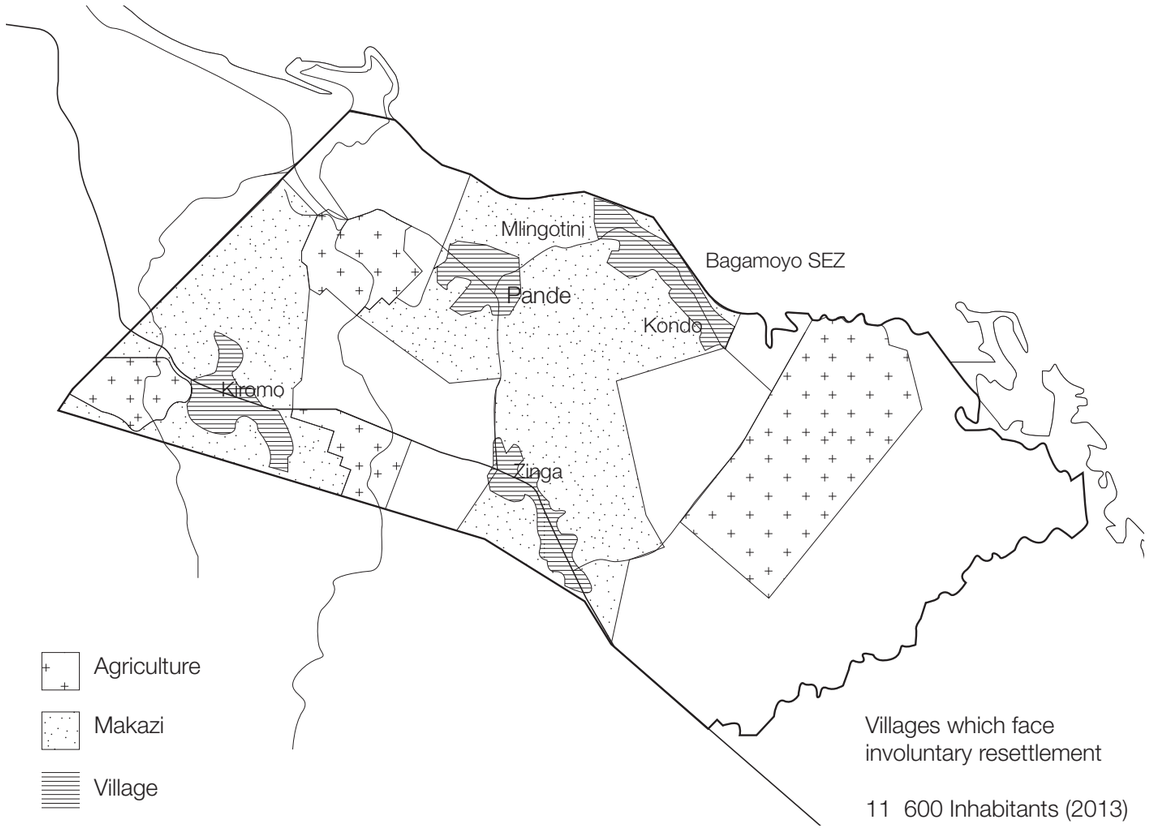
Figure 2. Abandoned resettlement site, Bagamoyo SEZ, Tanzania, Author, 2017

Figure 3. Simu's house marked for evaluation, Bagamoyo SEZ, Tanzania, Author, 2017

Figure 4. A local ‘Spaza’ store marked for evaluation and approval, Bagamoyo SEZ, Tanzania, Author, 2017

PROPOSED PROJECT SITE

LAND ACQUISITION
BAGAMOYO MEGA PROJECT



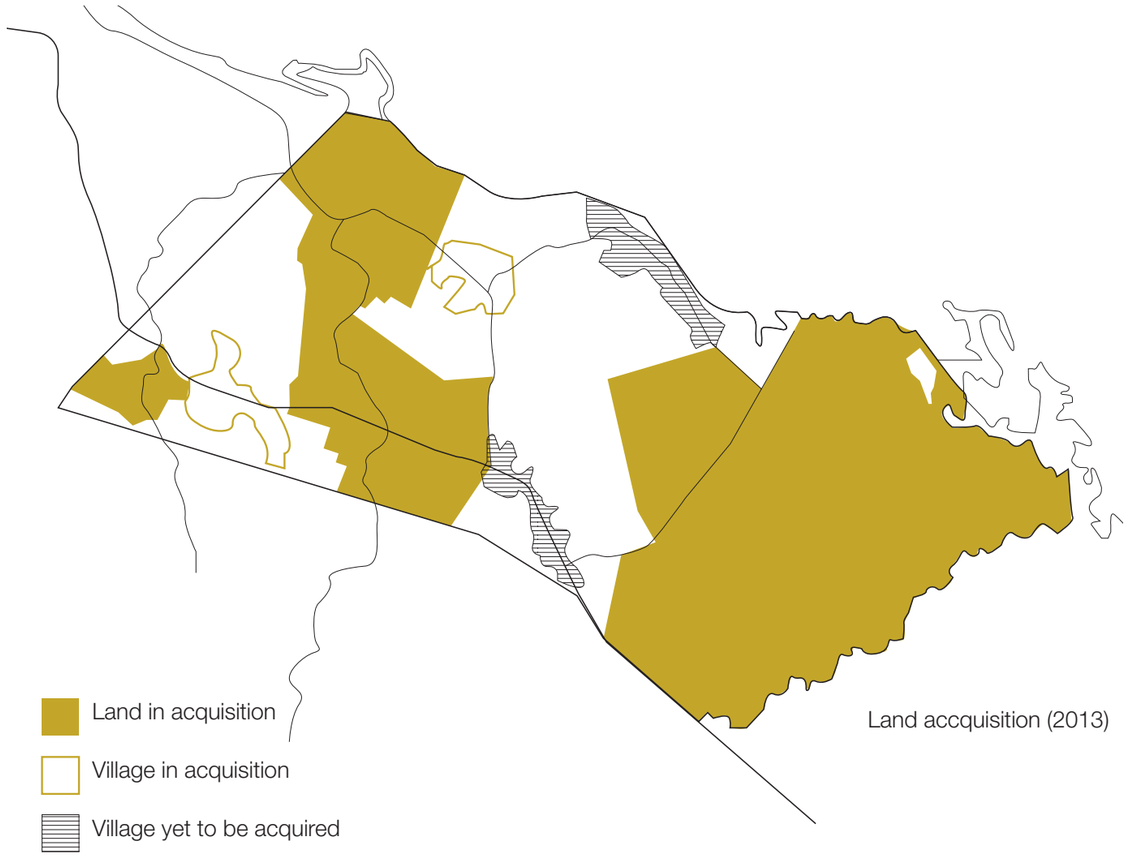
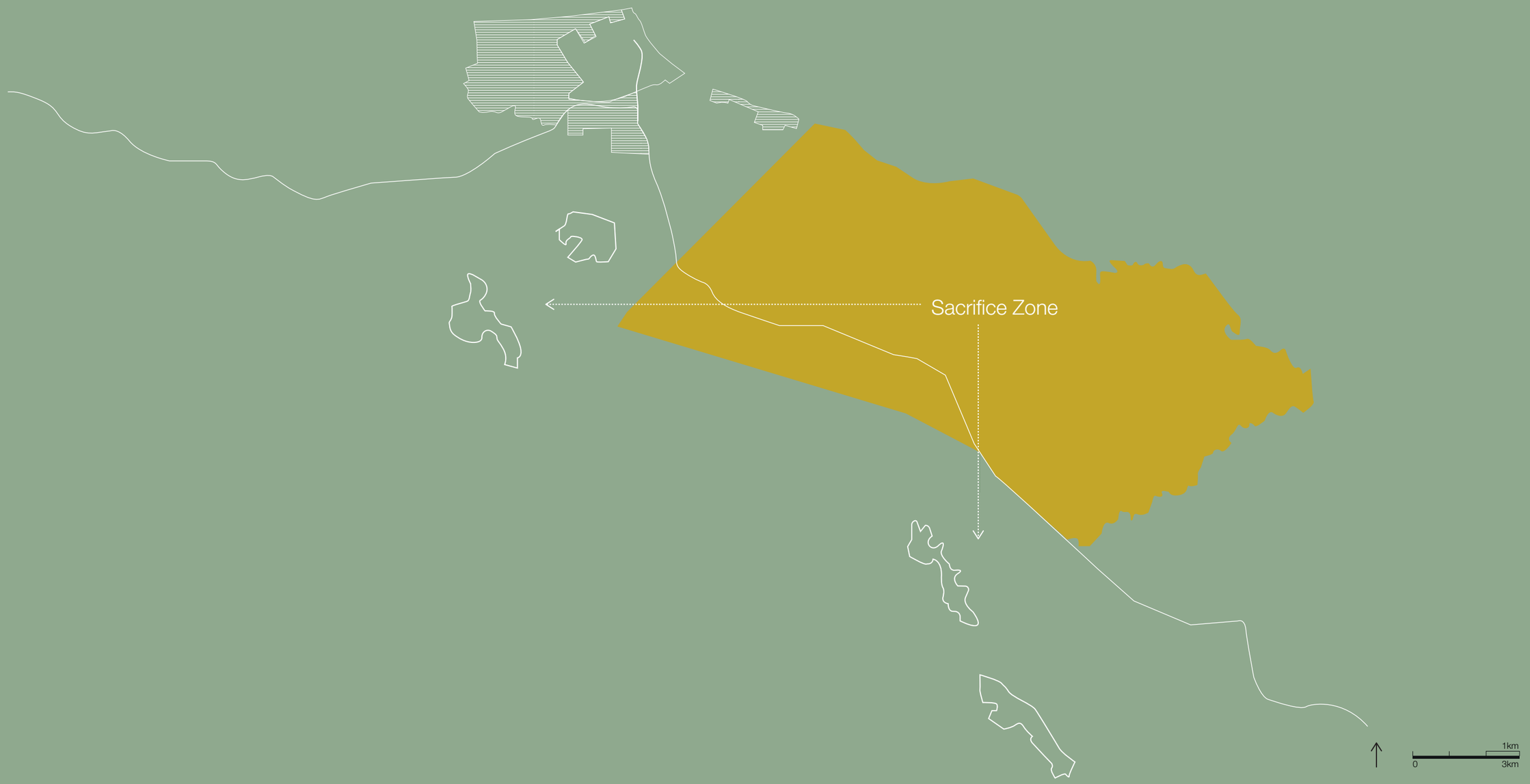


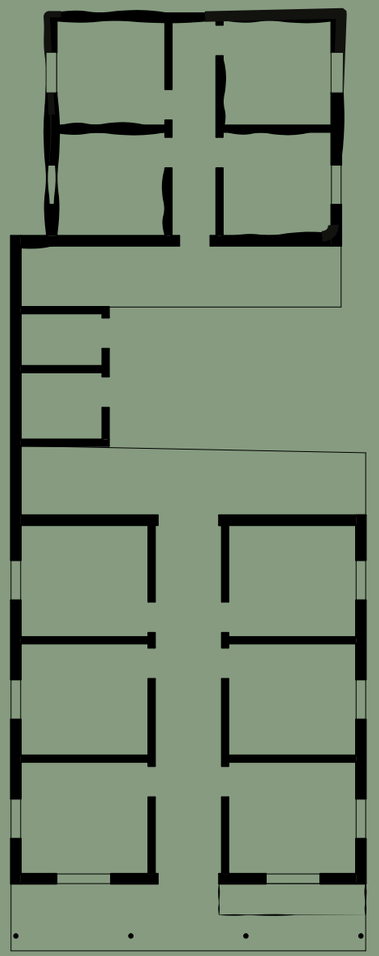
Figure 5. Land owner from Magwiza village during the evaluation process, from Ally Bedford, IDC, 2017

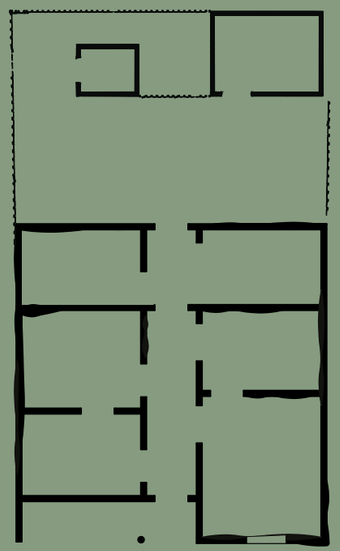
Figure 6. Land owners from Magwiza village during the evaluation process, from Ally Bedford, IDC, 2017

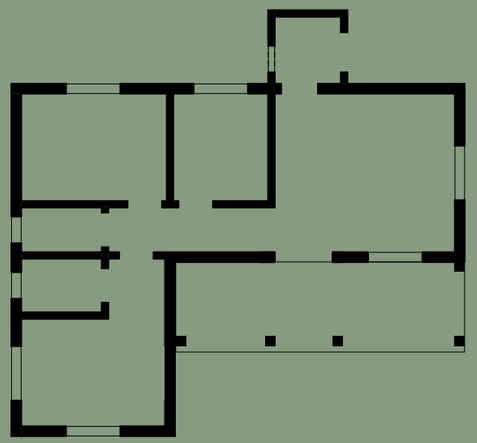
THE SPECIAL SACRIFICE ZONE



THE HOME AS SITE OF
CONFRONTATION







CHUKI JUMA MWINYI GOA,
BAGAMOYO TOWN

I met Chuki through Doto, a Bagamoyo tour guide who, as time progressed, would become a friend. Chuki was 75 years old. He had spent most of his life in Mlingotini as a farmer and fishermen. In 2014 representatives of the District Council approached him and notified him of the plans to develop the Bagamoyo Mega Project and the resettlement process that would ensue. Chuki was fortunate – he had bought land in Bagamoyo Town long before speculation had driven up land costs. He received compensation from both the Export Processing Zone Authority (EPZA) and the Tanzania Port Authority (TPA). He first inhabited a four-roomed mud and daub Swahili house at the rear of his property. Having saved up sufficient funds he proceeded to build a six-roomed concrete block Swahili house facing the busy main road. Chuki became a landlord. As we sat in the cool, wide corridor students and small children passed by slipping behind colourful curtains into the rooms they occupied. Washing was hung out to dry in the courtyard and someone was cooking. As we left we greeted an elderly woman passing time by on the front veranda.

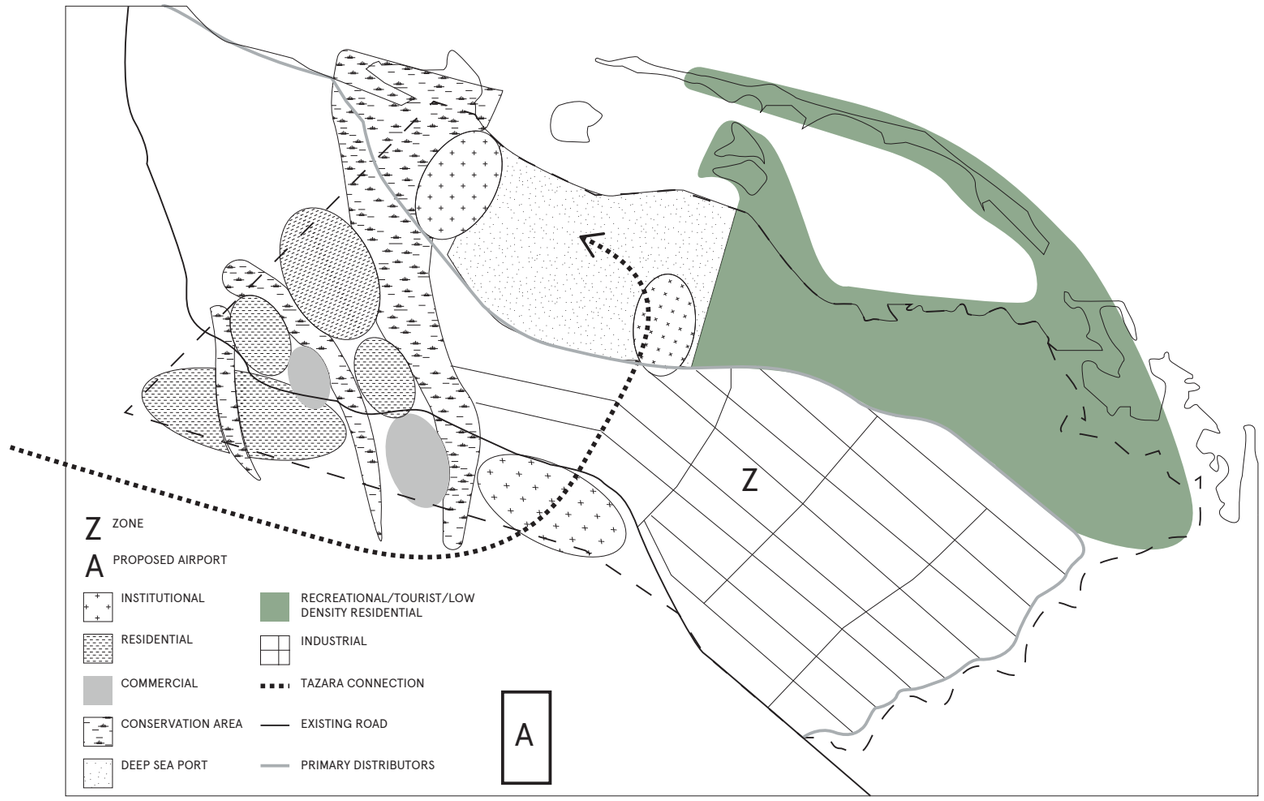
SIMU YA MDOMO ,
MLINGOTINI

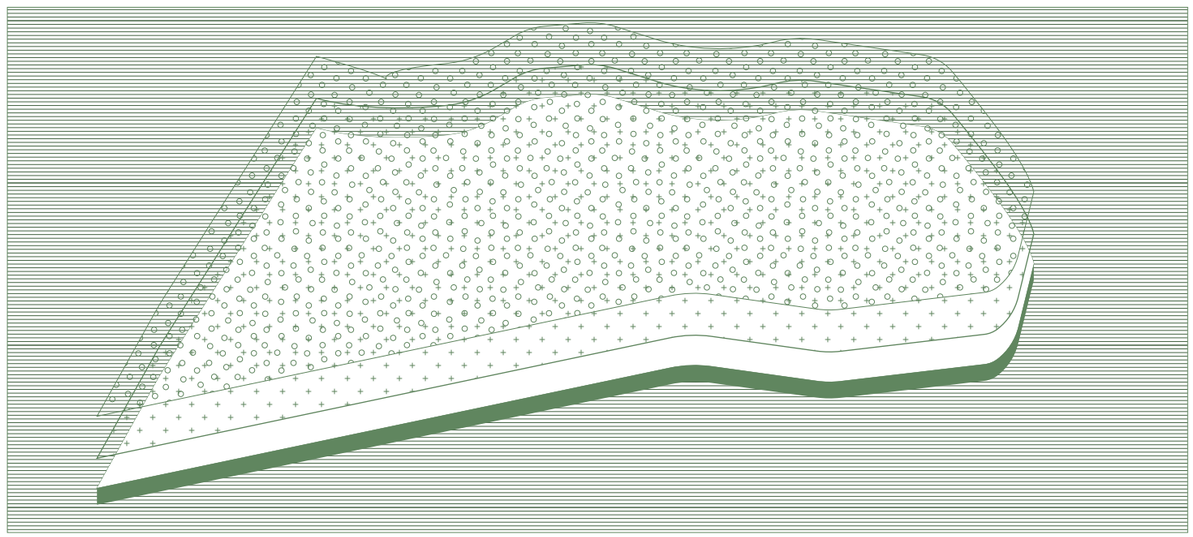
Doto and I came across Simu after a flat tyre had compelled us to walk to the nearby Mbegani Fisheries Institute. The clumsy '456' on the front door signified that his house had been evaluated. Inside his mother sat weaving coconut leaves into roof mats that would be used to counter, what she claimed, were the many holes in the aging roof. We sat down on an old car seat repurposed as a bench and Simyu proceeded to recount the resettlement process he had endured. In 2009 the evaluation of his four-acre plot had been completed. He believed the compensation to be inadequate and so appealed evaluation. Simu was advised to cease any farming until his appeal had been processed – diligently he did so. It had been four years since his appeal and Simu had not heard from the District Council until a week prior to our conversation: he had been handed an eviction notice. As we left, Simu spoke of how his land had been passed down from one generation to the next and of how it saddened him to think that his son would be severed from this legacy.

ADAM,
DAR ES SALAAM

I spent five days with Adam during my time in Dar es Salaam. On the final day Adam invited me to his home to meet his wife and young baby. The day before during a visit to Kariokoo market Adam had told me of his intention to purchase a mzungu (white person) toilet for his master bathroom. We proceeded to inspect the toilets on offer in the many Indian and Chinese-owned construction stores of the Kariokoo district. Adam said he'd wait until he got 'the right price'. He described his home as modern. It had an interior kitchen and television. Adam was most proud of his living room and the lounge suite he had recently acquired. He had plans to build a small shop at the front of his property from which his wife could sell chapati and chicken.

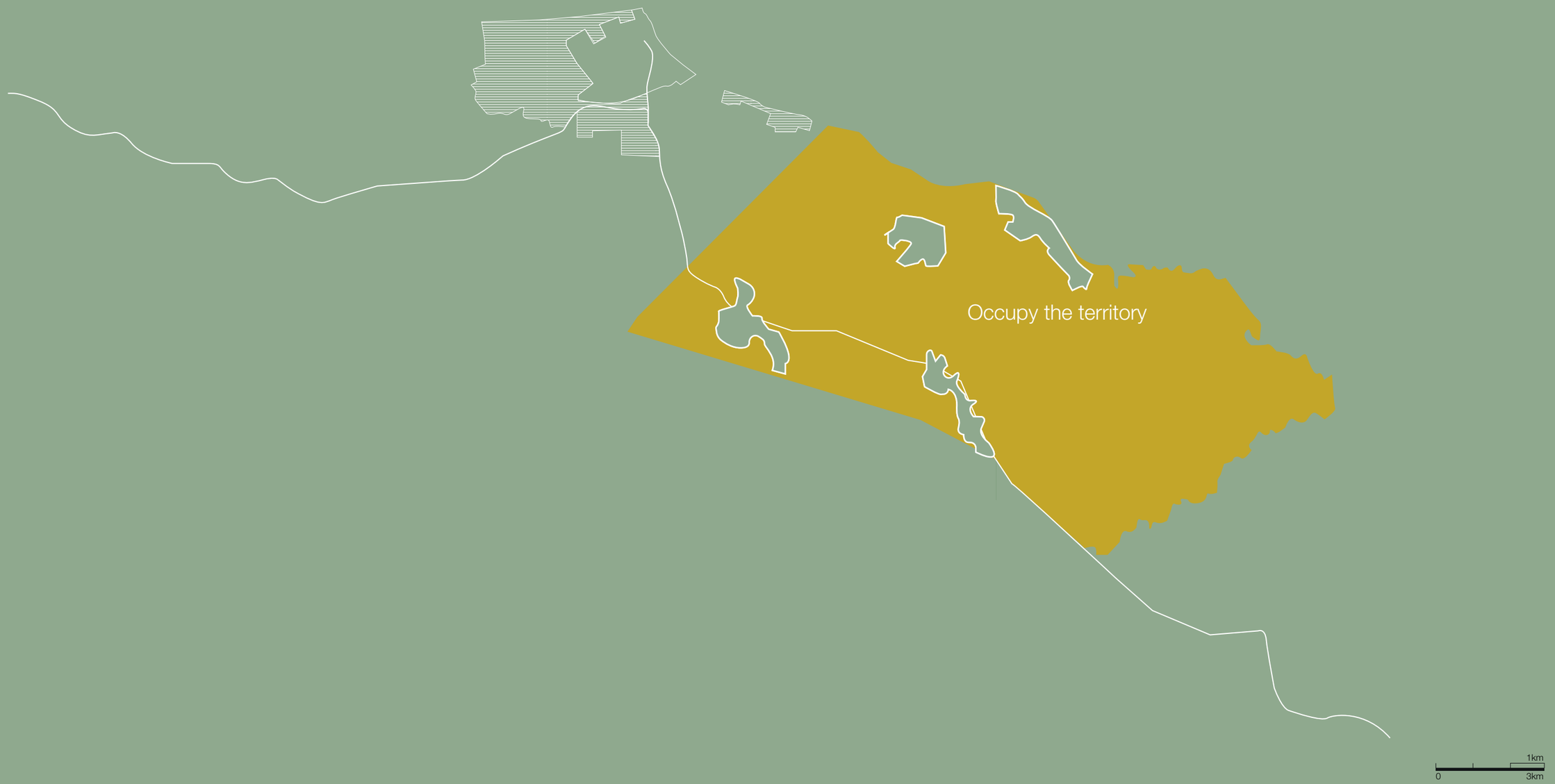
APPROACH



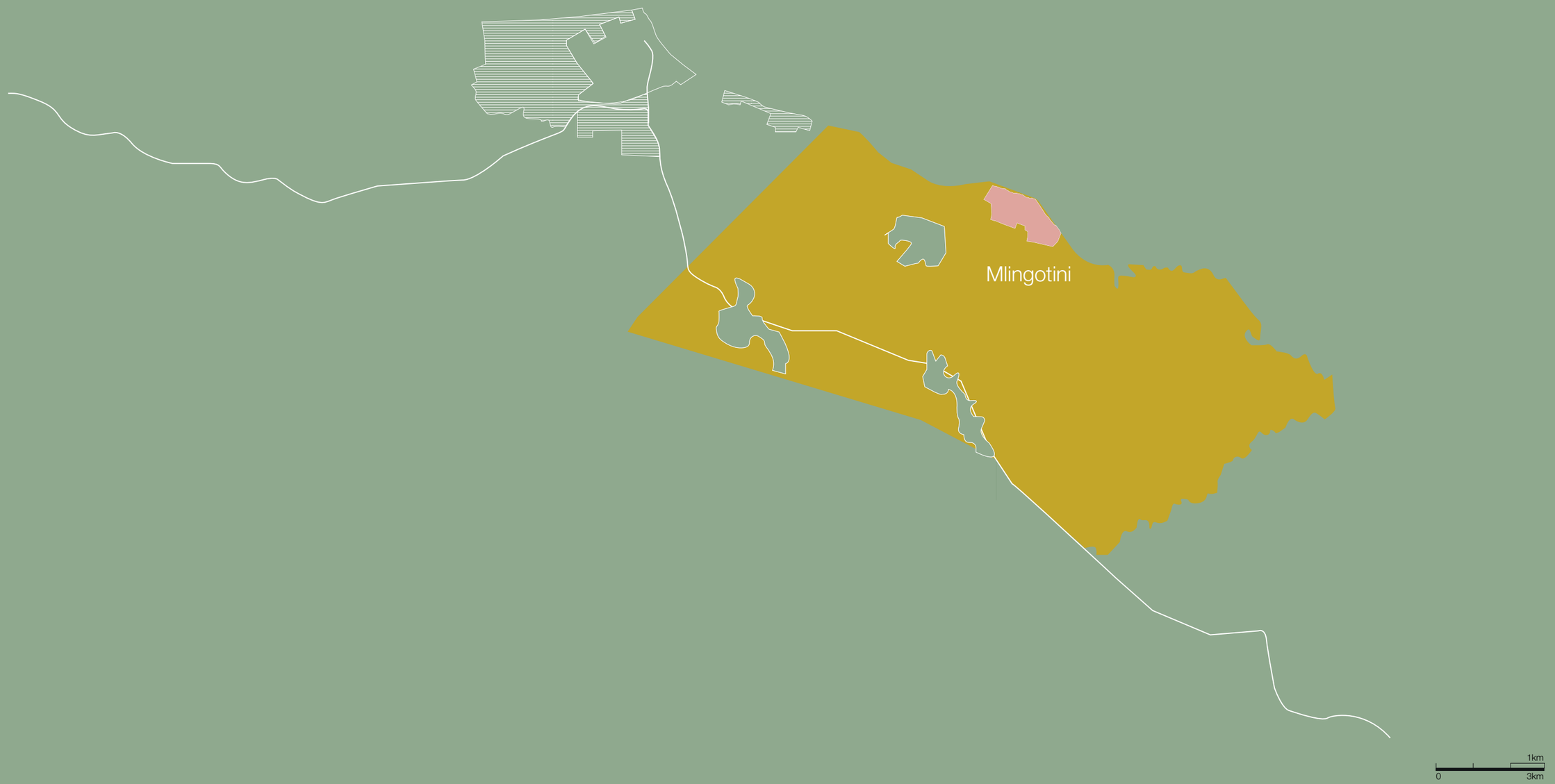


Shift from consideration of the master plan and proposed project to a consideration of the Special Sacrifice Zone

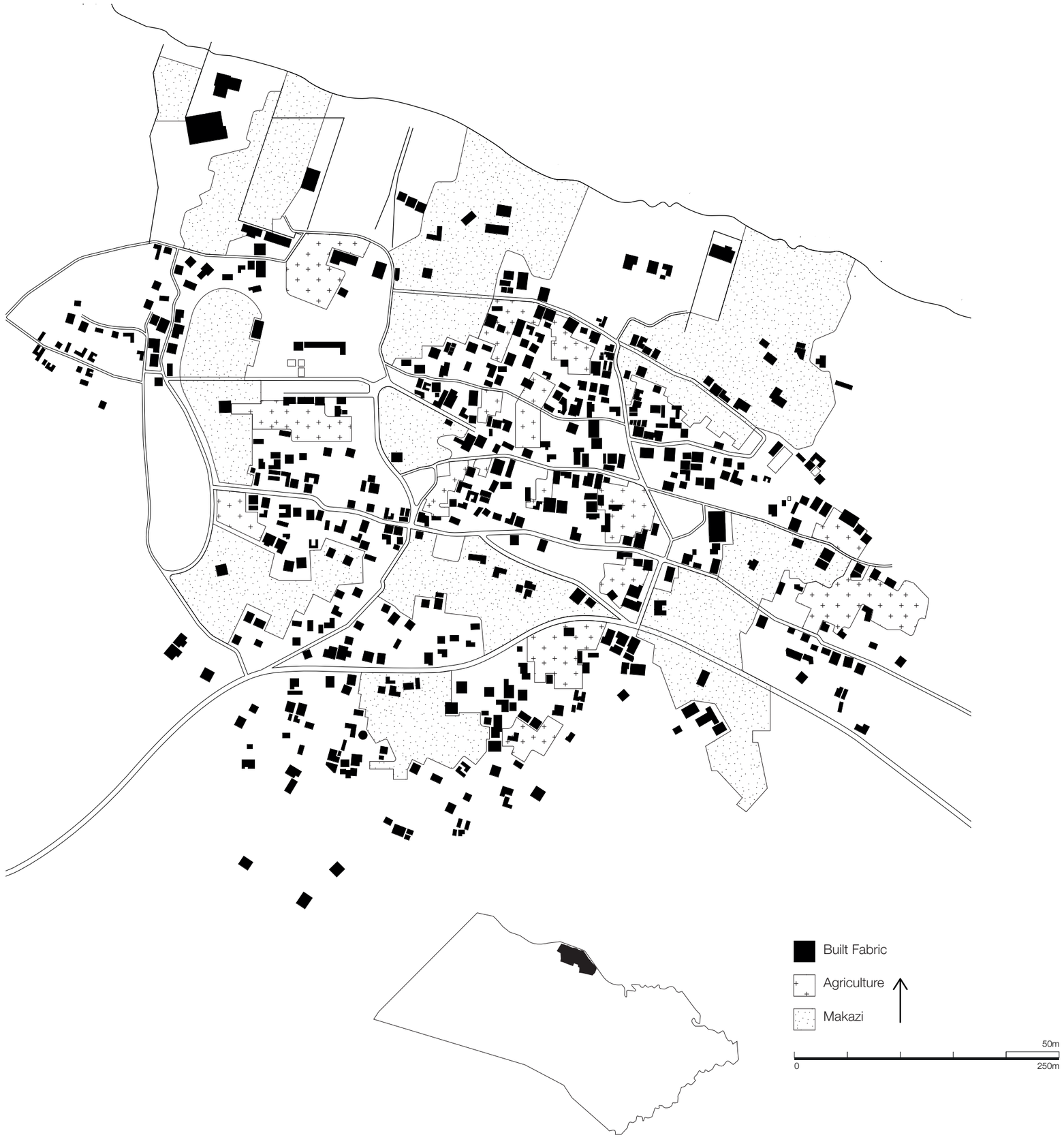
OCCUPATION OF THE TERRITORY



OCCUPATION OF THE TERRITORY

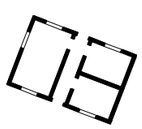


MORPHOLOGICAL ANALYSIS

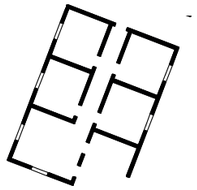


VARIATIONS IN TYPE

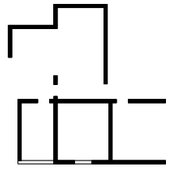
Variations in type



Wattle & Daub

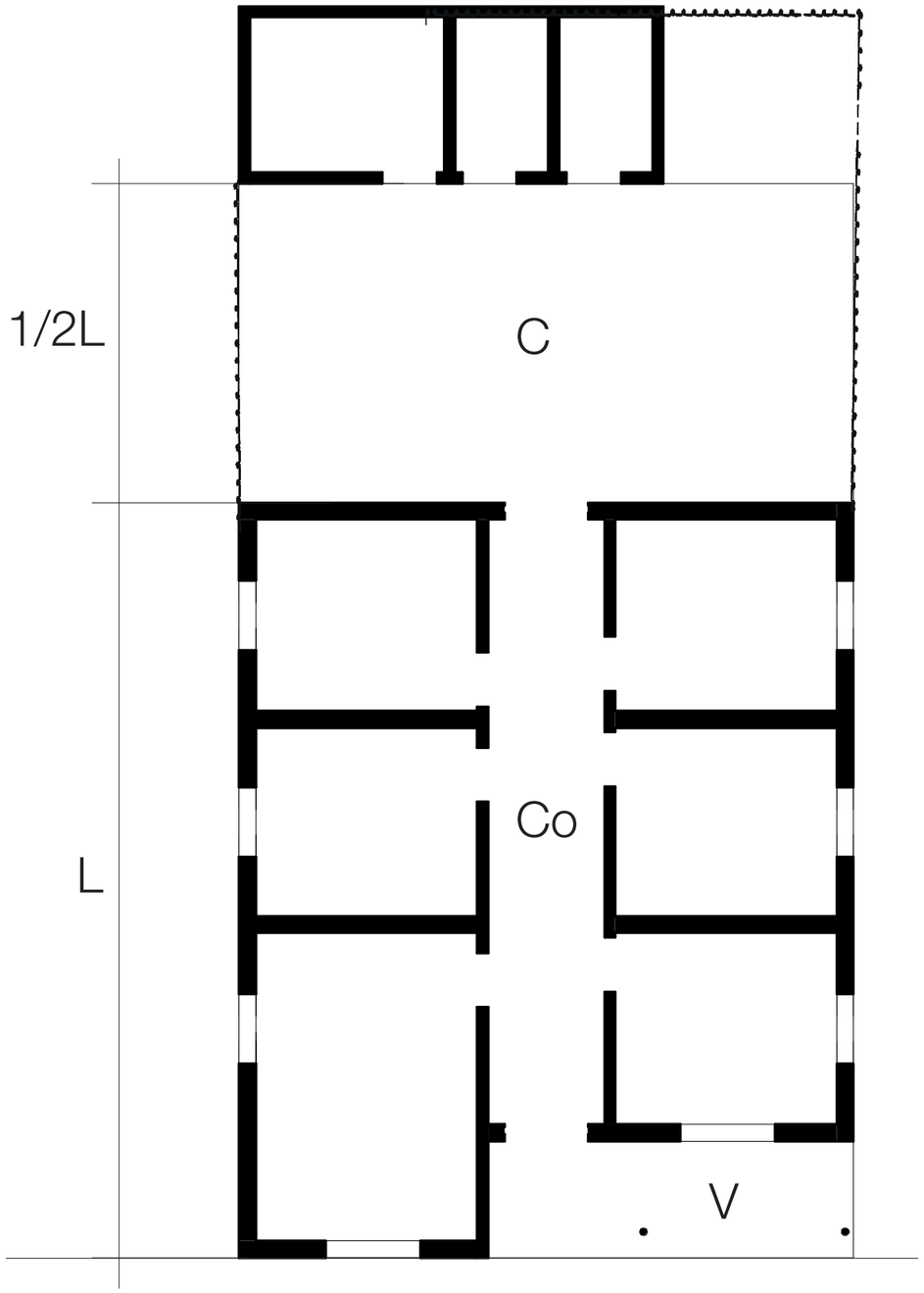


Concrete Block



Partially Built

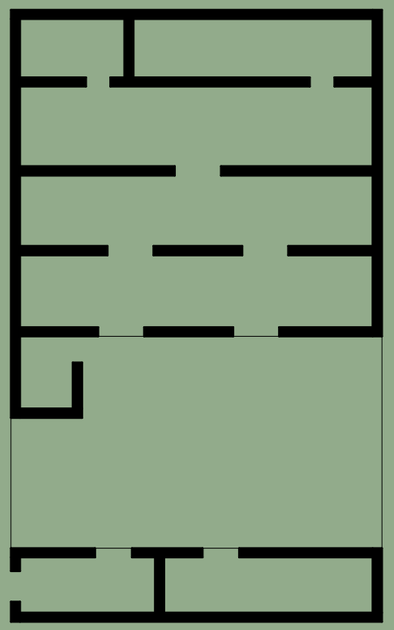
THE SWAHILI HOUSE TYPE



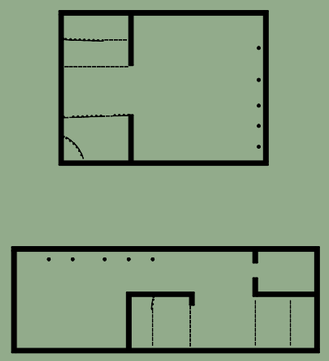
The Swahili type of house is built very much to a single design. There is the main house itself, divided by a central corridor off which are three rooms each side. There is a single front door, opened and shut first and last thing by the landlord or owner. Once inside one looks straight through to a courtyard, half as big as the house, where all laundering, dishwashing and general chores go on. At the back of the courtyard are usually three rooms, which are latrine, kitchen and store[1].

1 Horton, M., 'Swahili Architecture, Space and Social Structure' in Pearson, M.P. & Richards, C. (eds), *Architecture and Order: Approaches to Social Space, London*, Routledge, 1994.

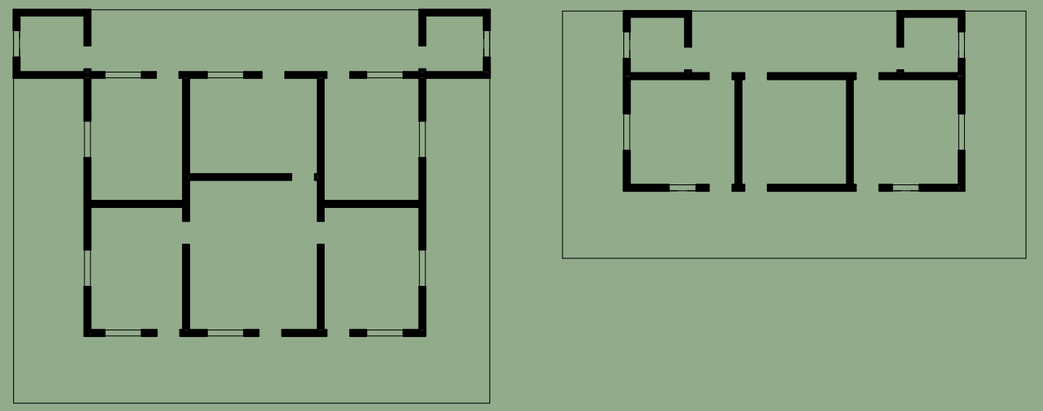
TYPOLOGICAL TRANSFORMATIONS IN TIME



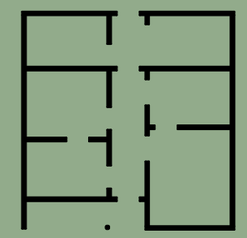
Fifteenth Century Swahili Stone House



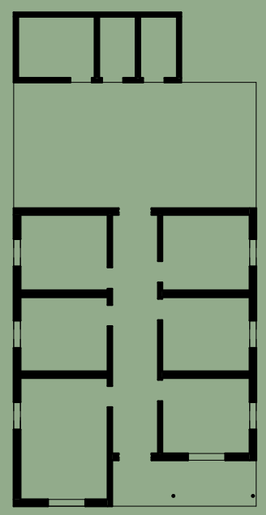
Tembe of the Baraguyu tribe



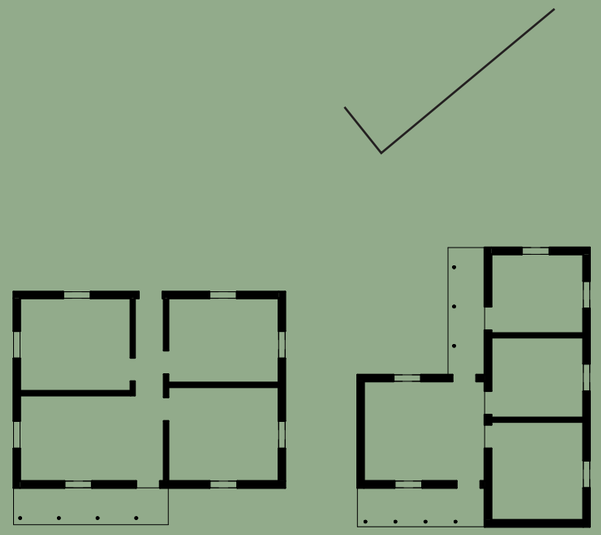
The Bungalow



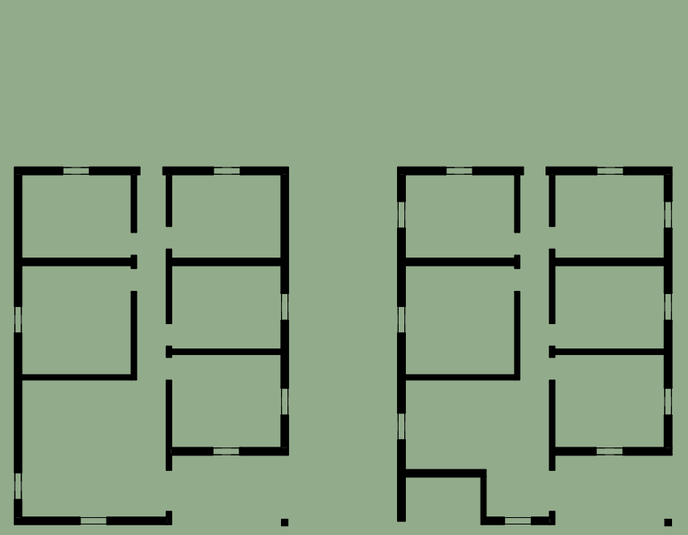
Rural Swahili House



Swahili House



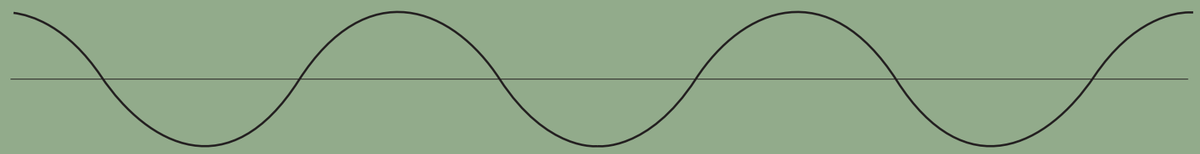
Ujamaa Swahili House



Post-Liberalisation Swahili House

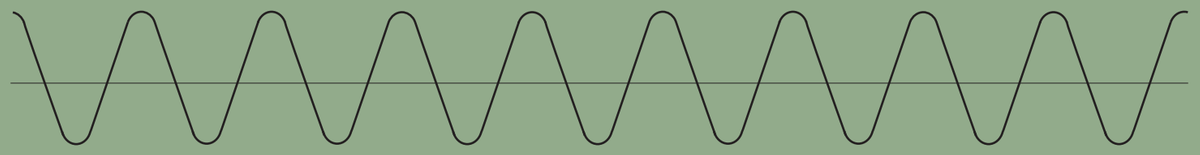
scale 1:200

TYPOLOGICAL
TRANSFORMATIONS IN TIME



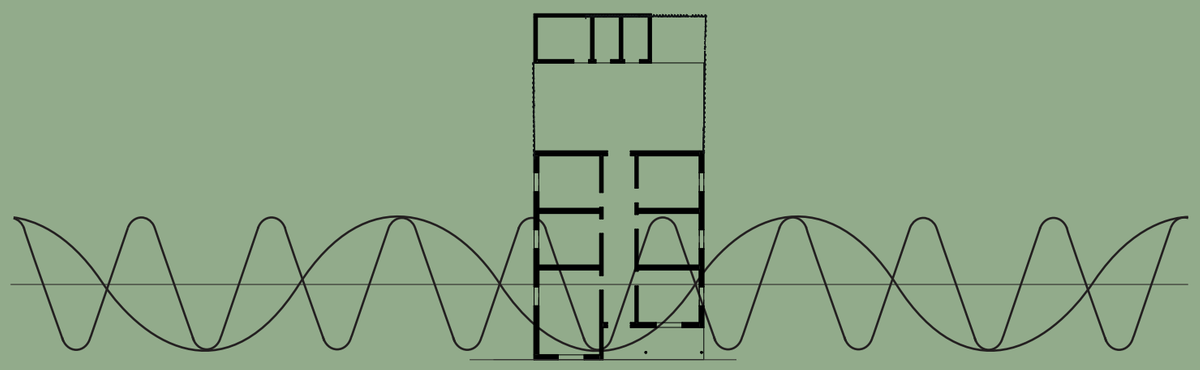
Tanzania

Colonialism
German period from 1884 -1917
British period from 1917-1961



Ujamaa
1967 -1985

Liberalisation
late 1990's -



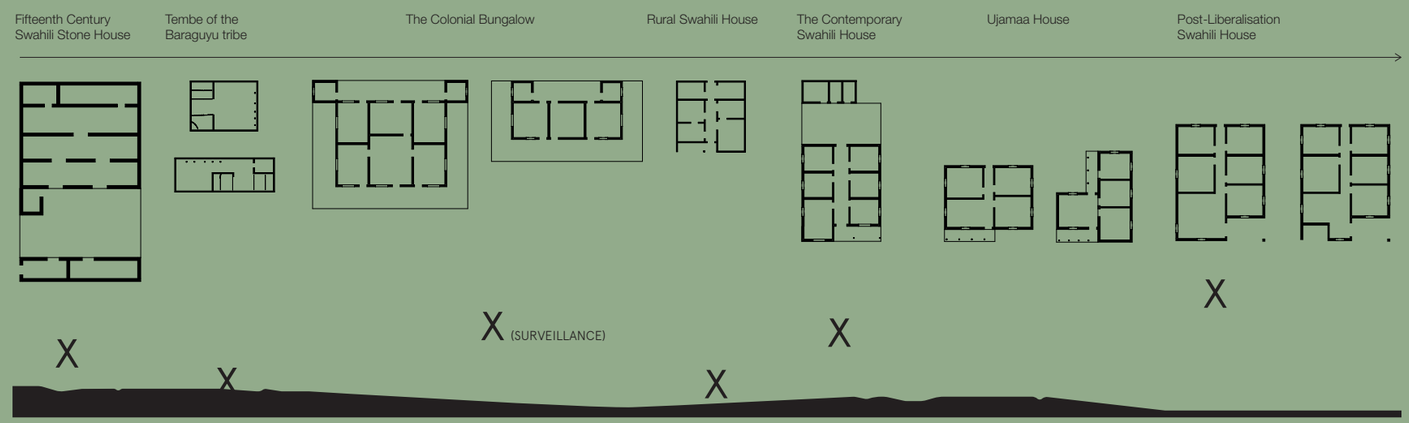
China?
late 1967 -

IDEOLOGY POLICY ACTION

implantation, configuration, form

ATOMISATION

MLINGOTINI



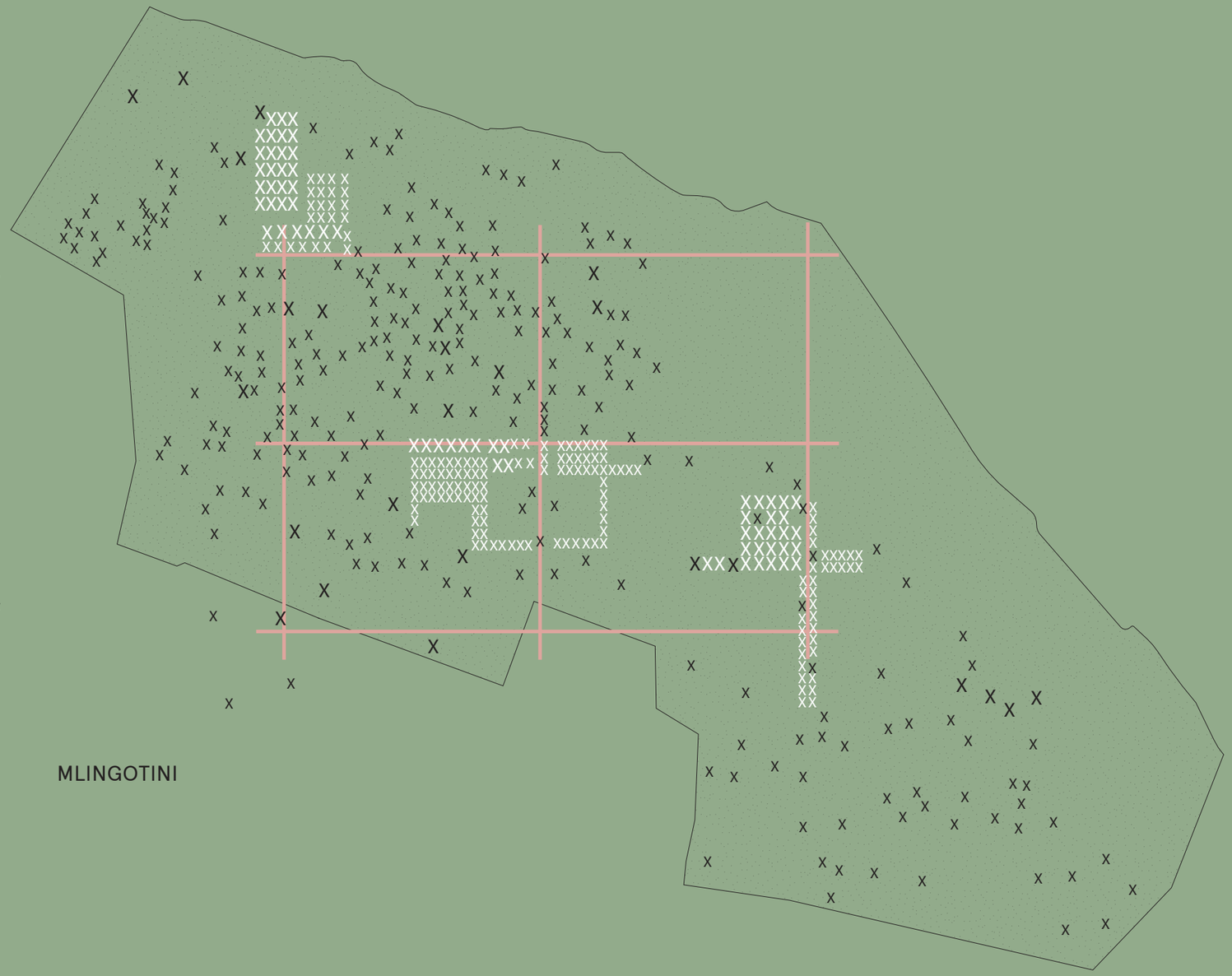
RELATIONSHIP TO TERRITORY

PROPOSAL

The project speculates on the development of a a scaffold/infrastructure for territorial negotiation.

If the process of violent resettlement reveals the vulnerability of the individual and his/her tenuous relationship to the territory the project proposes the strengthening and care of existing modes/practices of occupation through collective inhabitation.

It seeks to afford individuals agency to negotiate through collective action. Proposing a conditioning, rather than the condition of the SEZ master plan.



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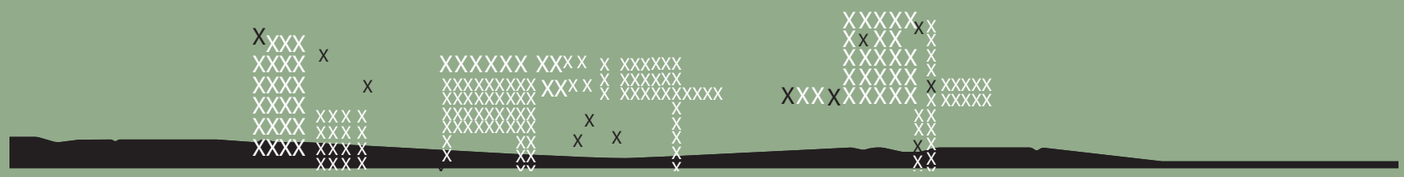
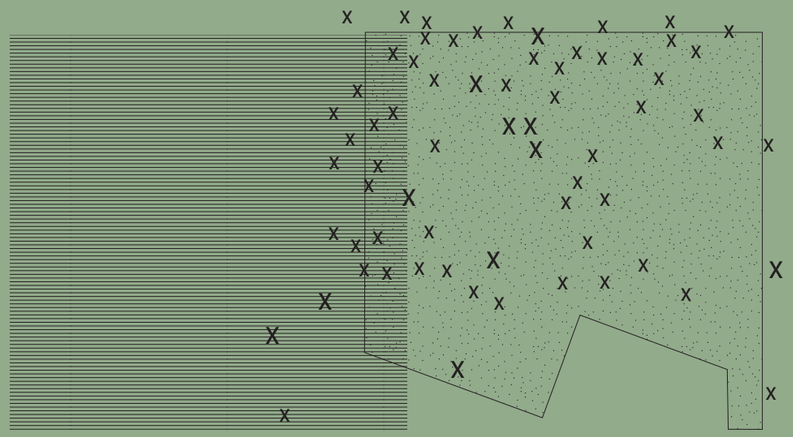


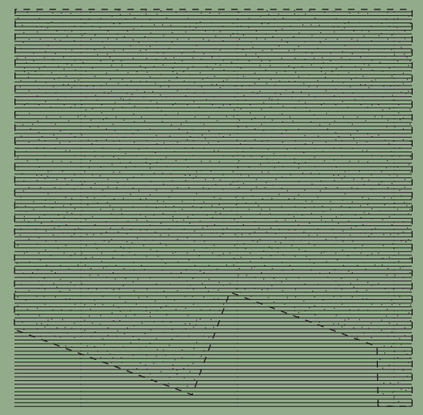
RELATIONSHIP TO TERRITORY

PROPOSAL

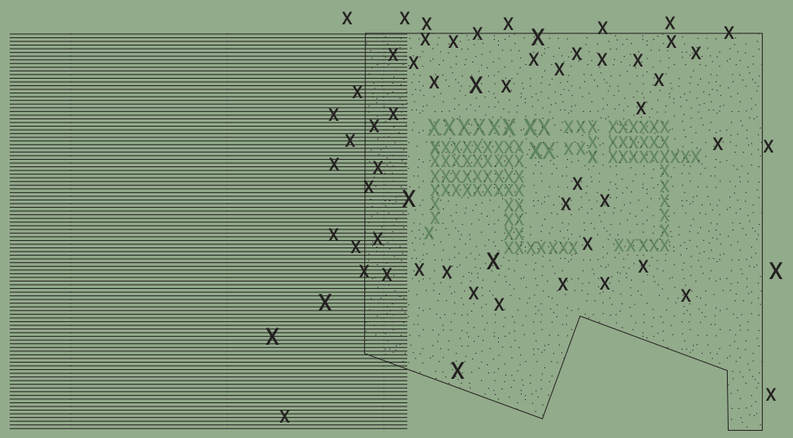


SEZ

MLINGOTINI

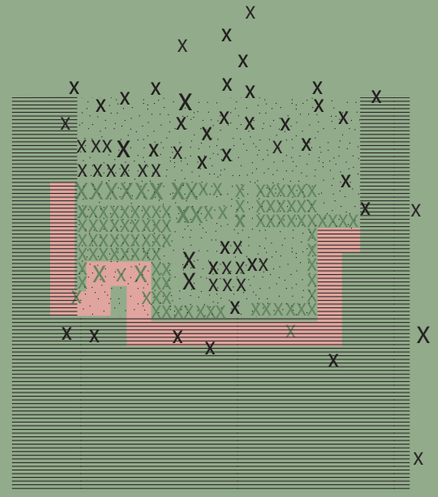


SEZ



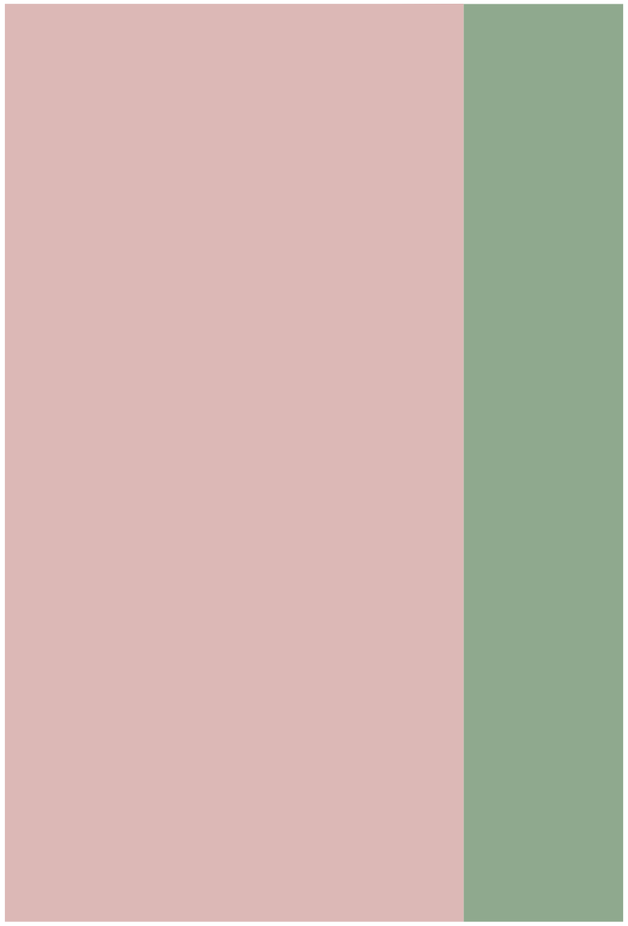
SEZ

INTERVENTION

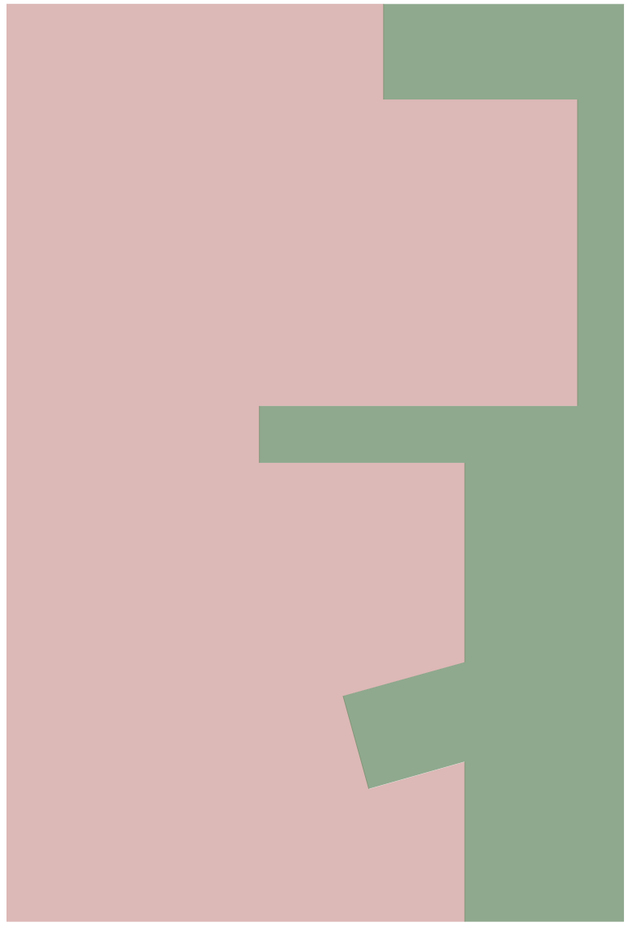


SCAFFOLD

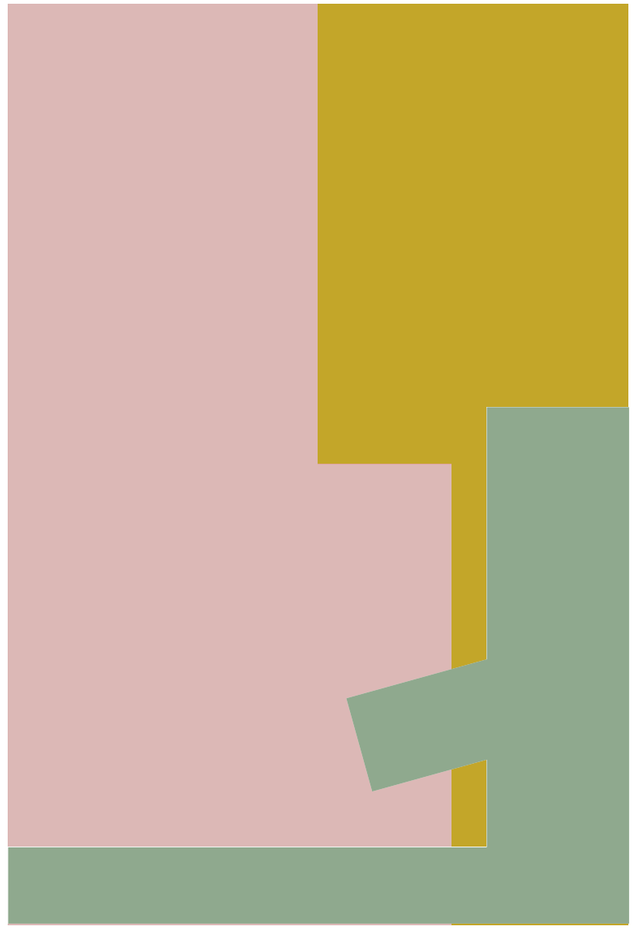
KEY CONCEPTS



COLLABORATION



CONFRONTATION



NEGOTIATION

Collaboration requires of us to take a position that has consequences. A position may contrast or align with that of others – it leads to confrontation. It is this moment of confrontation that must again and again be negotiated. Thus the concepts collaboration, confrontation and negotiation cannot be neatly separated or pinned down – they inform and catalyse one another in a reciprocal manner.

Collaboration-Confrontation-Negotiation

A SCALED RESPONSE

TERRITORY

COMMUNITY

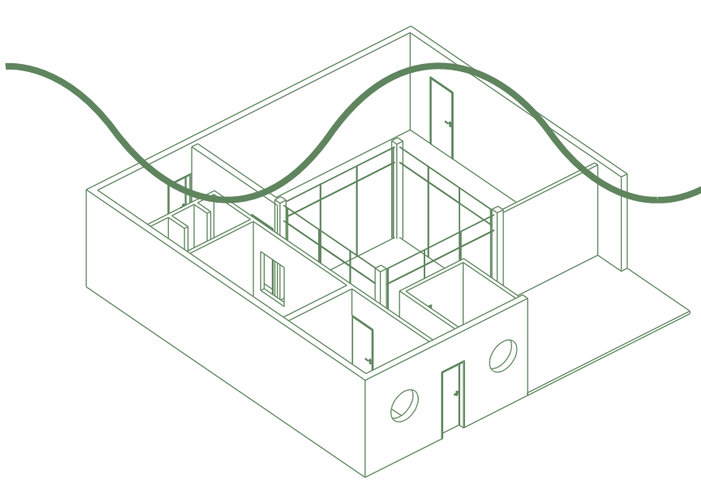
FAMILY

‘the architect as single author’

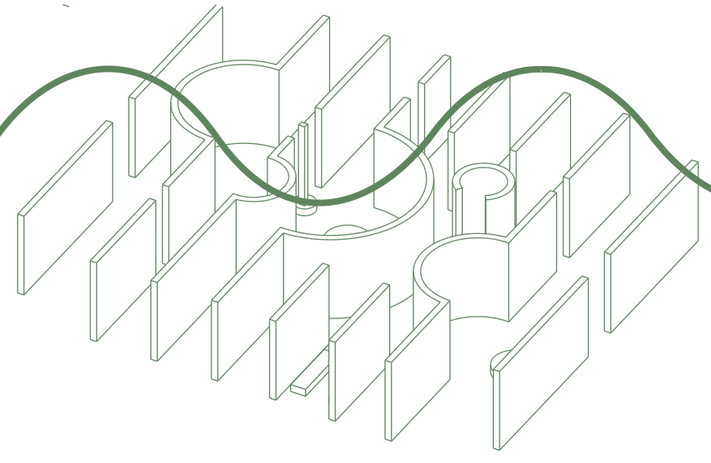
VS

DECENTERED METHODOLOGY

Collaborator,explorer - questions and solutions



-another architectural concept
James Stirling’s proposal for the experimental housing project PREVI (1968)



-another architecture
Aldo Van Eyck’s Sonsbeek Pavilion (1966)

-another architect
work of colleague Floortje van Sandick

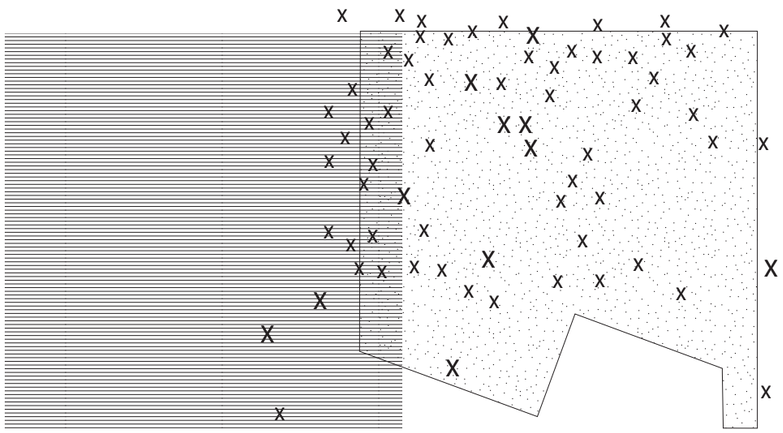
TERRITORIAL RESPONSE

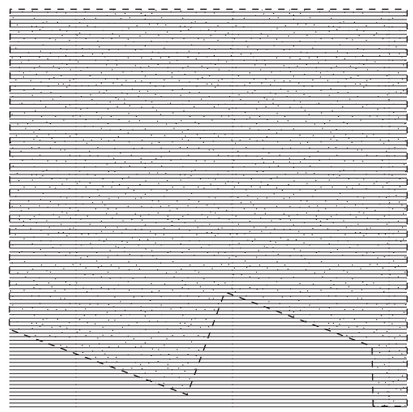
Identification of existing practices of occupation

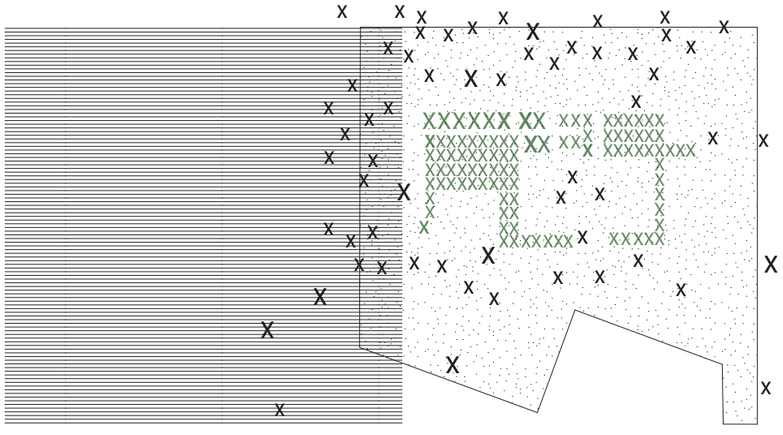
Taking care of what’s there - implantation of footholds

The Nomos redrawn

OVERVIEW

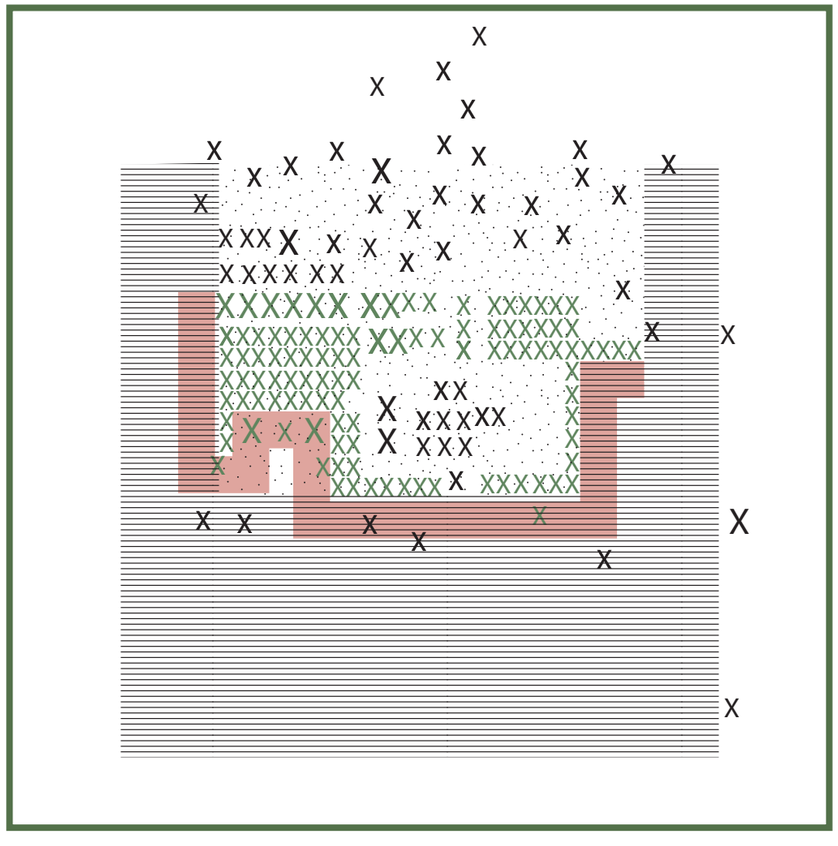






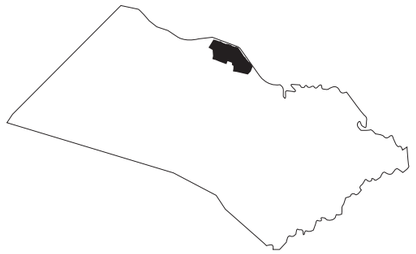
IMPLANTATION

-The implantation of ‘footholds’ for collective occupation articulates and grounds the confrontation (and negotiation) between the village of Mlingotini and the proposed Special Economic Zone (SEZ).



TERRITORY

Notional boundary of Mlingotini village, Bagamoyo Tanzania



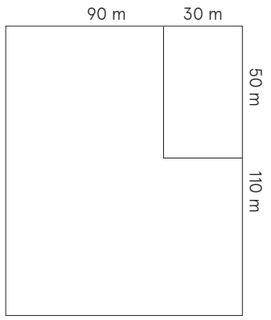
MLINGOTINI

50m

0 200m

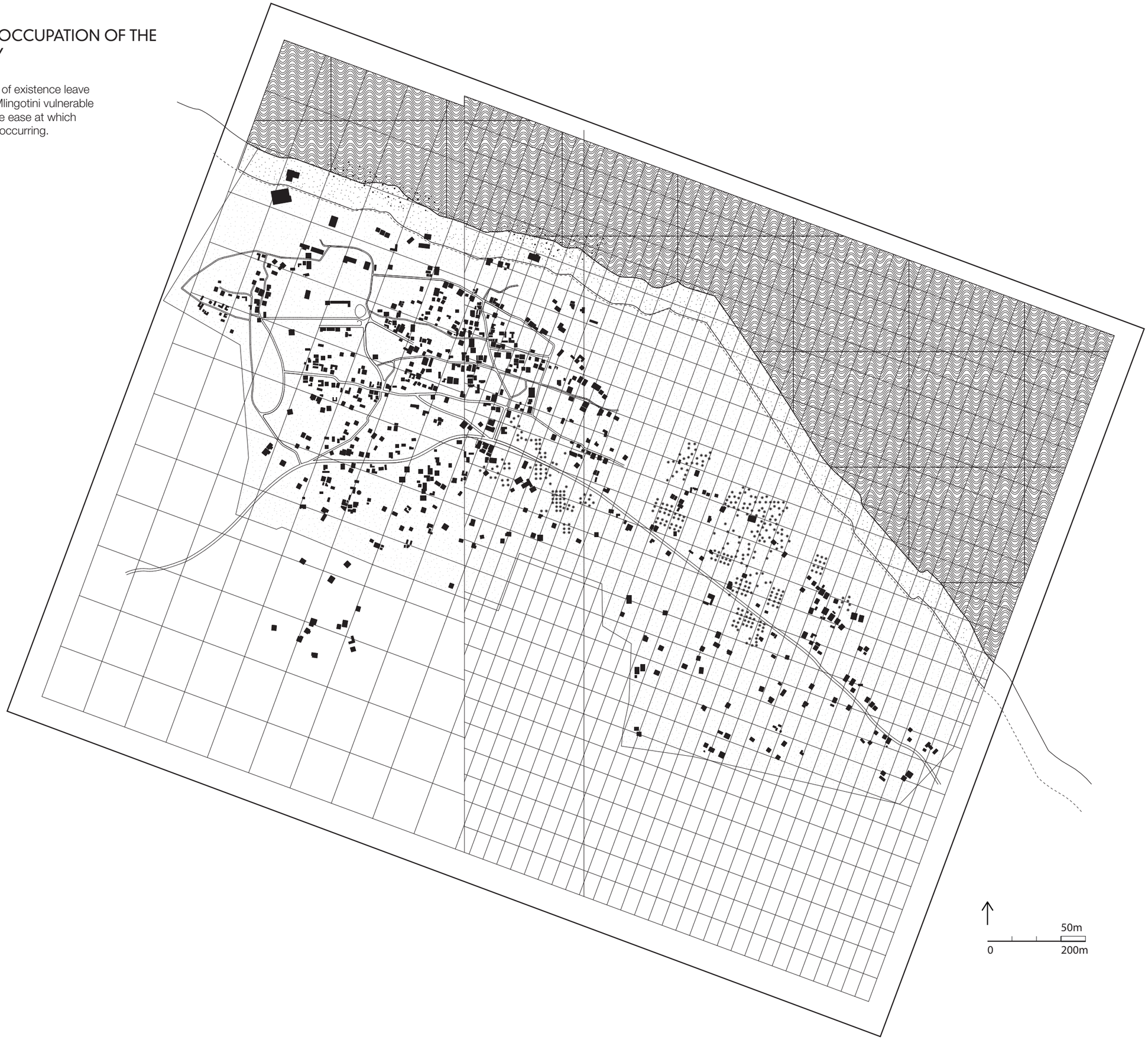
PROPOSED SEZ GRID

According to the COWI 2013 Master Plan the Port will be structured into 10 000 m^2 plots (110 m x 90 m) and the Low-Density residential zone into 1600 m^2 plots (50 m x 32 m).



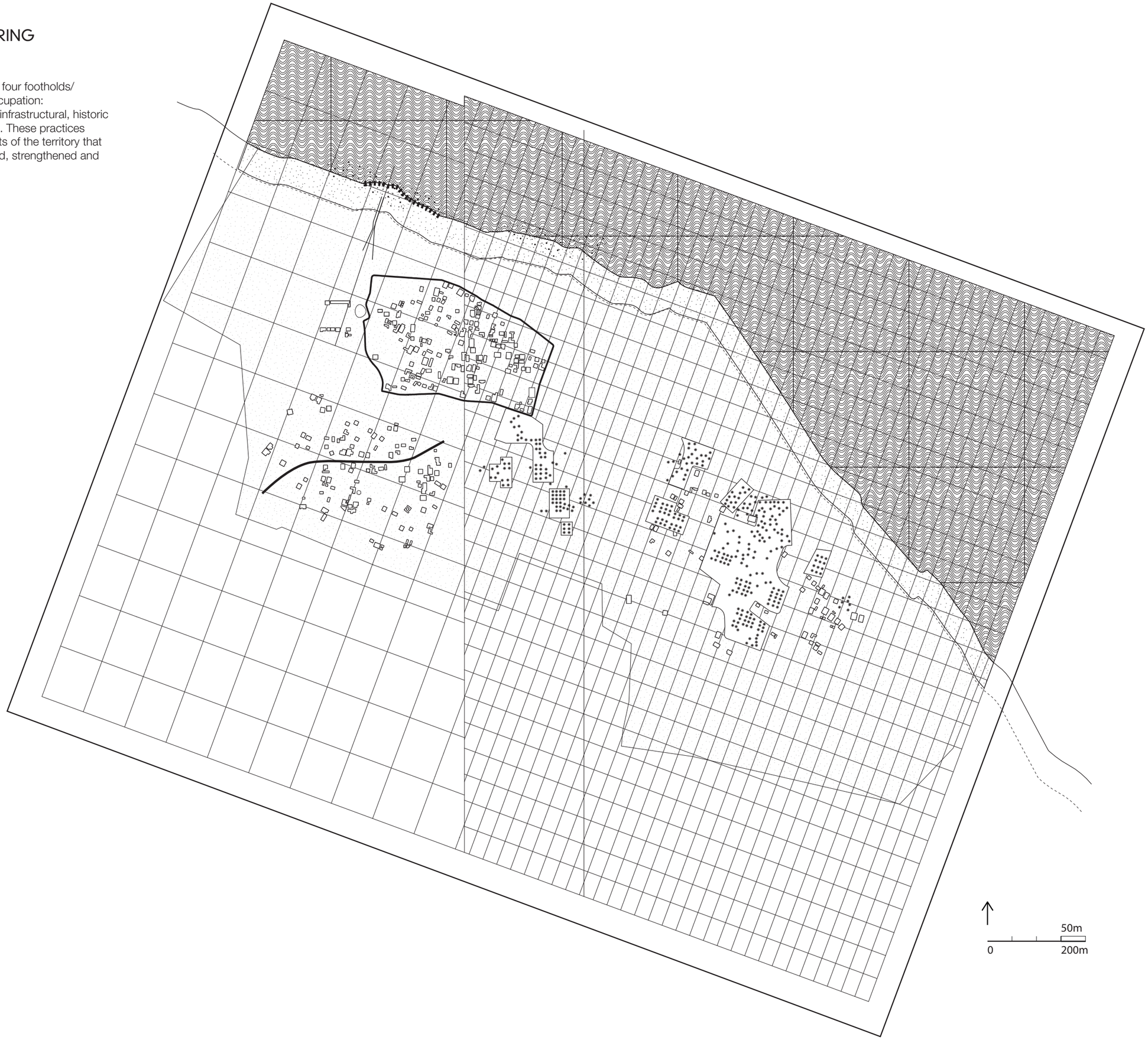
CURRENT OCCUPATION OF THE TERRITORY

Current modes of existence leave inhabitants of Mlingotini vulnerable as evident in the ease at which resettlement is occurring.

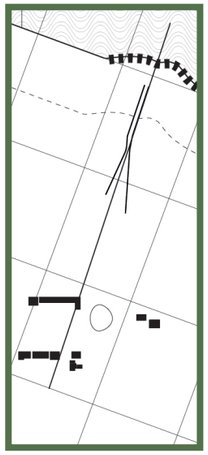


ENGENDERING LEGIBILITY

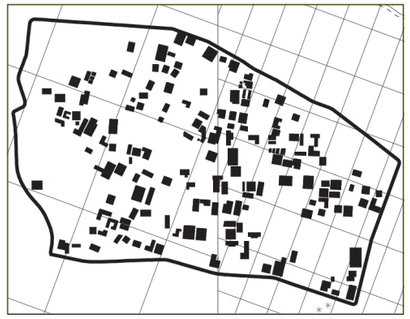
Identification of four footholds/ practices of occupation: programmatic, infrastructural, historic and agricultural. These practices highlight aspects of the territory that should be reified, strengthened and taken care of.



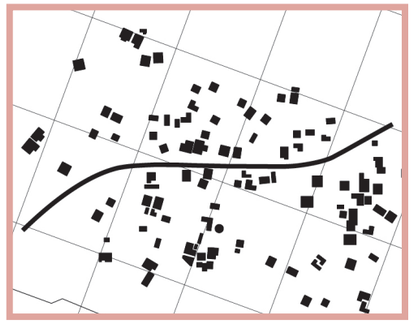
PRACTICES OF OCCUPATION



PROGRAMMATIC OCCUPATION



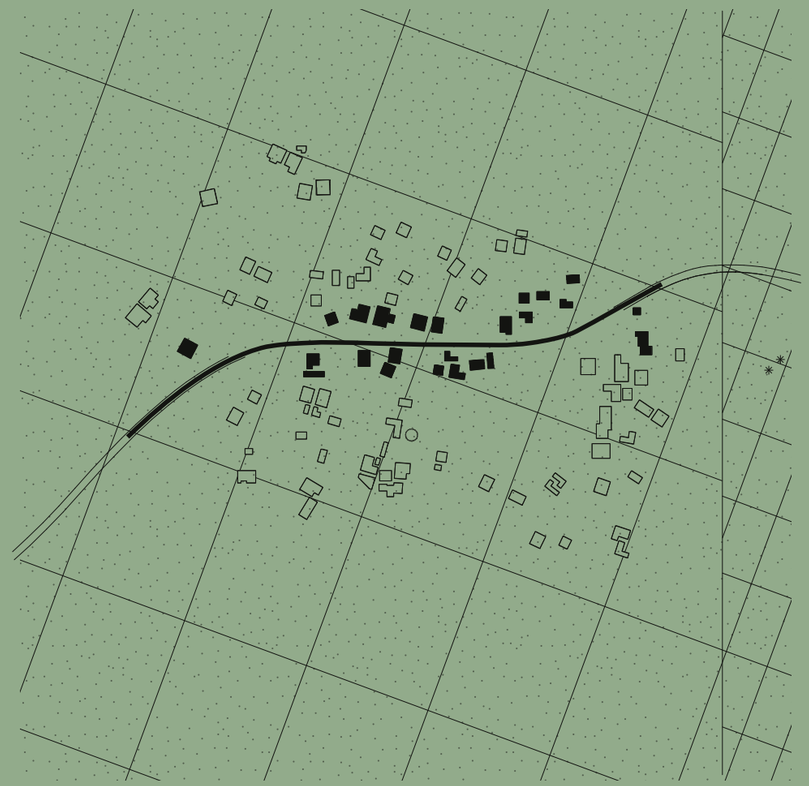
HISTORIC OCCUPATION



INFRASTRUCTURAL OCCUPATION

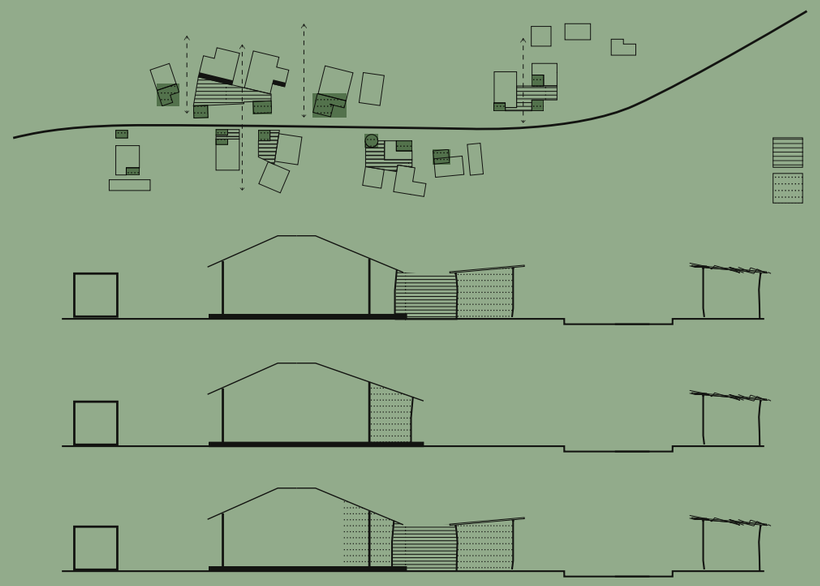
AGRICULTURAL OCCUPATION

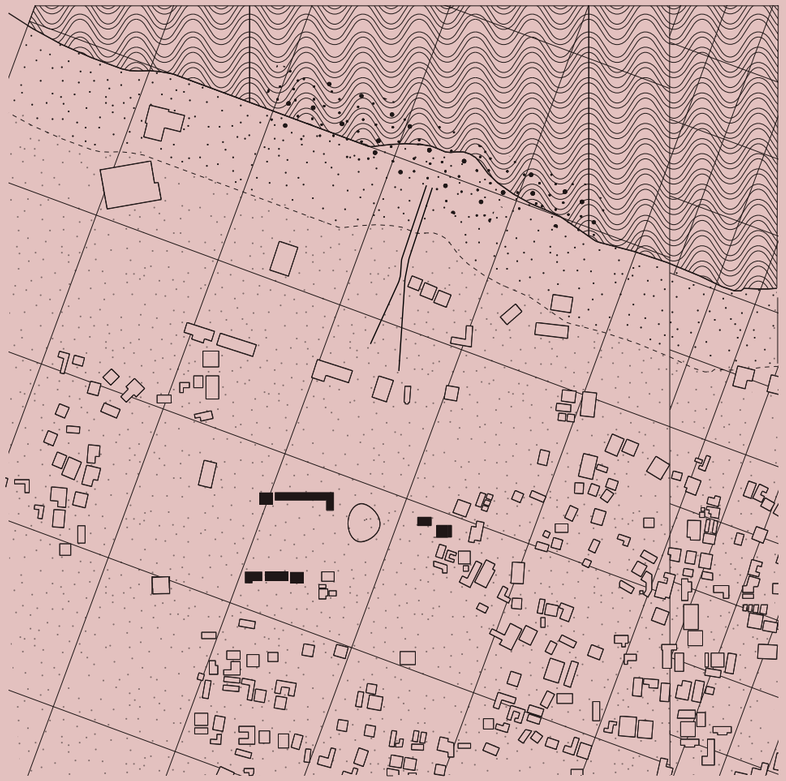
INFRASTRUCTURAL OCCUPATION



INFRASTRUCTURAL OCCUPATION

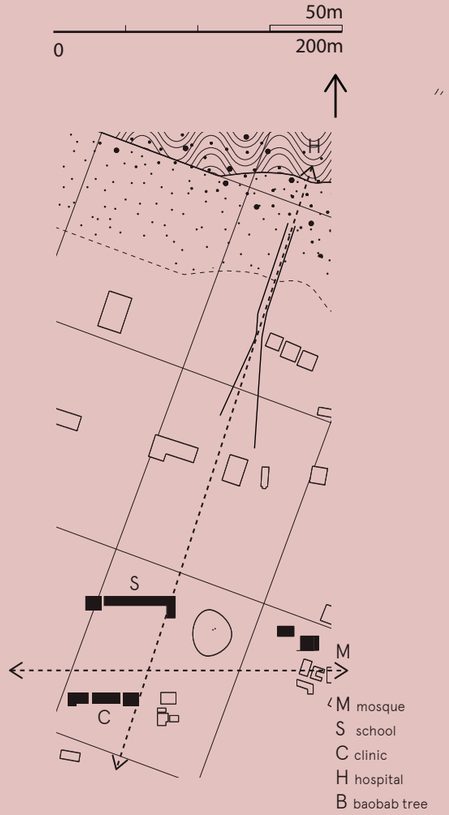
The trunk road that runs from Dar es Salaam to Bagamoyo is populated with small spaza shops, restaurants and vendors selling building materials etc. Almost every shop/stall is matched by a home just behind -in many instances dwelling and shop are one.

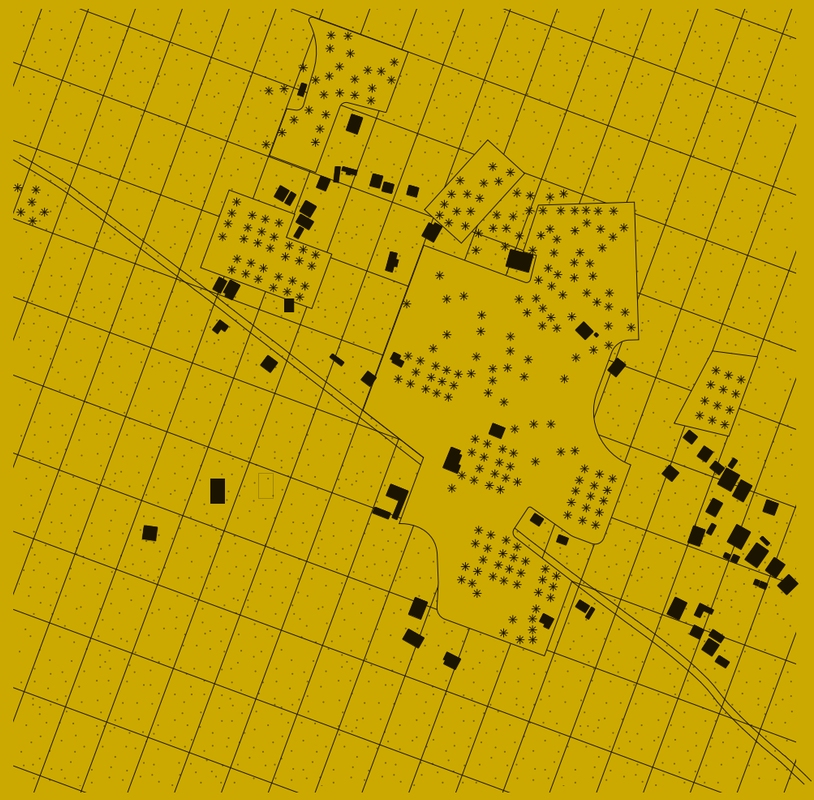




PROGRAMMATIC OCCUPATION

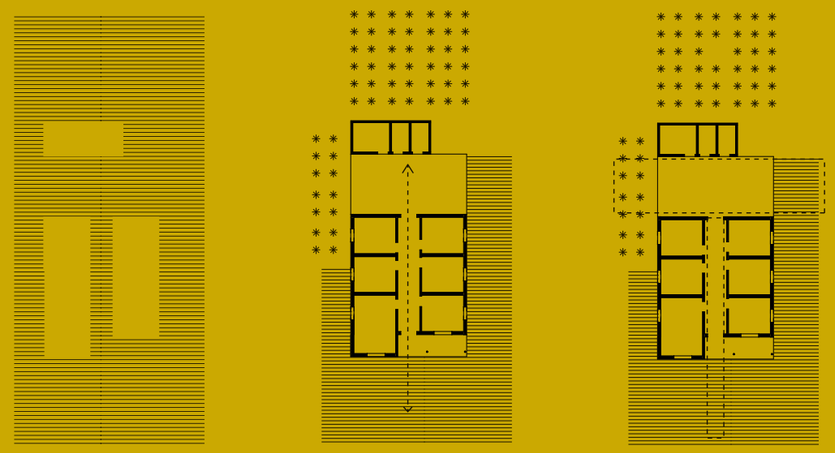
An occupation in response to programmatic drivers. An axis running north to south which links the small harbour to the boabab tree and an east-west axis which intersects the school, clinic and mosque.





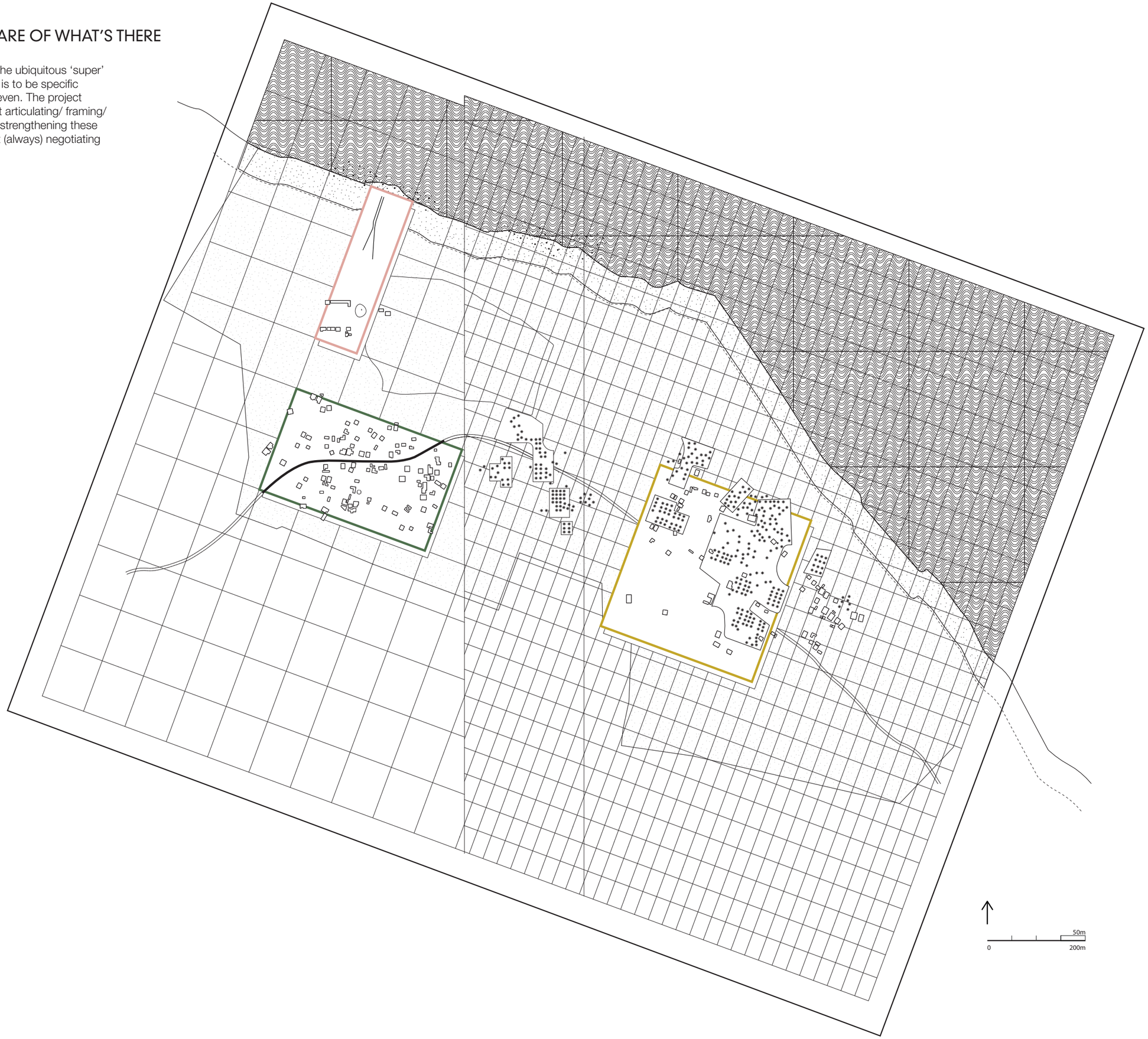
AGRICULTURAL OCCUPATION

Whilst many of Mlingotini's inhabitants practice subsistence farming or animal husbandry, the area to the south eastern section of the territory is marked by isolated dwellings framed by framland.

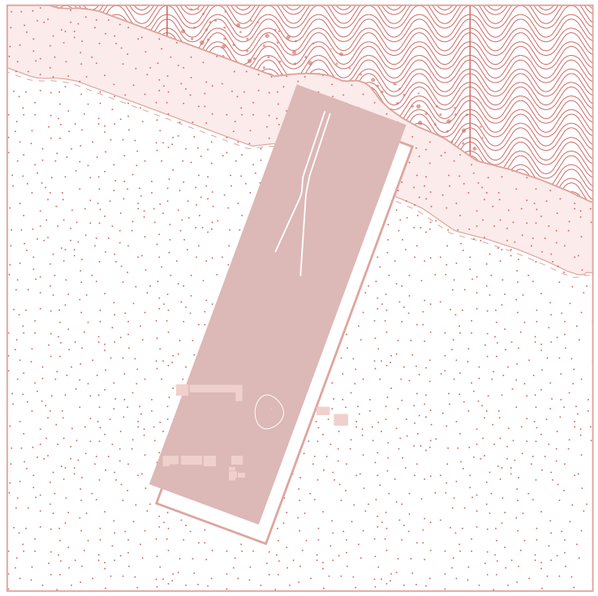


TAKING CARE OF WHAT'S THERE

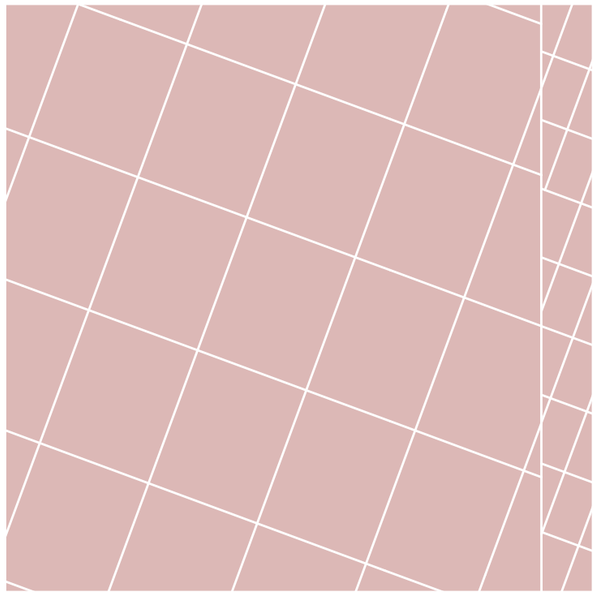
A response to the ubiquitous 'super' grid of the SEZ is to be specific - idiosyncratic even. The project becomes about articulating/ framing/ re-framing and strengthening these practices whilst (always) negotiating with the SEZ.



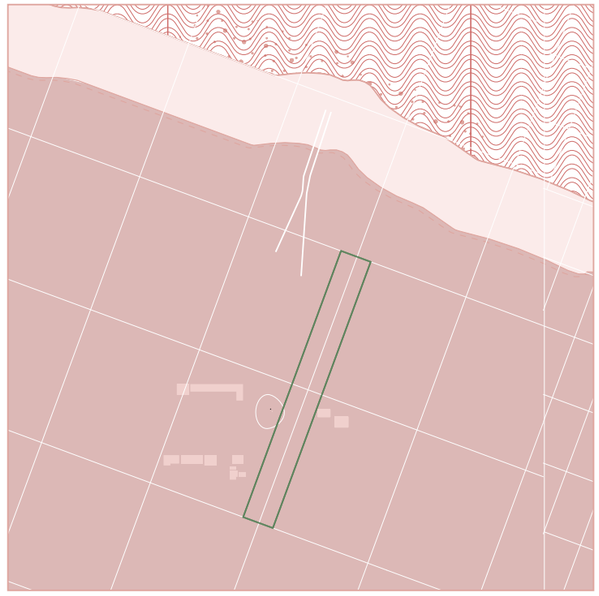
STRENGTHENING PROGRAMMATIC OCCUPATION



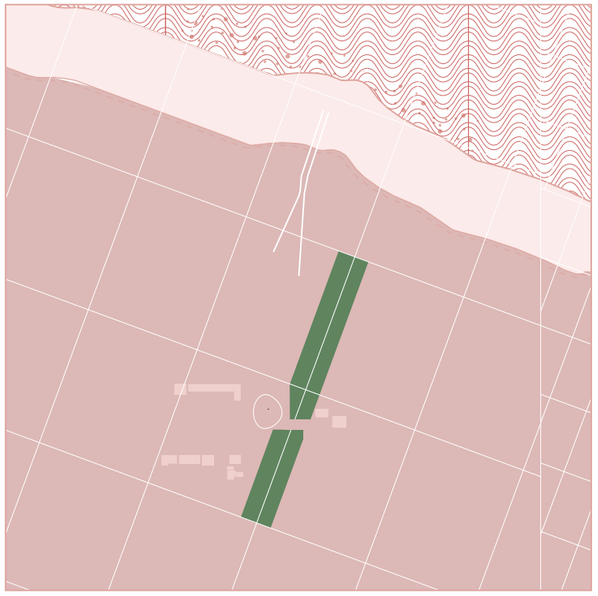
PROGRAMMATIC OCCUPATION



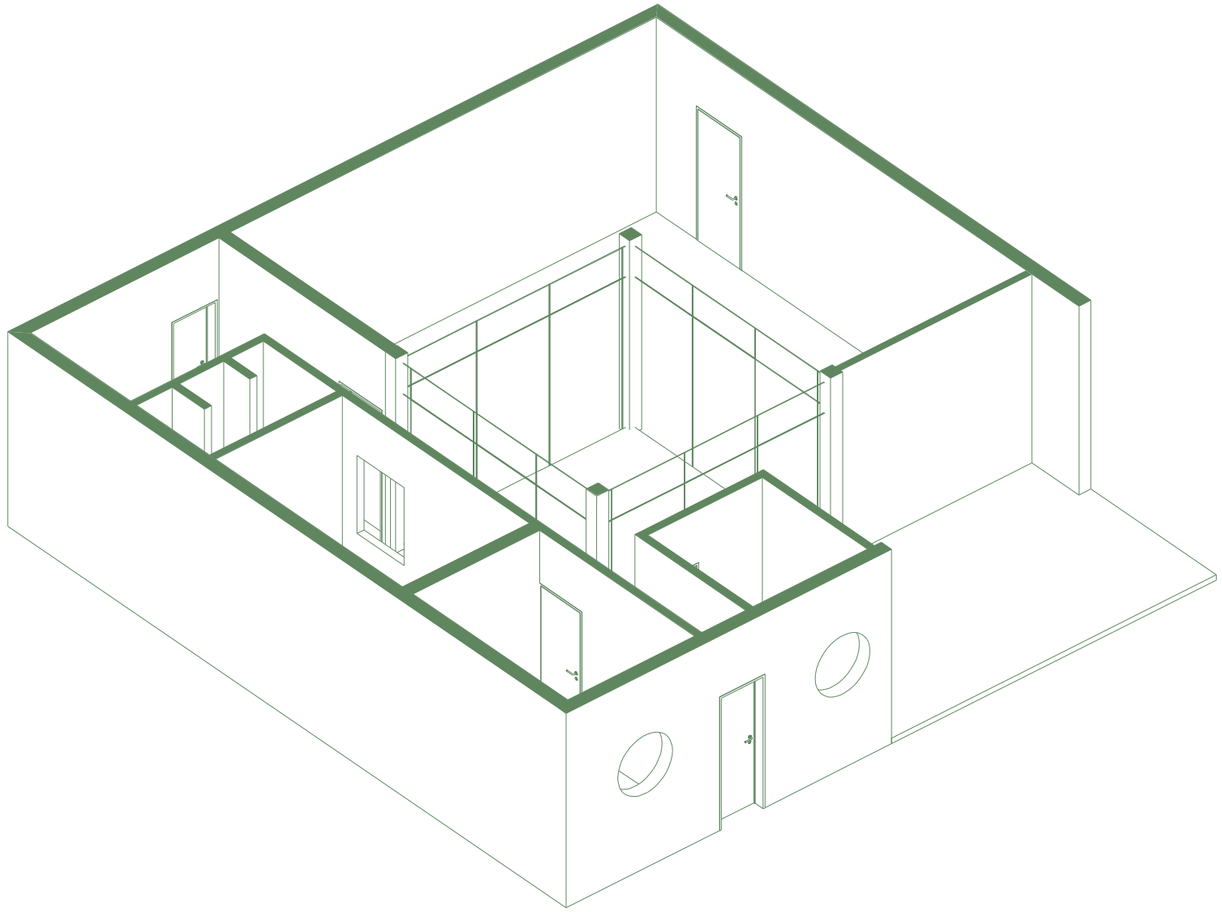
CORRESPONDING GRID



OCCUPYING THE GRID



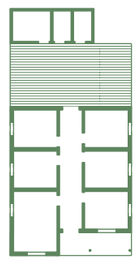
RESPONDING TO MLINGOTINI



ANOTHER ARCHITECTURAL CONCEPT

JAMES STRILING'S PROPOSAL FOR PREVI LIMA -1978

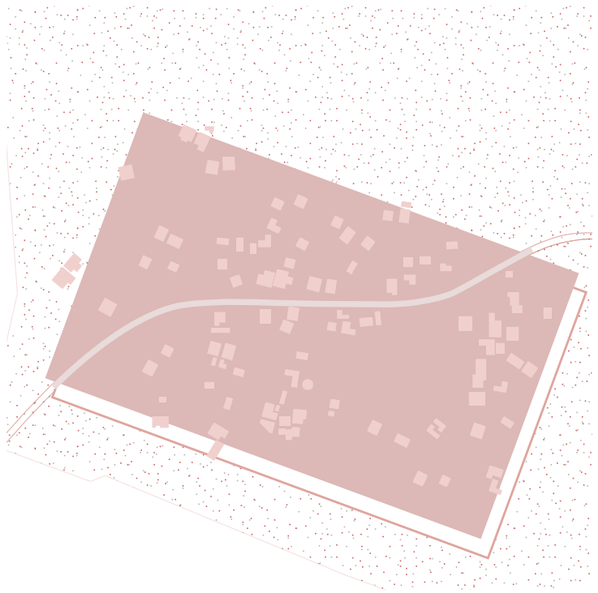
Jame's Stirling's proposal for Previ Lima completed in 1978 is considered an exercise in the courtyard or patio. The proposal which saw four dwelling units grouped around service patios which in turn formed a larger cluster structured around an entrance patio revealed the organisational power of the courtyard on both the scale of the dwelling and that of the community. The programmatic foothold is conceived of as series of such clusters orientated around larger collective courtyards relating to the axial distribution of programmes observed.



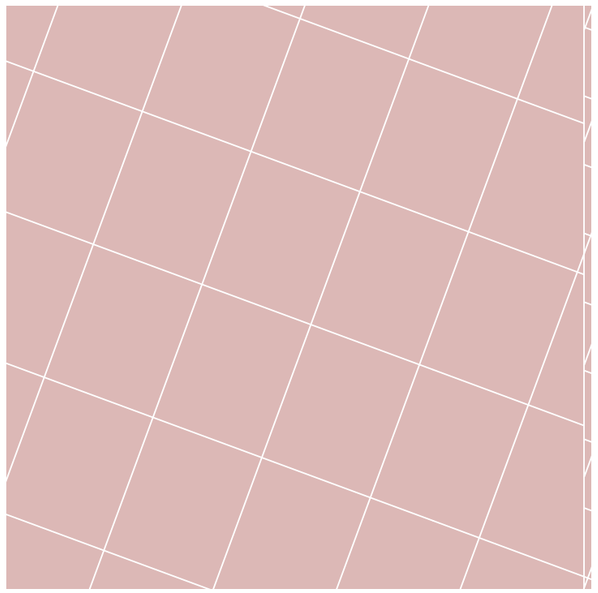
Programmatic Foothold

0 50m

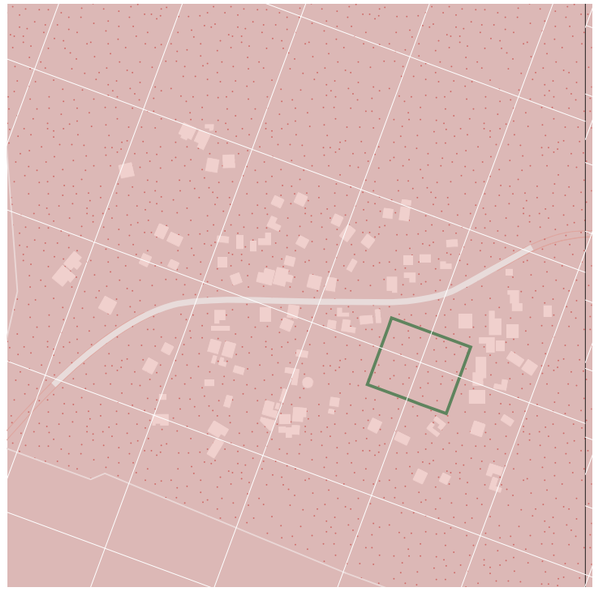
STRENGTHENING INFRASTRUCTURAL OCCUPATION



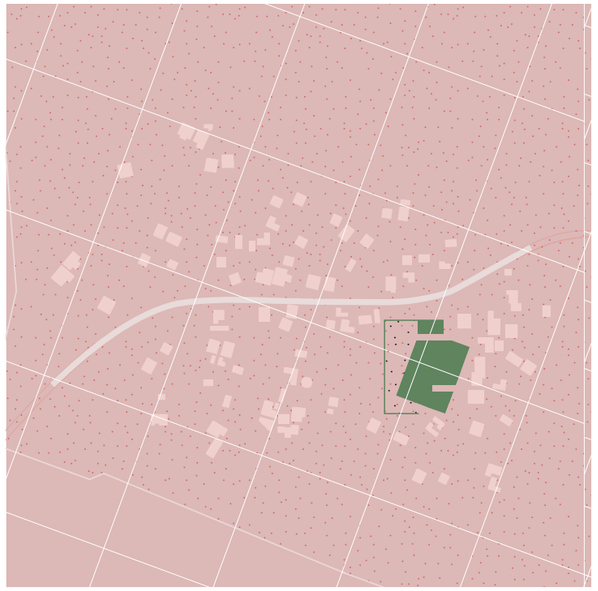
INFRASTRUCTURAL OCCUPATION



CORRESPONDING GRID



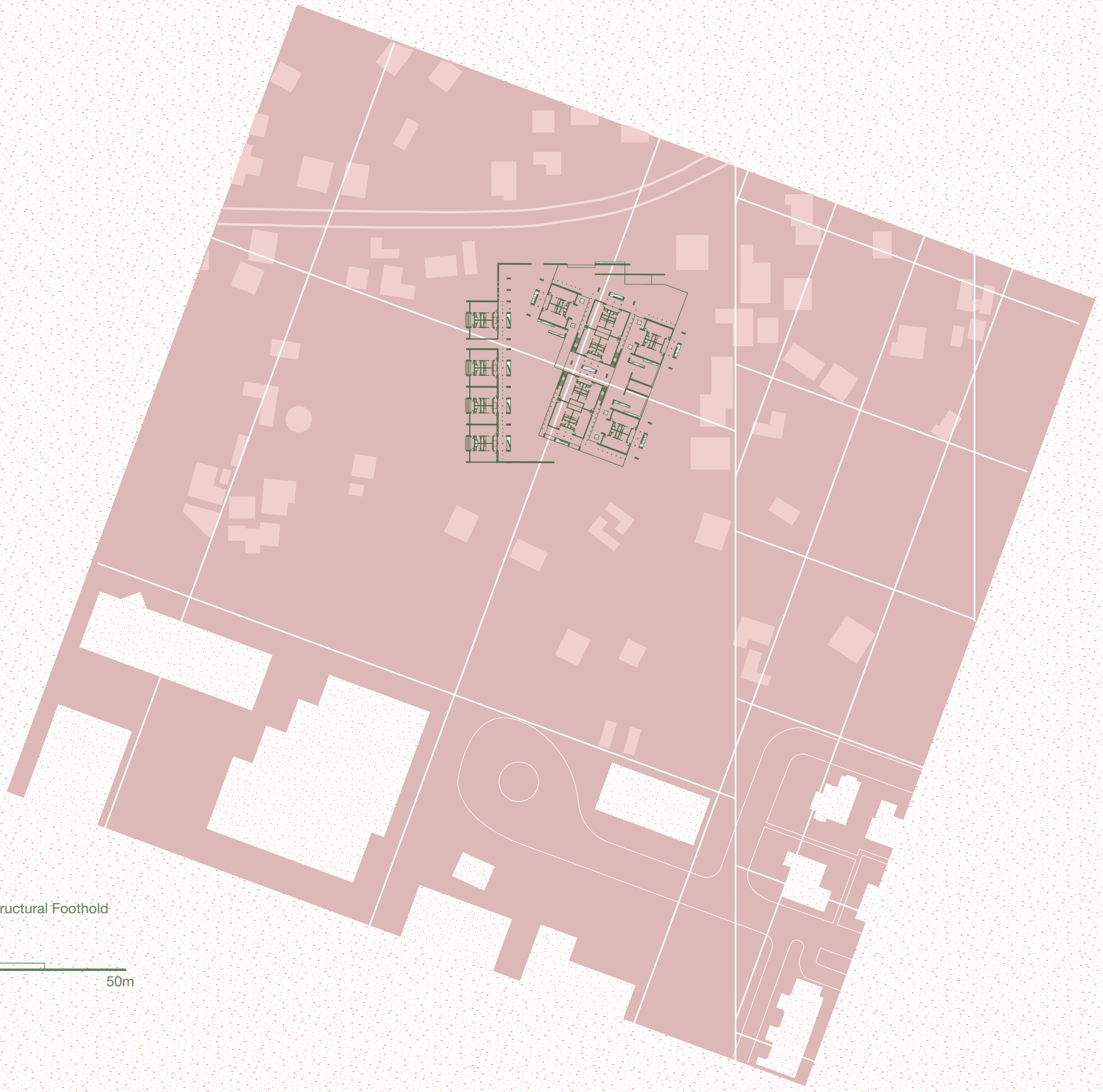
OCCUPYING THE GRID



RESPONDING TO MLINGOTINI

Infrastructural Foothold

0 50m

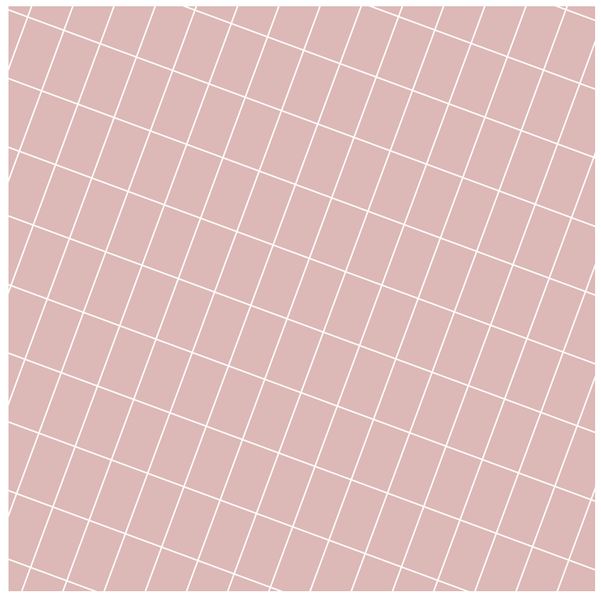


Infrastructural Foothold

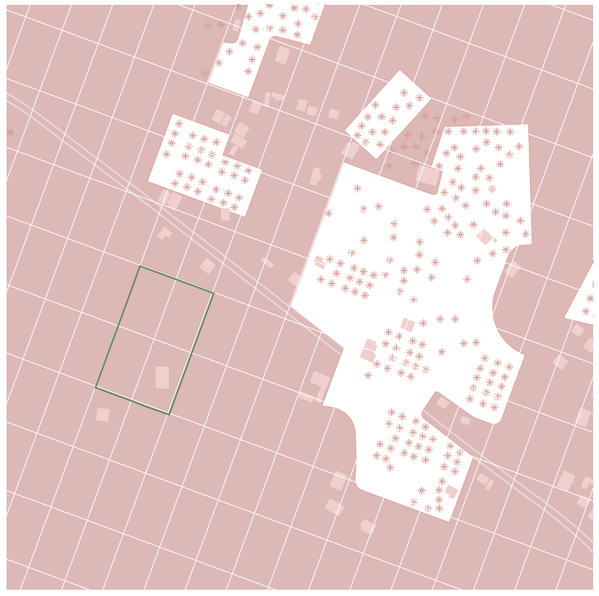
0 50m

STRENGTHENING AGRICULTURAL OCCUPATION

AGRICULTURAL OCCUPATION



CORRESPONDING GRID



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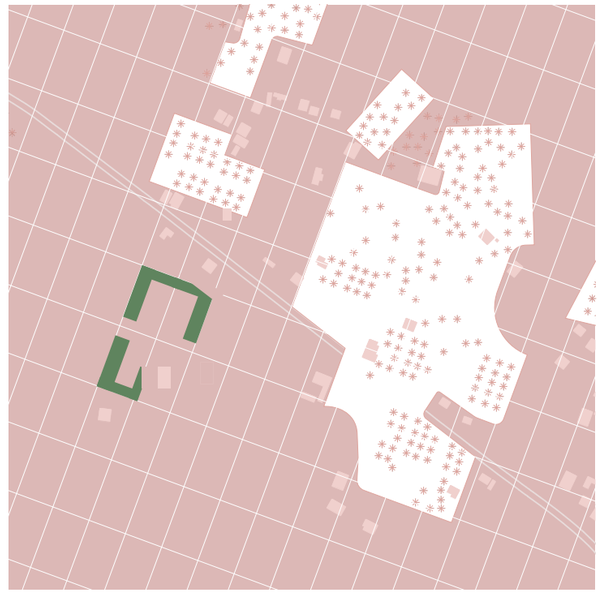
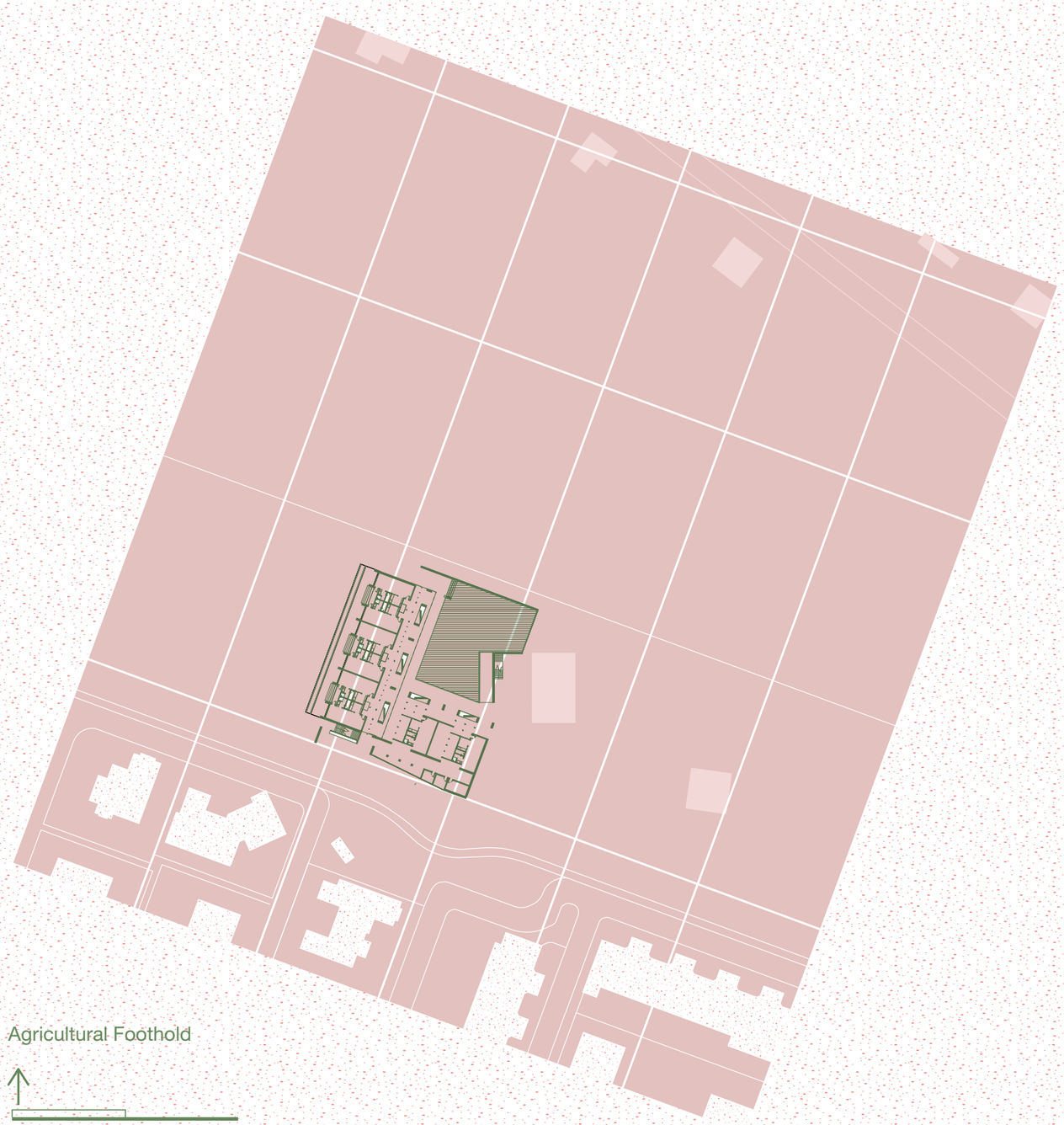


RESPONDING TO MLINGOTINI



Agricultural Foothold

0 50m

Agricultural Foothold

0 50m

Agricultural Foothold

0 50m

THE NOMOS REDRAWN

PROGRAMMATIC FOOTHOLD

INFRASTRUCTURAL FOOTHOLD

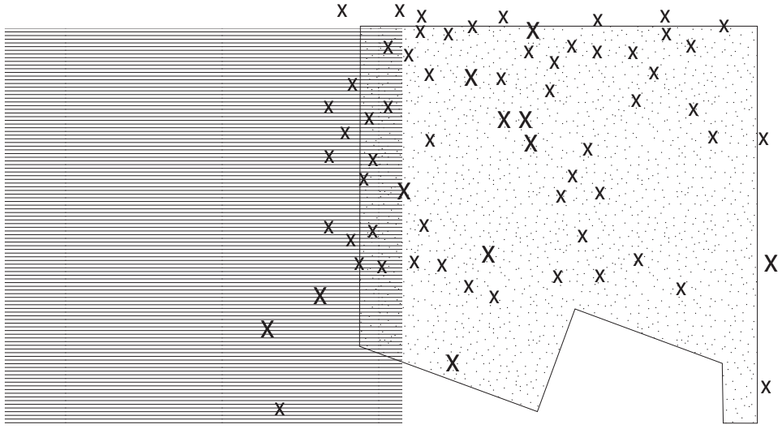
AGRICULTURAL FOOTHOLD

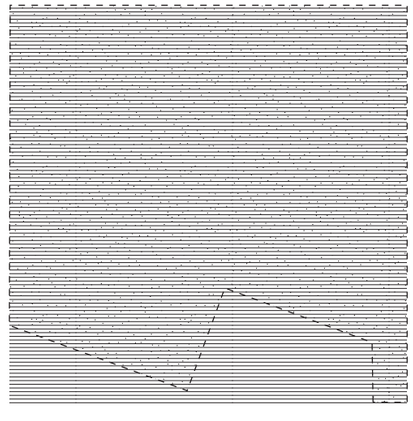
FOOTHOLDS

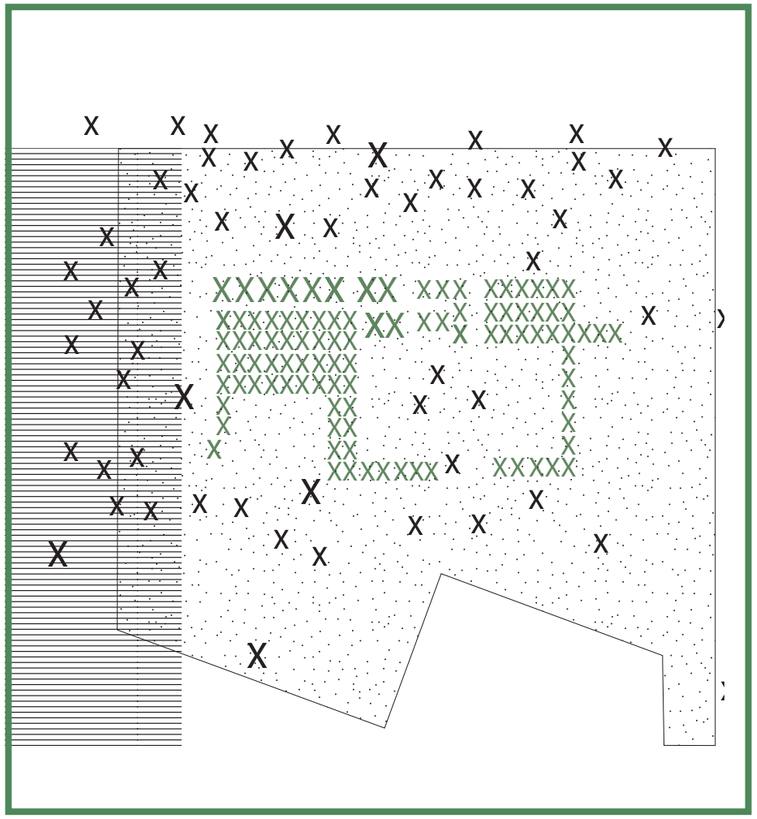
Foothold configuration: towards collective practices of occupation

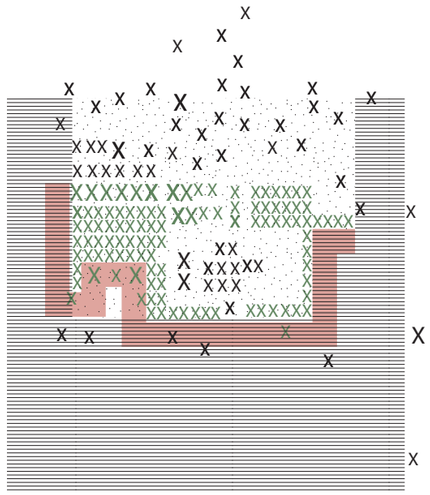
Exercises in control and collaboration

OVERVIEW



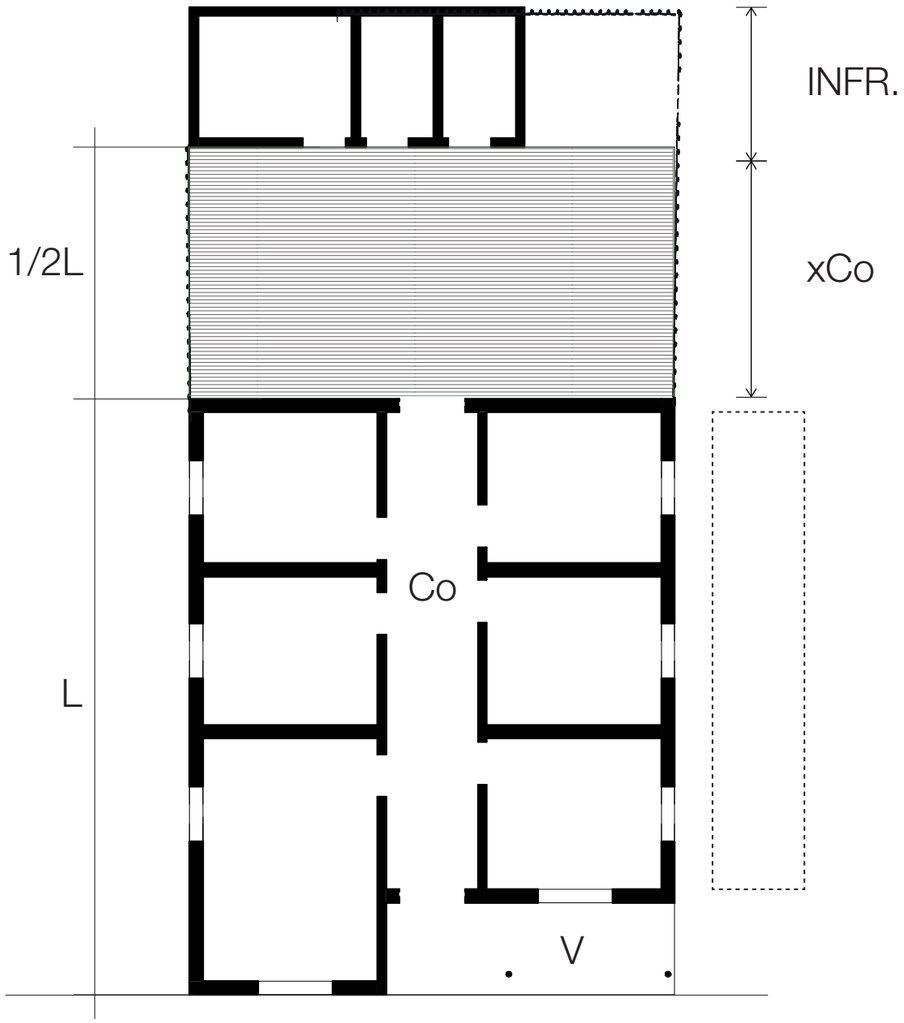


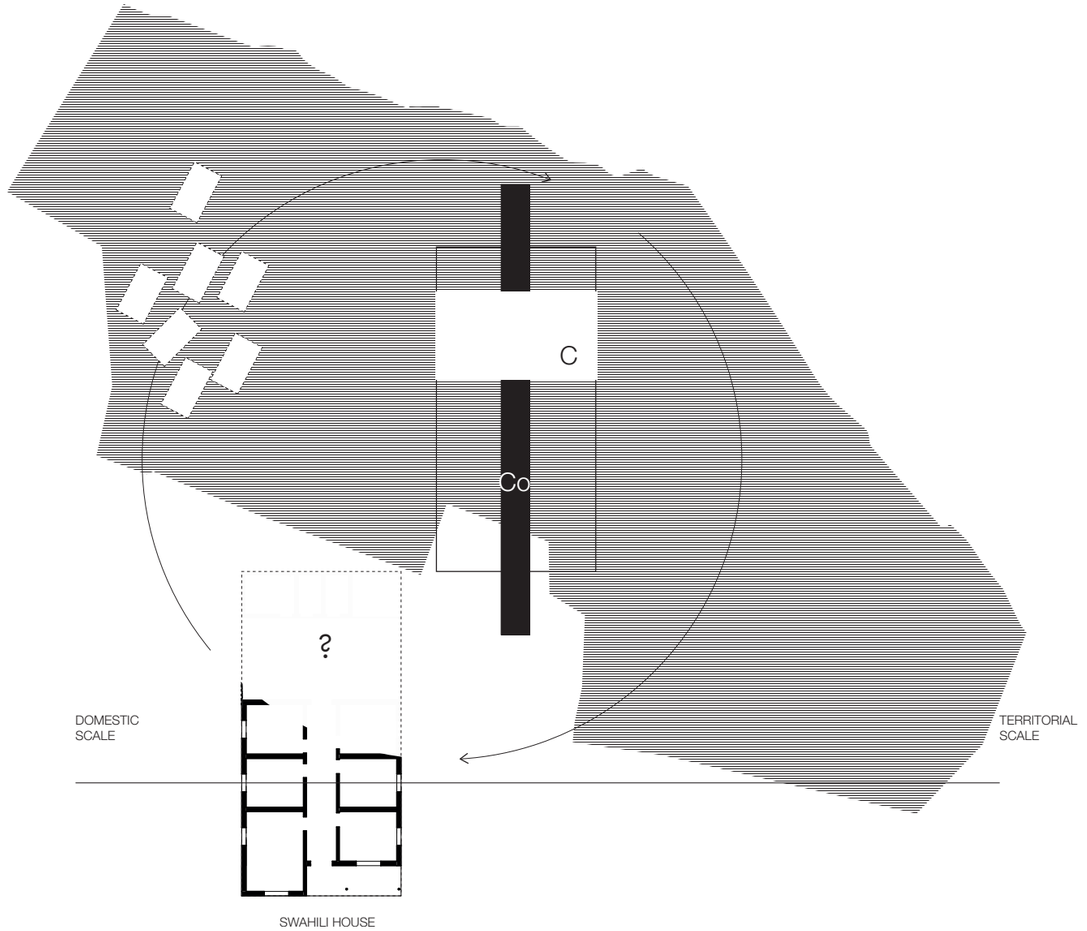




CONFIGURATION

-The configuration of each foothold explores the potential of collective occupation. Each foothold observes the confrontation (and negotiation) of an atomised Swahili existence with that of communal practices and spaces.





CONCLUSIONS FROM TYPOLOGICAL ANALYSIS

1. The corridor (Co) structures the relationship between interior and exterior. Swahili life has made of it a space/room.

2. The courtyard (C) exists as an interiorisation of the territory - it is demarcated and defined by the home

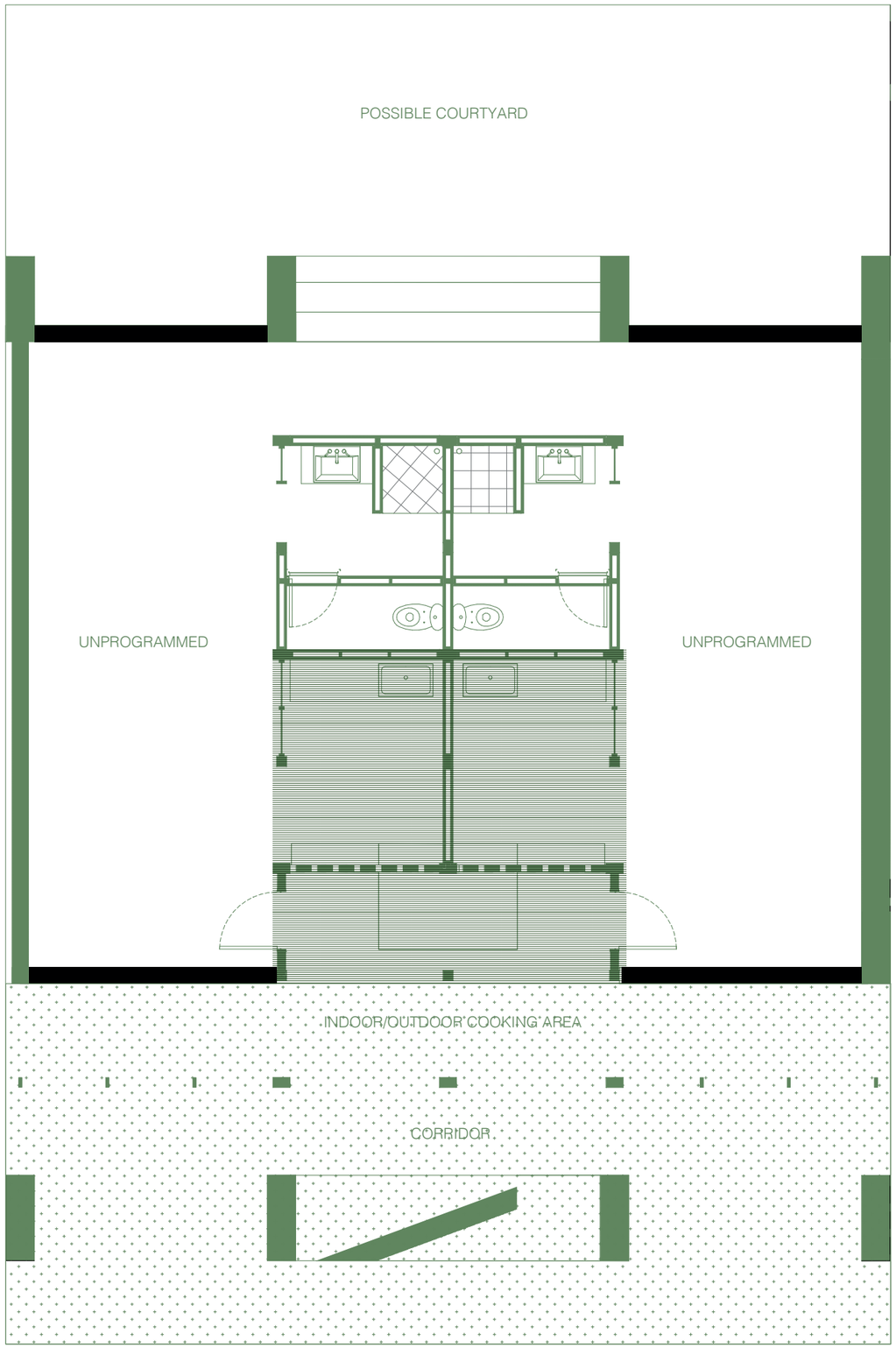
TYPOLOGICAL TRANSFORMATIONS

CORRIDOR
Exacted on the territorial scale.
Structures and catalyses relationship between collective and the territory.
A space for production, socialisation.

TYPOLOGICAL TRANSFORMATIONS

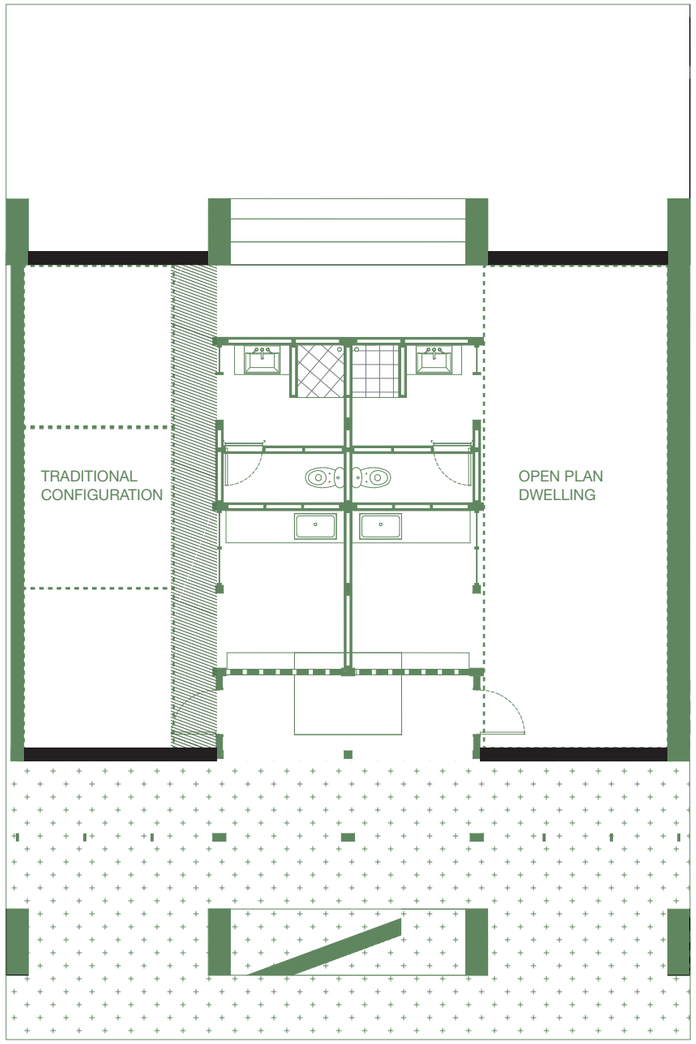
COURTYARD
Exacted on the territorial scale. An articulated space of occupation.

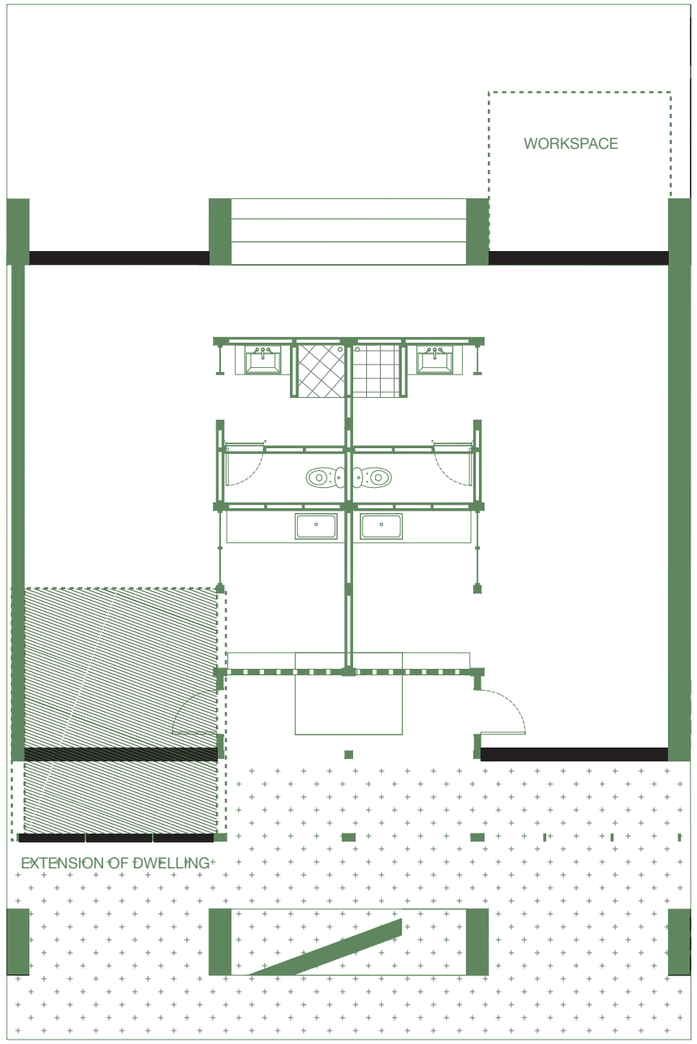
INTRODUCTION OF MLINGOTINI HOUSE TYPE

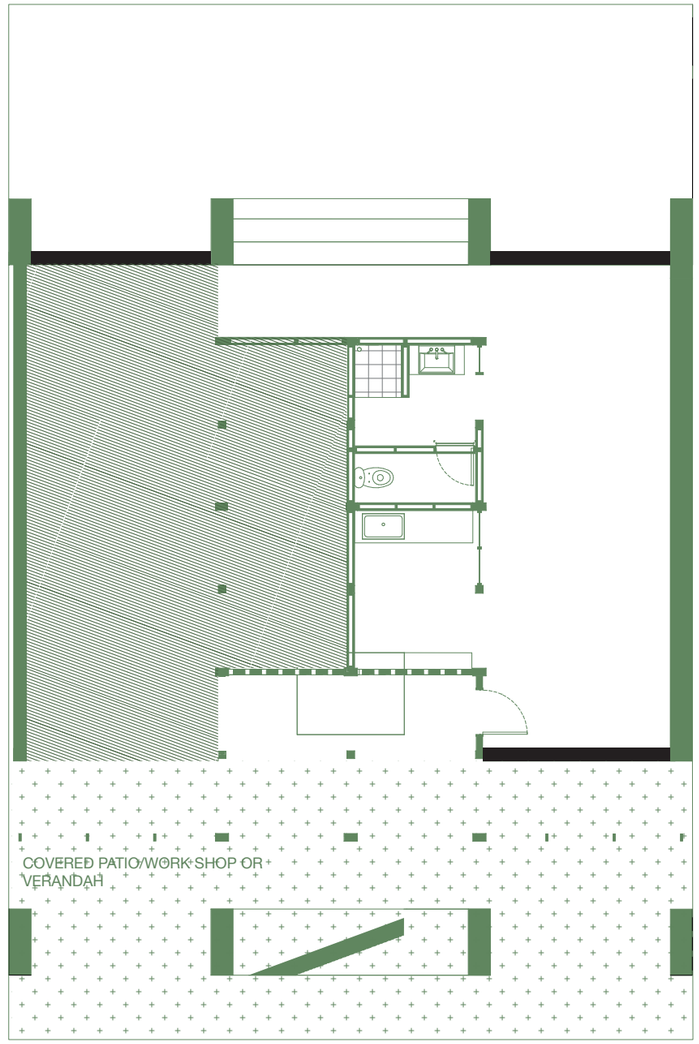


TWO MLINGOTINI HOUSES
NTS.

NEGOTIATIONS IN FAMILY,
COLLECTIVE







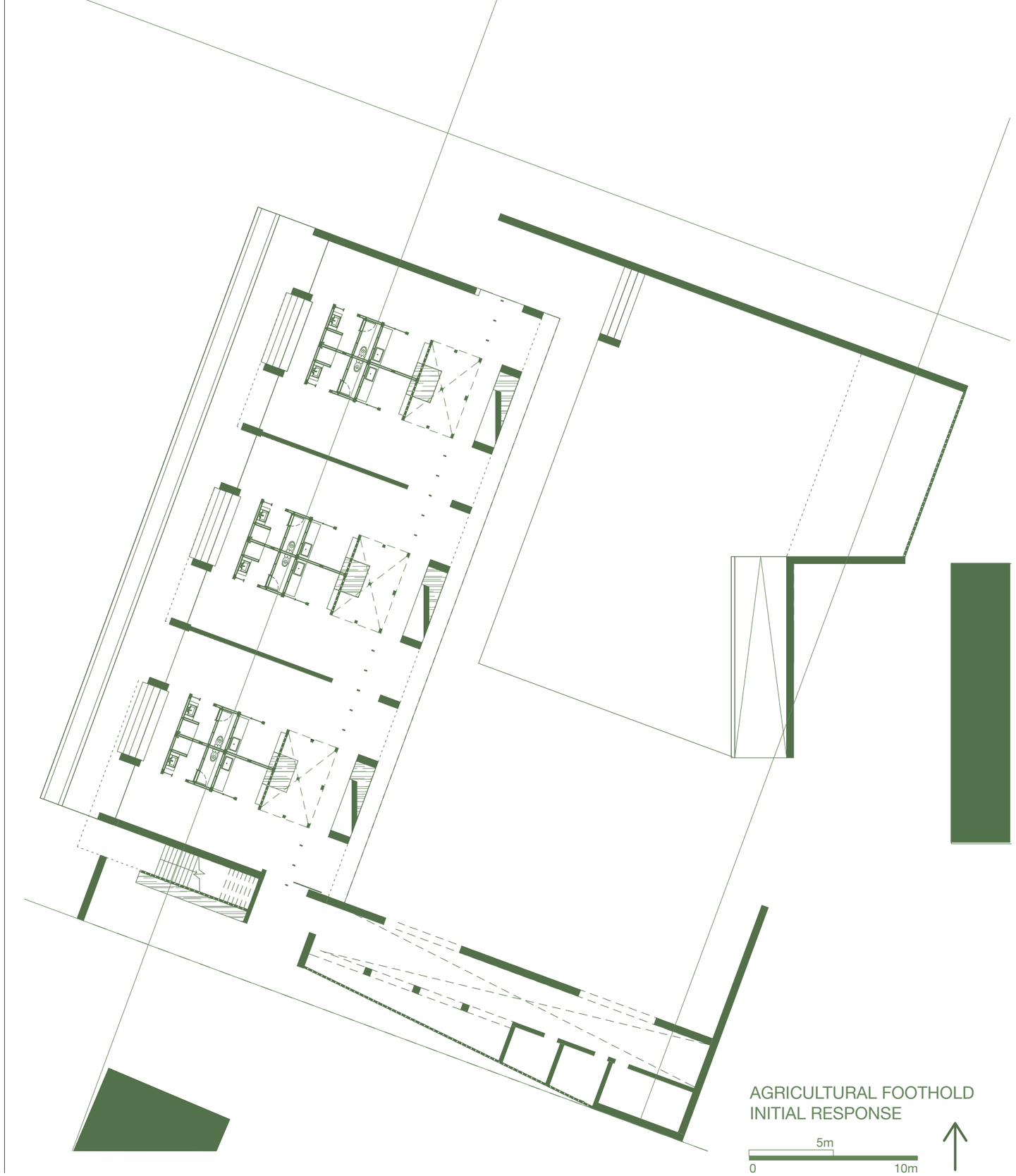
PROVISION OF A FLEXIBLE
FRAMEWORK

APPROPRIATION, ADAPTION

INITIAL RESPONSE

AGRICULTURAL FOOTHOLD

Explores the possibility of collective agricultural production


AGRICULTURAL FOOTHOLD
INITIAL RESPONSE
5m
0
10m


AGRICULTURAL FOOTHOLD
GROUND FLOOR
5m
0
10m


AGRICULTURAL FOOTHOLD
FIRST FLOOR
5m
0
10m

CORRIDORS, COURTYARDS
AND COLLABORATIONS

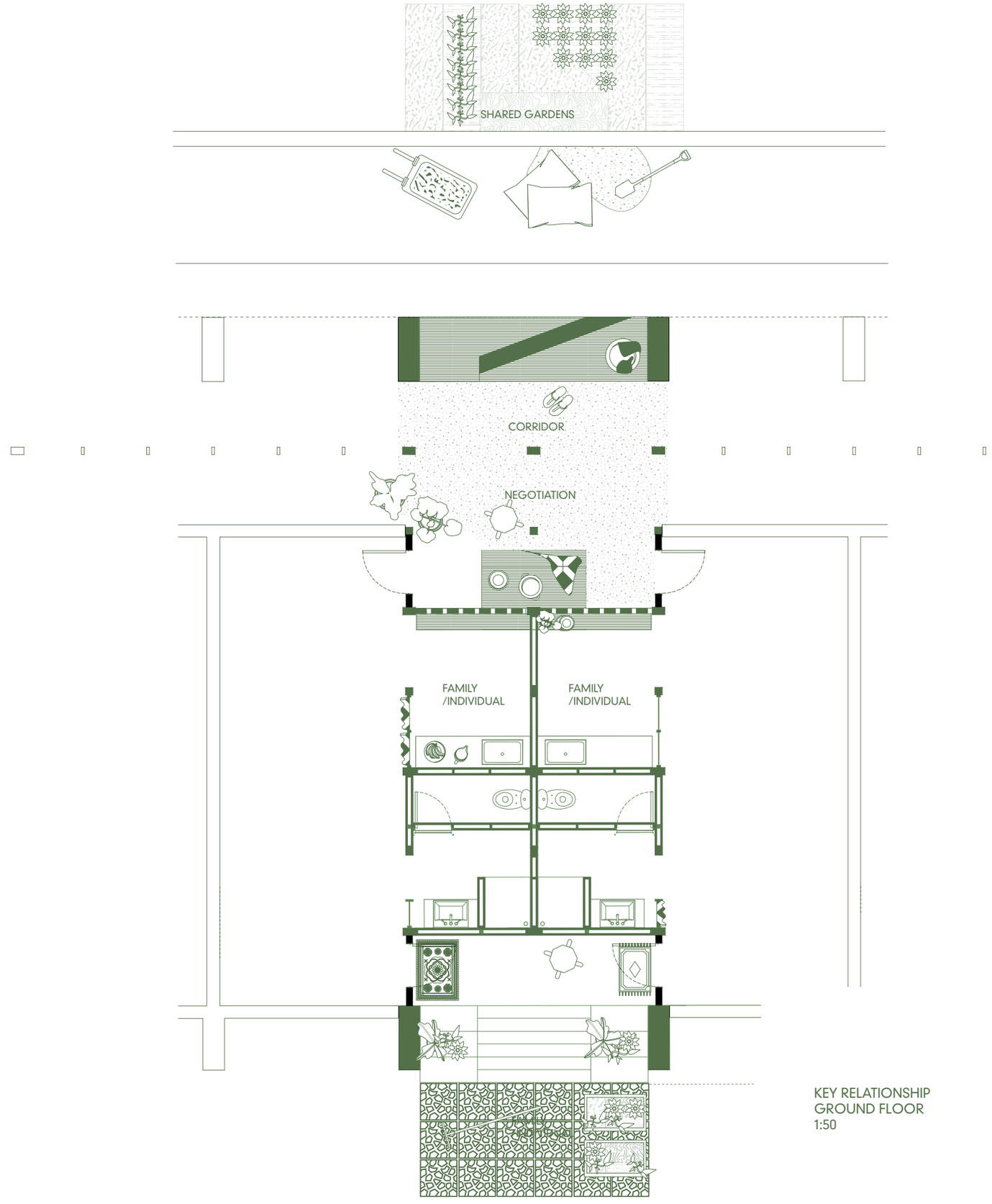
AGRICULTURAL FOOTHOLD
GROUND FLOOR

5m
0 10m

COLLABORATION

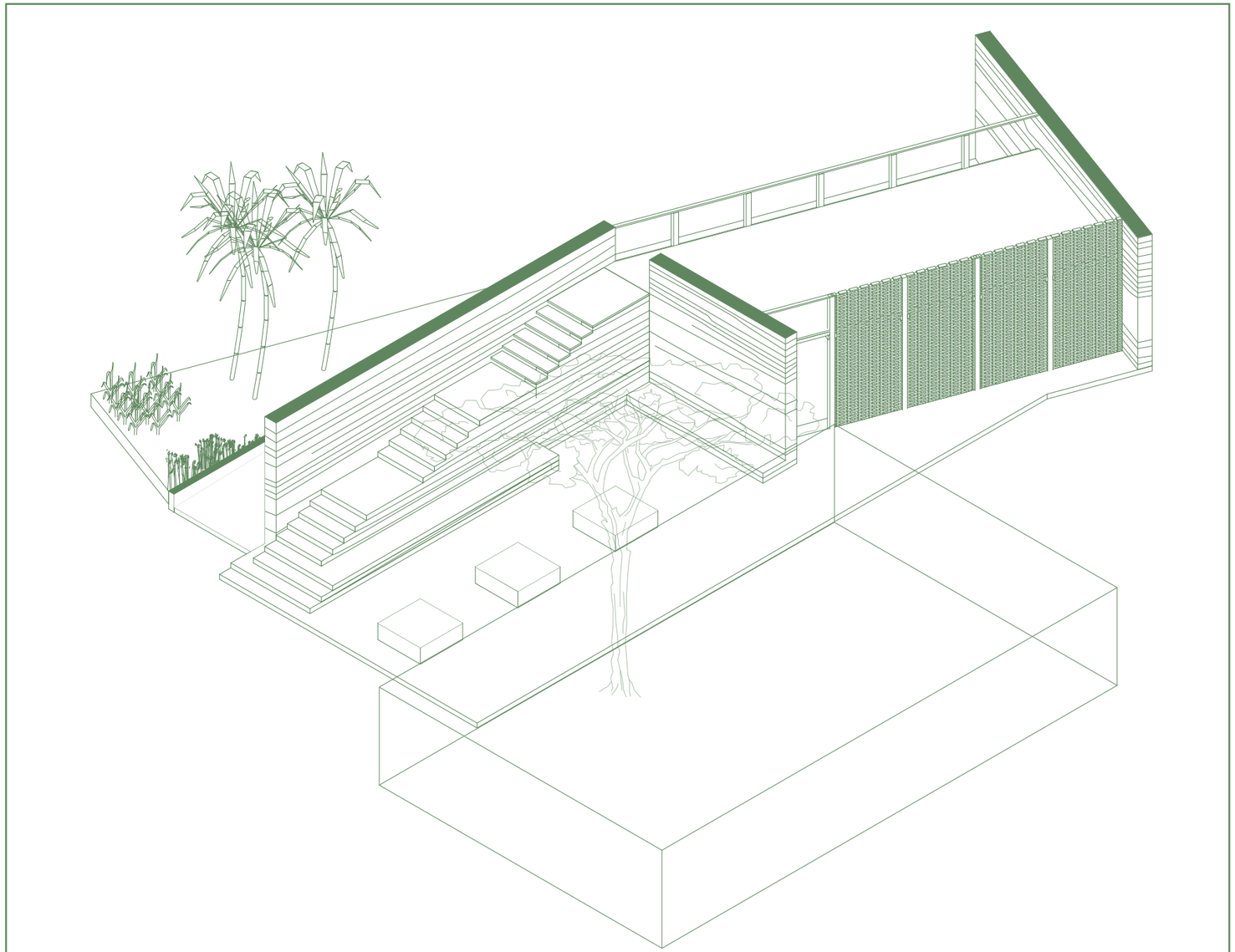
SIGNIFICANT RELATIONSHIP COURTYARD CORRIDOR

SIGNIFICANT RELATIONSHIP_
DWELLING TO SHARED AND
PRIVATE COURTYARD



KEY RELATIONSHIP
GROUND FLOOR
1:50

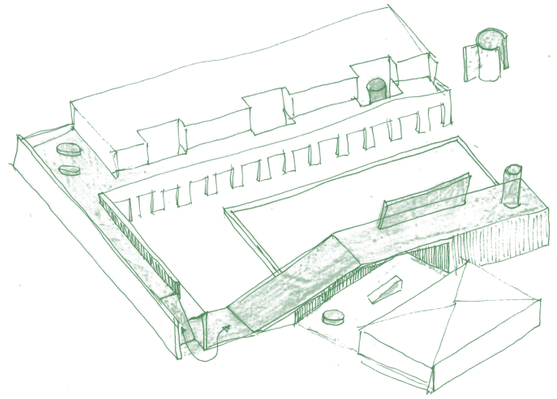
COLLABORATION

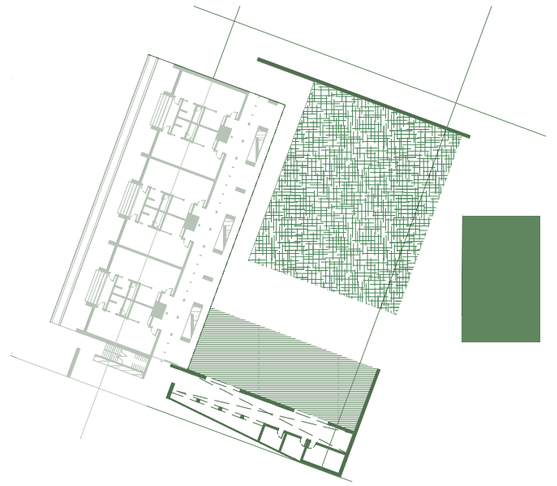


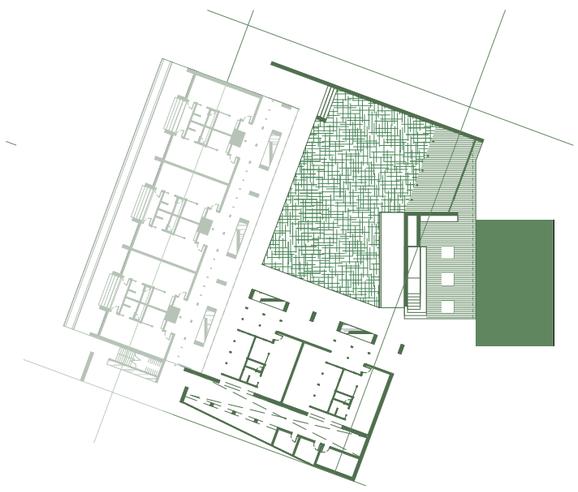
ANOTHER ARCHITECT

FLOORTJE VAN SANDICK - 2018

Floortje van Sandick, a fellow student was invited to collaborate on the development of the agricultural foothold. Floortje identified the opportunity to respond to an adjacent structure and the potential of this space in the formation of a market place. The identification of this potential opened up the possibility for additional Mlingotini houses and a more dynamic response to the existing context.

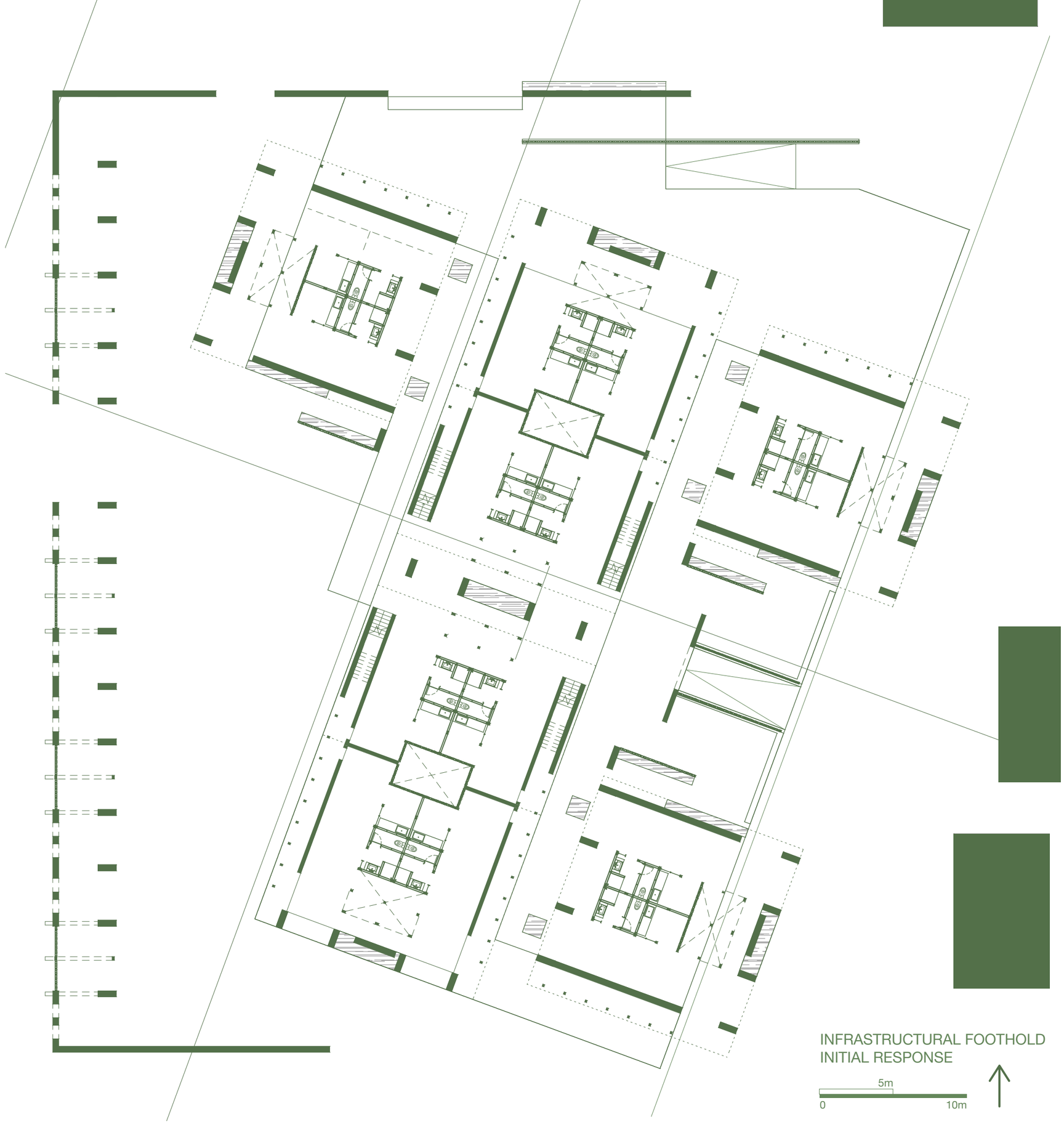


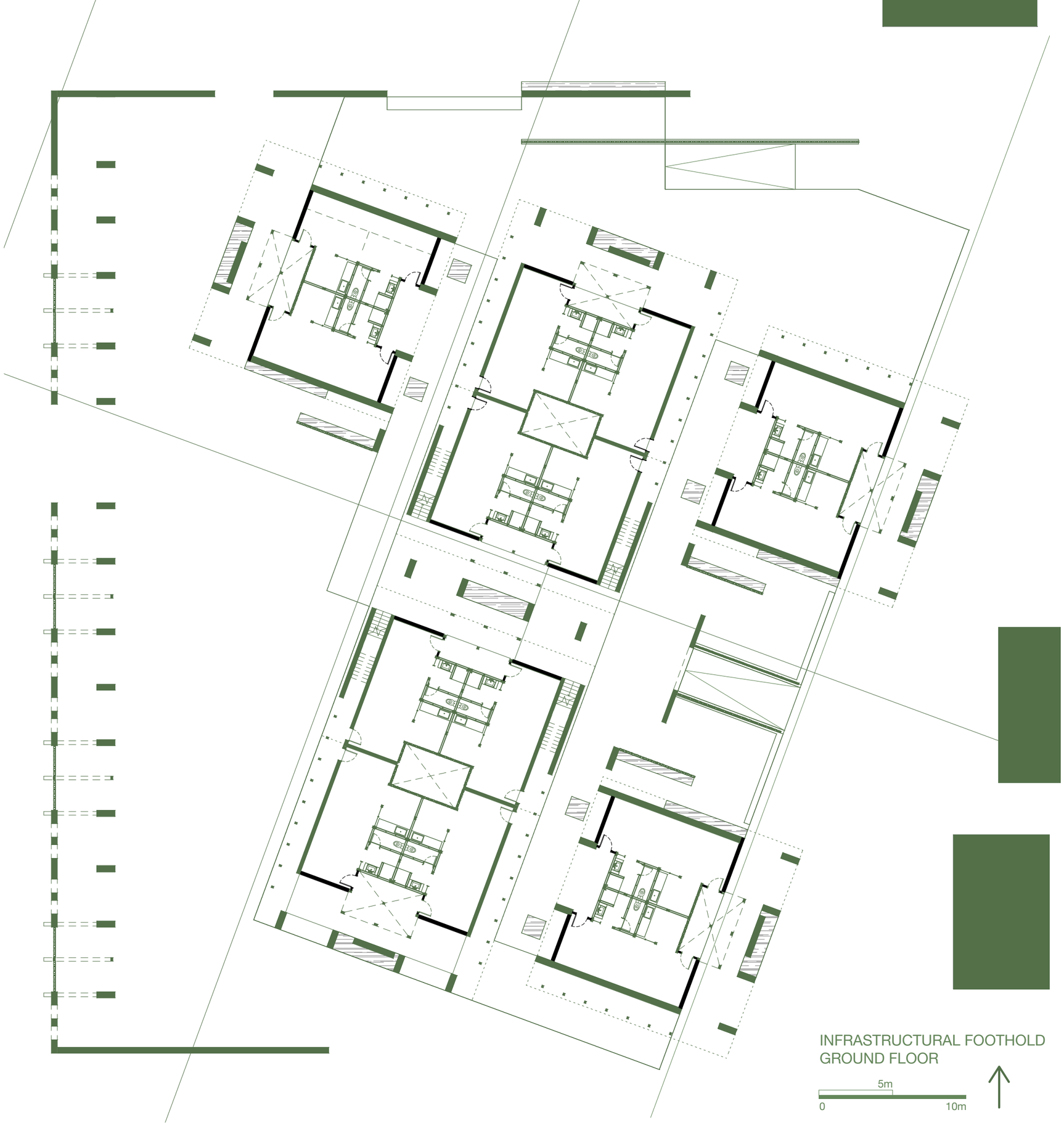


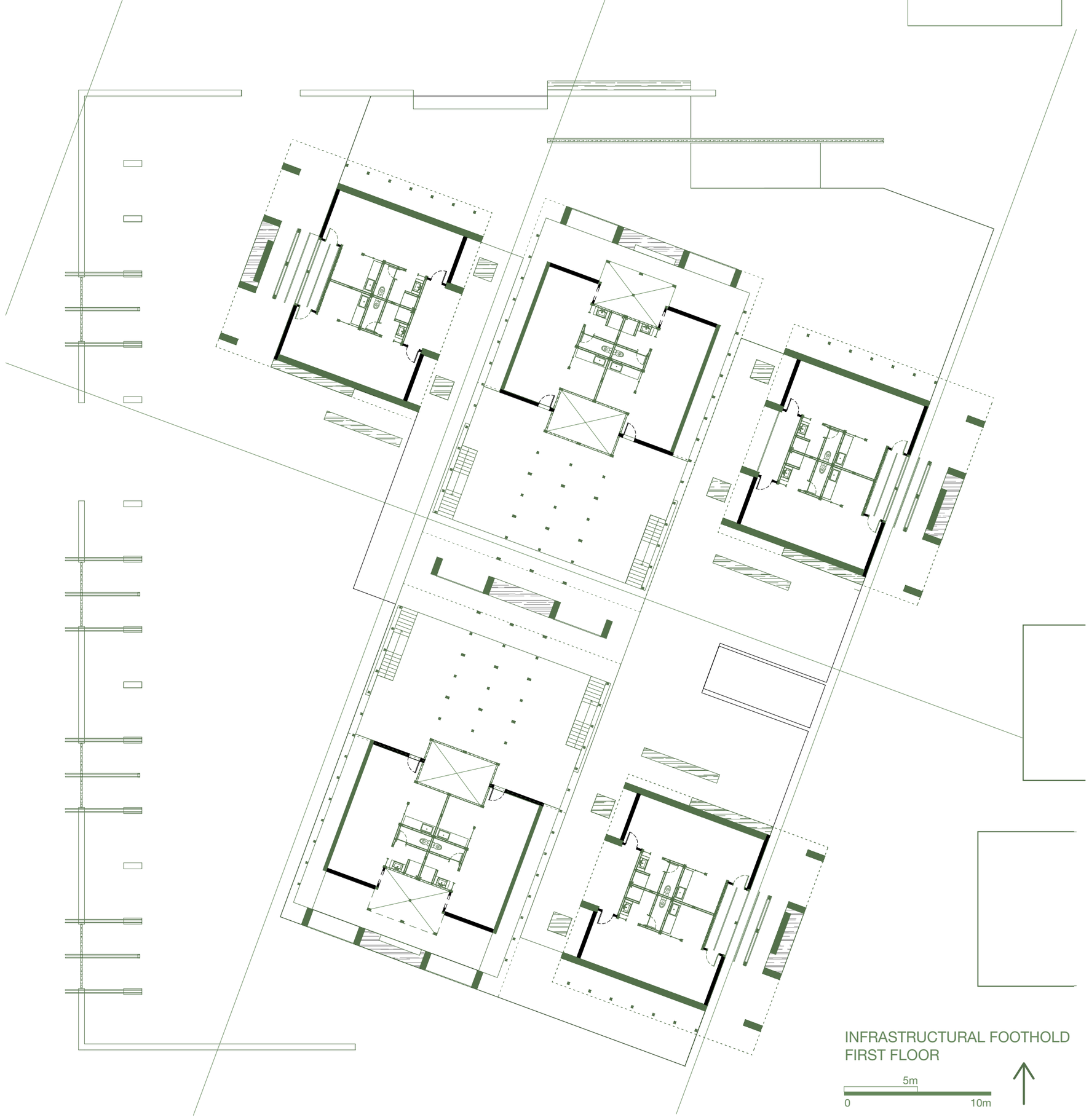


INFRASTRUCTURAL FOOTHOLD

Explores the possibility of shared spaces for production


INFRASTRUCTURAL FOOTHOLD
INITIAL RESPONSE
5m
0
10m


INFRASTRUCTURAL FOOTHOLD
GROUND FLOOR
5m
0
10m


INFRASTRUCTURAL FOOTHOLD
FIRST FLOOR
5m
0
10m

CORRIDORS, COURTYARDS
AND COLLABORATIONS

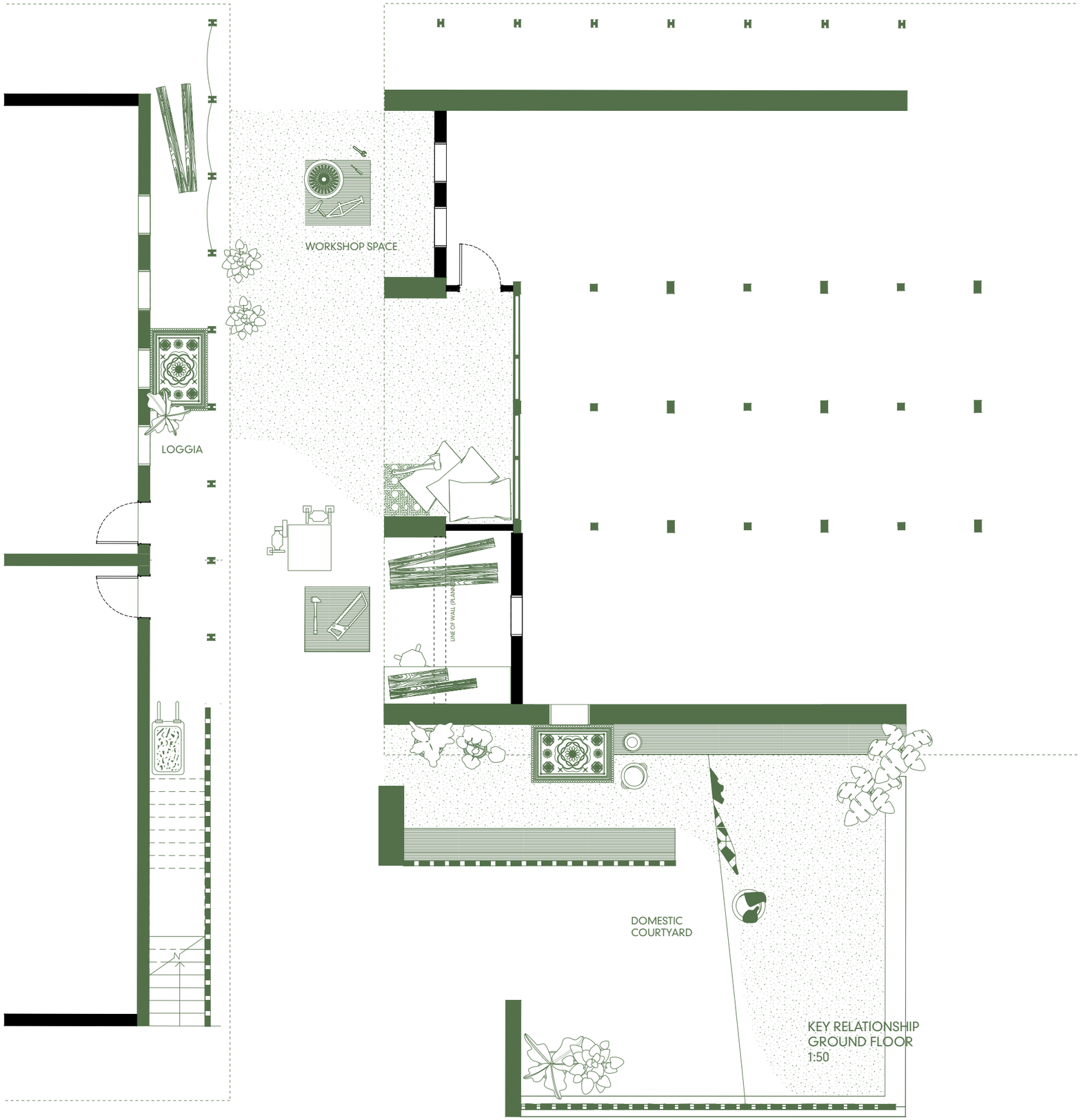
COLLABORATION

SIGNIFICANT RELATIONSHIP | COURTYARD | CORRIDOR

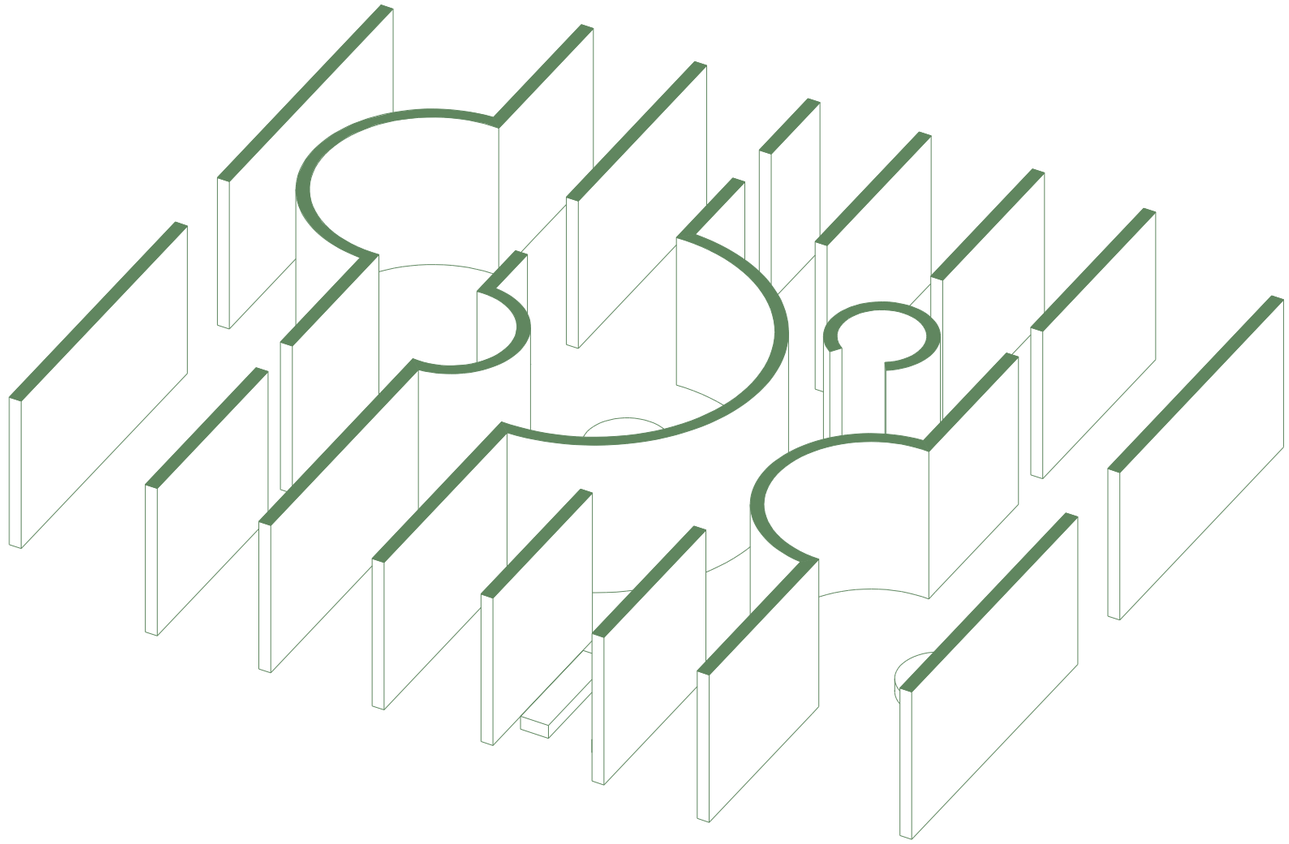
INFRASTRUCTURAL FOOTHOLD
GROUND FLOOR

5m
0 10m

SIGNIFICANT RELATIONSHIP_
PRODUCTIVE CORRIDOR



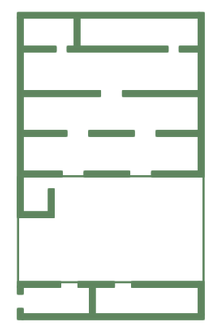
KEY RELATIONSHIP
GROUND FLOOR
1:50

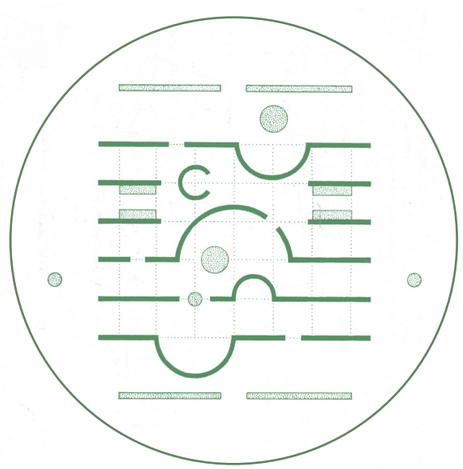


ANOTHER ARCHITECTURE

ALDO VAN EYCK'S SONSBEEK PAVILION - 1963

The Sonsbeek pavilion consists of six parallel walls almost 4m high placed at a distance of 2.5m from each other. The generous curves of the walls and sudden cuts transform what appears to be a simple exercise in plan into a complex spatial device. The plan of the Sonsbeek pavilion draws parallels to that of the 15 CE. Swahili Stone House which structured the use of domestic space through a series of parallel walls and the processional experience or movement through space. It is this layering of space that was written into the configuration of the infrastructural foothold with parallel walls delineating liminal spaces for domestic and productive functions.

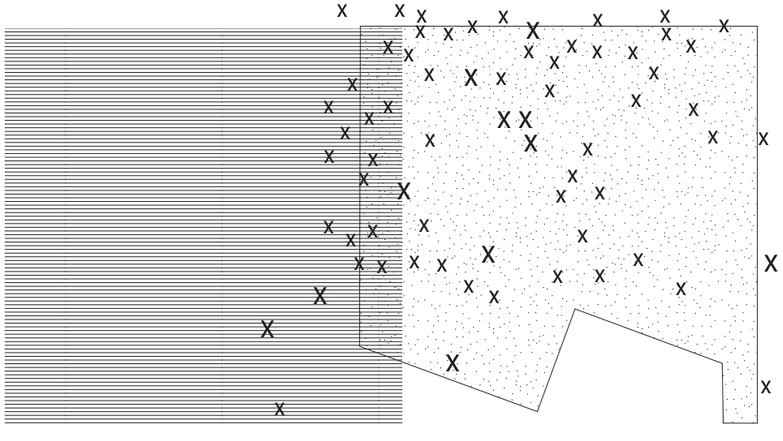


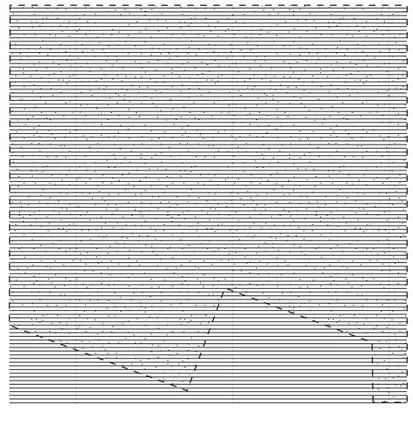


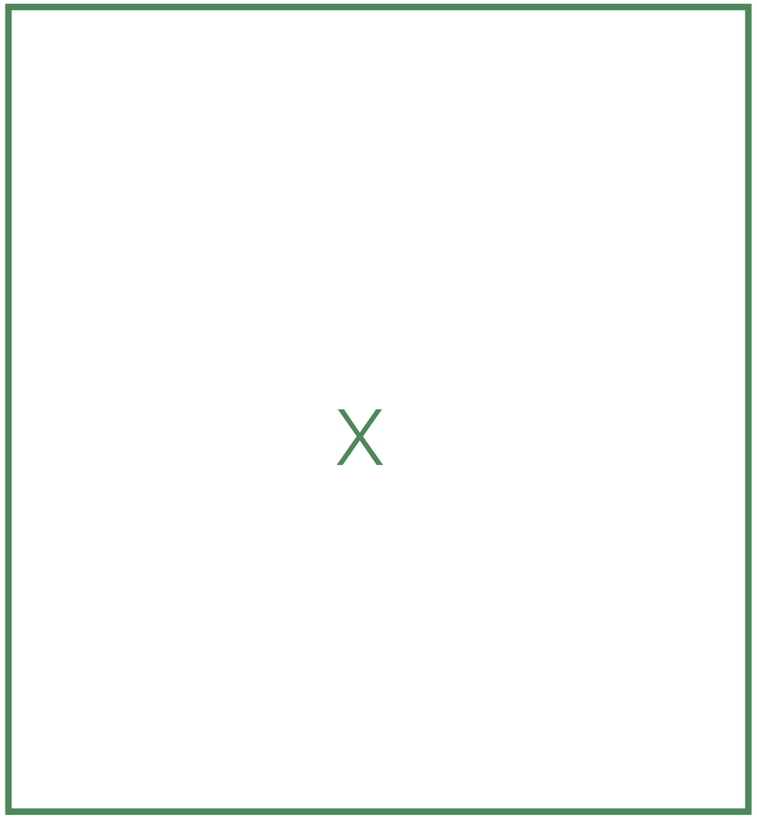
A MLINGOTINI HOUSE

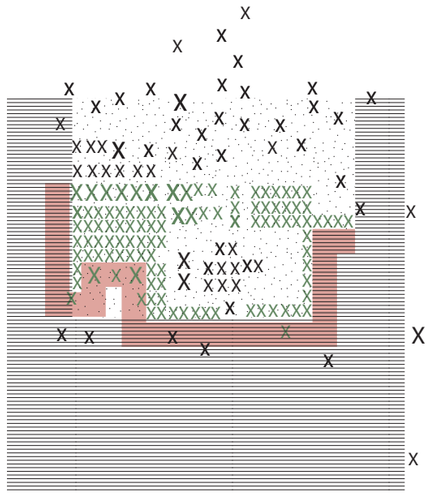
Building a Mlingotini House

OVERVIEW





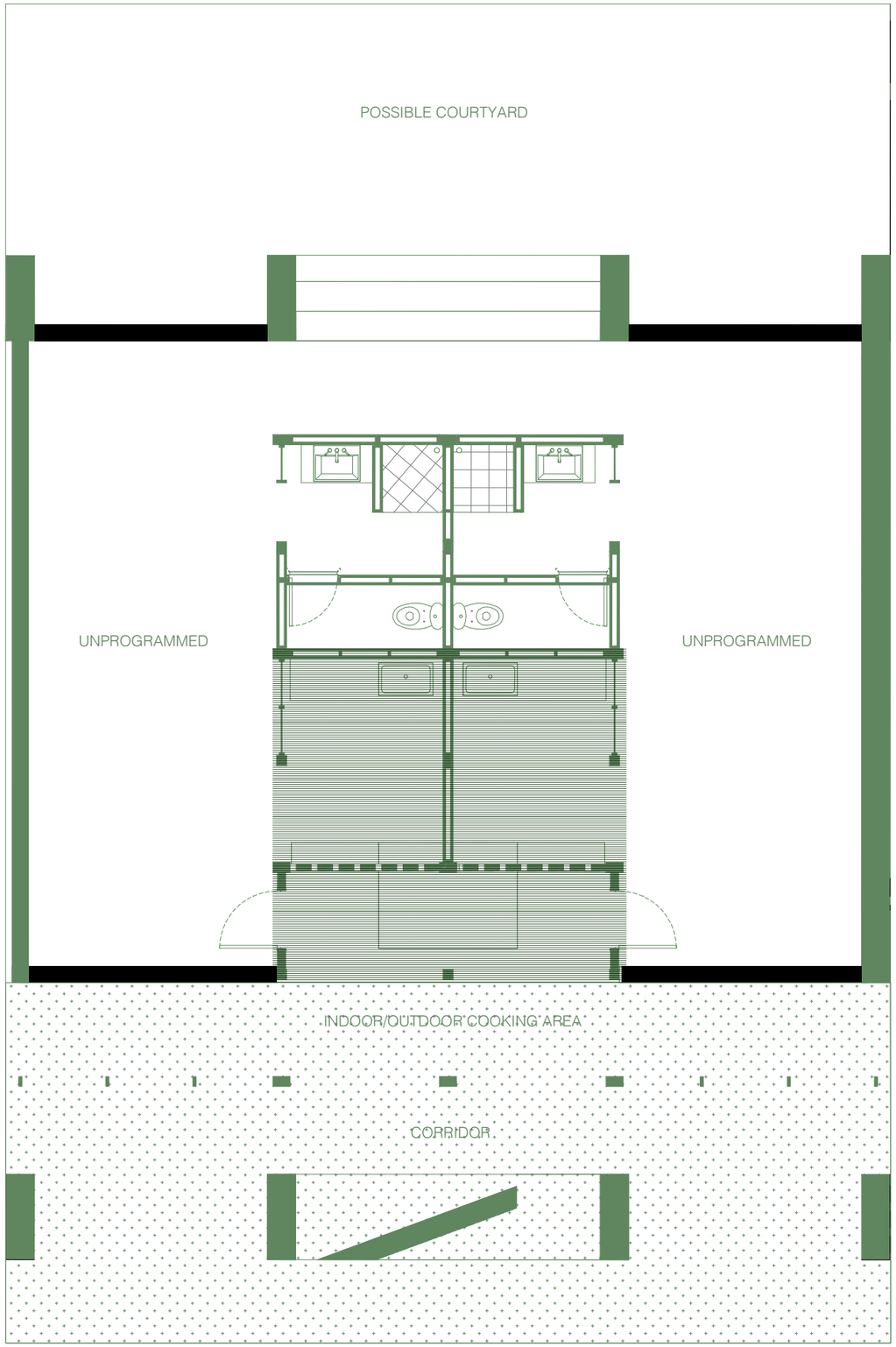




FORM & MATERIALITY

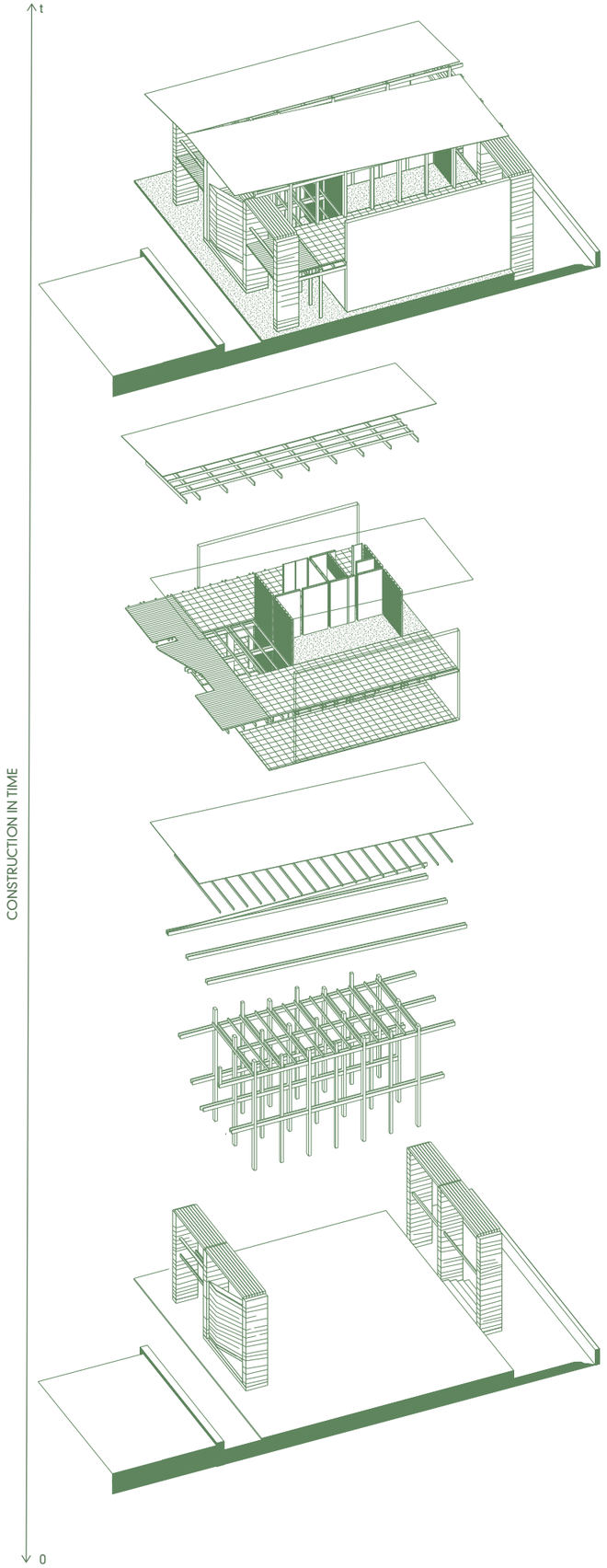
The form and materiality of the Mlingotini house type structures the negotiation between the individual/family and the collective. In it's construction and materiality it embraces existing material practices, appropriating them and writing them back in to the territory.

TWO MLINGOTINI HOUSES



TWO MLINGOTINI HOUSES
NTS.

CONSTRUCTION IN TIME



Building a Mlingotini House

A Collective Action

Six 400 mm x 1200 mm rammed earth piers are erected delineating the extent of the corridor (collective) and the dwelling

A Timber frame

A structural timber frame consisting of 200 x 50 mm beams bolted to 240 x 140 mm & 140 mm x 140 mm columns is erected. The frame is tied into the rammed earth piers. the frame acts as structural and organisational core.

Raising the Roof

The timber frame allows for the first pitched roof to be erected. The raising of the roof is an act of generosity. it articulates the transition from collective to individual/
family zones whilst providing respite from sun and rain - welcoming activity.

Infill

With the main structure established occupants configure the interior (individual/ family zone). Three wall types are introduced: (A) a mud plaster wall referencing traditional wattle and daub construction,
(B) perforated/'soft' skins of woven coconut mats, cypress screens and curtains and (C) solid or perforated Compressed earth block (CEB) walls

Floors

Three floor types are introduced: one comprised of compacted mud & cow Dung, a second of 300 x 300 baked clay tiles and a third of reclaimed timber

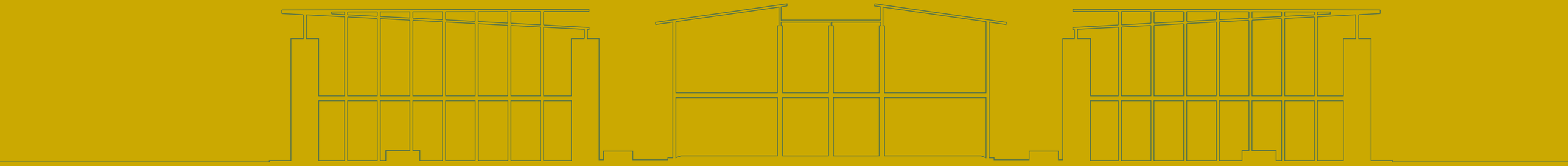
THE ROOF

FAMILY/DWELLING

FAMILY/DWELLING

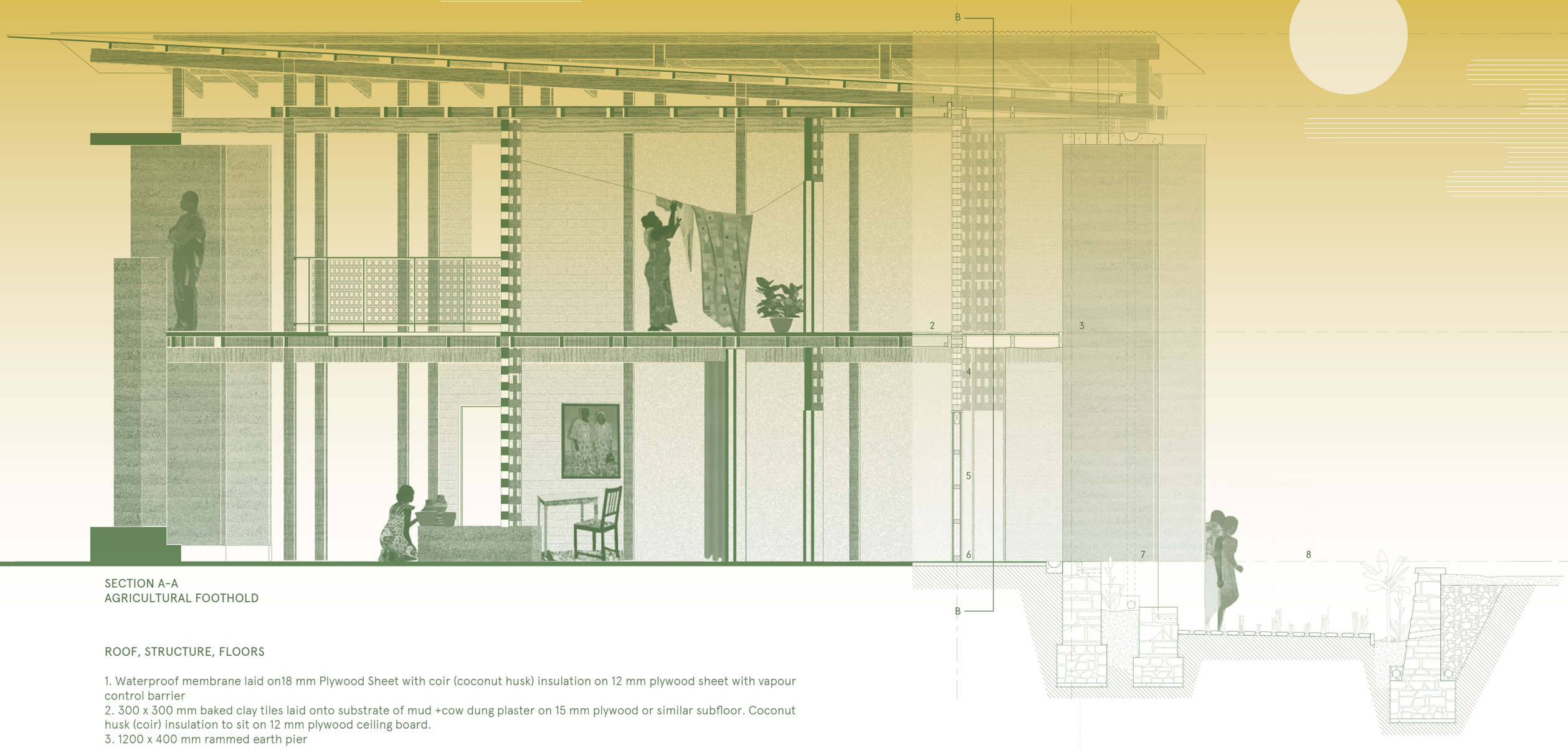
FAMILY/DWELLING

COLLECTIVE



SCHEMATIC SECTION A-A
INFRASTRUCTURAL FOOTHOLD

SCHEMATIC SECTION B-B
INFRASTRUCTURAL FOOTHOLD



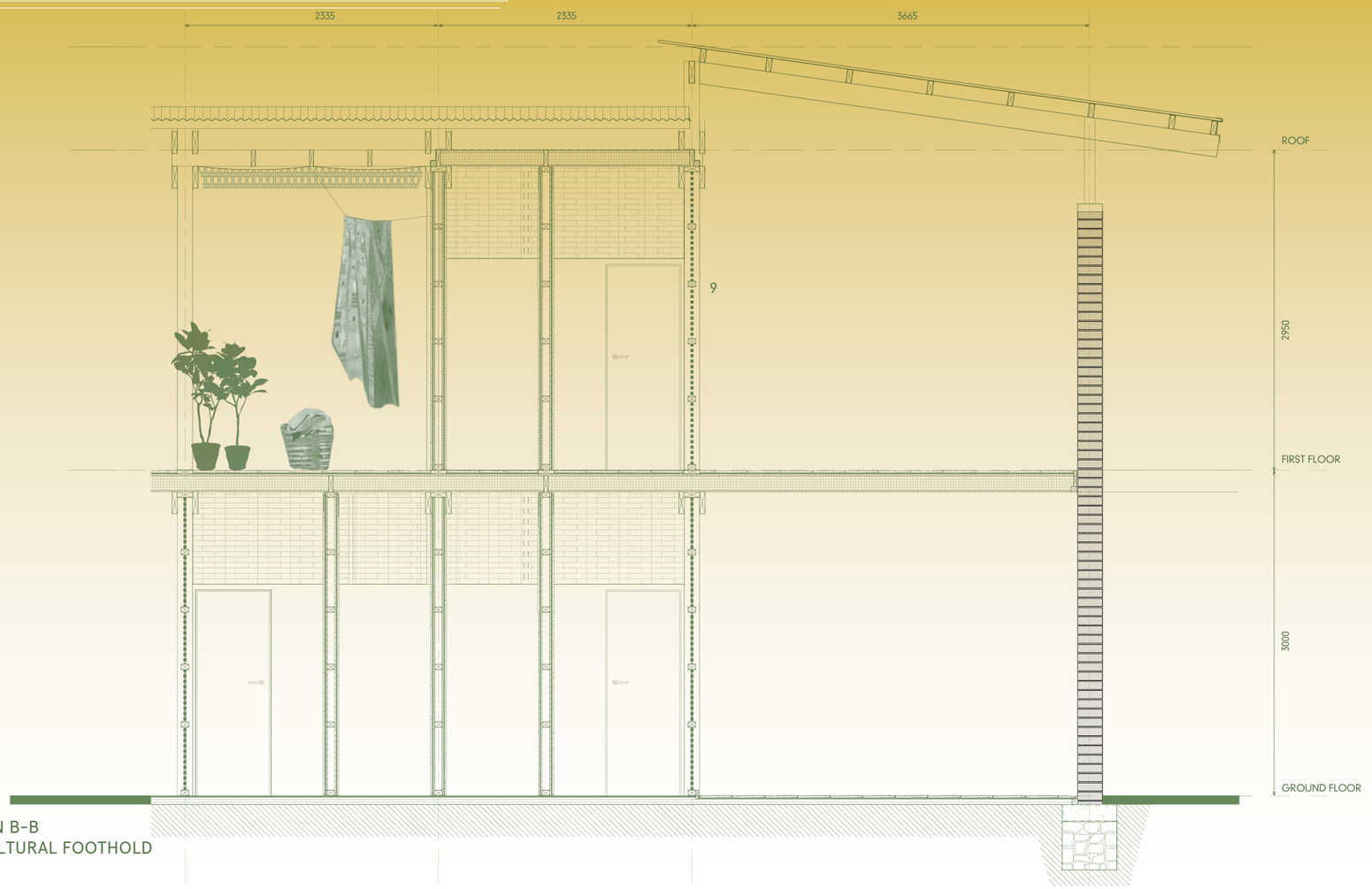
SECTION A-A
AGRICULTURAL FOOTHOLD

ROOF, STRUCTURE, FLOORS

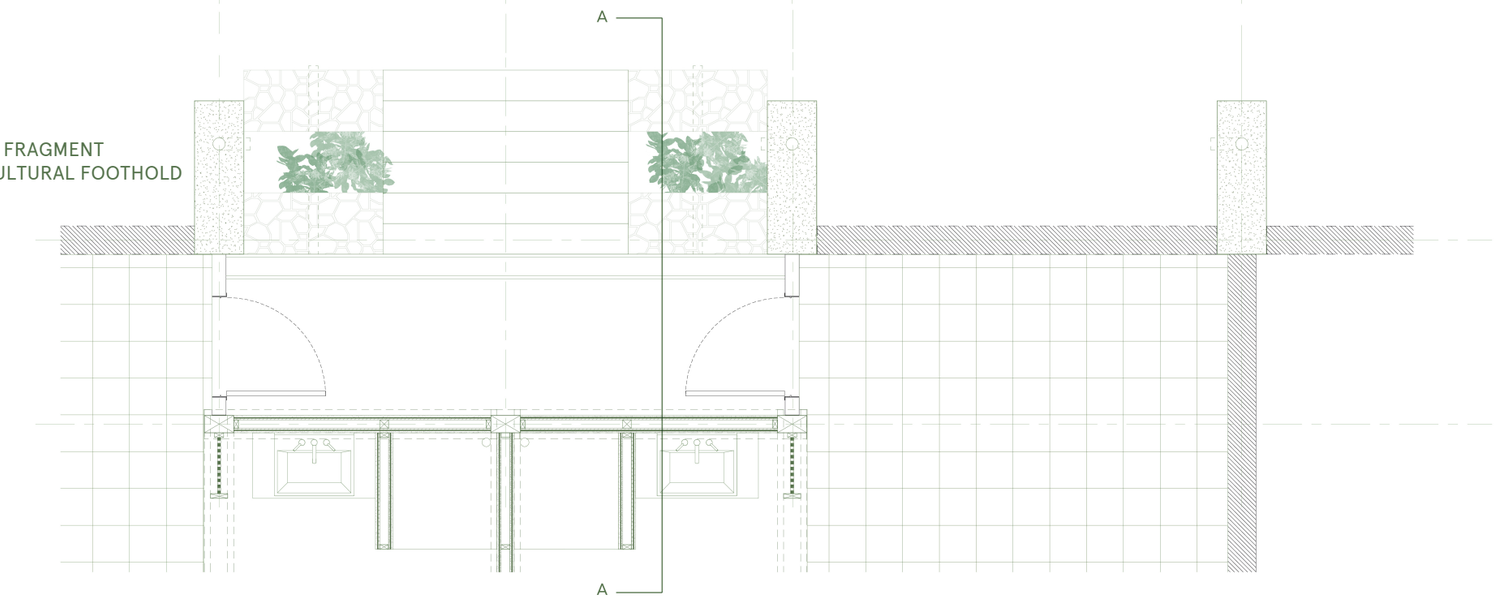
1. Waterproof membrane laid on18 mm Plywood Sheet with coir (coconut husk) insulation on 12 mm plywood sheet with vapour control barrier
2. 300 x 300 mm baked clay tiles laid onto substrate of mud +cow dung plaster on 15 mm plywood or similar subfloor. Coconut husk (coir) insulation to sit on 12 mm plywood ceiling board.
3. 1200 x 400 mm rammed earth pier

INFILL

4. Single skin perforated Compressed Earth Block (CEB) wall
5.20 mm mud plaster applied to reed lath substrate on 12 mm plywood substrate fixed to timber framing members.
6. Mud + Cow dung plaster (<15 mm thick) on 50 mm rammed earth layer
7,8. Rainwater system:
Gutter fixed to recess in rammed earth wall to flow into combined planter and stair installation comprised of 500 mm UCR masonry retaining walls with overflow pipes at 750 mm C.C. Permeable paving of reclaimed rubble to be laid in courtyard with fall to overflow planter.

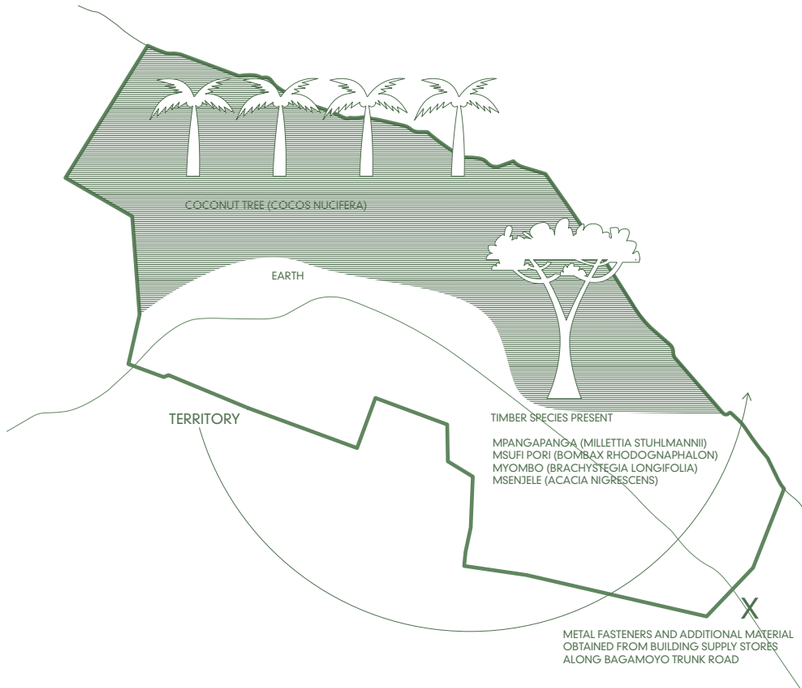


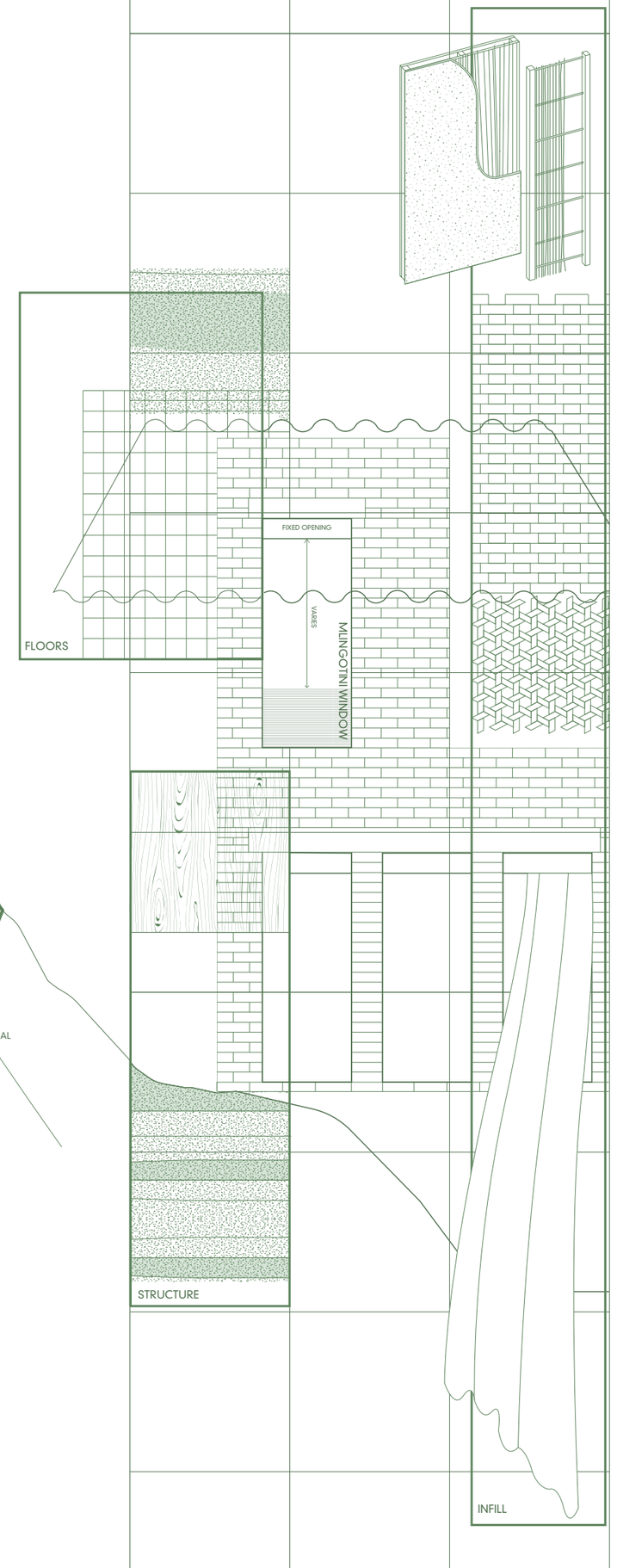
SECTION B-B
AGRICULTURAL FOOTHOLD



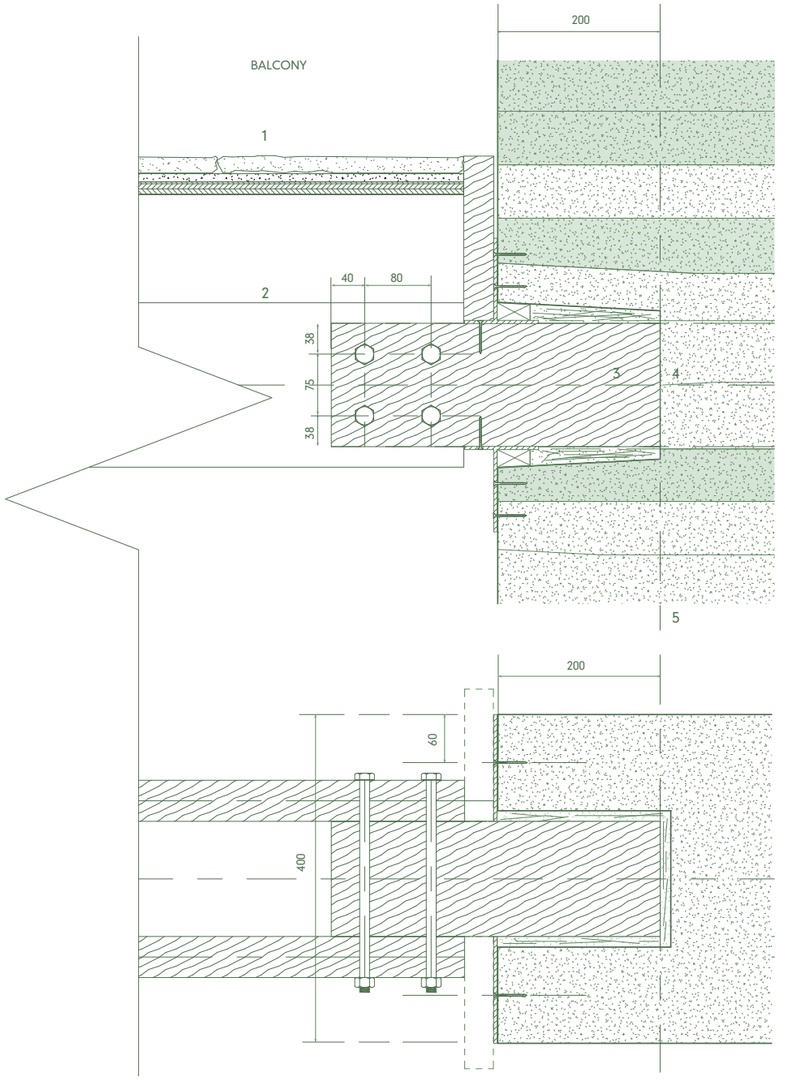
FLOOR FRAGMENT
AGRICULTURAL FOOTHOLD

MATERIAL CONNECTIONS





MATERIAL PRACTICES



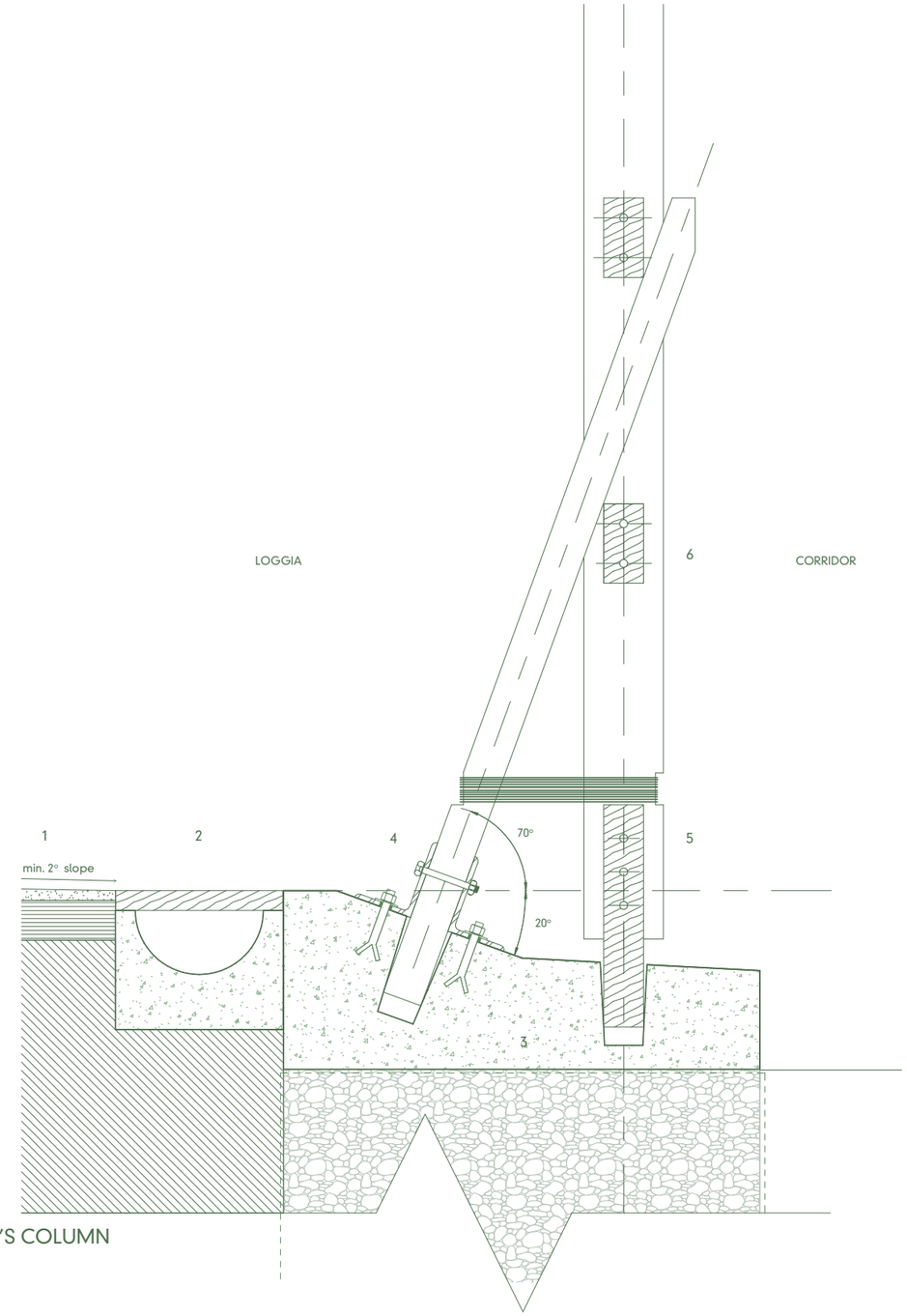
SECTION

PLAN

TIMBER FRAME TO RAMMED EARTH PIER CONNECTION

FLOOR
1.300 x 300 mm baked clay tiles laid onto substrate of mud +cow dung plaster on 15 mm plywood or similar subfloor

STRUCTURE
2. 200 x 50 mm structural timber beam (Mpangapanga or similar) with predrilled holes at spacing as indicated bolted to timber 'finger'
3. 400 x 150 x 50 mm timber 'finger' laid into preformed recess. Secured internally with cob mixture and timber space and externally to rammed earth pier with steel profile as indicated
4. Preformed recess in rammed earth pier constructed during compaction of pier using pre-cut timber spacer
5. 1200 x 400 mm rammed earth pier



BOAT BUILDER'S COLUMN
FOOTING
1:5

FLOOR
1. Mud + Cow dung plaster (<15 mm thick) on 50 mm rammed earth layer
2. Precast concrete gutter with off cut timber decking where necessary

STRUCTURE
3. Insitu concrete plinth band on UCR masonry foundation with recesses as indicated
4. 50 x 50 mm structural timber post bolted to steel right angles fixed to soft concrete as indicated
5. 100 x 75 mm structural timber column placed in preformed recess and secured laterally to timber post. Fixed vertically to floor structure.
6. 50 x 50 mm timber spacers fixed to structural timber colum

CONCLUSIONS