DESIGN OF COSTI SQUARE MARKET AND REVITALIZATION OF COSTI SQUARE IN GARDENI,LAMU

PROJECT BACKGROUND

The 64 acre parcel of land at the edge of old town and Gardeni is owned by the Lamu county govrnment and is designated for mixed use and public purpose respectively.

Under the proposed land use plan by the County government of Lamu ,key issues that are addressed is decongestion of the Lamu old town by encouraging verticality and linear expansion of the Costi area towards the Mashambani utimately to the Kipungani having laid out the plans to have a vehicular road linking the old town to Kipungani and Matondoni.The plan also sets out to create economic empowenment through value addition of the produce from the mashambani.

Key infrustructure facilities such as tarmac roads have been dermacated and thus its failure includes lack of contexual response to the existing urban fabric which was mixed use rather than than zoning which segregates funtions rather than assimilation which encourages livability and memorability.

THE PROJECT SITE

The project site can be accessed by motorbikes,donkey transport as well as pedestrian access.The main access paths include from Matondoni via the murram road from the west or from Mokowe(From the northern side) through Lamu old town(East side of the site) via the alleys linking Costi square to the Lamu museum.

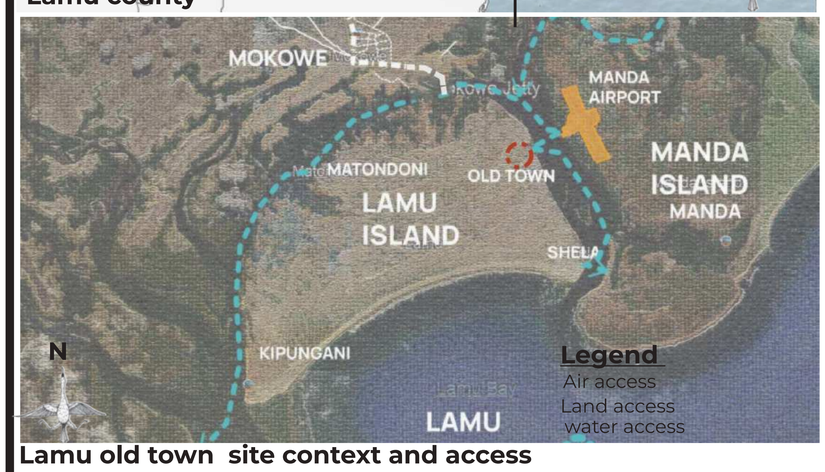
Additional historic access path include the One from Lamu fort through Yago house and through the Masjid Anisa,and the historic route from Masjid Riyadha through the the alleys from the southern edge.This demonstates ease of access by pedestrian and thus continuity of the same porostity within and without the priscints of the site. The site also hosts shared facilities such as donkey Birikas,public wells as waste disposal-this projects takes into account of the existence and incoporates them .

PROBLEM STATEMENT AND PROJECT OBJECTIVES

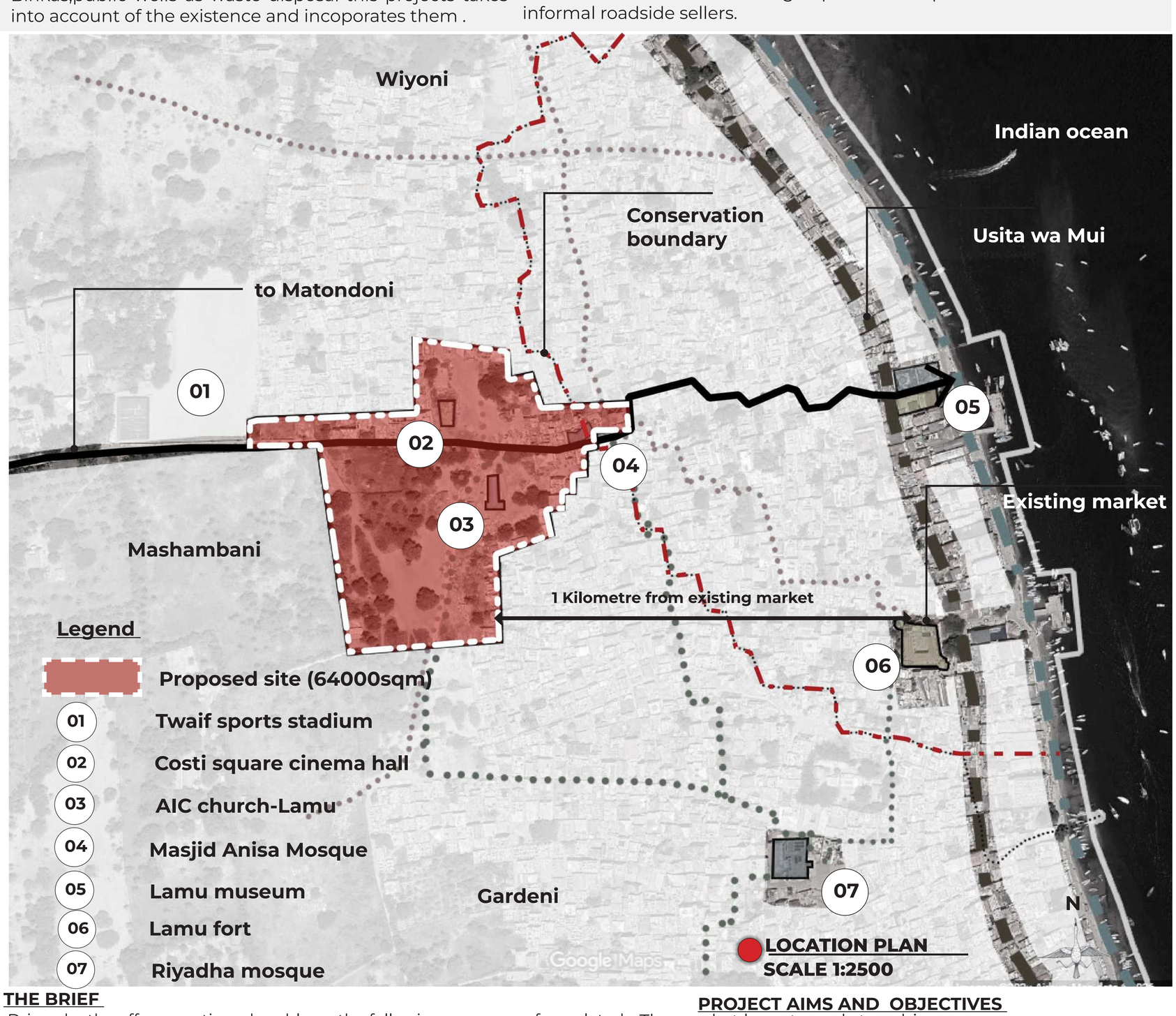
Lamu old town is facing congestion as a result of population increase leading to pressure on resources such as water and sanitation.The lack of much needed open space also has left the vast population of around 30000 people to share the limited spaces which also fails to adress the gendered public spaces,(SDG 05- Gender equality).

As such the Lamu county government has proposed interventions to have lamu decongested by linear expansion towards Mashambani opening the interior to Lamu old town.Additionally,the conflict between National museums of Kenya and The community over preservation of Masjid Anisa and expansion calls for intervention.The presense of informal unsheltered vendors also call for a more dignified for shoping and exhibition of their commodities - given the proximity of the nearby similar facilities

Additionally,use of inappropriate construction material leading to thermal discomfort of users and rotting of produces as per the interview with the informal roadside sellers.



Lamu old town site context and access



PROJECT JUSTIFICATION

Lamu is set to grow Radially away from old town with the Area around Masjid Anisa experiencing Rapid informal growth as well as informal trading outlets along the alley leading to Old town. Additionally,the Costi square and the adjacent historic buildings remain dilapidated and some like the theatre abadoned. Consequently,there is need for this area like in the area around Mkunguni square to breath new life owing to the expected population of 15000people by 2035.Thus the project becomes handy in solving key issues ,recreation,Religious ,economic and social cultural concerns by reviving activities such as donkey auctioneering a long historic culture of lamu.

SITE JUSTIFICATION

The site is Historically and culturally rich having the Historic Masjid Anisa,(1830) ,Costi square,Where Goats and donkeys were auctioned ,Costi cinema hall,(1890) and the AIC church (1970s).The site is also at the urban edge linking the Old town with Mashambani,as such the buffer zone proving the necessary platform to demonstrate continuty and change in tandem while adressing the current needs of around 15000 people per the 2035 projection (Lamu LLUP).

PROJECT STAKEHOLDERS AND CLIENT

The client of the project is the Masjid Anisa Trustee Committee while the beneficiaries include the people of Lamu old town and the Costi area Additionaly,the other interested stakeholders include the highlighted below:

NATIONAL MUSEUMS OF KENYA
WHERE HERITAGE LIVES ON

UNESCO

AKDN
AGA KHAN DEVELOPMENT NETWORK

FOR PEOPLE AND PROGRESS
LAMU COUNTY

HARAMBEE

Ministry of Sports, Culture & Heritage

THE BRIEF

Driven by the afforementioned problems,the following spaces are formulated :

SECTOR	SPACES	NO	AREA
A SOKO LA AMU	Spices section		1300sqm
	Meat and fish meat section		650sqm
	Tubers section		400 sqm
	Cereals section		650sqm
	Vegetable section		750sqm
	Fruits section		375 sqm
	Prayer hall section		300sqm
	cosmetics section		300sqm
	Electronic repair section		475 sqm
	Motorbike ,carts repair section		650sqm
	Crafts-wood section		650sqm
	Crafts-weaving section		650sqm
	Crafts-pottery section		350sqm
	Services section		150sqm
	Daycare and nursing section		475 sqm
	Washroom spaces		350sqm
	Open spaces		2250sqm
TOTAL AREA			**10725 sqm**
B COSTI SQUARE	**A) Cinema hall**		
	i)Foyer		75sqm
	ii) Seating hall		300sqm
	iii) Circulation spaces		130sqm
	iv) Washrooms		35 sqm
	iv) Storage room		20sqm
	iv) ticketing spaces		25 sqm
	iv) Control room		25 sqm
	iv) Snack area and arcade		100 sqm
	B) Costi Gallery		
	i) Exhibition spaces		150 sqm
	ii) washrooms		35sqm
	iii) Curators offices		45sqm
	iv) Storage spaces and reading spaces		120sqm
	iv) Generator room		12sqm
	Costi shophouses		7310sqm
	Costi square- Amphitheatre		2250sqm
TOTAL AREA			**10632 sqm**
GRAND TOTAL AREA			**21357 sqm**

PLOT RATIO = Total Area dermacated -62300sqm Total number of floors allowed 4 stories

PROJECT AIMS AND OBJECTIVES

The market layout needs to achieve:-

i). Harmonize the old and the new by providing a framework for design of context based in buffer zones .

ii). Maximum possibility for interaction between the market users ,linking the religious ,economic and social cultural aspects which are separeated in the current setting.

iii). Provision and full utilization of support facilities,including a net zero facilty where all waste produced is recycled for farm produce such include biogas plants and inceneration zones.

iv). Adequate arrangements for display of the various types of goods and sale of produce to allow for maximum efficiency and comform of the users-thermally.

v)Provide the much desired social public spaceds from the formally planned to the informally planned public open spaces.

PROJECT LINK TO WRITTEN THESIS

Thesis Title :

"Form,space and order in traditional swahili architecture"

This project will pick lessons derived from research conducted in Lamu and Mombasa. The research derived the constants from the Urban scale upto unit level. Some of the recommendations drawn include:

1.Compactness of Form.

2.Hybridity of form where elements are juxtaposed to creat a synthesised simple architecture.

3.Visibilty of streets

4.Local material use and the tripartite expression calibrated hierachically.

5.Horizontal vs vertical calibration and balance.

Fluidity of spaces -for instance the public open spaces can be used for different activities by simple temporary division.

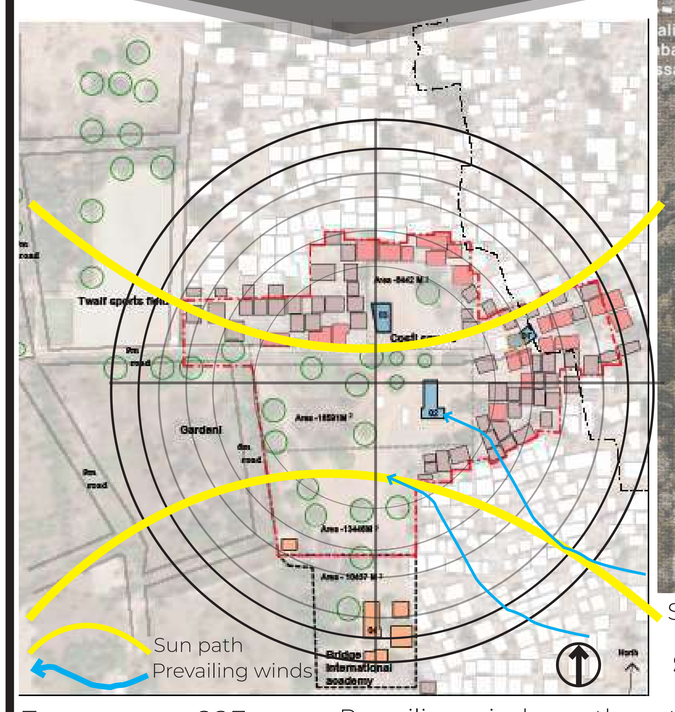
6.Passive design strategies(Climate responsiveness) and social spaces integration.

7.Passive surveilance of the streets and the fina concepts at street level to ensure a vibrant and coherent urban fabric.

These synthesised constants inform a contextualized model for buffer zones and design of Cost square and soko la Amu which blends concepts of traditional swahili architecture with contemporary solutions to solve the day to day.

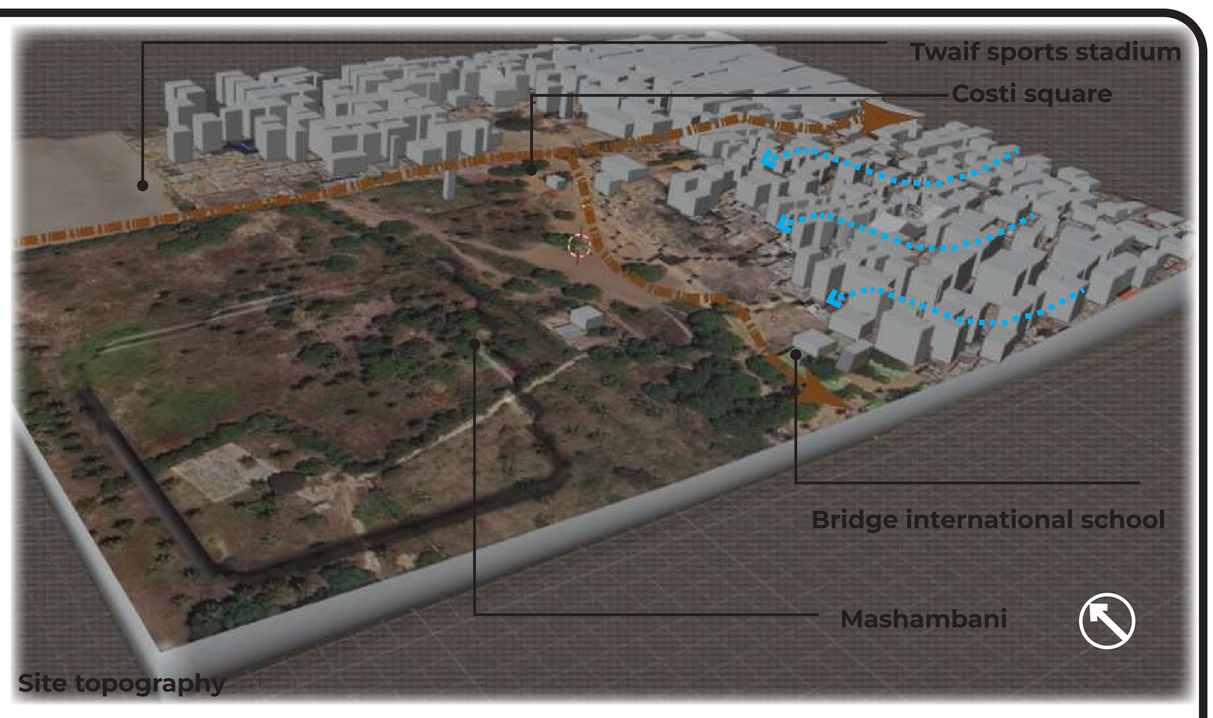
NJERI CYRUS MBURU
REG.NO : B02/5992/2020

SITE DOCUMENTATION & ANALYSIS



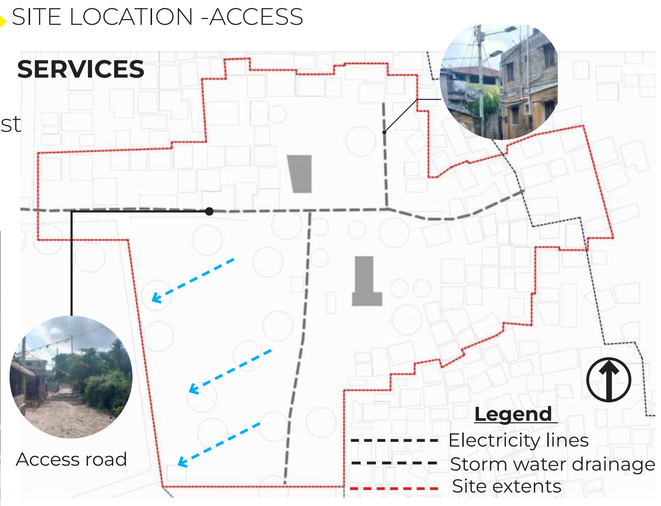
Temperature -26.7
Humidity -83%
Prevailing wind -south east
Rainfall average in mm - 299mm

SITE LOCATION -ACCESS

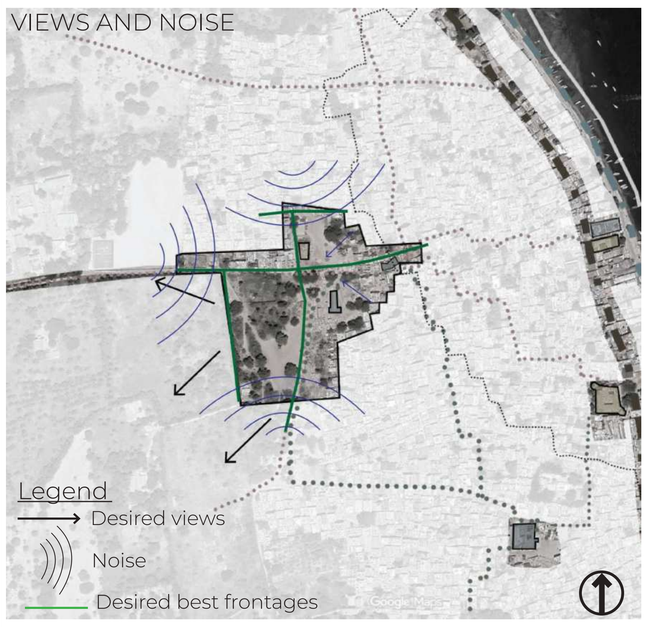


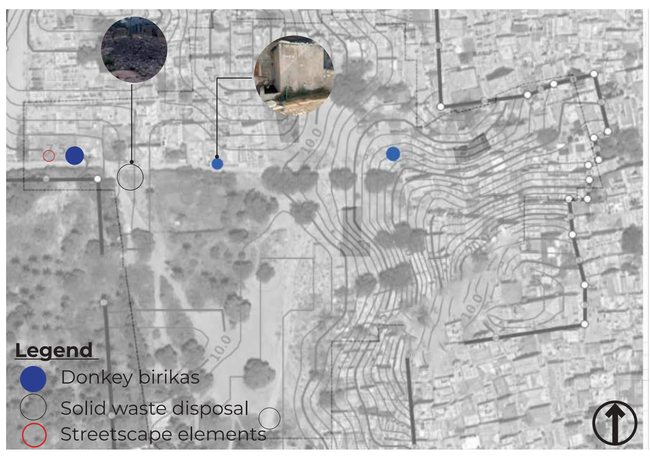
Site topography

SERVICES



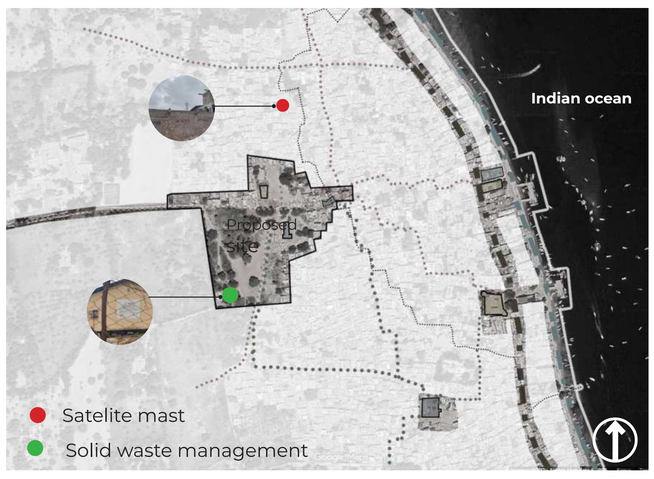
VIEWS AND NOISE





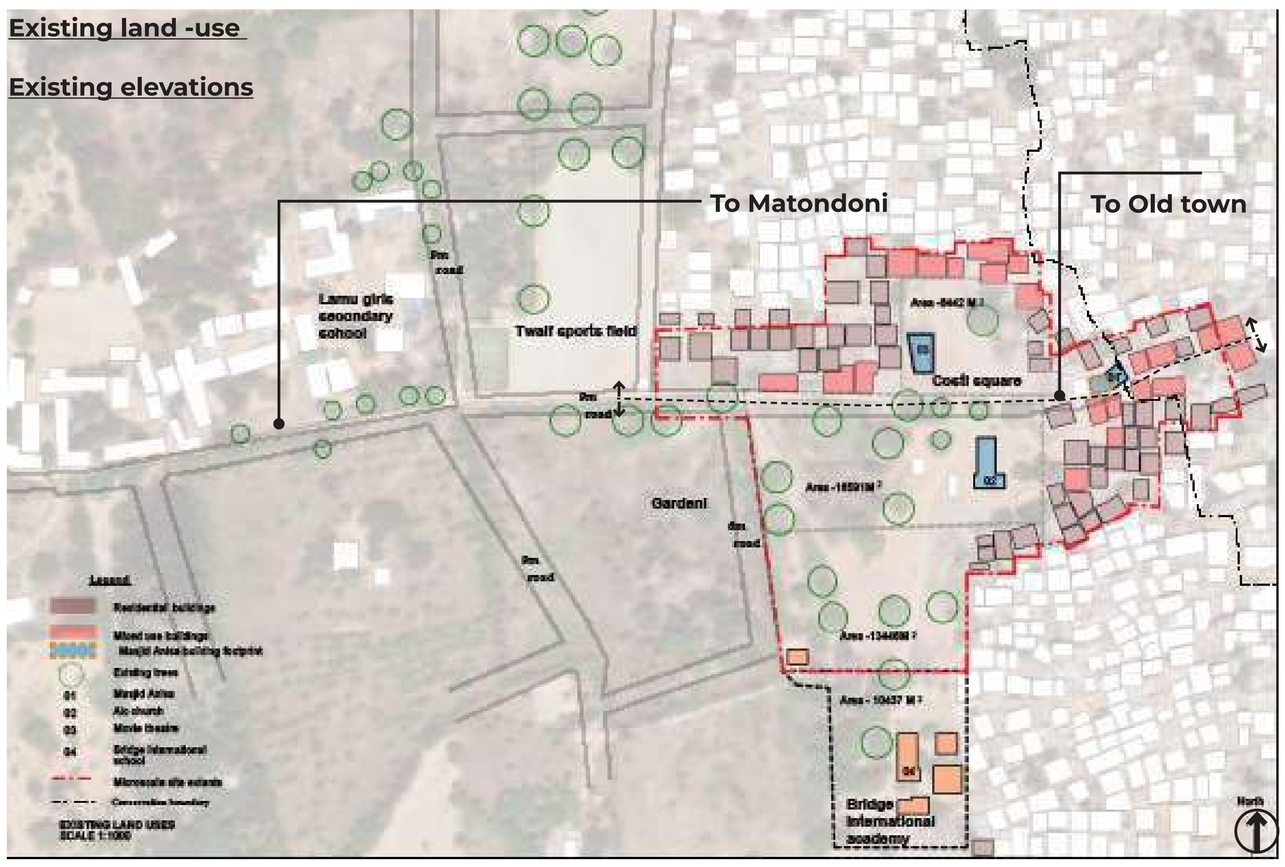
Historical structures on site-Microscale

Existing vegetation

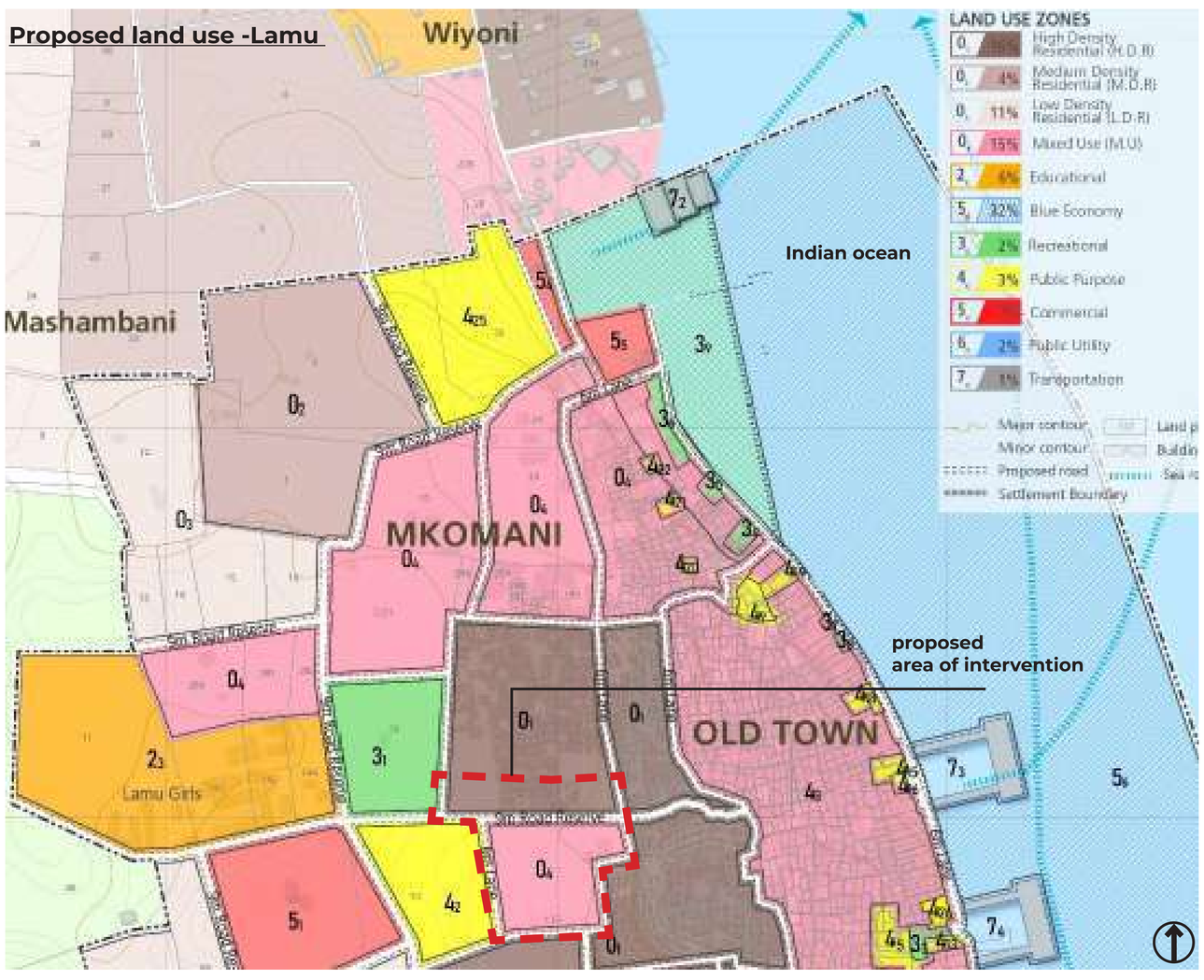


Existing land -use

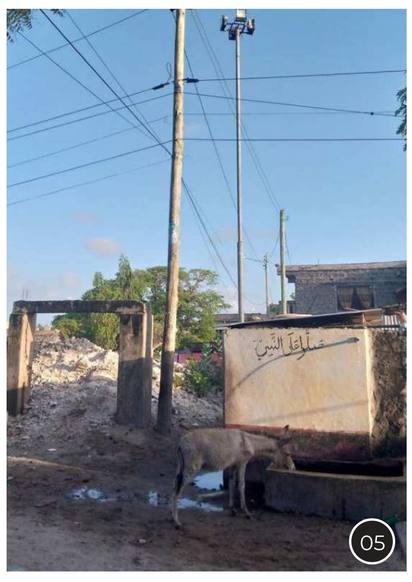
Existing elevations

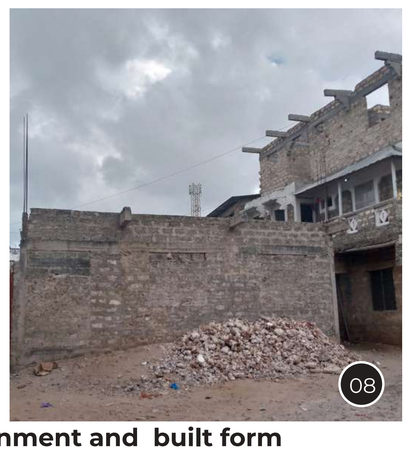


Proposed land use -Lamu



Architectural character of the neighbouring buildings





Existing neighbourhood environment and built form architectural finishes

SITE ANALYSIS RECOMENDATIONS

Architectural and environmental

1.Use locally sourced materials such as coral stone,mangroove,and palm tree products
2.Orientation of blocks to minimize exposure to direct sunlight. Sunshade major pedestrian circulation routes.
3.Harvest the rainwater and use of solar panels to harvest solar energy.
4.Ensure narrow buildings to ensure no rooms are double banked.
5.Net-zero waste design where ,biogas ,recyling plants and other facilities which reduce the carbon emmision .

Social and cultural recomendations

1.Provision of the open spaces at the various scales .
2.Respect of the architectural norms of privacy through design of spaces .
3.Provision of universal access means to all the public spaces to ensure inclusivity which is currently not in place.
4.Provision of diversity and flexibility of residential units allowing the users to customize to their own taste.
5.Passive surveillance mechanisms .

SWOT ANALYSIS

Strengths

1.Very historical at the edge of lamu island.
2.Located at the gateway between lamu old town and the mashambani.

Weaknesses

1.Little to none homage paid to the lamu old town nor effforts to link the two.
2.Limited unplanned social spaces that lacks the necessary facilities such as street furniture and others

OPPORTUNITIES

1.Linkage beteen the old toen and mashambani.
2.Creation of social spaces and other vibrant open spaces for interaction and activities such as weddings.
3.Creation of a "functional city" where Live,work,play facilities are locted and the provission of the neccesary skills such as weaving and wood carving .

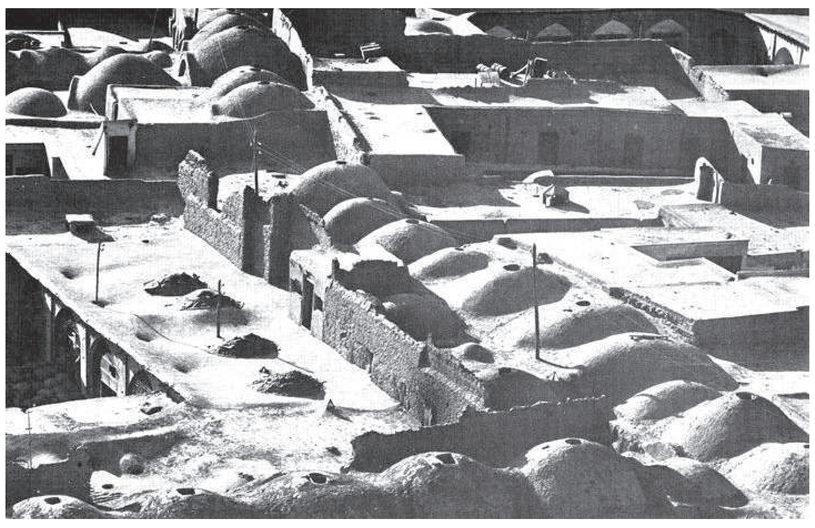
THREATS

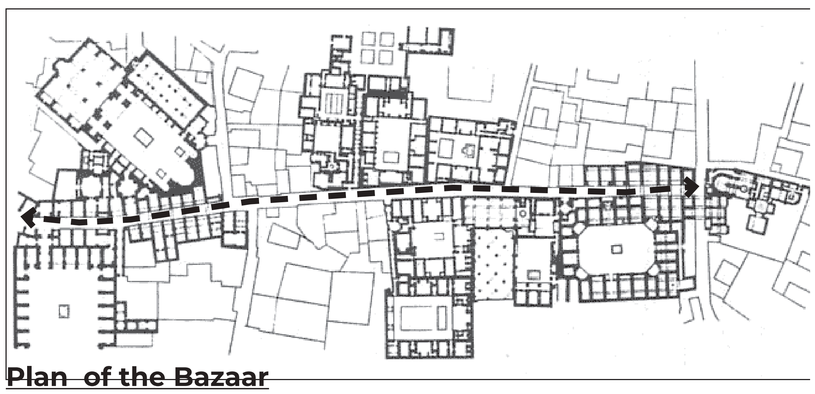
1.Encroachment of the pedestrian netwok by informal vendors.
2.Informal settlements and costruction of houses.
3.Provision of the nessesary funding may limit the extent of implementation of the project.

CASE STUDIES

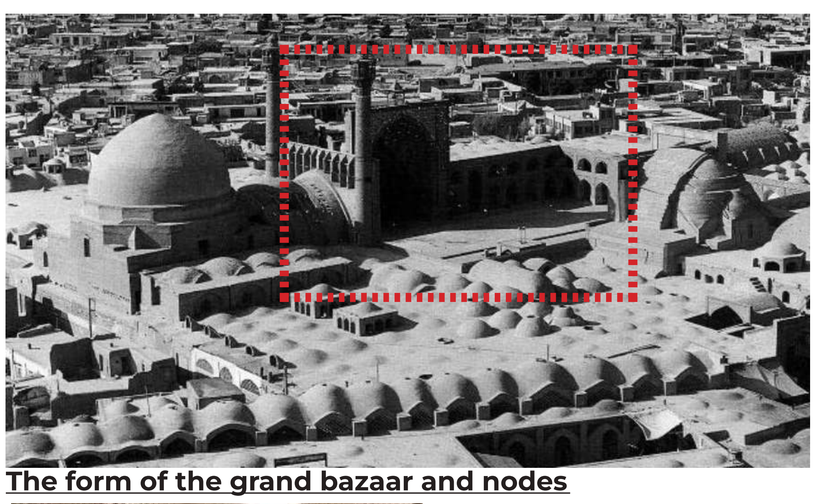
01

GRAND BAZAAR OF ISFAHAN

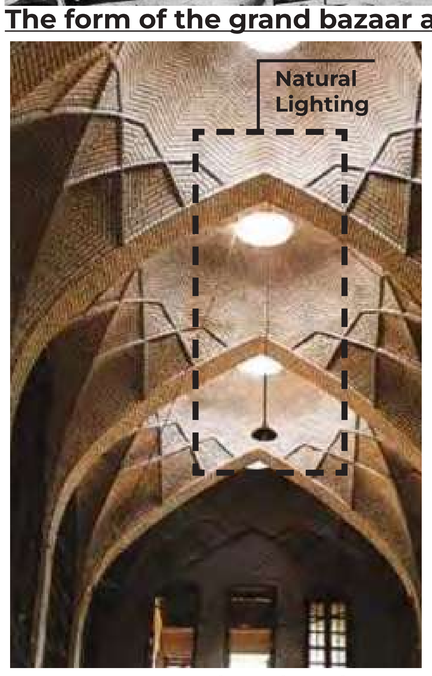


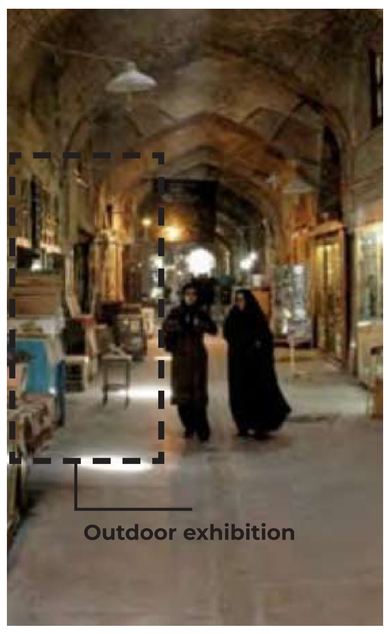


Plan of the Bazaar



The form of the grand bazaar and nodes

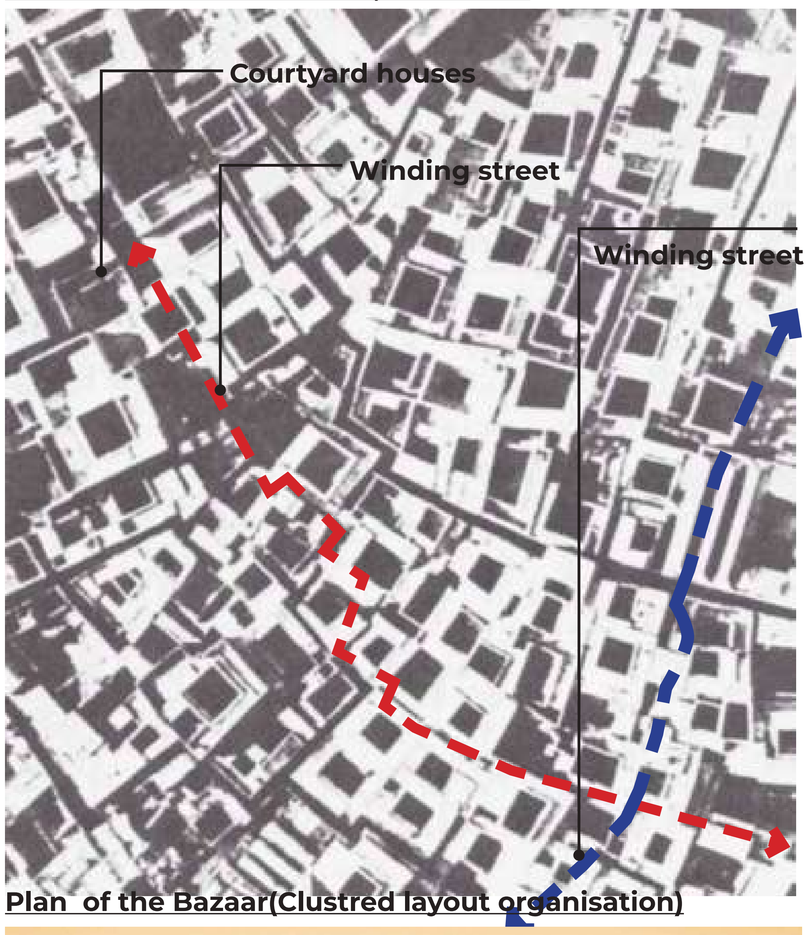




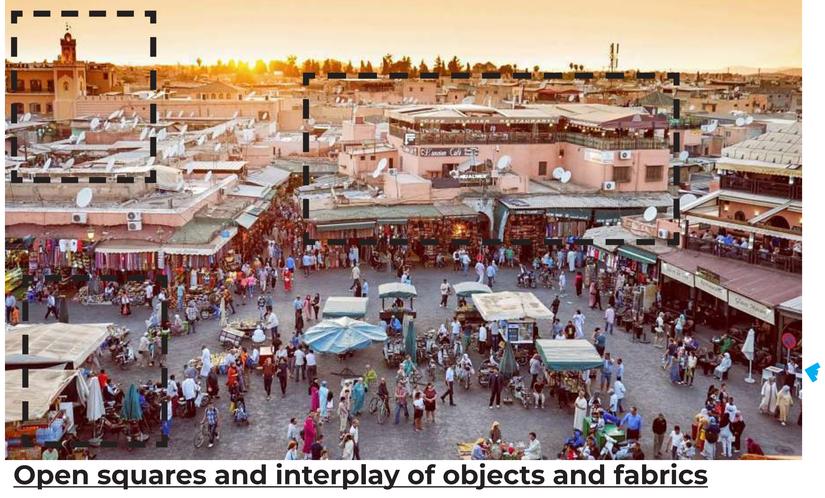
Internal spaces articulation ,Light,ventilation,user experience

02

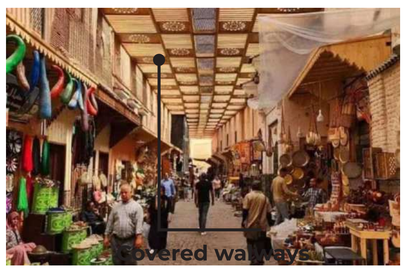
THE CITY OF MARAKETCH ,MOROCCO



Plan of the Bazaar(Clustred layout organisation)

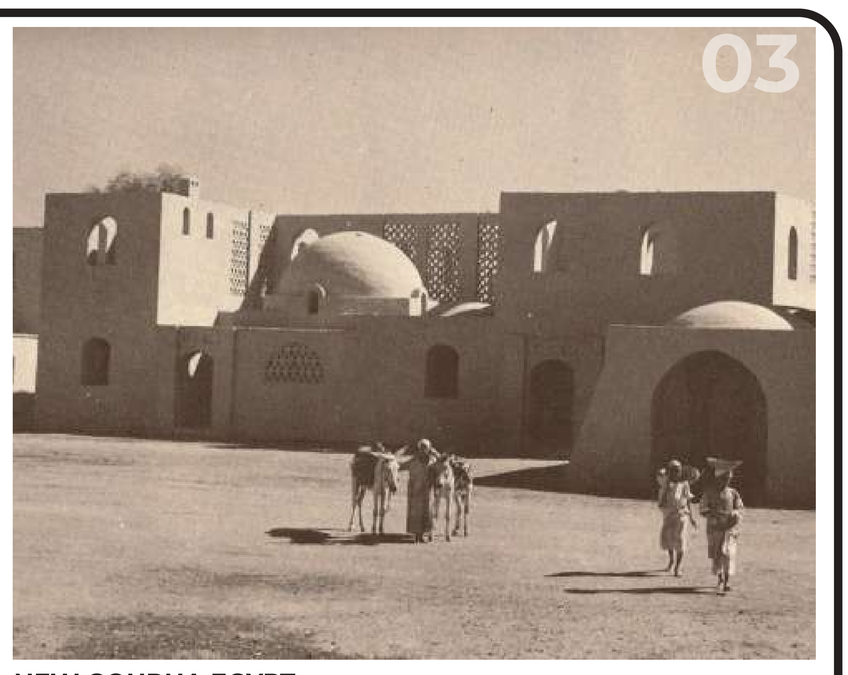


Open squares and interplay of objects and fabrics

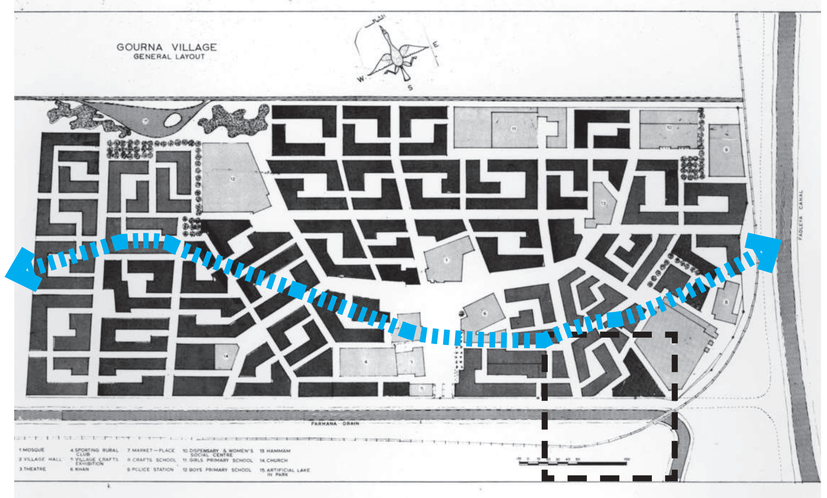


Internal spaces articulation ,Light,ventilation,user experience and spill over spaces

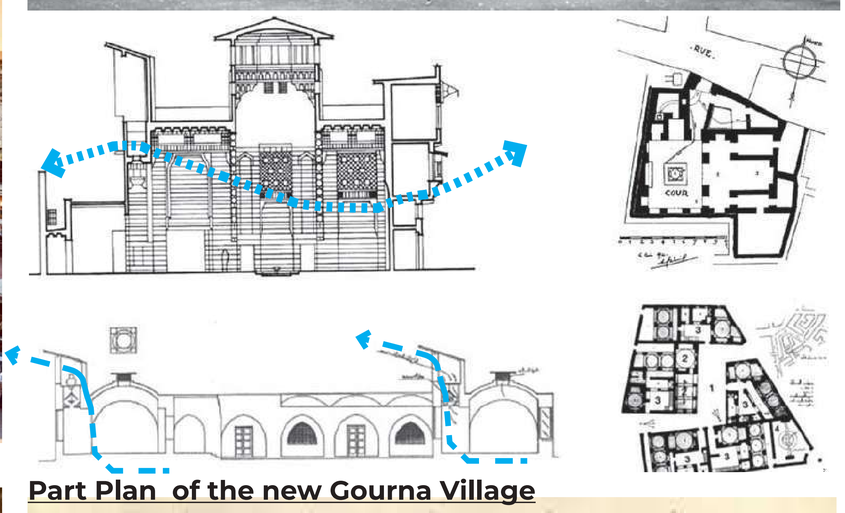
03



NEW GOURNA EGYPT

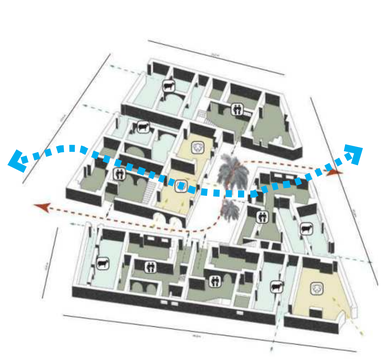


SITE PLANNING



Part Plan of the new Gourna Village

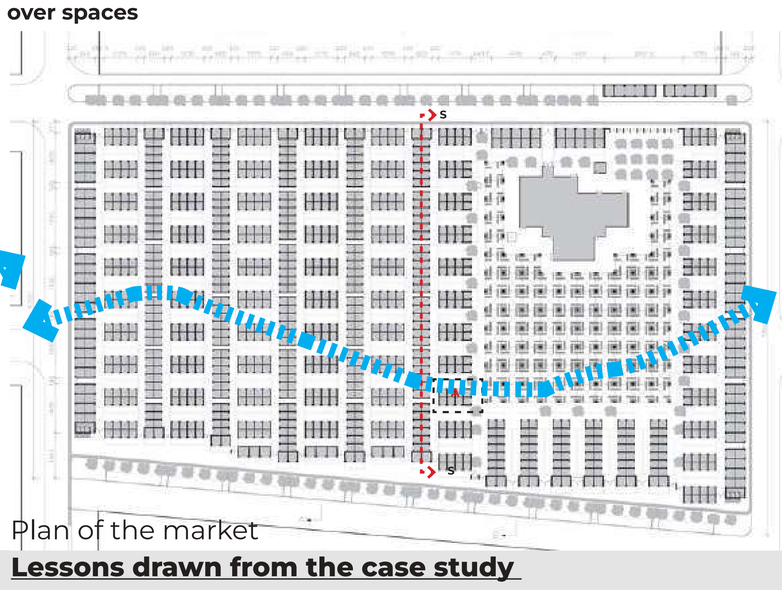
Section through the Public cinema hall



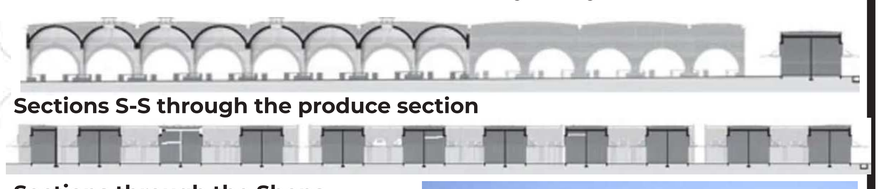
Hybridity of the units

Kadogou market

04

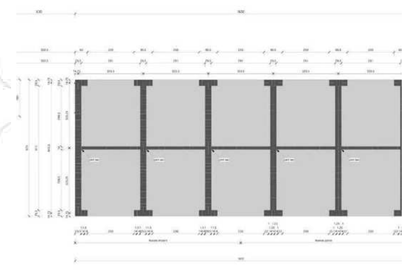


Plan of the market



Sections S-S through the produce section

Sections through the Shops



Back-to-back construction (A)

Construction technology -Arch.

Lessons drawn from the case study

1.Placement of social nodes at the intersections
2.Hybridity of functions and form along the bazaar.
3.Material parlette and the contextualization of the patterns as well as the raw materials.
4.Use of covered walkways (dome shaped that are climate responsive and enhance the spirit of space).
5.The scale of the warehouses and mixed use along the bazaars.
6.Layering of spaces;storage space,main selling and cashier space,ourdoor exhibition and pedestrian circulation .
7.Wayfinding within the bazaar ,by signages,change in level,lighting levels,change in street width as well as the scale of the buildings..
8.Segmentation and compartmentation of the building blocks which creates porosity and firebreaks.
9.Integration of the infrustructure with the built forms rather than segregation.
10.Waste management within the bazaar.
11.Outdoor furniture,Street lighting to evoke the spirit of place,Adding public drinking water places.

Lessons drawn from the case study

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7.Wayfinding within the bazaar ,by signages,change in level,lighting levels,change in street width as well as the scale of the buildings.
8.Modularity of the stalls ,and the dynamism of the various open spaces.
9.Use of domes for structural sound buildings that have transcended the modern day technology.
10.Defination of entrance to enhance wayfinding and social interaction

Lessons drawn from the case study

1.Placement of social nodes at the intersections
2.Hybridity of functions and form along the bazaar.
3.Material parlette and the contextualization of the patterns as well as the raw materials.
4.Use of covered walkways (dome shaped that are climate responsive and enhance the spirit of space).
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6.Layering of spaces;storage space,main selling and cashier space,ourdoor exhibition and pedestrian circulation .
7.Wayfinding within the bazaar ,by signages,change in level,lighting levels,change in street width as well as the scale of the buildings.
8.Hybridity of functions-A mosque,a market,a cinema hall all work in tandem to create a vibrant urban fabric.
9.Adoption of wind-catchers from the Yardz in iran and contextualizing them to Lamu.
10.Harmonizing infrustructure such as storm water drainage as part of the design.
11.Having eyes on the street by having some of the upper floors assigned to the vendors.

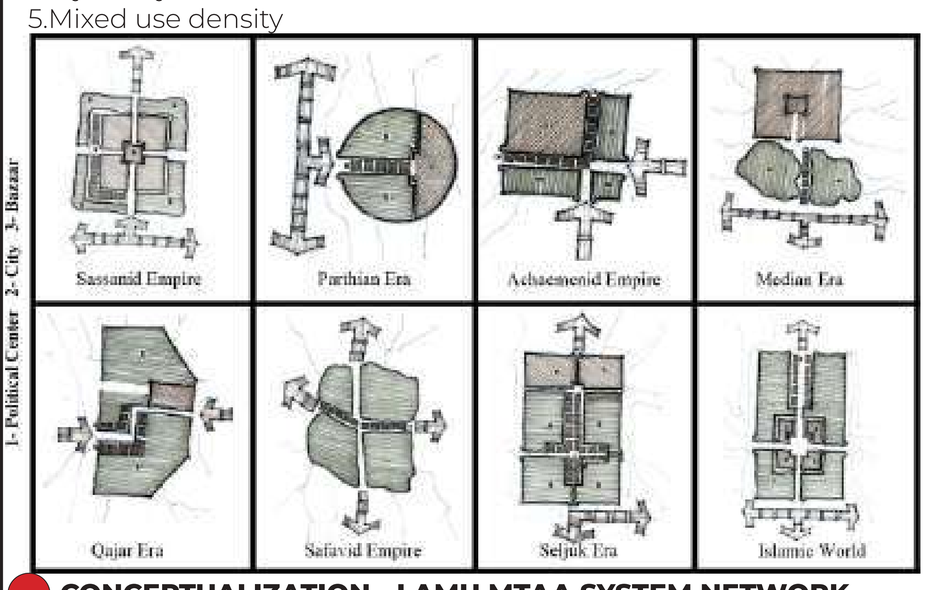
CONCEPTUALIZATION & MASTERPLANING IDEAS_

VIEW OF THE COSTI SQUARE

CONCEPTUALIZATION AND DESIGN PHILOSOPHY

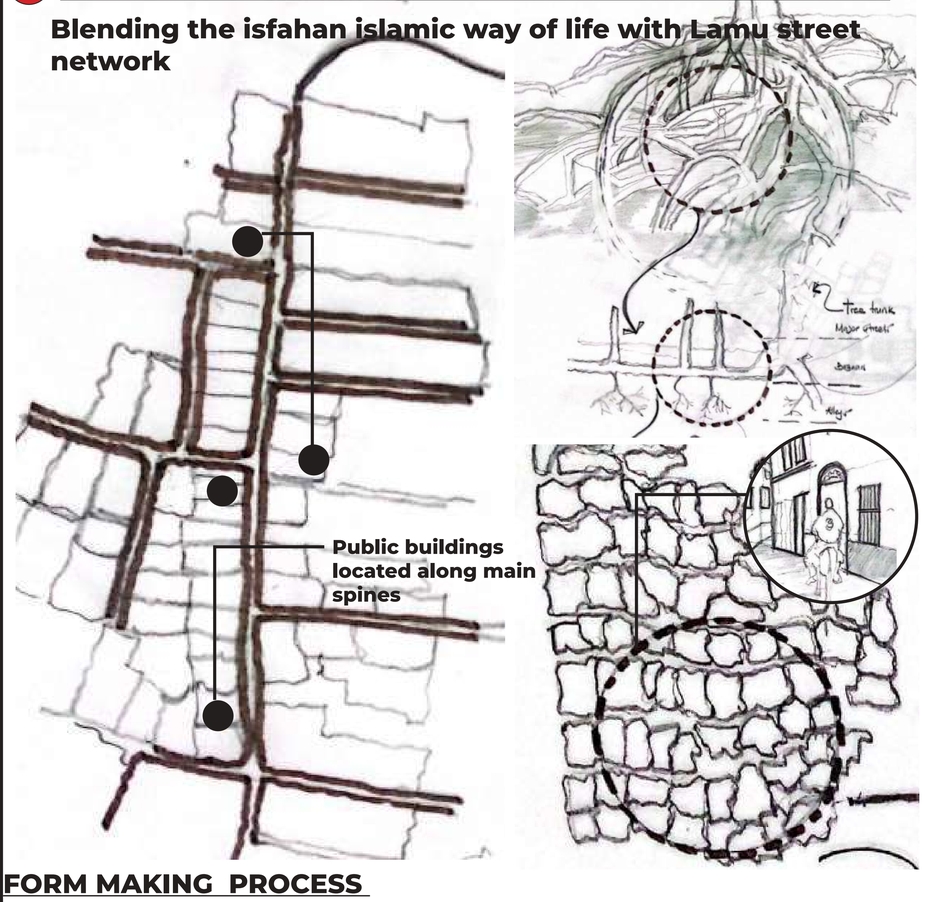
This project borrows from the architecture of lamu and the mitaa system whose planing concepts inform this design,economically and socially . Aspects of the mitaa systems include :

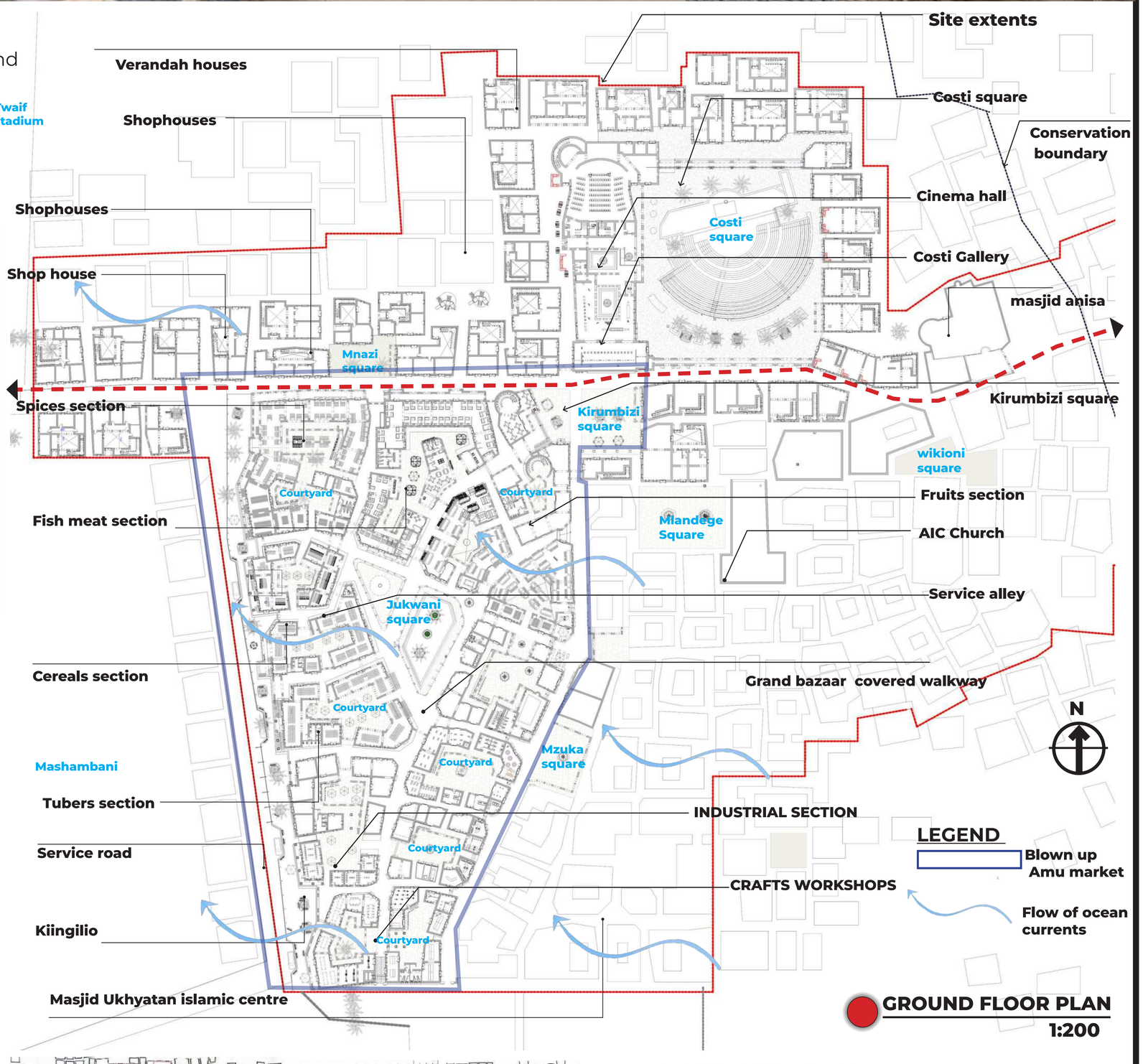
1.Hierachy within the houses
2.Porosity within the mitaaa systems
3.Landmarks ,citing of public buildings
4.Hybridity of open spaces
4.Hybridity of street functions and streets as filters
5.Mixed use density



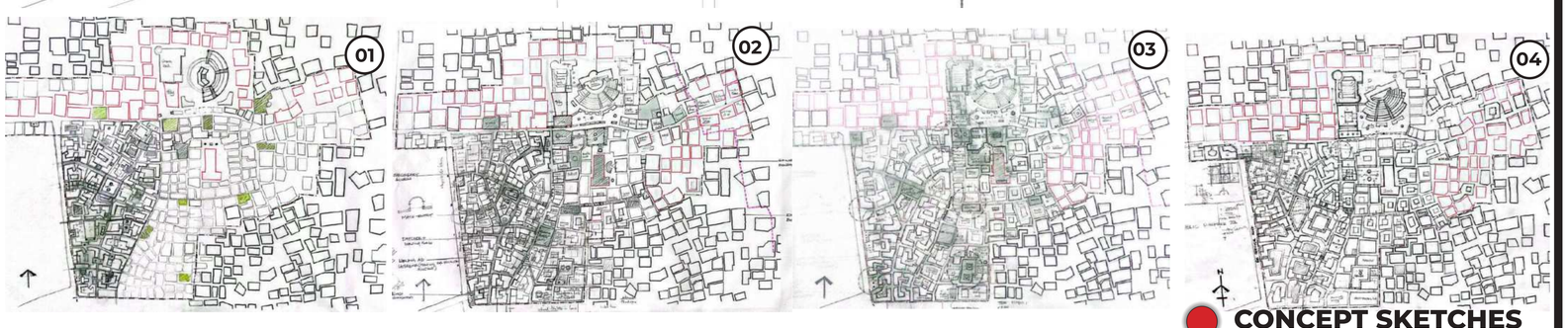
CONCEPTUALIZATION - LAMU MTAA SYSTEM NETWORK

Blending the isfahan islamic way of life with Lamu street network





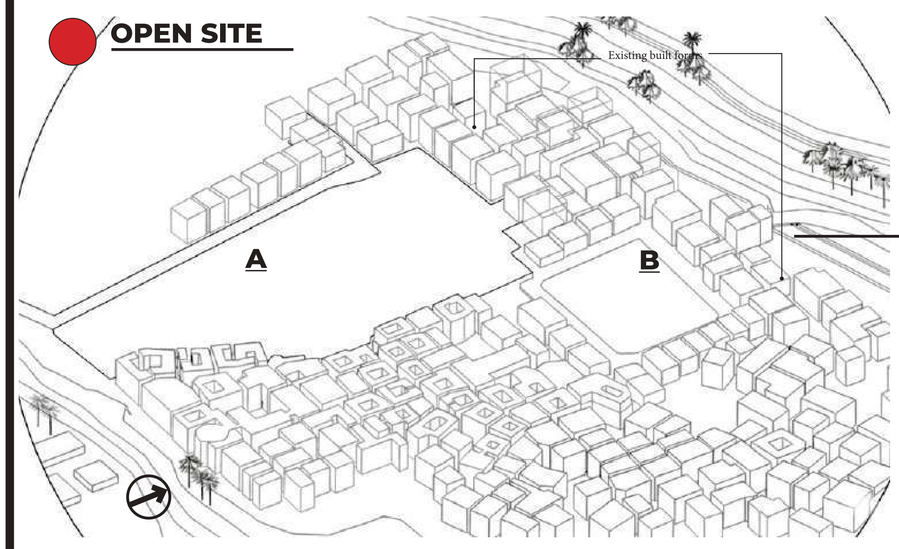
GROUND FLOOR PLAN 1:200



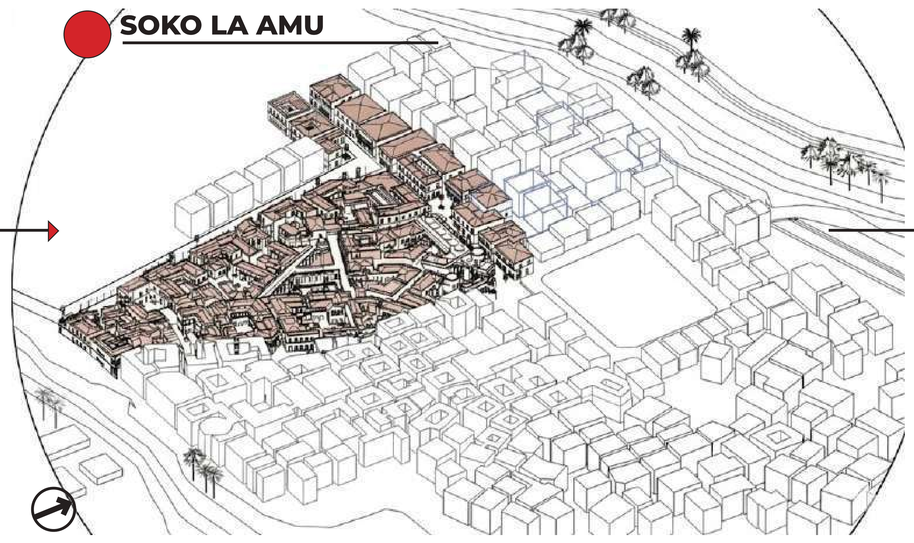
CONCEPT SKETCHES

FORM MAKING PROCESS

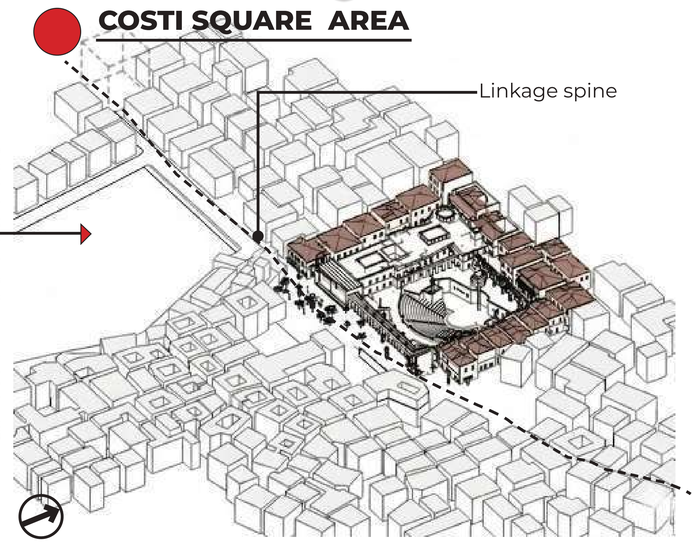
OPEN SITE



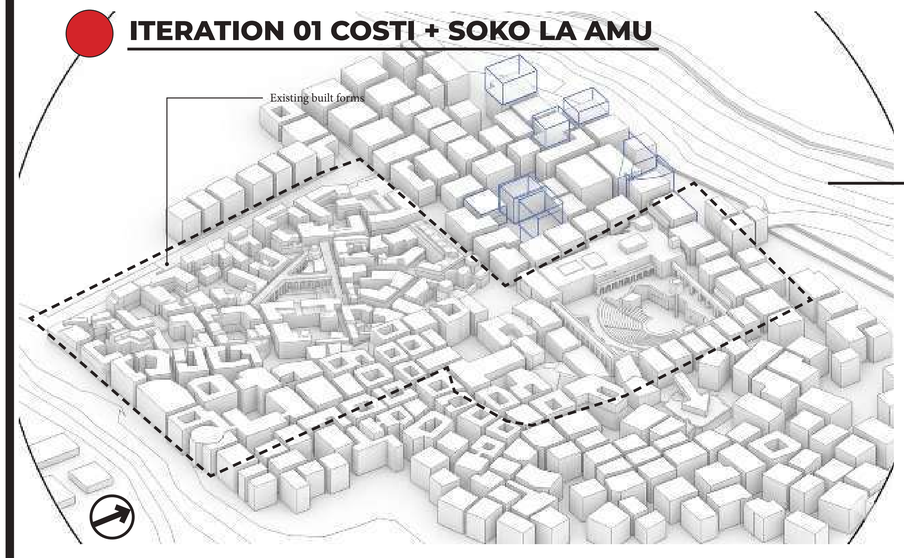
SOKO LA AMU



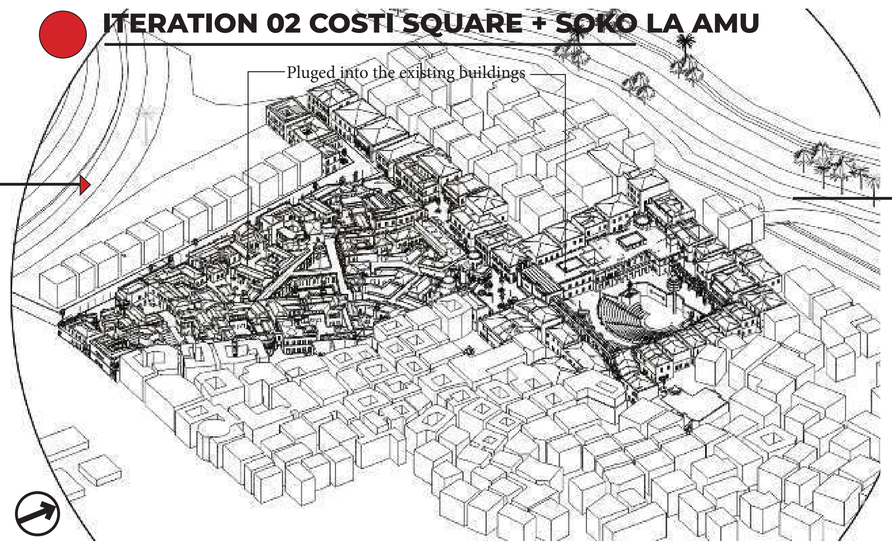
COSTI SQUARE AREA



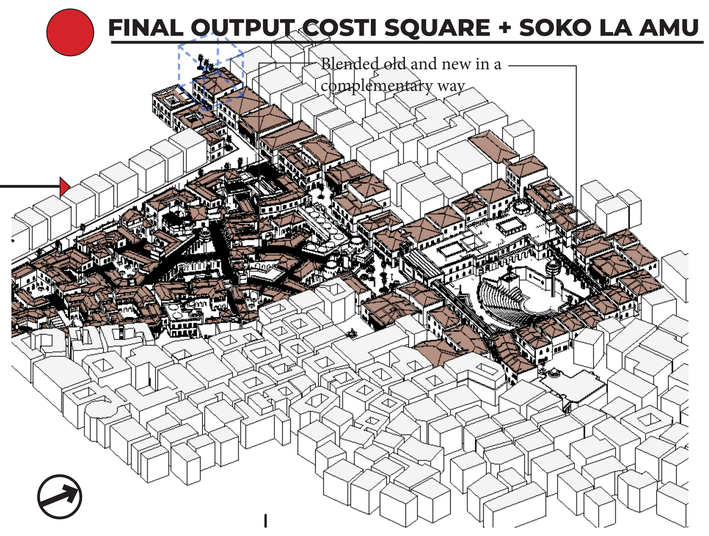
ITERATION 01 COSTI + SOKO LA AMU



ITERATION 02 COSTI SQUARE + SOKO LA AMU



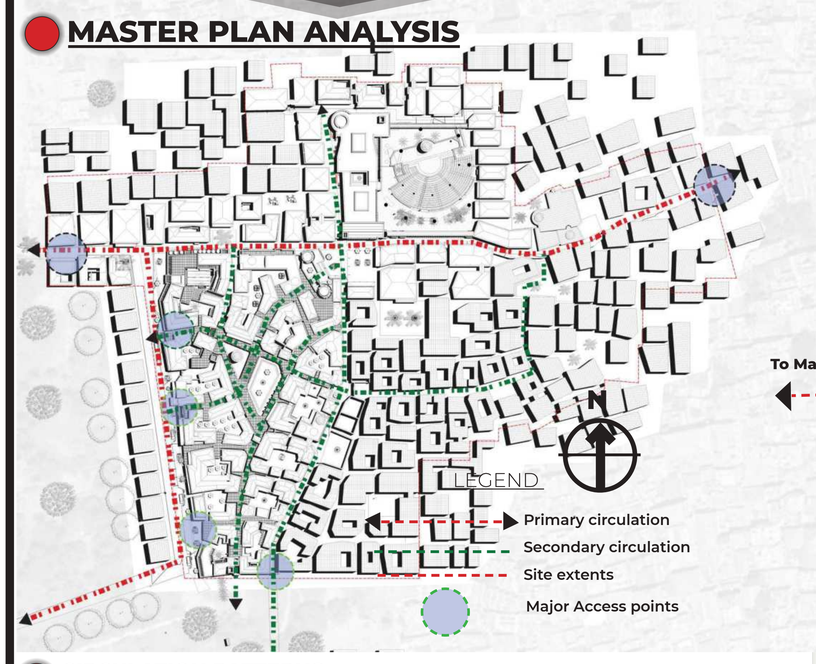
FINAL OUTPUT COSTI SQUARE + SOKO LA AMU



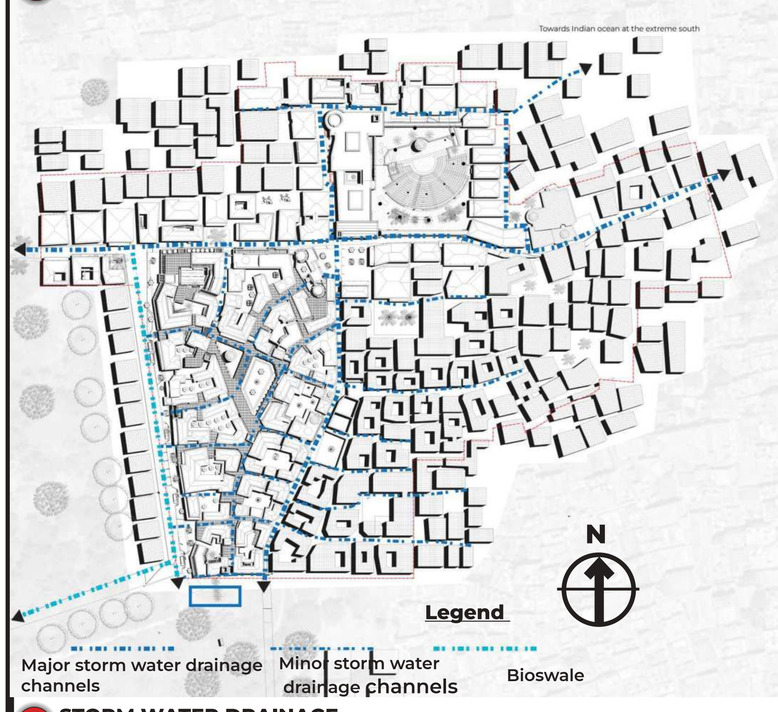
NJERI CYRUS MBURU
REG.NO : B02/5992/2020

MASTERPLAN

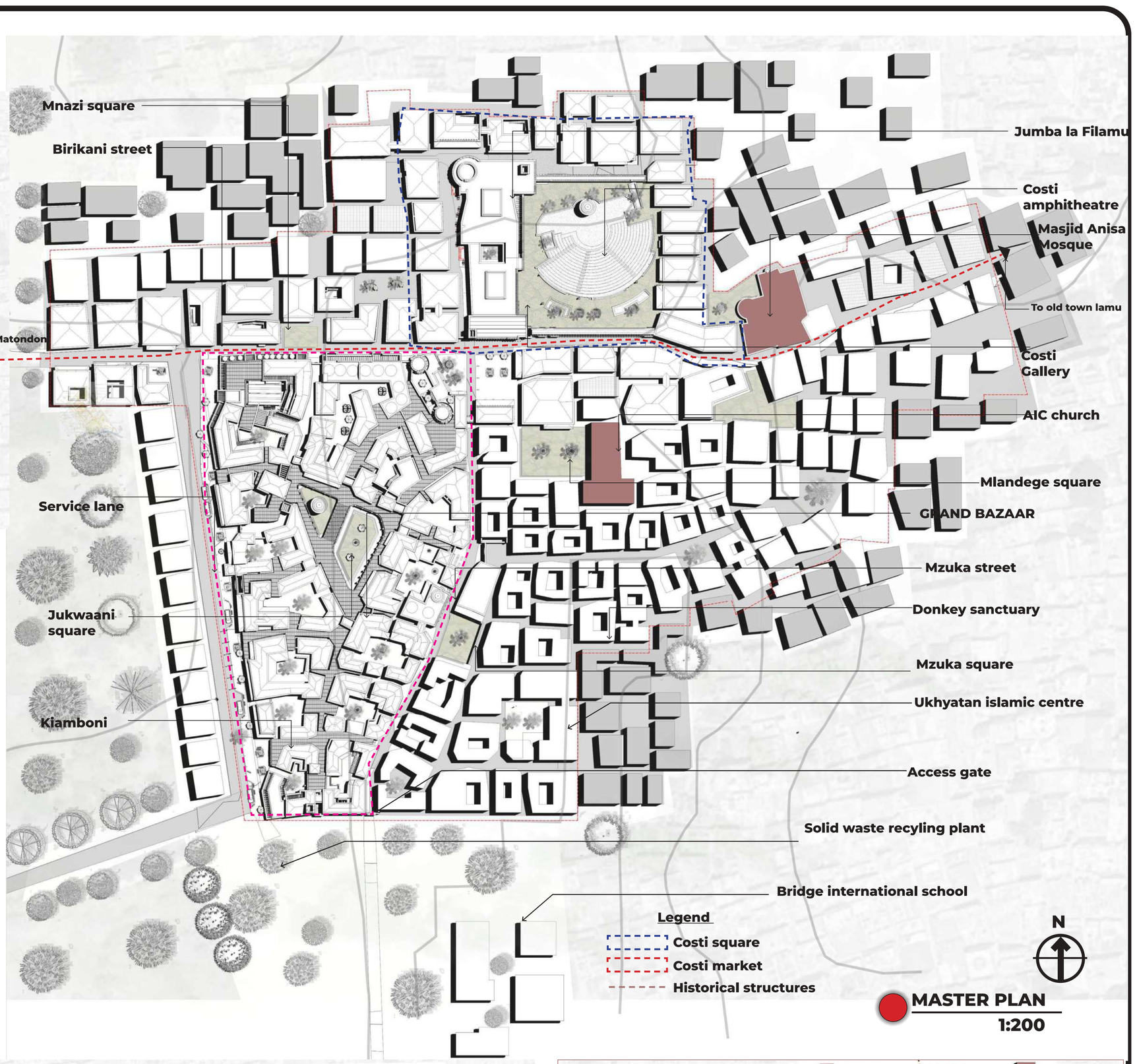
MASTER PLAN ANALYSIS



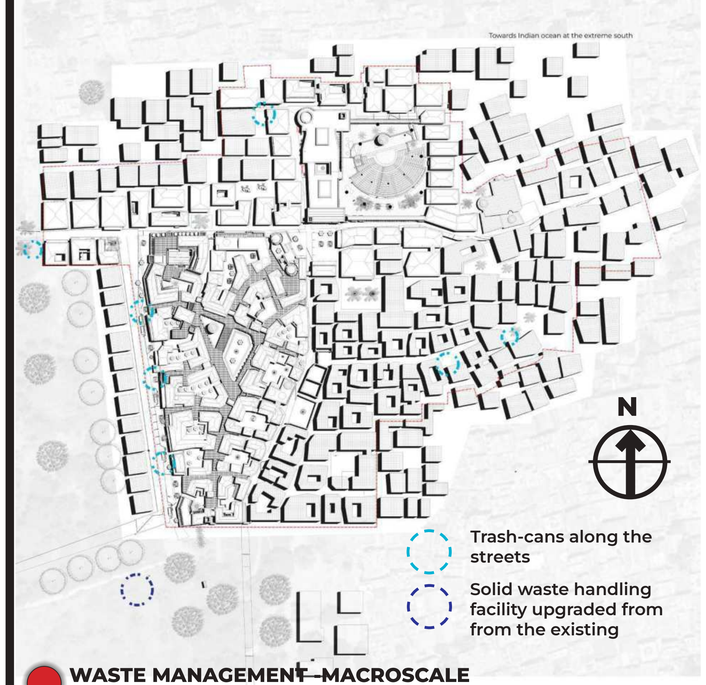
CIRCULATION PATTERNS



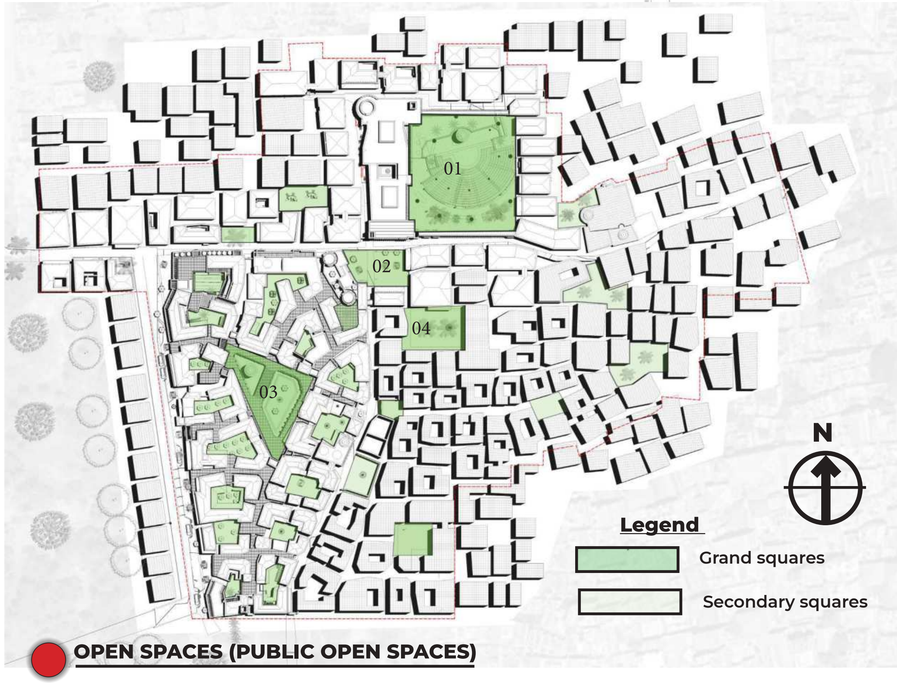
STORM WATER DRAINAGE



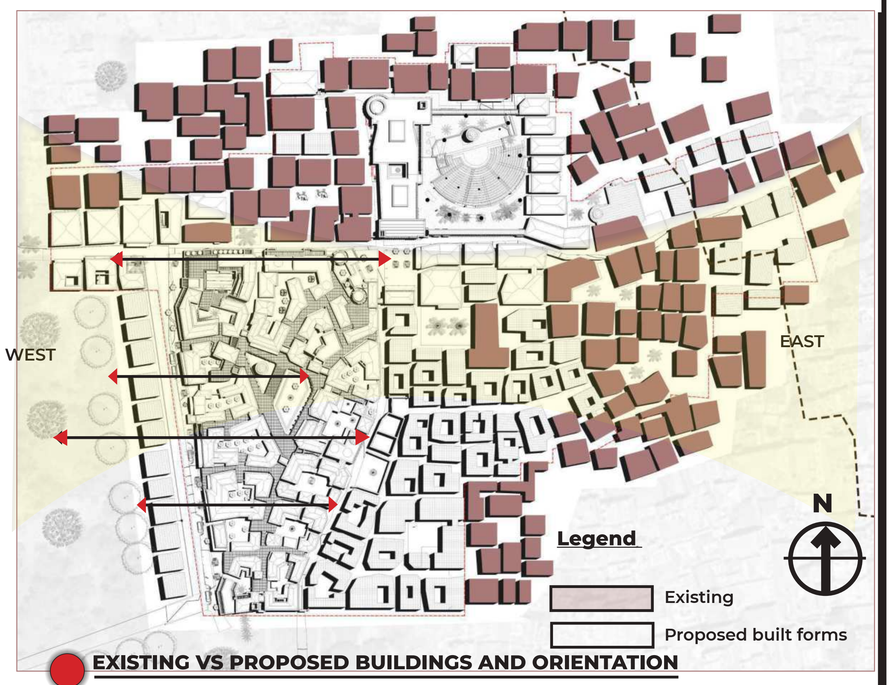
MASTER PLAN
1:200



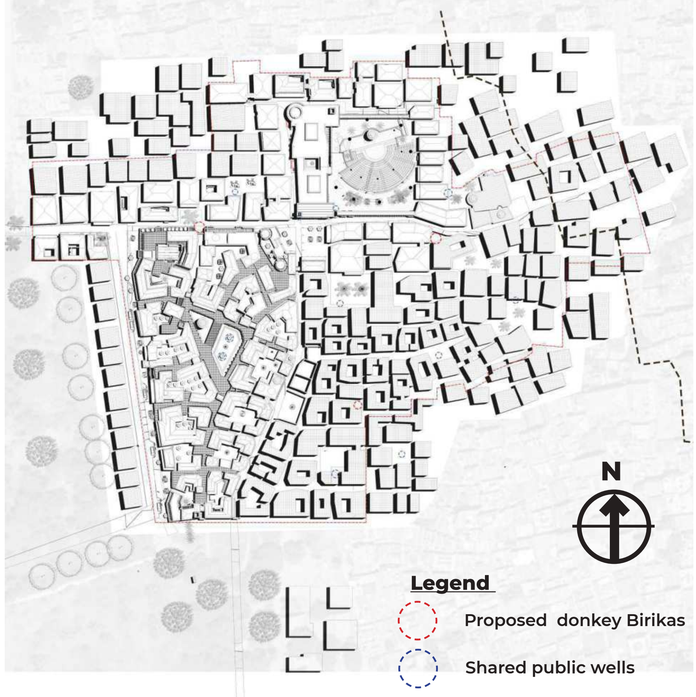
WASTE MANAGEMENT -MACROSCALE



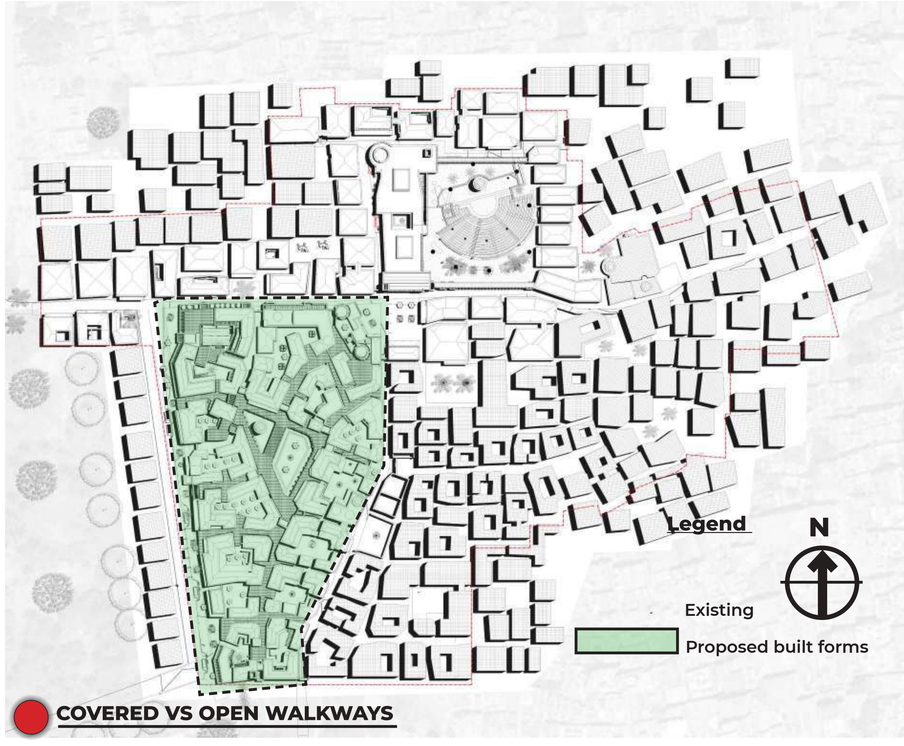
OPEN SPACES (PUBLIC OPEN SPACES)



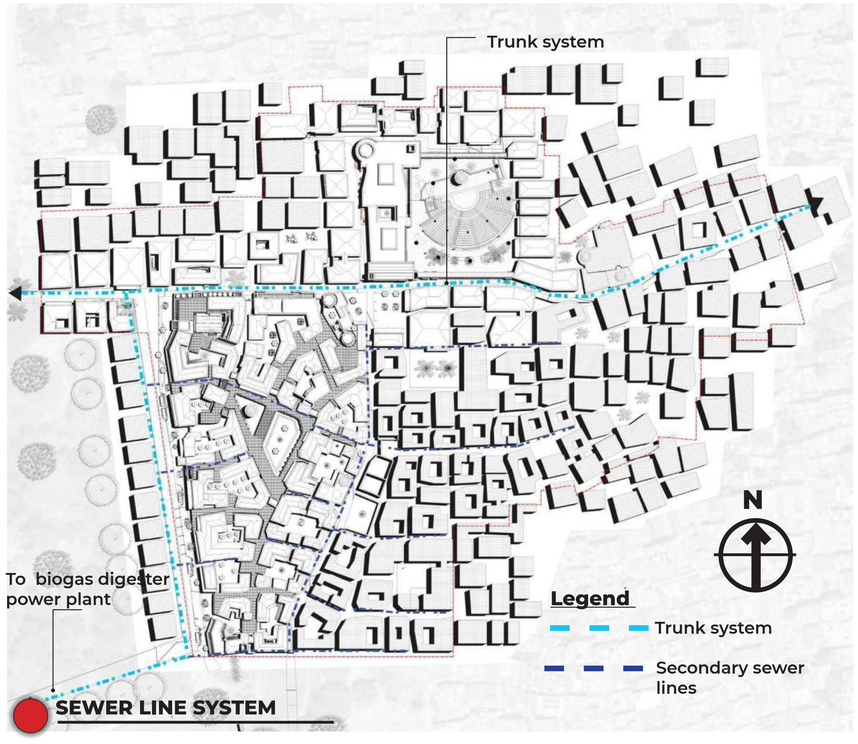
EXISTING VS PROPOSED BUILDINGS AND ORIENTATION



STREETSCAPE ELEMENTS AND SHARED FACILITIES

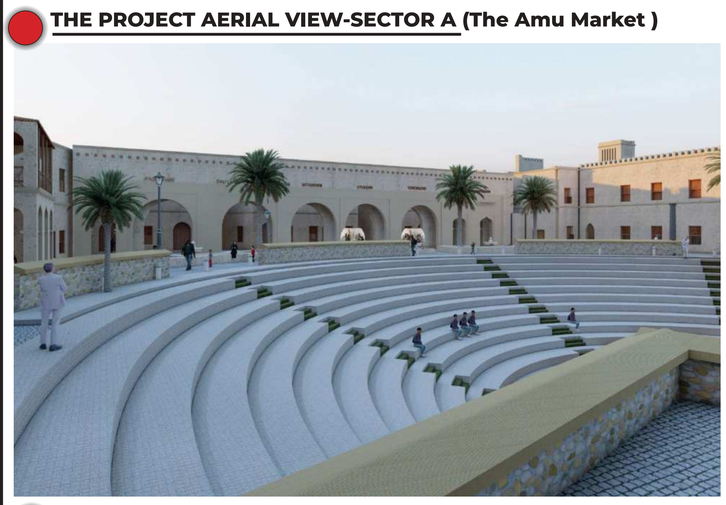


COVERED VS OPEN WALKWAYS



SEWER LINE SYSTEM

THE PROJECT AERIAL VIEW-SECTOR A (The Amu Market)



THE amphitheatre -SECTOR B(The Costi Square)

PROPOSED BUILDING HEIGHTS

THE ARRIVAL STATEMENT TO SOKO LA AMU

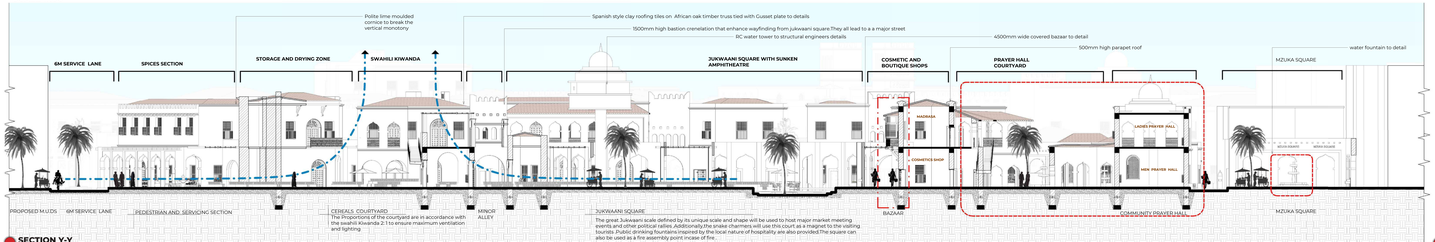
DESIGN OF COSTI SQUARE MARKET AND REVITALIZATION OF COSTI SQUARE AREA IN GARDENI,LAMU

NJERI CYRUS MBURU
REG.NO : B02/5992/2020

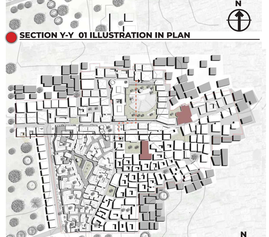
MAJOR SECTIONS

TRANSVERSE SECTION X-X ALONG THE JUKWAANI SQUARE
SCALE 1:100

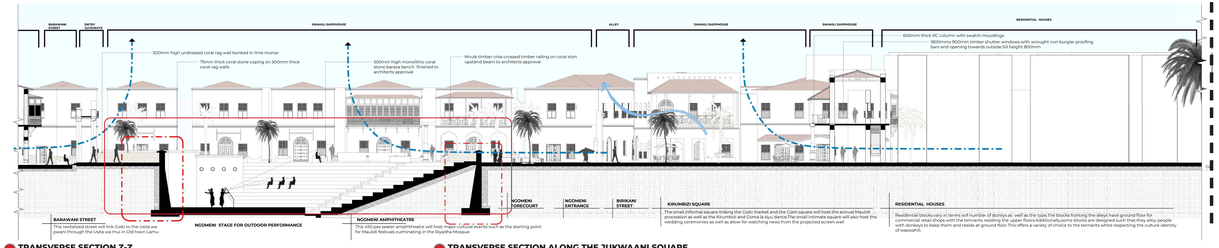
SECTION X-X 01 ILLUSTRATION IN PLAN



SECTION Y-Y
SCALE 1:100

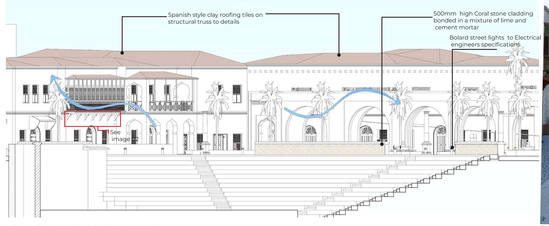


SECTION Y-Y 01 ILLUSTRATION IN PLAN

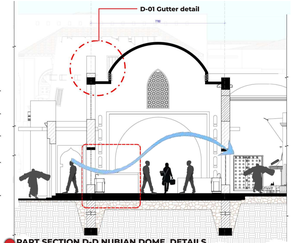


TRANSVERSE SECTION Z-Z
SCALE 1:100

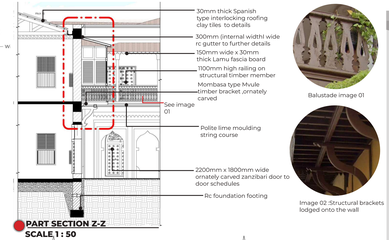
TRANSVERSE SECTION ALONG THE JUKWAANI SQUARE
SCALE 1:100



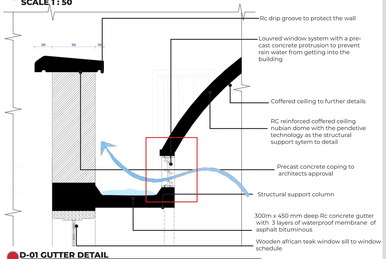
AMPHITHEATRE PART SECTION
SCALE 1:100



PART SECTION D-D NUBIAN DOME DETAILS
SCALE 1:50



PART SECTION Z-Z
SCALE 1 : 50



D-01 GUTTER DETAIL
SCALE 1:10

RENDER THROUGH THE COSTI SQUARE
SCALE 1:100

LANDSCAPING HARDSCAPES
Material parlette

Cobble stone

Coral stone

Rammed earth

Cabrostone

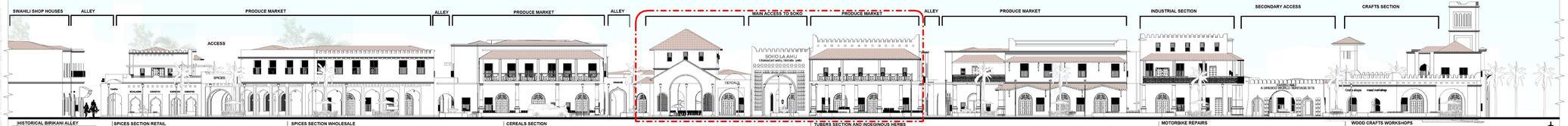
Riverbed rocks

MAJOR STREET ELEVATIONS

ELEVATION 01 ILLUSTRATION IN PLAN

ELEVATION 02 & 03 ILLUSTRATION IN PLAN

ELEVATION 04 & 05 ILLUSTRATION IN PLAN



HISTORICAL BIRIKANI ALLEY
This alley linking Old and New Lamu and Matondoni is historical and has the donkey stroking trough along it at designated zones(to blend in animal welfare and architecture of the Coast).

SPICES SECTION RETAIL
The spices section deals with both wholesale and retail outlets.For ease of maintaainace and additional security in the market ,some of the first floor units are used to house tenants .This also makes the market safe to traverse during the night (Eyes on the street)

SPICES SECTION WHOLESALE
The outlets here are partitioned with visual connection through arched mashrabiya screens.Additional space is provided for outdoor spill over of spaces and for visibility by passers by.The drying yard at the roof terrace is also provided for efficiency.The mode of display is a hybrid of both external and internal display stalls.

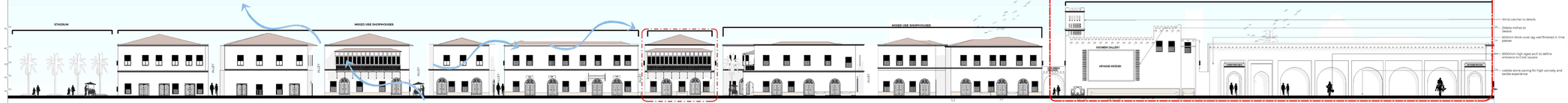
CEREALS SECTION
The cereals section mode of dispaly is also a hybrid of both indoor and outdoor.The spaces are open plan with vendors on either side with other having external display and others utilizing the courtyard as additional selling space.The courtyard also serves for servicing of waste and new arrivals.A rooftop terrace is also provided for dring the cereals .Storage and one tenant unit.

TUBERS SECTION AND INDIGENOUS HERBS
The goods displayed include the potatoes,yuch are both sold at retail and wholesale.The bulkiness of these goods makes it necessary to have a service node for offloading goods near this section.

MOTORBIKE REPAIRS
Motorbikes spareparts and repairs are done in this section.Additional space for donkey carts is also provided at street level .Its strategic position ensures ease of access via the proposed 6m service lane.

WOOD CRAFTS WORKSHOPS
Strategically located due to the bulkiness of the raw materials.The display of the finished products is also clearly for the craftsmen.The courtyard allows for the storage of the bulky unfashioned thermal and wind catcher cores.In the spaces ,since the nature of activity is intense hence natural cooling is critical for thermal comfort.

ELEVATION 01 ALONG THE SERVICE LANE
SCALE 1:100



TWAAF SPORTS STADIUM
The stadium demanded for upgrading hosts local footbal events and tourist tournaments.Its location at the waterfront is fruitful.The street food vendors will tap into this footfall.

MIXED USE SHOPHOUSE
The two storey verandah house has the retail shops at ground floor and the upper floor is used to house the tenants.This activates the otherwise dead Birikani street.

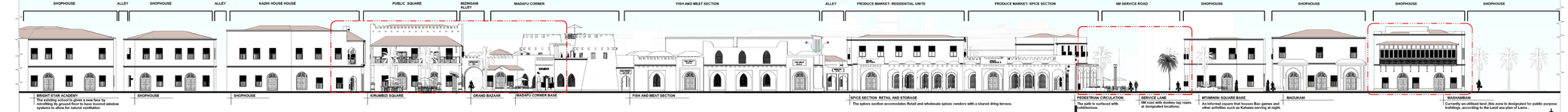
MPAZINI SQUARE
This square is historically significant by hosting informal meetings and events such as watching news at a small scale.the square also serves kahawa at the evenings.

KIRUMBUSI SQUARE
The square is used for the traditional kirumbusi ceremony as well as hosting the annual wending the wave food .Heada's corner is also located inside the square

COSTI SQUARE ENTRANCE
The historical Costi square hosts a 150pax cinema hall ,a gallery for display to decorged the Lamu swahili house as well as shophouses around .The Ngoma amphitheatre also seats here and is ideal for the climate as well as the donkey auctioneering.

- Wind catcher to details
- Zidaka niches to details
- 600mm thick coral rag wall finished in lime plaster
- 5000mm high agee arch to define entrance to Costi square
- cobble stone paving for high porosity and tactile experience

ELEVATION 02 ALONG BRIRIKANI STREET
SCALE 1:100



BRIGHT STAR ACADEMY
The existing school is given a new face by retrofitting its ground floor to have louered window systems to allow for natural ventilation

KIRUMBUSI SQUARE

GRAND BAZAAR

MADAFU CORNER BASE

FISH AND MEAT SECTION

SPICE SECTION RETAIL AND STORAGE
The spices section accomodates Retail and wholesale spices vendors with a shared dring terrace.

PEDESTRIAN CIRCULATION
The path is surfaced with cobblestone.

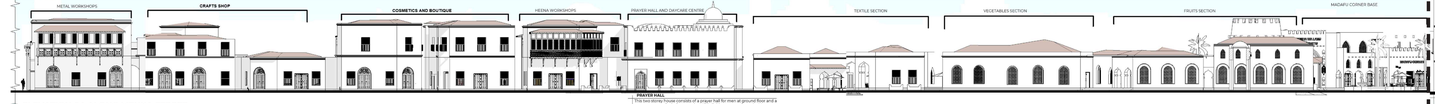
SERVICE LANE
6M road with donkey tag ropes at designated locations.

MTAMWIN SQUARE BASE
An informal square that houses Bao games and other activities such as Kahawa serving at night.

MADUKANI

MASHAMBAM
Currently un-utilised land ,this zone is designated for public purpose buildings ,according to the Land use plan of Lamu .

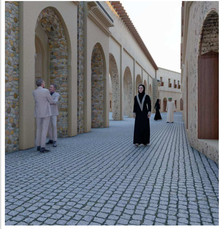
ELEVATON 03 ALONG THE BRIRIKANI STREET
SCALE 1:100



PRAYER HALL
This two storey house consists of a prayer hall for men at ground floor and a separate access for ladies upstairs. Wides linking women from the Henna workshop thus conforming to privacy requirements.

ELEVATION 04 ALONG MZUKA STREET
SCALE 1:100

ELEVATION 05 ALONG BARAWANI STREET
SCALE 1:100

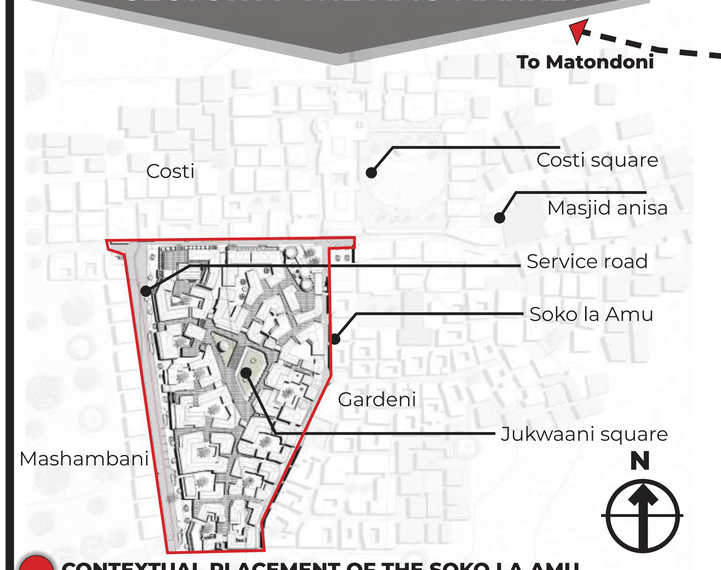


RENDER ALONG BIRIKANI STREET

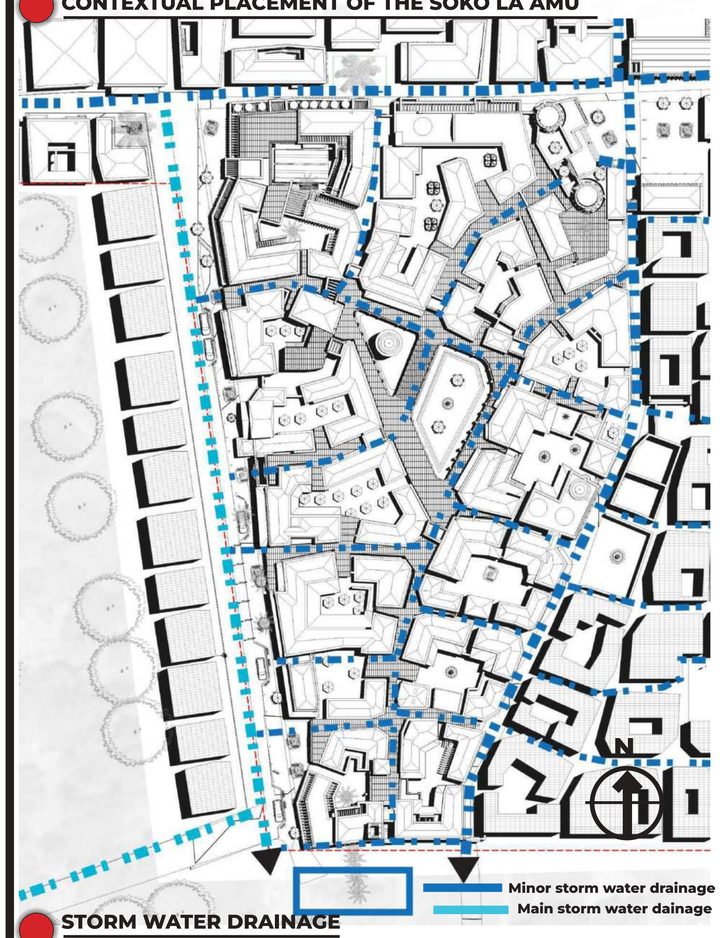
RENDER OF THE COSTI SQUARE

RENDER OF THE JUKWAANI SQUARE

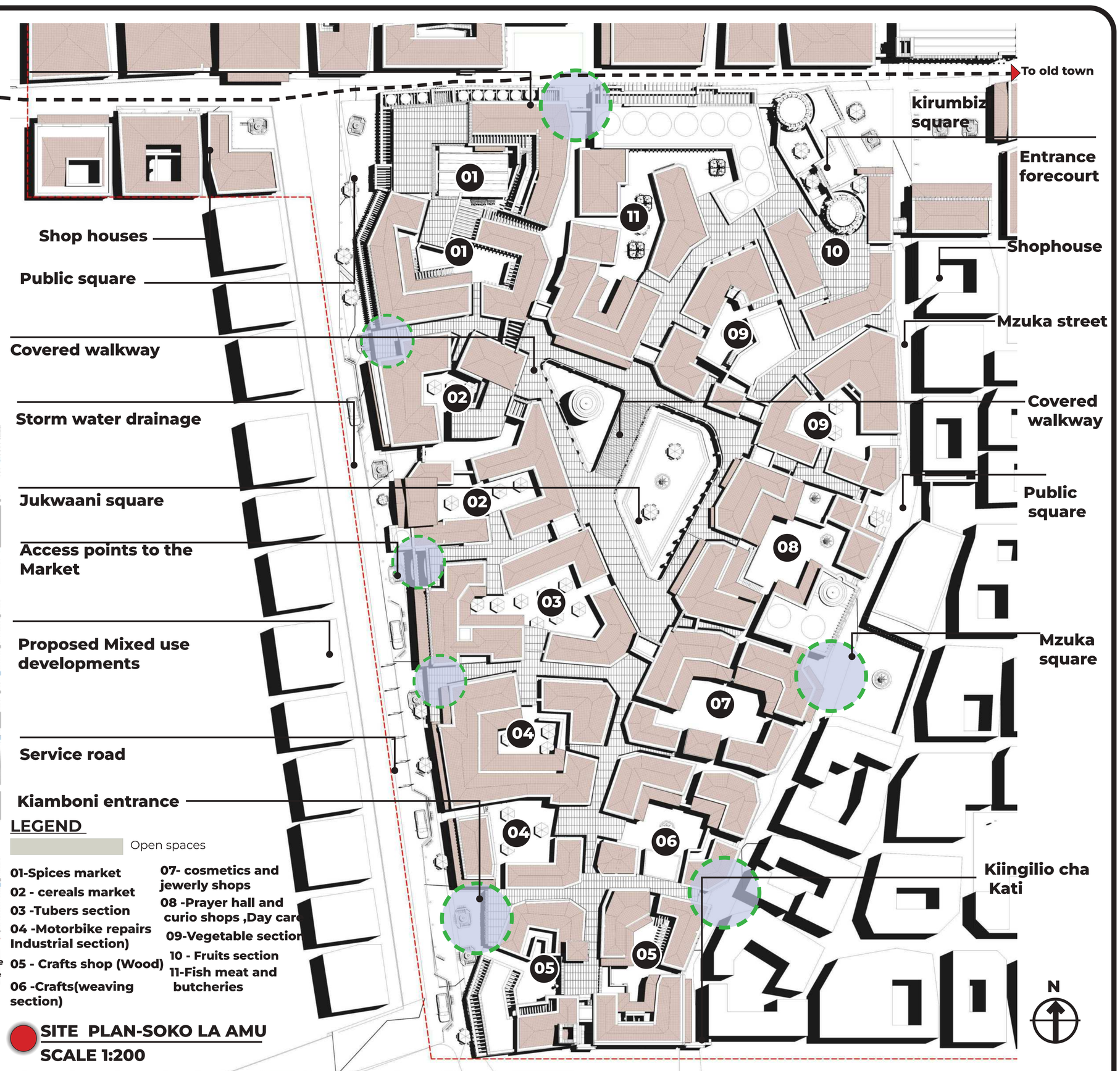
MASTERPLAN
SECTOR A -THE AMU MARKET



CONTEXTUAL PLACEMENT OF THE SOKO LA AMU



STORM WATER DRAINAGE



LEGEND

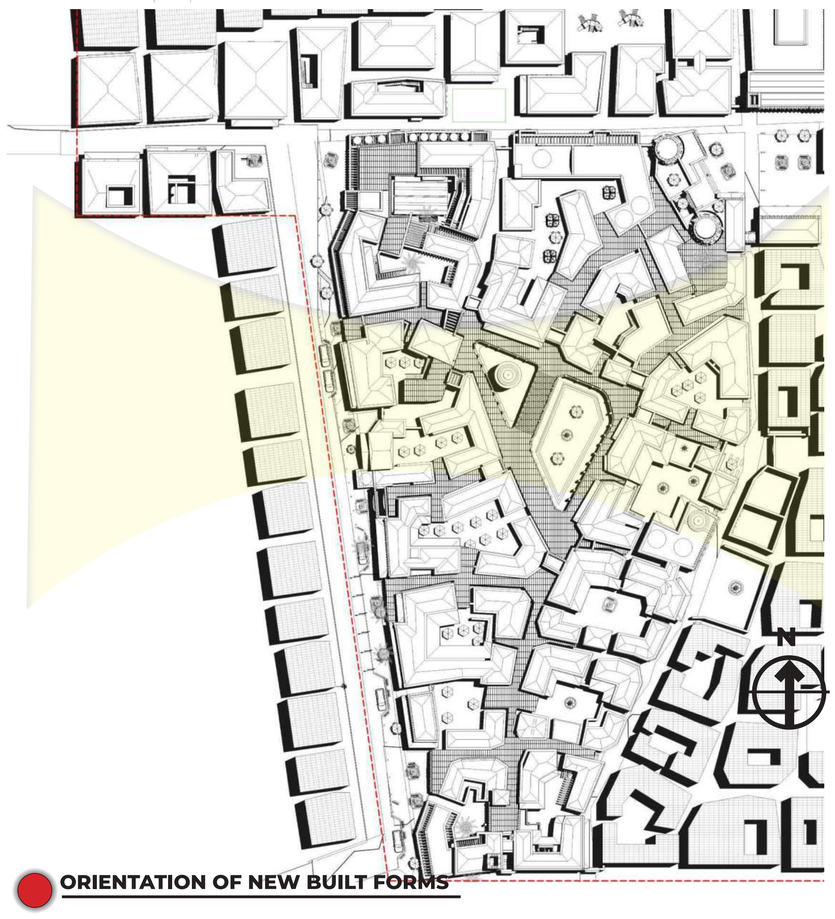
Open spaces

01-Spices market
02 - cereals market
03 -Tubers section
04 -Motorbike repairs Industrial section)
05 - Crafts shop (Wood)
06 -Crafts(weaving section)
07- cosmetics and jewerly shops
08 -Prayer hall and curio shops ,Day care
09-Vegetable section
10 - Fruits section
11-Fish meat and butcheries

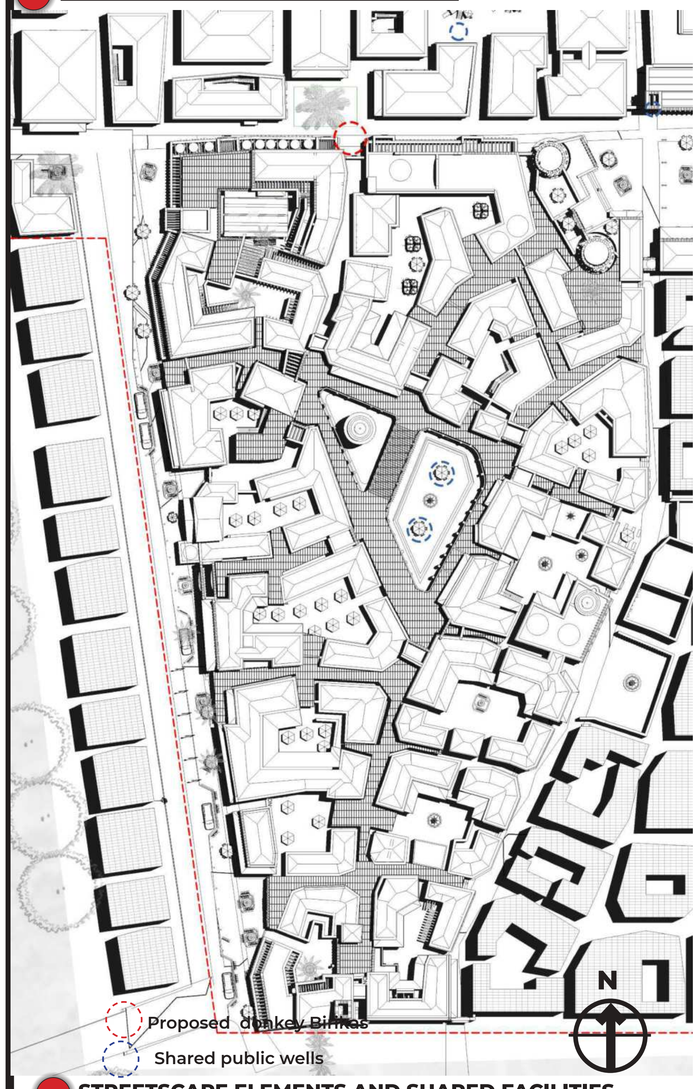
SITE PLAN-SOKO LA AMU
SCALE 1:200

WASTE MANAGEMENT -MACROSCALE

OPEN SPACES (PUBLIC OPEN SPACES WITHIN THE MARKET)



ORIENTATION OF NEW BUILT FORMS



STREETSCAPE ELEMENTS AND SHARED FACILITIES

PROPOSED BUILDING HEIGHTS WITHIN THE MARKET

SEWER LINE SYSTEM

THE PROJECT AERIAL VIEW

SNAKE CHARMERS JUKWAANI SQUARE -SUNKEN AMPHITHEATRE

THE AERIAL VIEW OF SOKO LA AMU

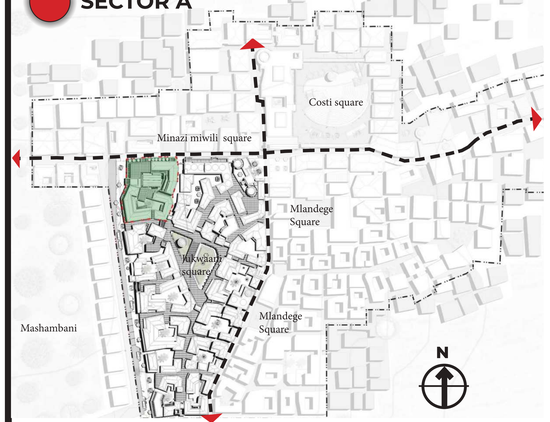
DESIGN OF COSTI SQUARE MARKET AND REVITALIZATION OF COSTI SQUARE AREA IN GARDENI,LAMU

NJERI CYRUS MBURU
REG.NO : B02/5992/2020

PART PLANS

SPICES SECTION- SECTOR A

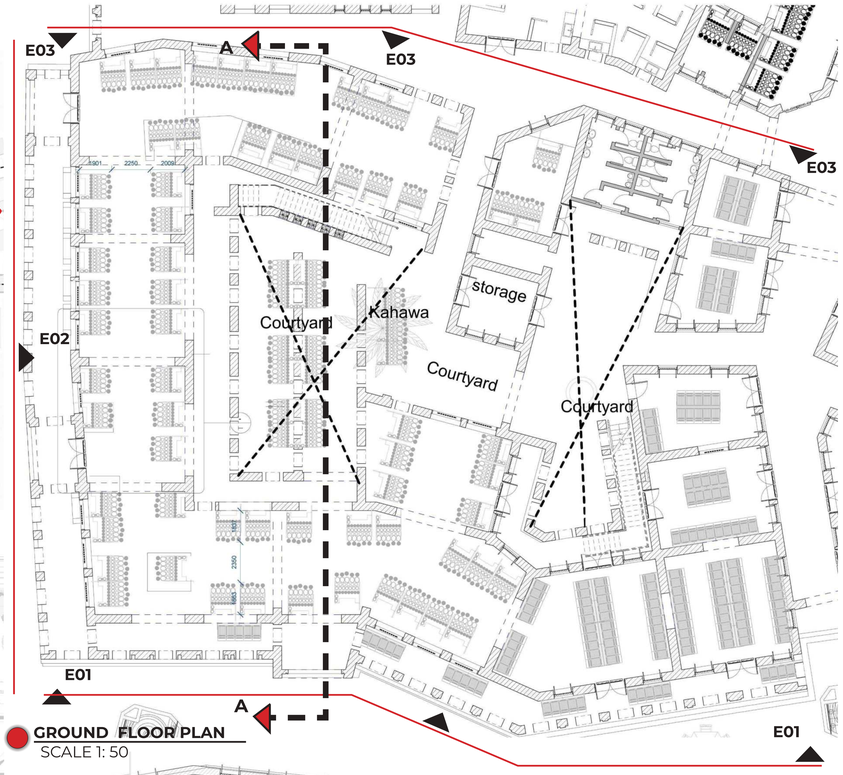
SECTOR A



LOCATION OF THE SPICES SECTION MACROSCALE

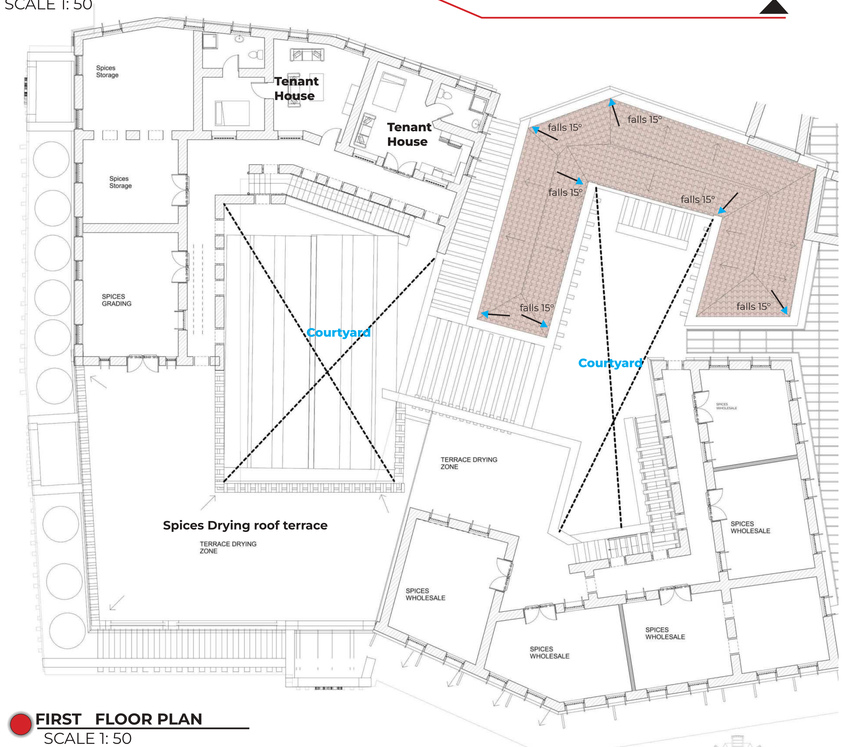
LOCATION OF THE SPICES SECTION MICROSCALE

RENDER VIEW OF THE SPICES SECTION ALONG SERVICE LANE



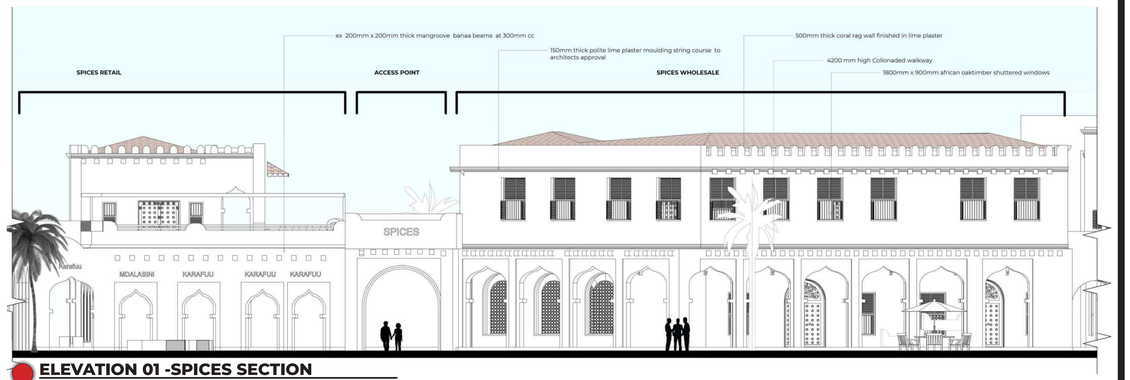
GROUND FLOOR PLAN

SCALE 1: 50



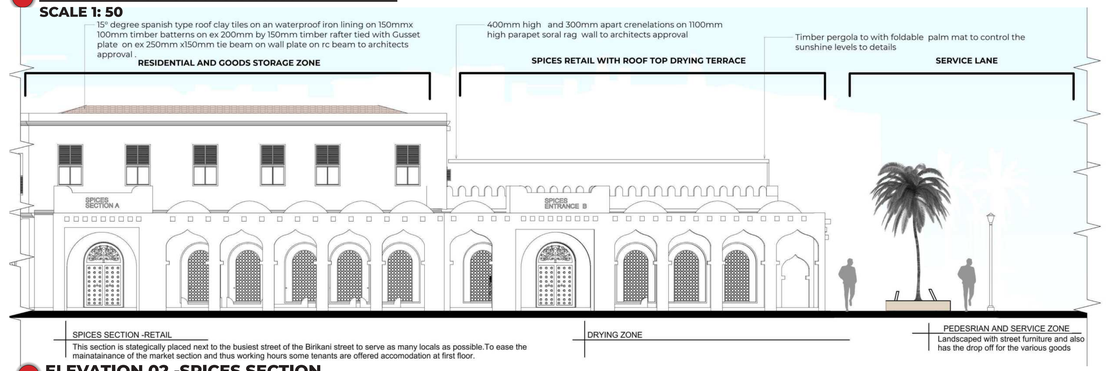
FIRST FLOOR PLAN

SCALE 1: 50



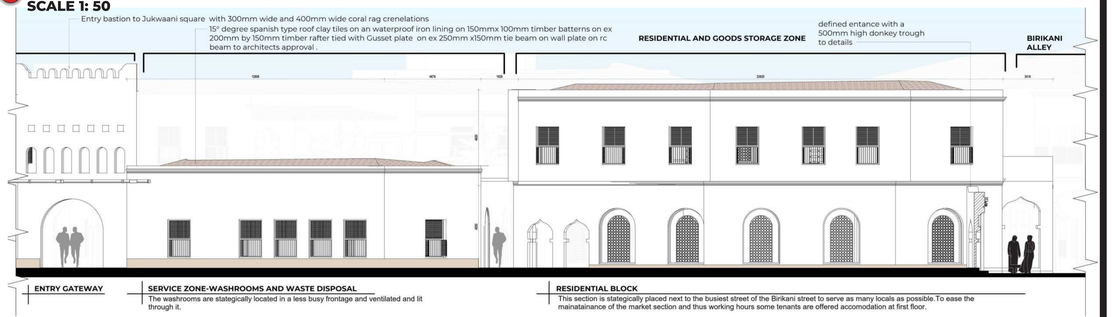
ELEVATION 01 -SPICES SECTION

SCALE 1: 50



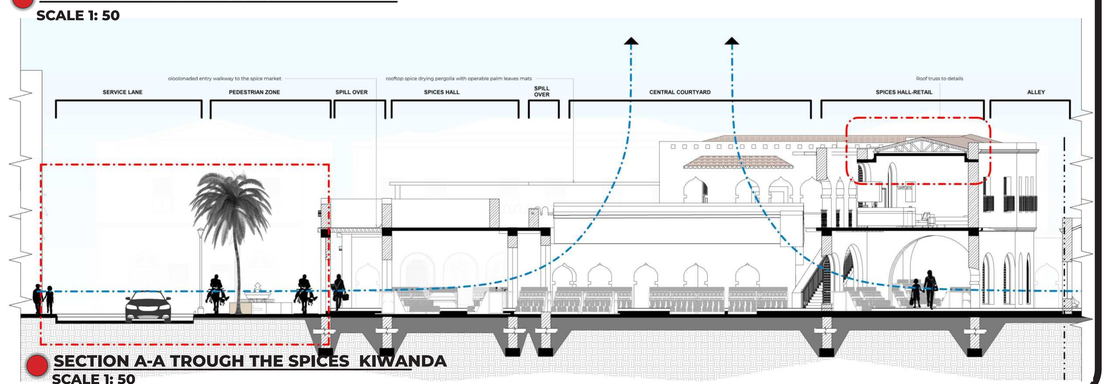
ELEVATION 02 -SPICES SECTION

SCALE 1: 50



ELEVATION 03 -SPICES SECTION

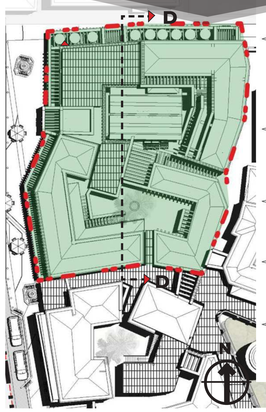
SCALE 1: 50

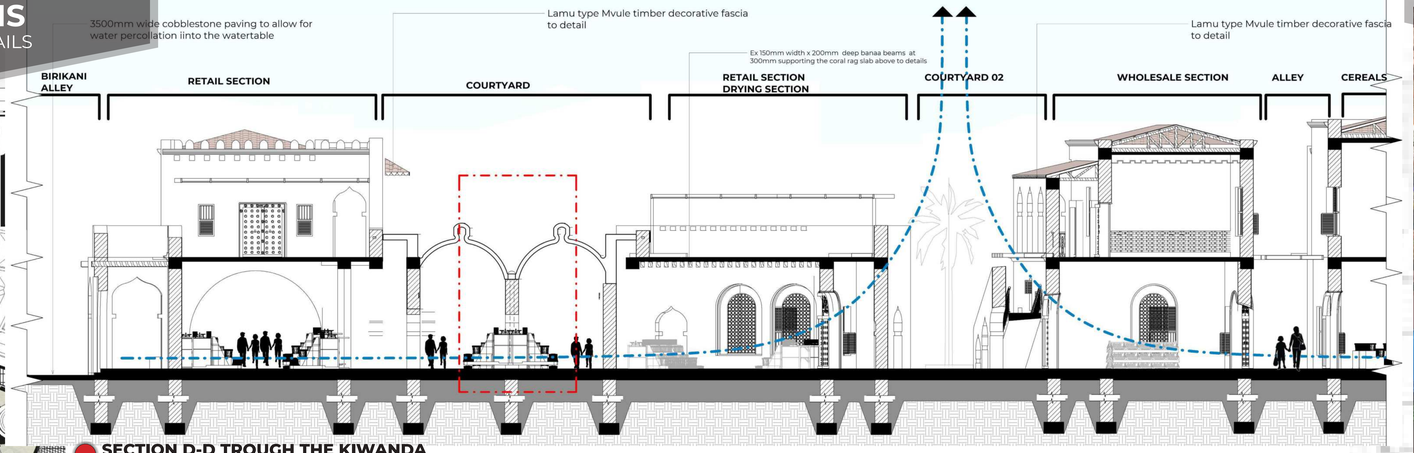


SECTION A-A TROUGH THE SPICES KIWANDA

SCALE 1: 50

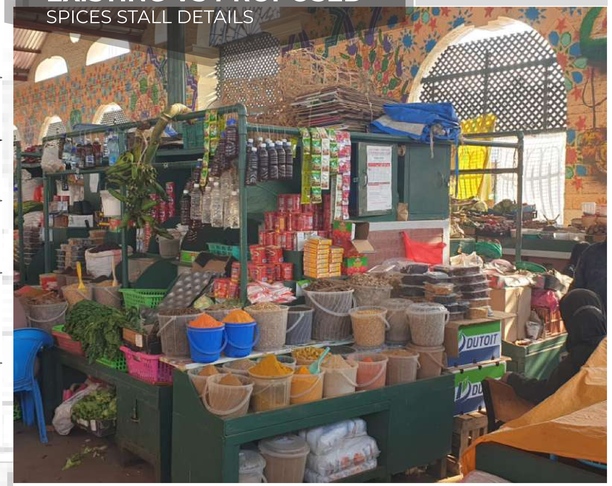
PART PLANS
SPICES STALL DETAILS





SECTION D-D TROUGH THE KIWANDA
SCALE 1: 50

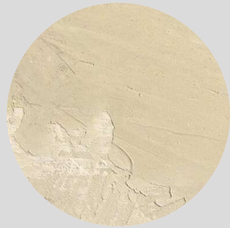
EXISTING VS PROPOSED
SPICES STALL DETAILS



MATERIAL PARLETTE

Terrazo -flooring

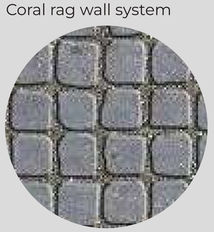
Palm leaves -Stall pannels



Lime plaster -walling

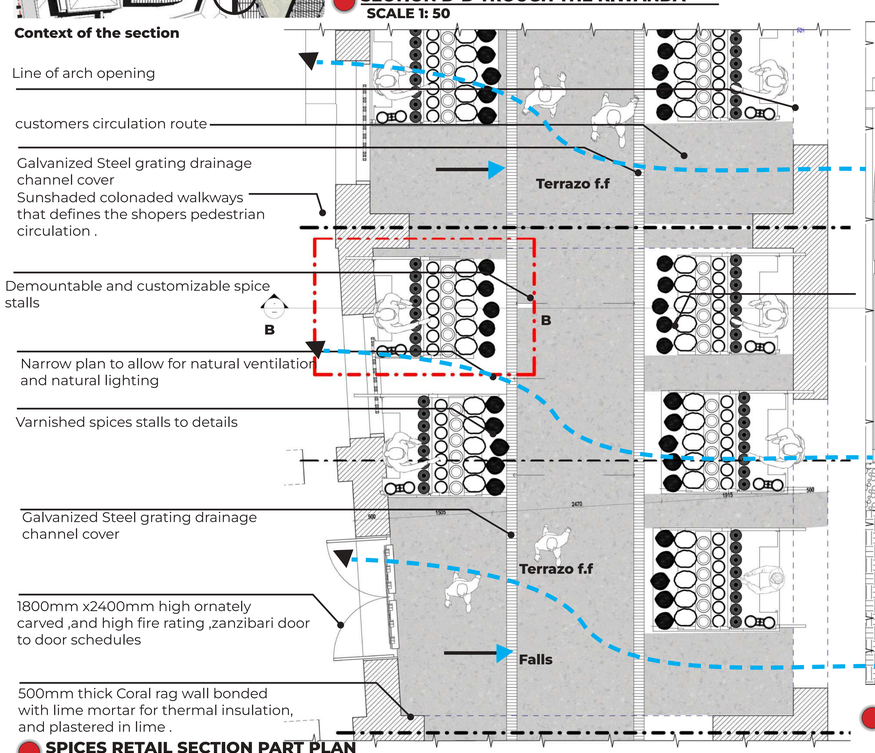
Mangroove poles -ceiling

Coral rag wall system

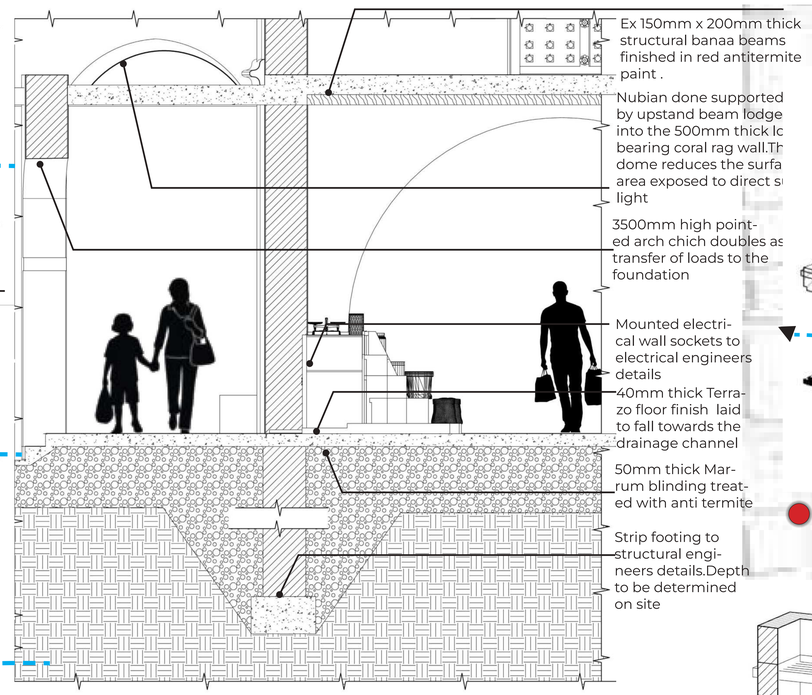


Cobblestone -Kiwanda area

Context of the section

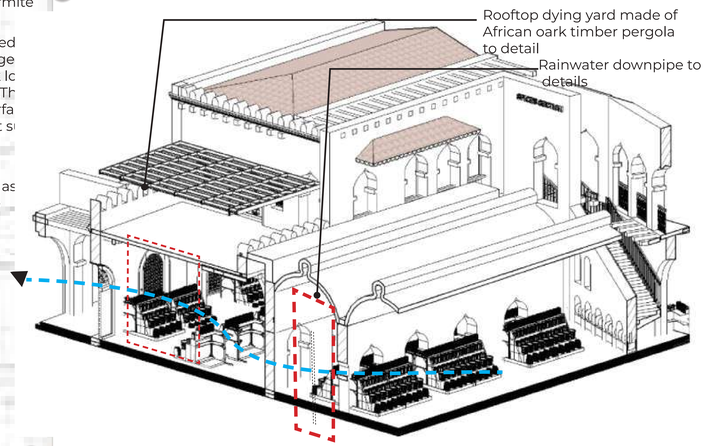


SPICES RETAIL SECTION PART PLAN
SCALE 1:25



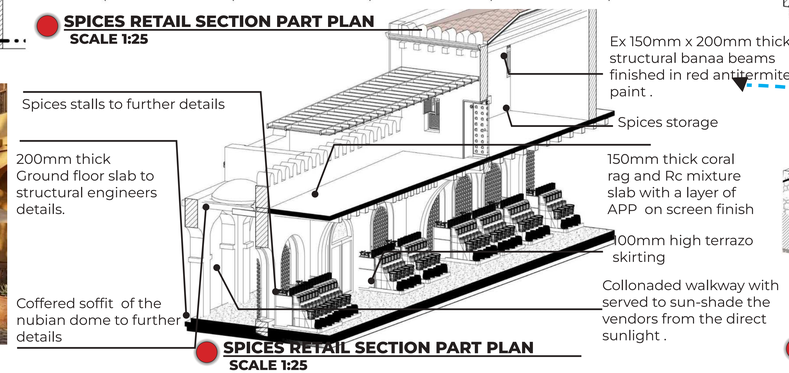
SPICES RETAIL SECTION PART PLAN
SCALE 1:25

EXISTING TYPOLOGIES OF SPICES STALLS IN MACKINNON MARKET

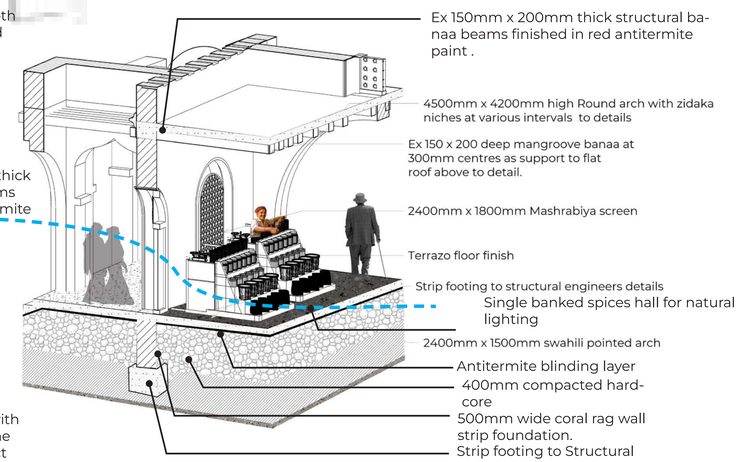


SPICES RETAIL SECTION PART PLAN
SCALE 1:25

VIEWS OF THE SPICE MARKET ALONG THE SERVICE STREET



SPICES RETAIL SECTION PART PLAN
SCALE 1:25



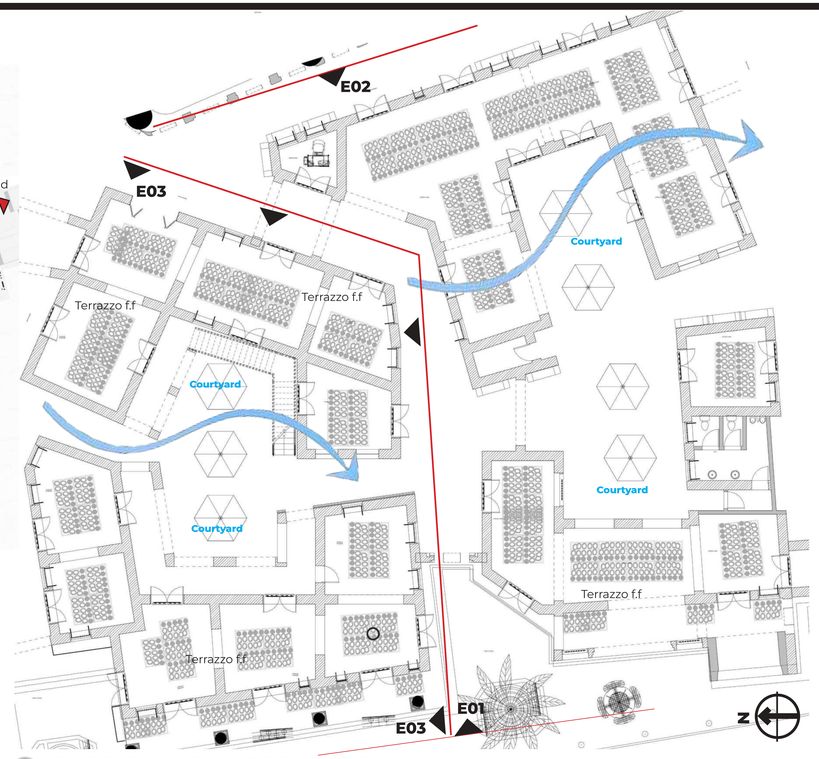
SPICES RETAIL SECTION PART PLAN
SCALE 1:25

PART PLANS
CEREALS SECTION

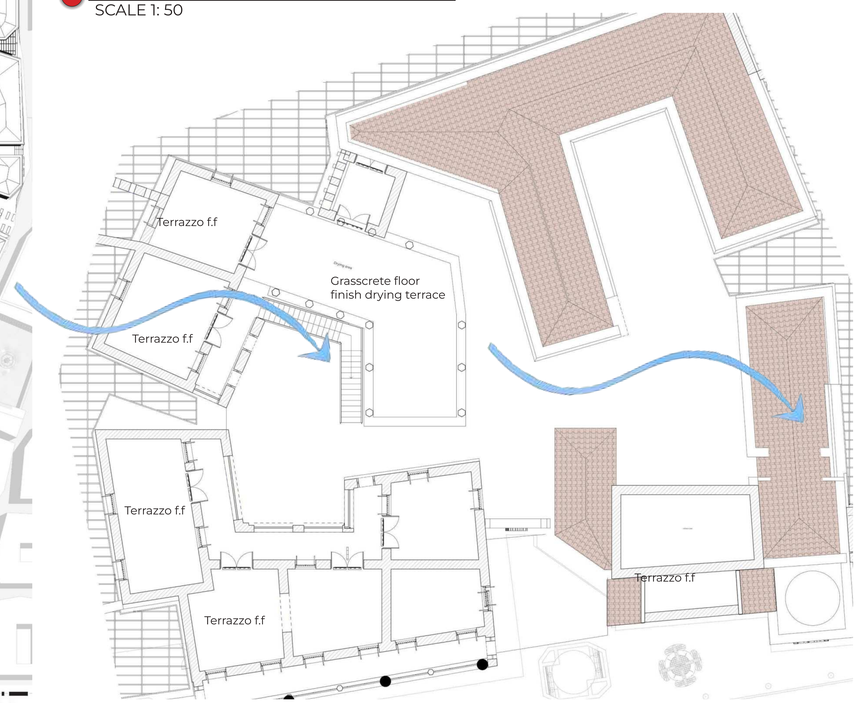
SECTOR A

LOCATION OF THE CEREALS SECTION MACROSCALE

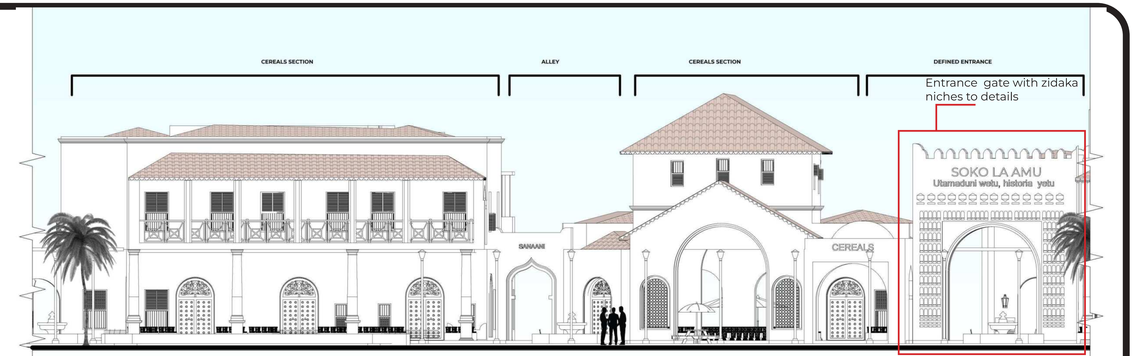
LOCATION OF THE CEREALS SECTION AT MICROSCALE



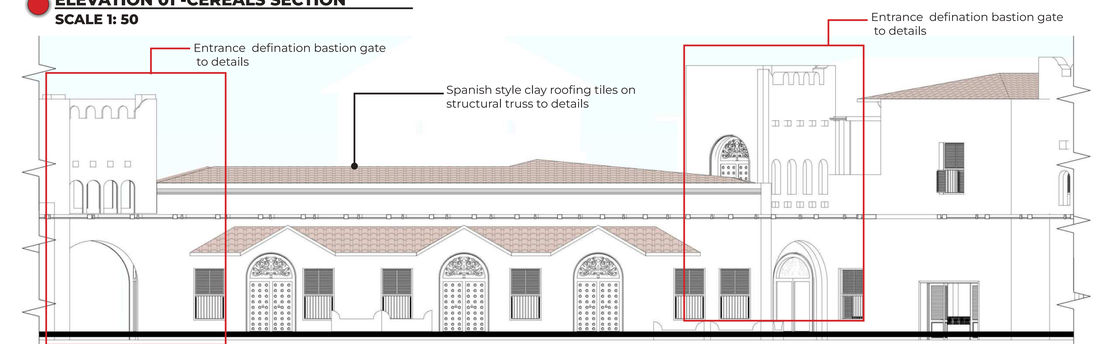
GROUND FLOOR PLAN -CEREALS SECTION
SCALE 1: 50



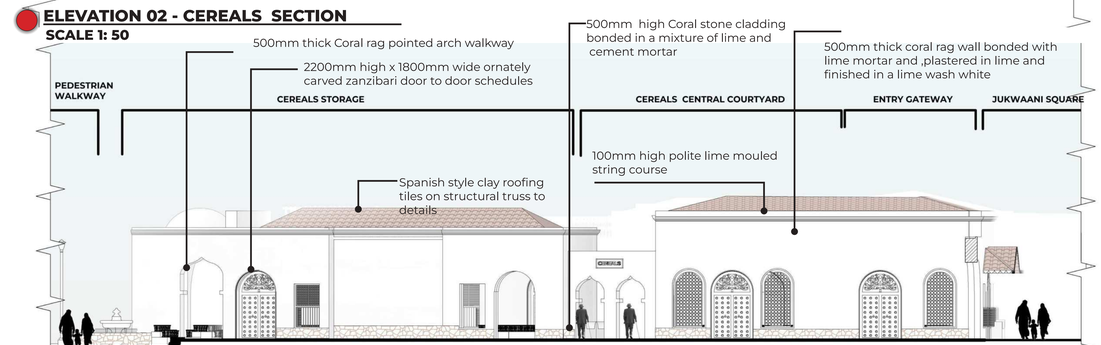
FIRST FLOOR PLAN -CEREALS SECTION
SCALE 1: 50



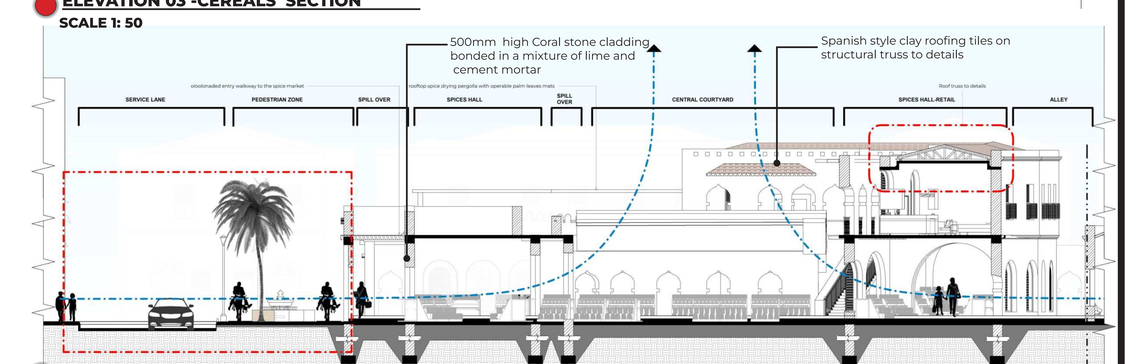
ELEVATION 01 -CEREALS SECTION
SCALE 1: 50



ELEVATION 02 - CEREALS SECTION
SCALE 1: 50

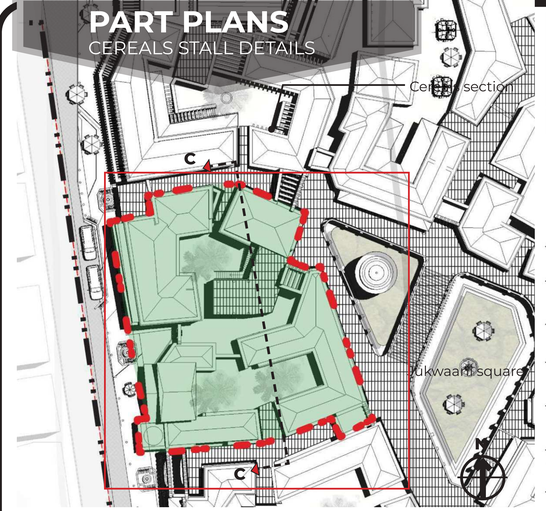


ELEVATION 03 -CEREALS SECTION
SCALE 1: 50

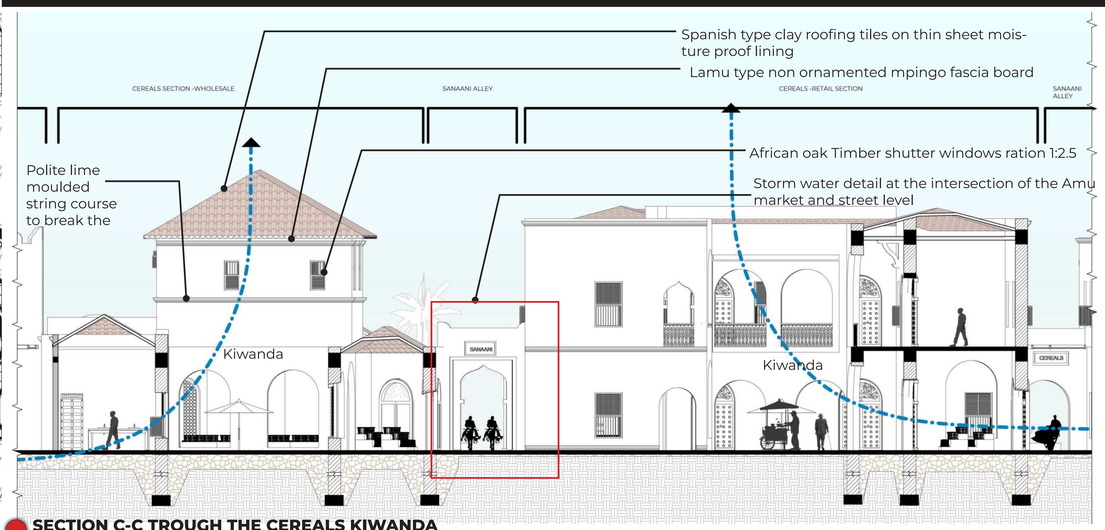


SECTION D-D TROUGH THE KIWANDA OF THE CEREALS SECTION
SCALE 1: 50

PART PLANS
CEREALS STALL DETAILS



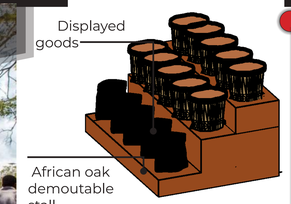
LOCATION OF SECTION IN REFERENCE TO JUKWAANI
SCALE 1: 50



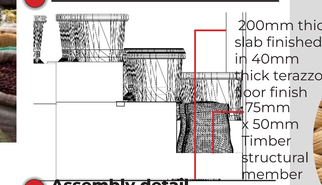
SECTION C-C TROUGH THE CEREALS KIWANDA
SCALE 1: 50

EXISTING VS PROPOSED
CEREALS STALLS

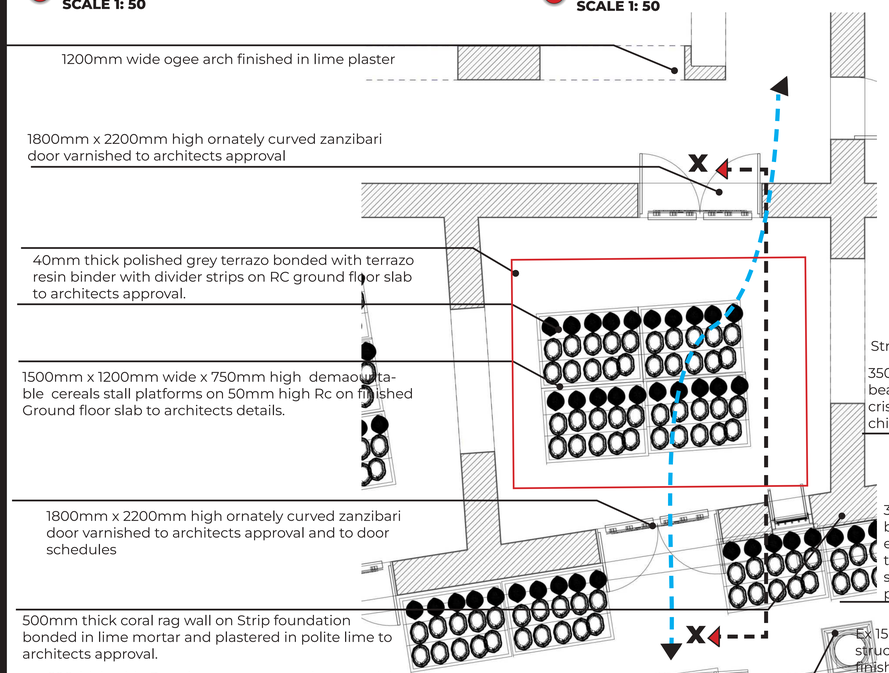
EXISTING CEREALS DISPLAY



PROPOSED STALL 3d

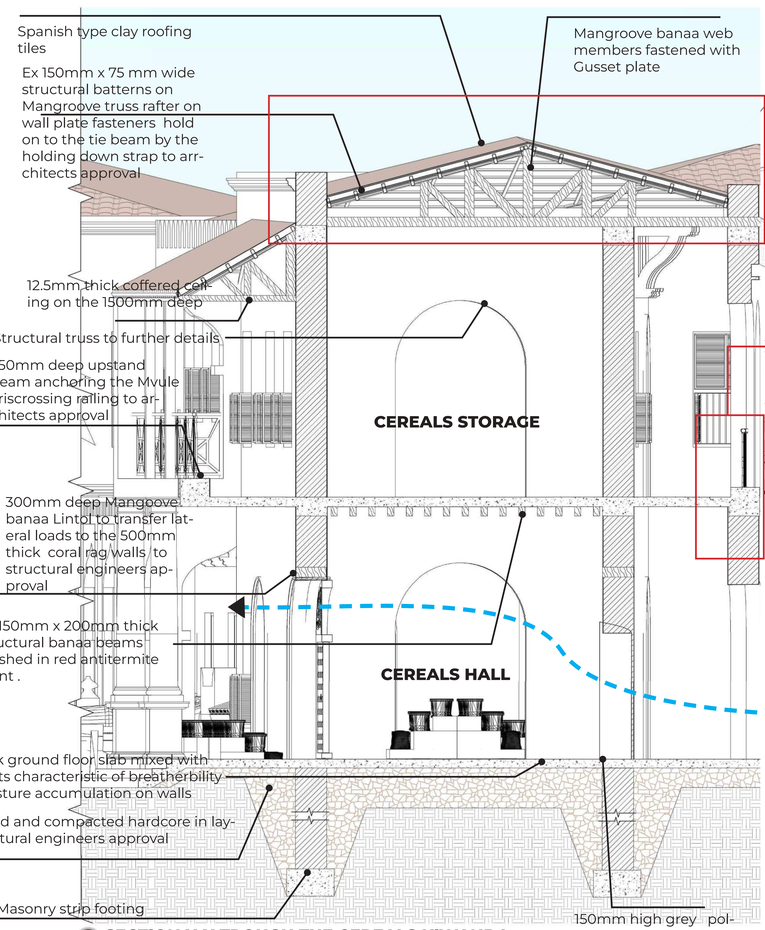


Assembly detail
SCALE 1.10

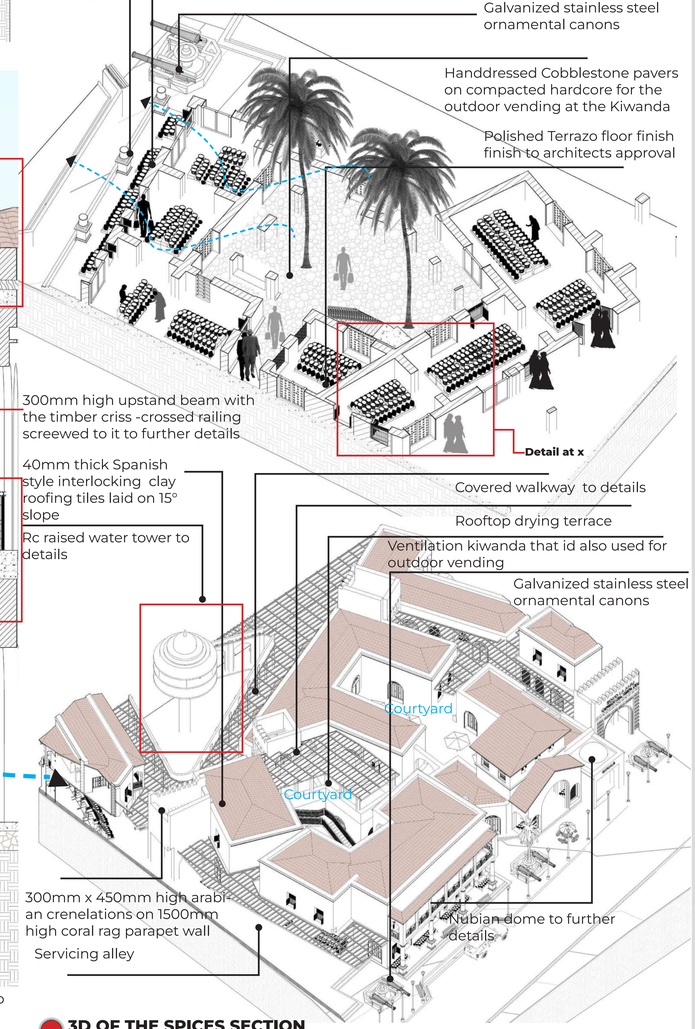


CEREALS PART PLAN
SCALE 1: 50

VIEWS OF THE CEREALS SECTION ALONG THE SERVICE STREET IN ZANZIBAR

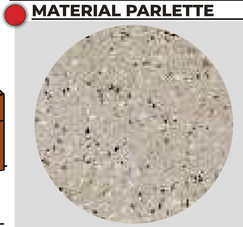


SECTION X-X TROUGH THE CEREALS KIWANDA
SCALE 1: 50



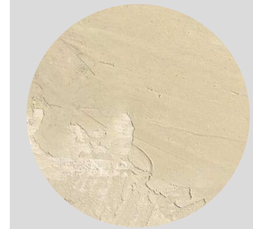
3D OF THE SPICES SECTION
SCALE 1: 50

MATERIAL PARLETTE



Terrazo -flooring

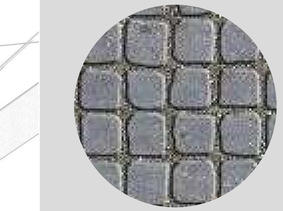
Palm leaves -Stall pannels



Lime plaster -walling

Mangroove poles -ceiling

Coral rag wall system

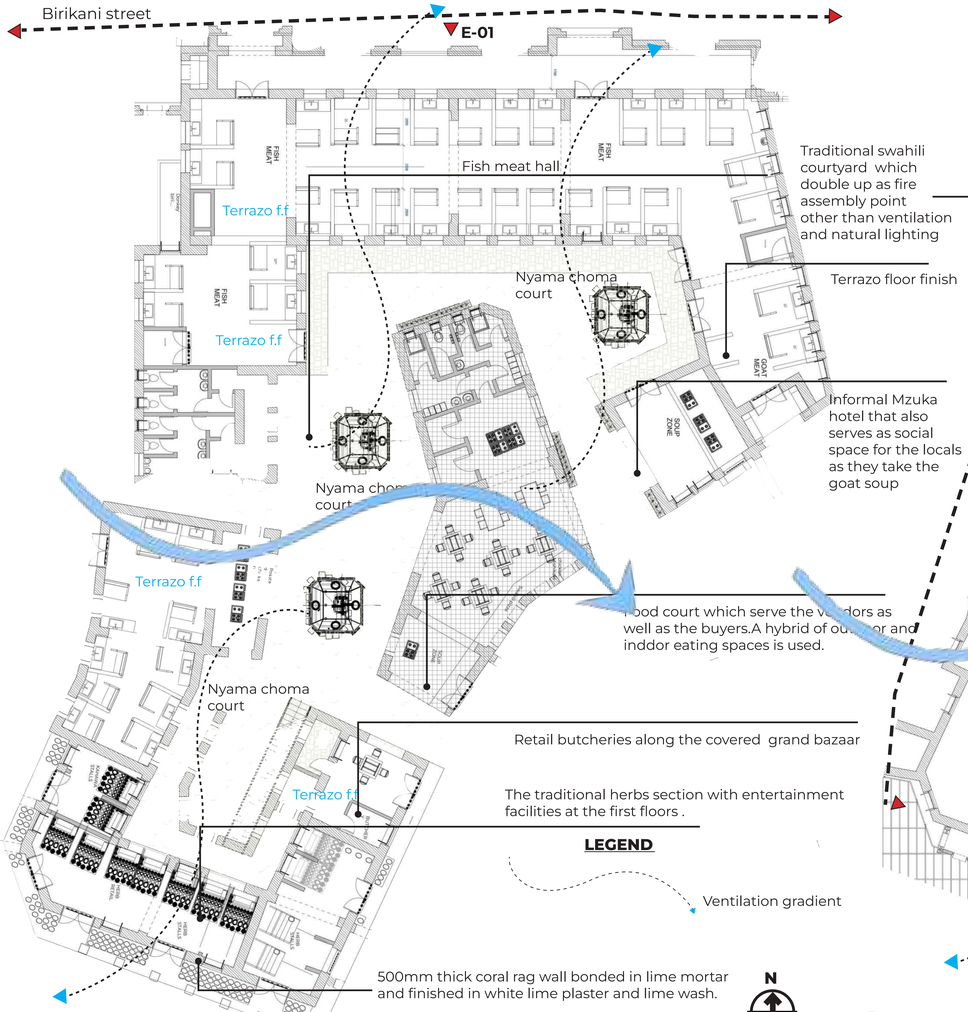


Cobblestone -Kiwanda area

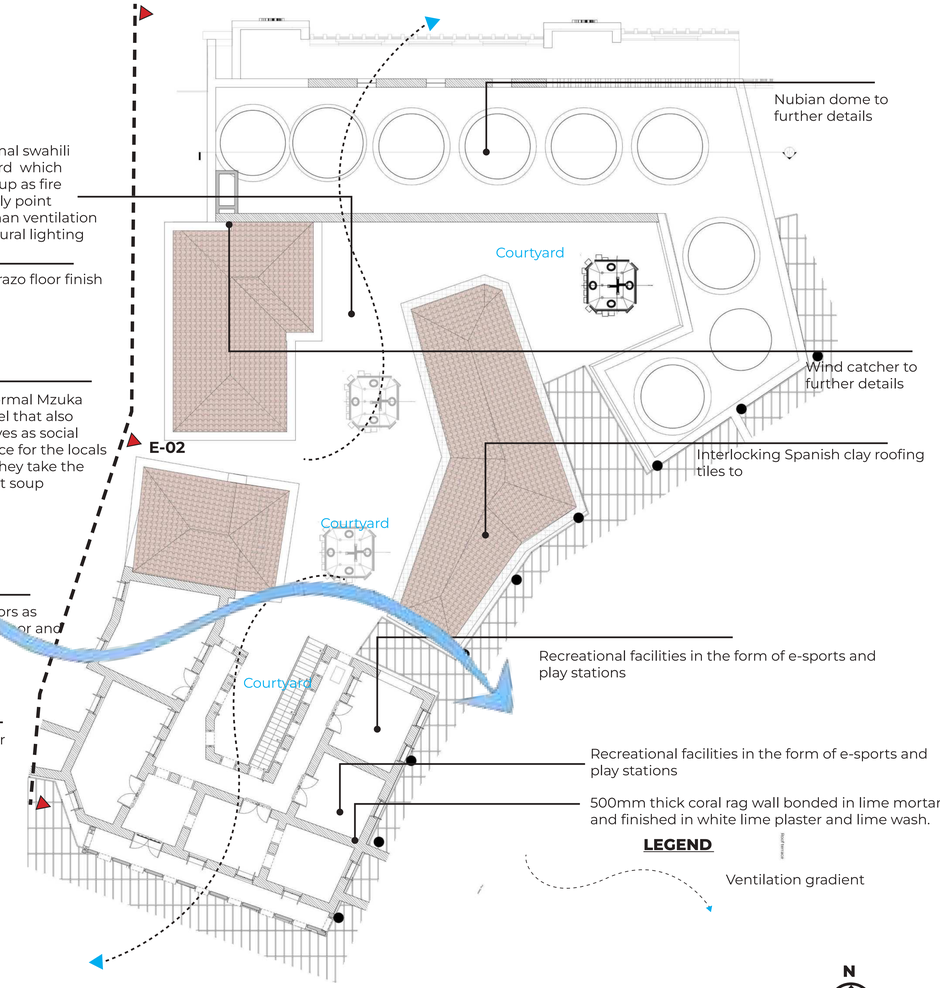
PART PLANS
FISH MEAT SECTION

LOCATION OF THE FISH MEAT SECTION MACROSCALE

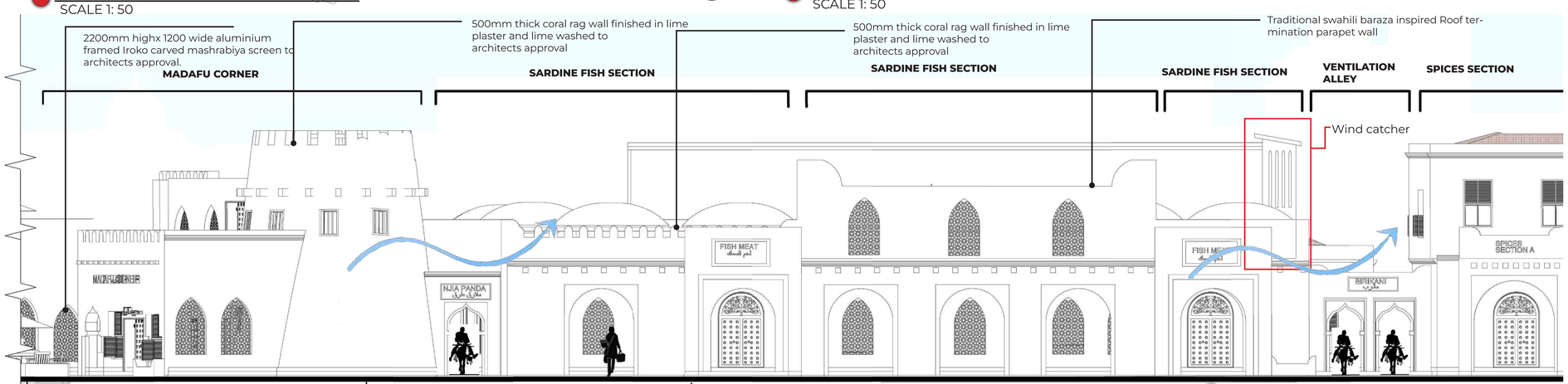
LOCATION OF THE FISH MEAT SECTION MICROSCALE



GROUND FLOOR PLAN -FISH MEAT SECTION
SCALE 1: 50



FIRST FLOOR PLAN -FISH MEAT SECTION
SCALE 1: 50



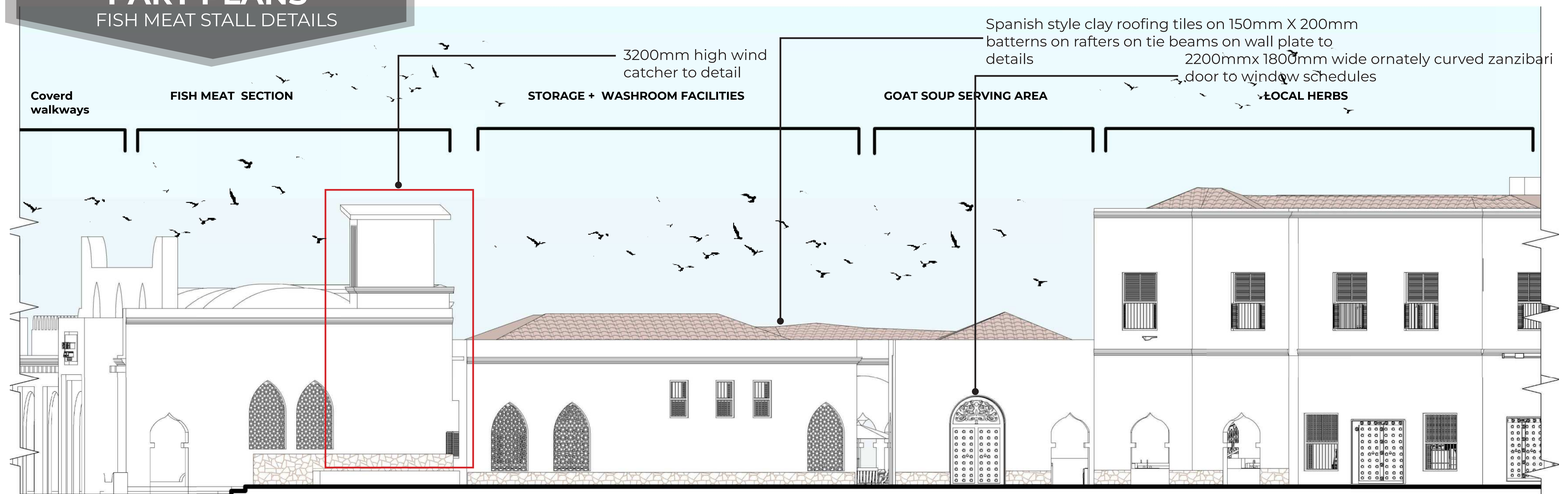
Madafu corner
A forecourt to the entry of the Soko la Amu ,,used for recreation and informal meetings

KIINGILIONI
A defined formal secondary entrance to the Soko la Amu,the alley has informal bao playing spaces along it .

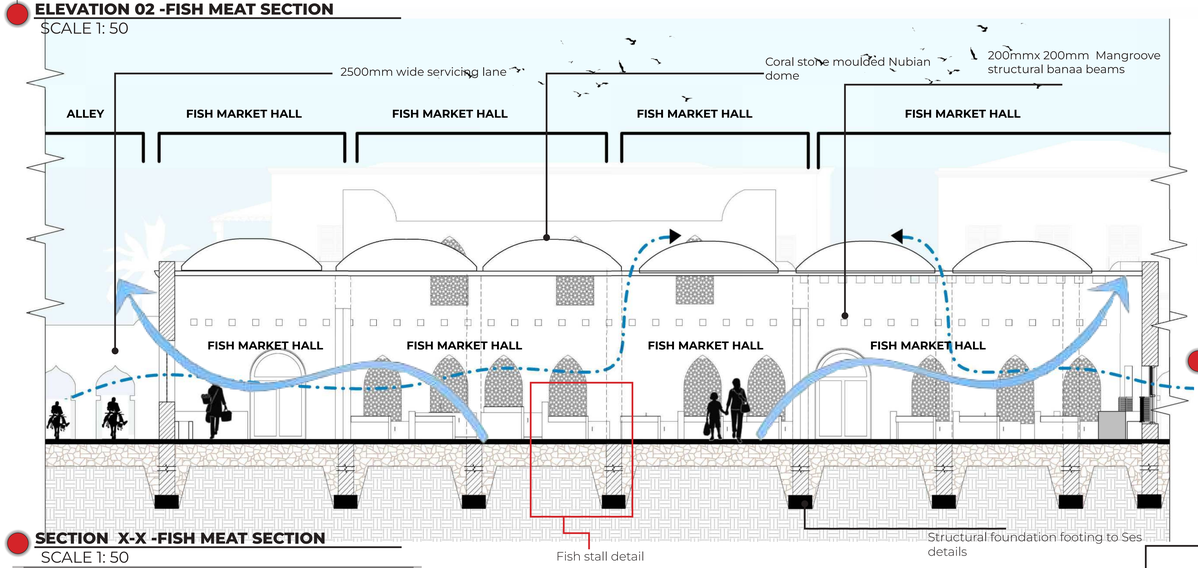
FISH MEAT SECTION
This zone is characterized by the Nubian domes -adapted and contextualized to Lamu climate and street vendors ,Its deliberately placed here for ease of serviving and the bulkiness of goods .

ELEVATION 01 -FISH MEAT SECTION
SCALE 1: 50

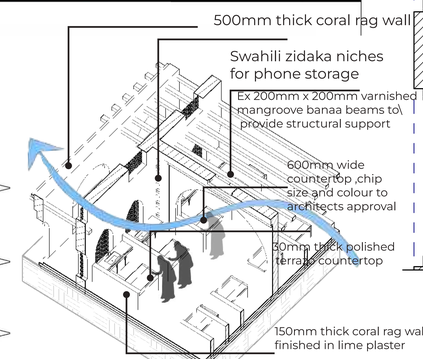
PART PLANS
FISH MEAT STALL DETAILS



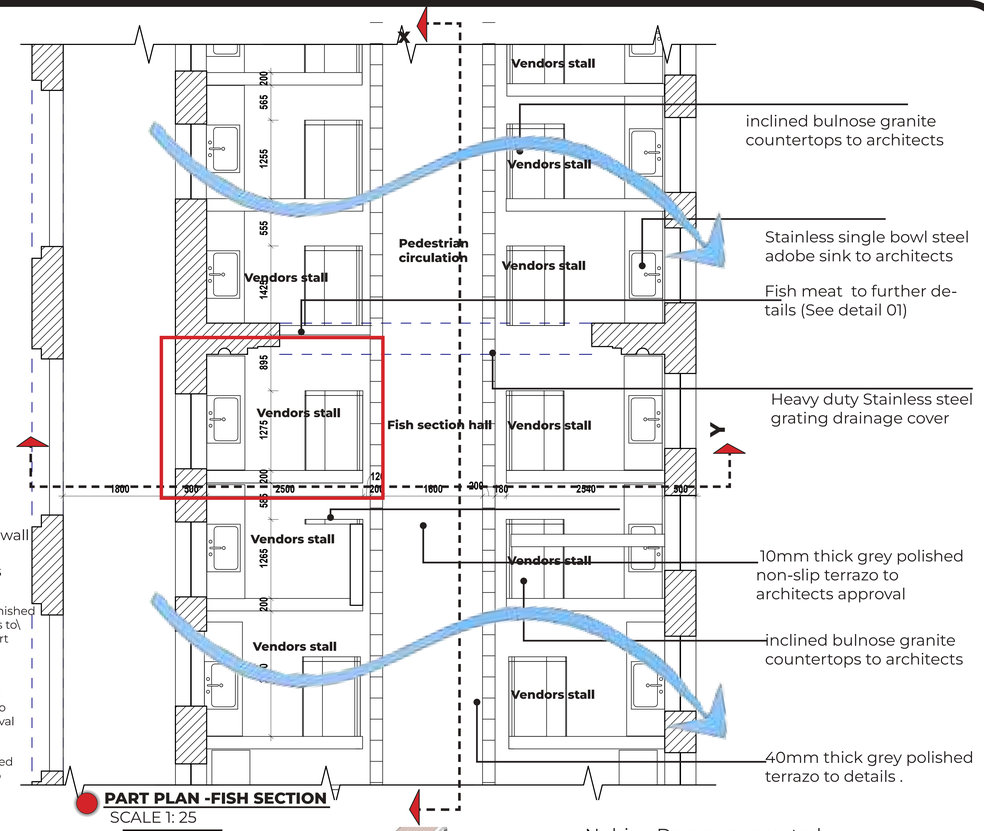
ELEVATION 02 -FISH MEAT SECTION
SCALE 1: 50



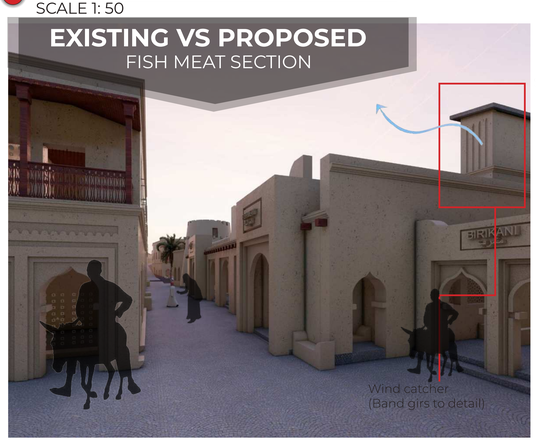
SECTION X-X -FISH MEAT SECTION
SCALE 1: 50



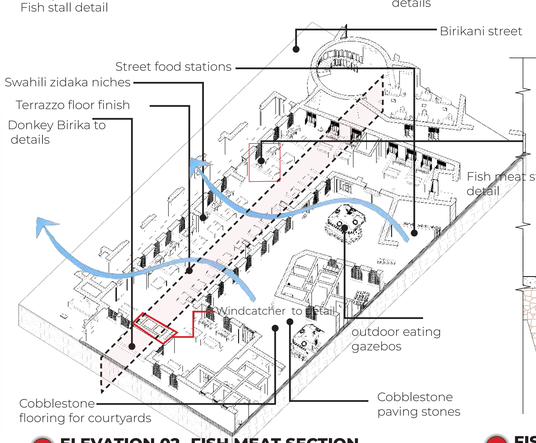
3D CUT-OUT OF THE FISH MARKET STALL
SCALE 1: 50



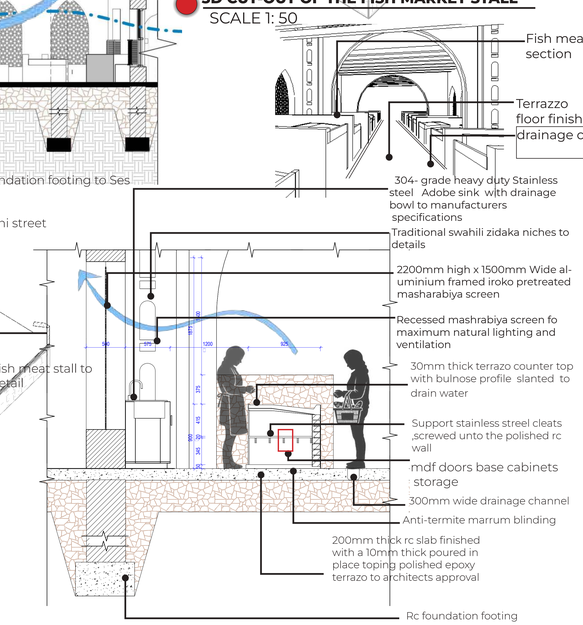
PART PLAN -FISH SECTION
SCALE 1: 25



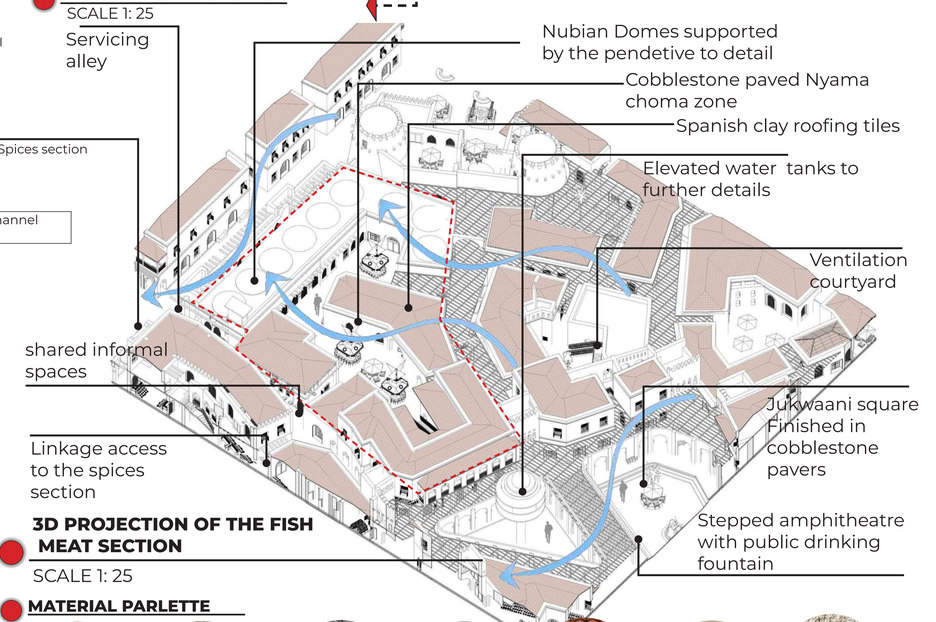
RENDER IMAGE OF THE FISH MARKET ALONG BIRIKANI STREET



ELEVATION 02 -FISH MEAT SECTION
SCALE 1: 10



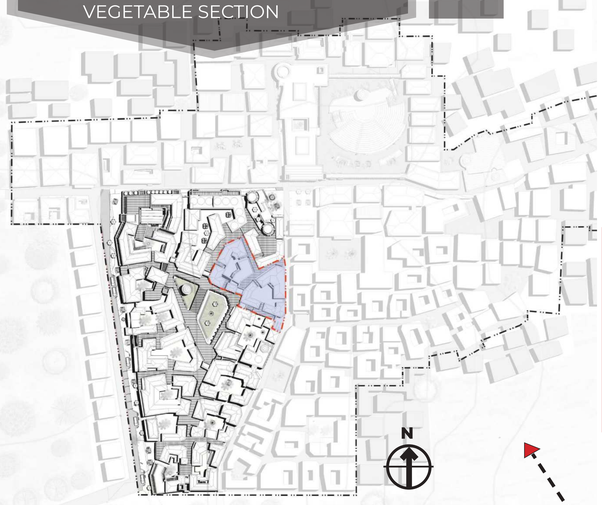
FISH MEAT STALL DETAILS (D-01)
SCALE 1: 20



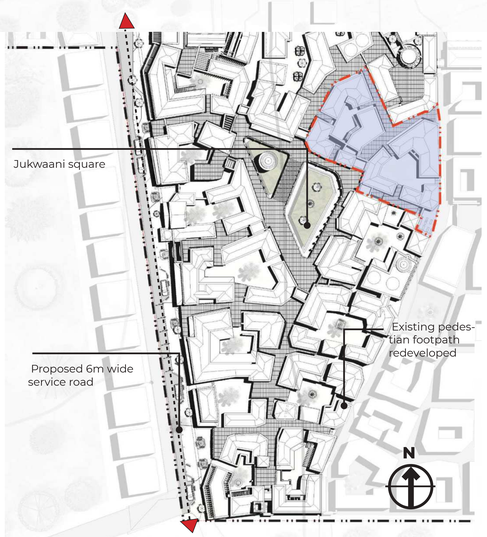
3D PROJECTION OF THE FISH MEAT SECTION
SCALE 1: 25

MATERIAL PARLETTE

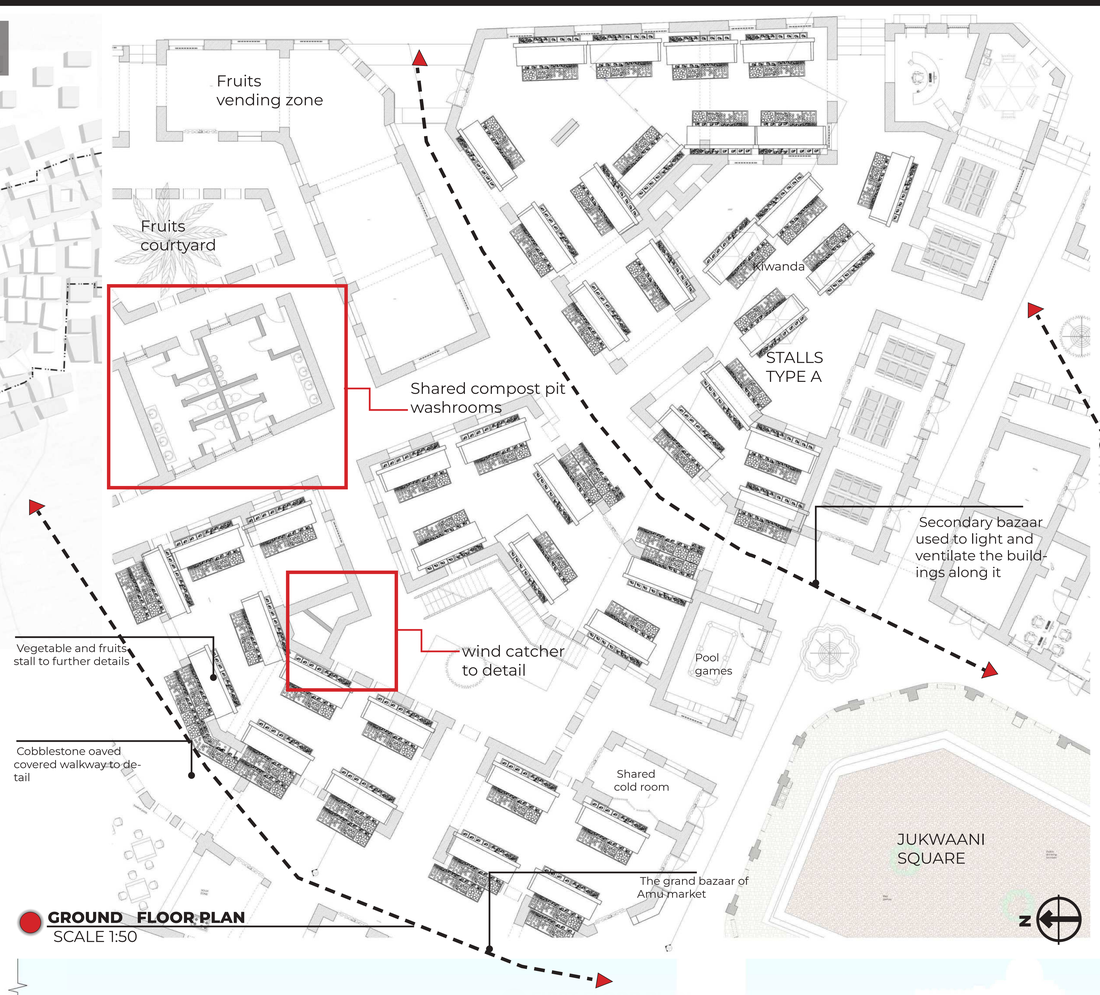
PART PLANS
VEGETABLE SECTION



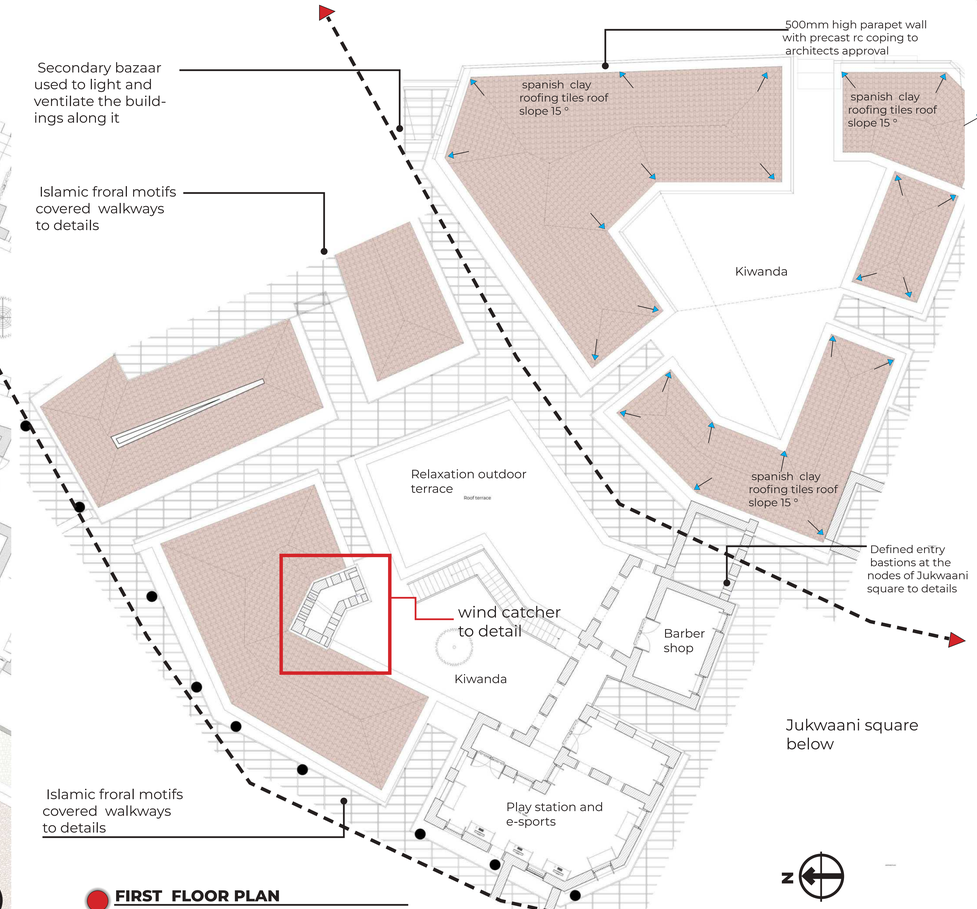
VEGETABLE SECTON CONTEXT-MICROSCALE
SCALE 1:50



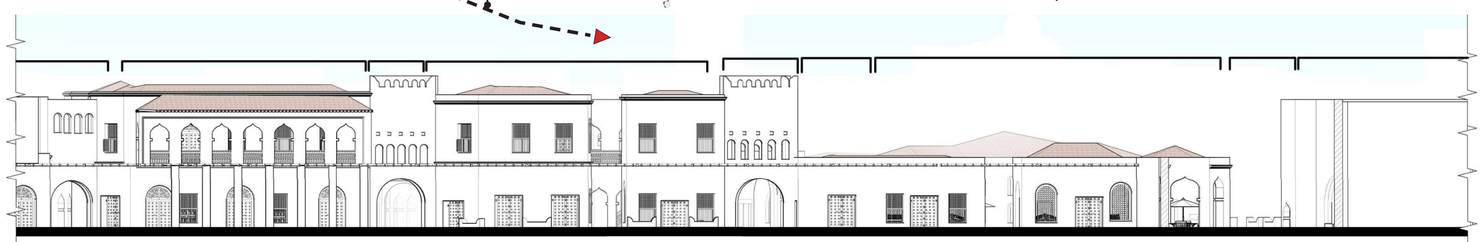
VEGETABLE SECTON CONTEXT-MICROSCALE
SCALE 1:50



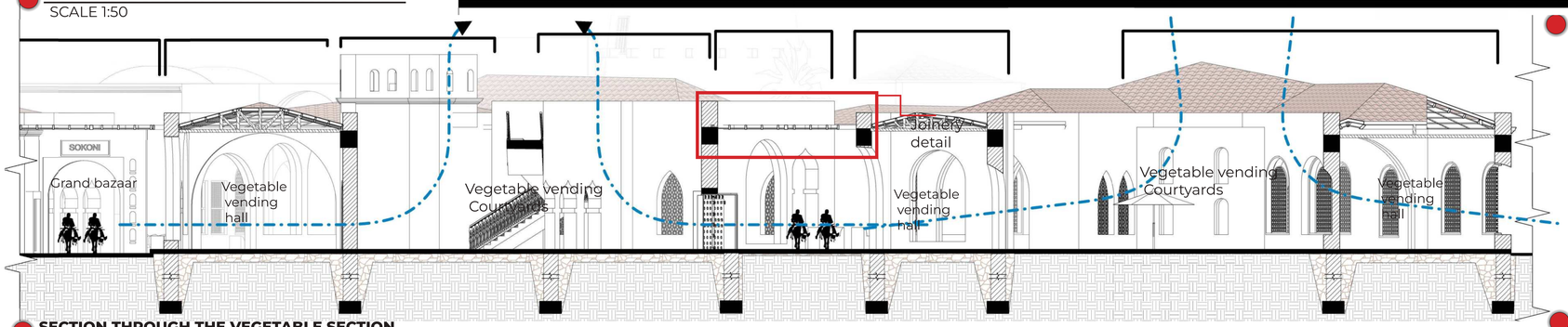
GROUND FLOOR PLAN
SCALE 1:50



FIRST FLOOR PLAN
SCALE 1:50



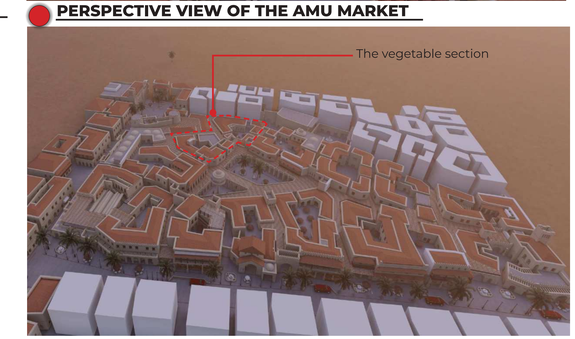
ELEVATION ALONG JUKWAANI
SCALE 1:50



SECTION THROUGH THE VEGETABLE SECTION
SCALE 1: 50

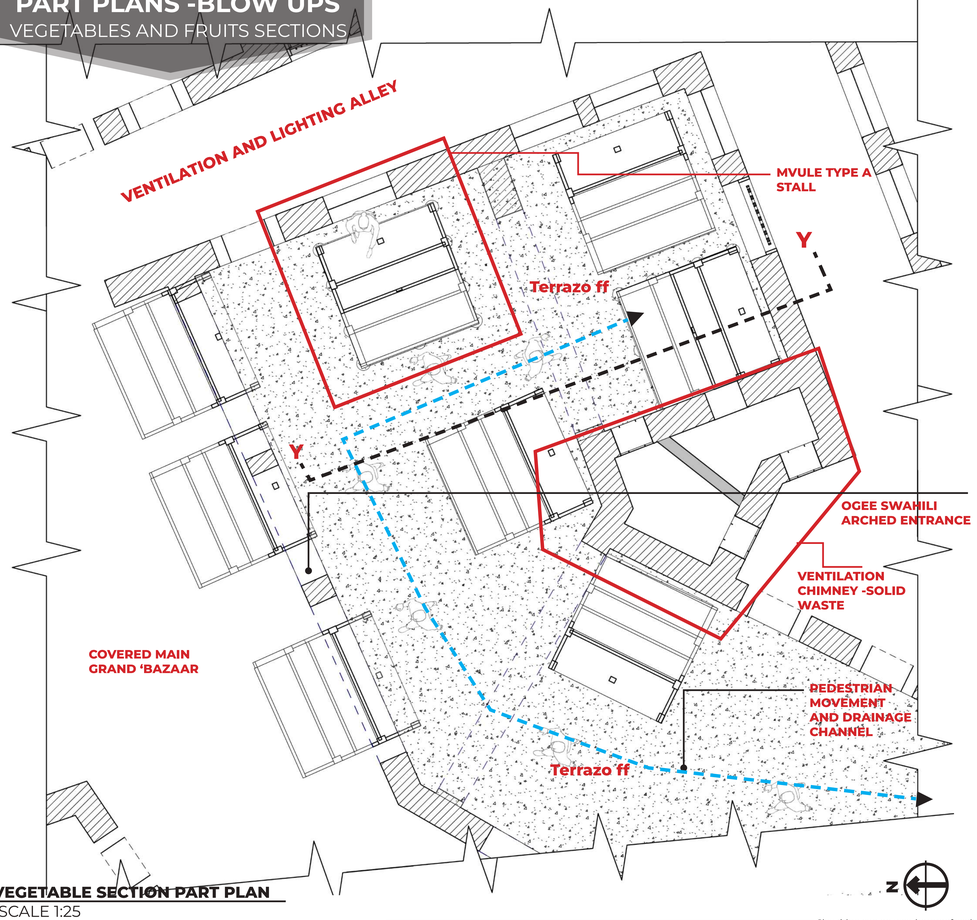
PERSPECTIVE VIEW OF THE AMU MARKET

JUKWAANI SQUARE RENDER IMAGE



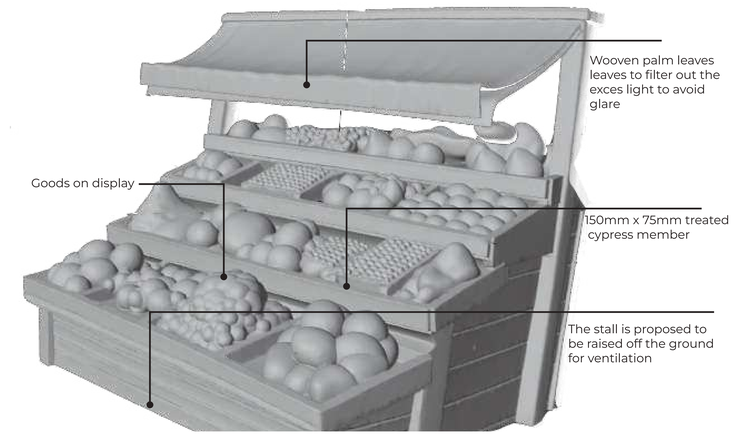
AERIAL VIEW OF THE AMU MARKET

PART PLANS -BLOW UPS
VEGETABLES AND FRUITS SECTIONS



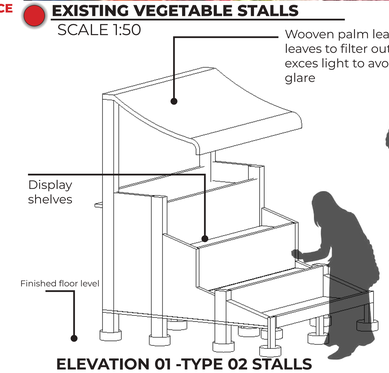
VEGETABLE SECTION PART PLAN
SCALE 1:25

EXISTING VS PROPOSED
CEREALS STALLS

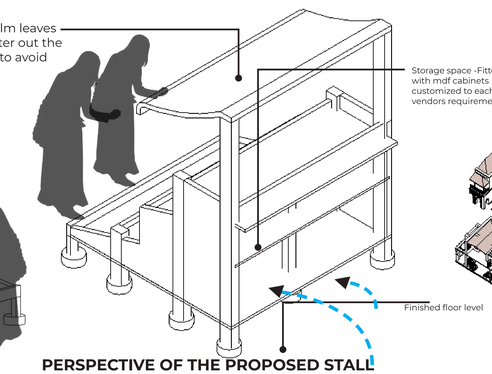


PROPOSED VEGETABLE STALL TYPE A -RENDER

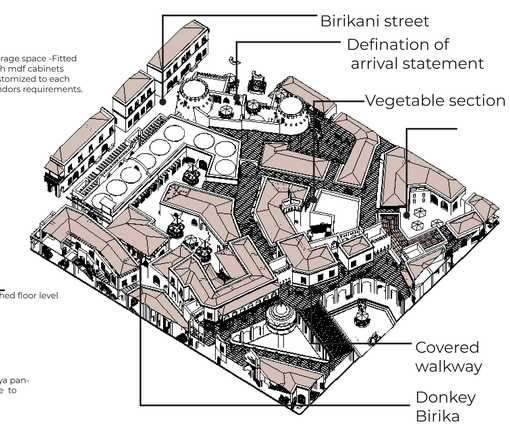
EXISTING VEGETABLE STALLS
SCALE 1:50



ELEVATION 01 -TYPE 02 STALLS



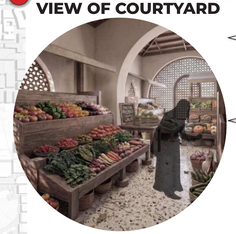
PERSPECTIVE OF THE PROPOSED STALL



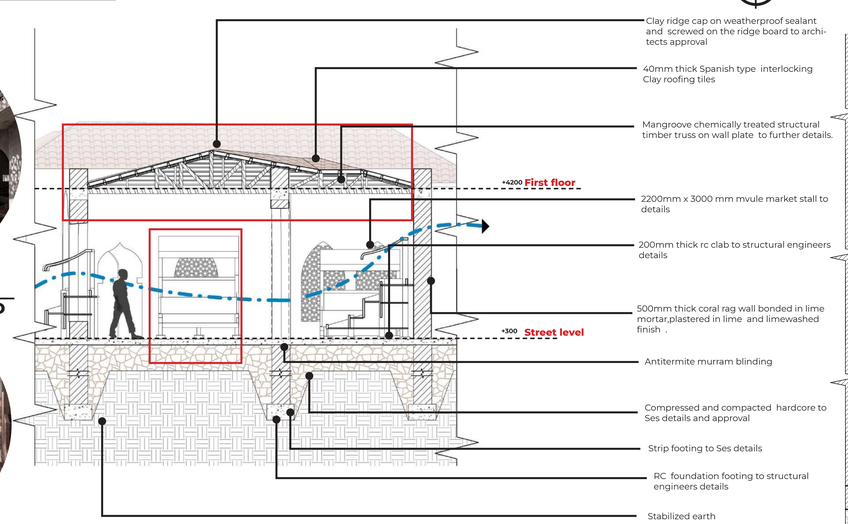
PERSPECTIVE 3D CUT OF THE VEGETABLES SECTION
SCALE 1:50

MATERIAL PALETTE

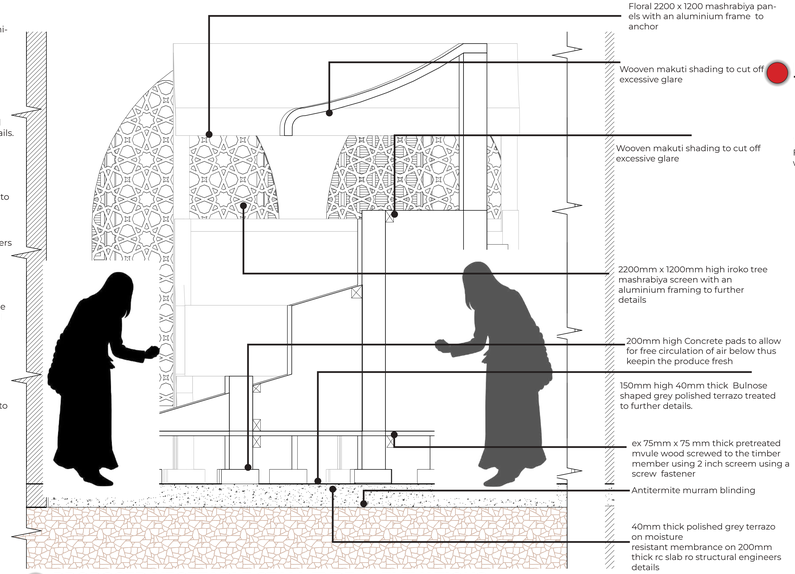
VEGETABLE SECTION VIEW OF COURTYARD



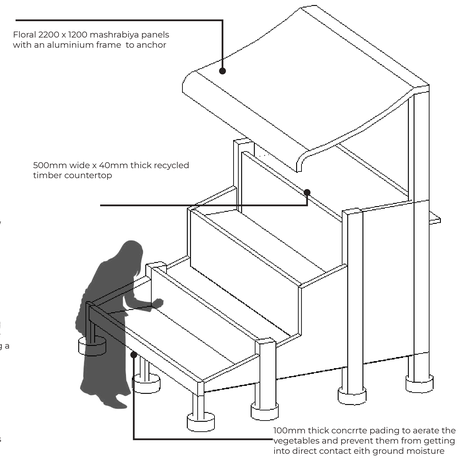
VEGETABLE SECTION VIEW OF INTERNAL HALL



VEGETABLE SECTION Y-Y
SCALE 1:50



PROPOSED VEGETABLE STALL TYPE A ELEVATIONS
SCALE 1:10



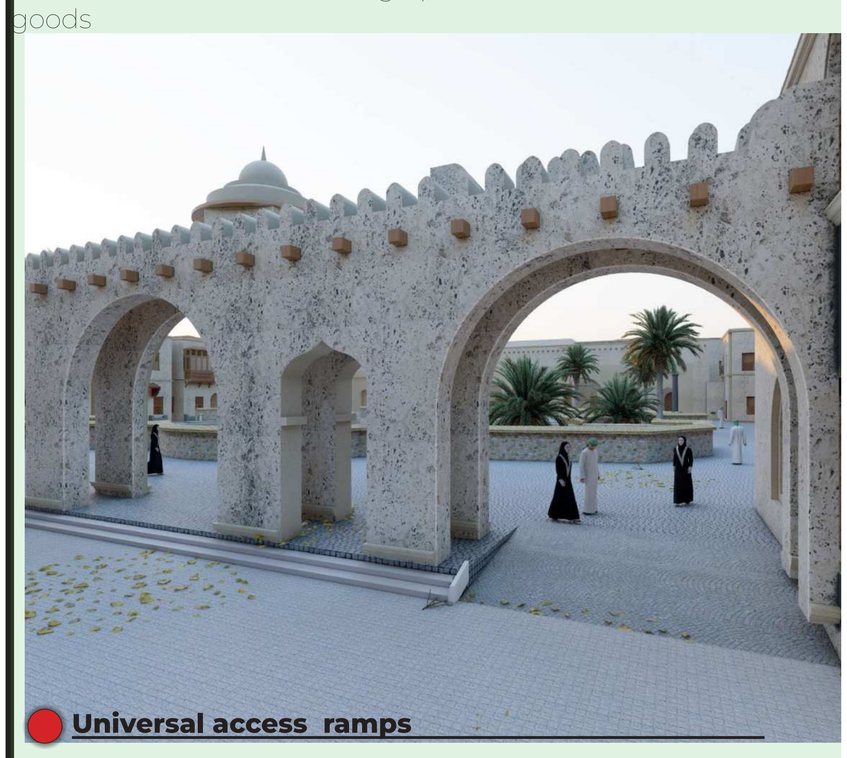
PROPOSED VEGETABLE STALL TYPE A ELEVATIONS
SCALE 1:10

SUSTAINABILITY ASPECTS

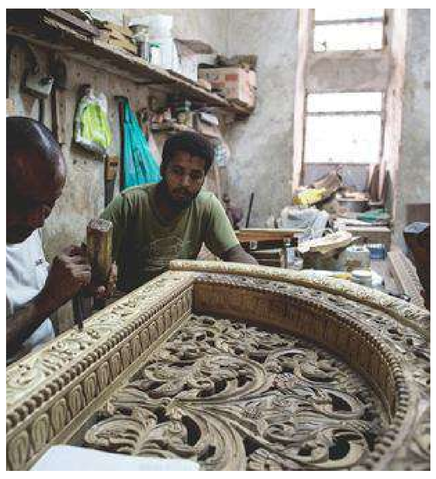
VIEW OF THE JUKWAANI SQUARE

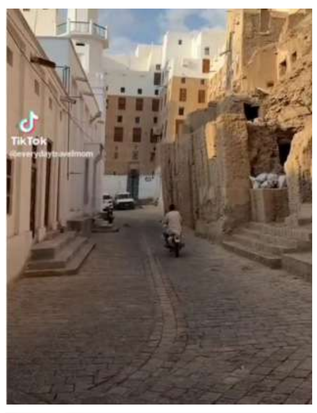
SOCIAL AND ECONOMIC SUSTAINABILITY

1. Universal access into the market by providing ramps at the various access points to ensure inclusivity
2.Design of public open spaces for socialization
3.Security of the neighbourhood through passive survaillance
4.Economic activation through promoton of local crafts and goods

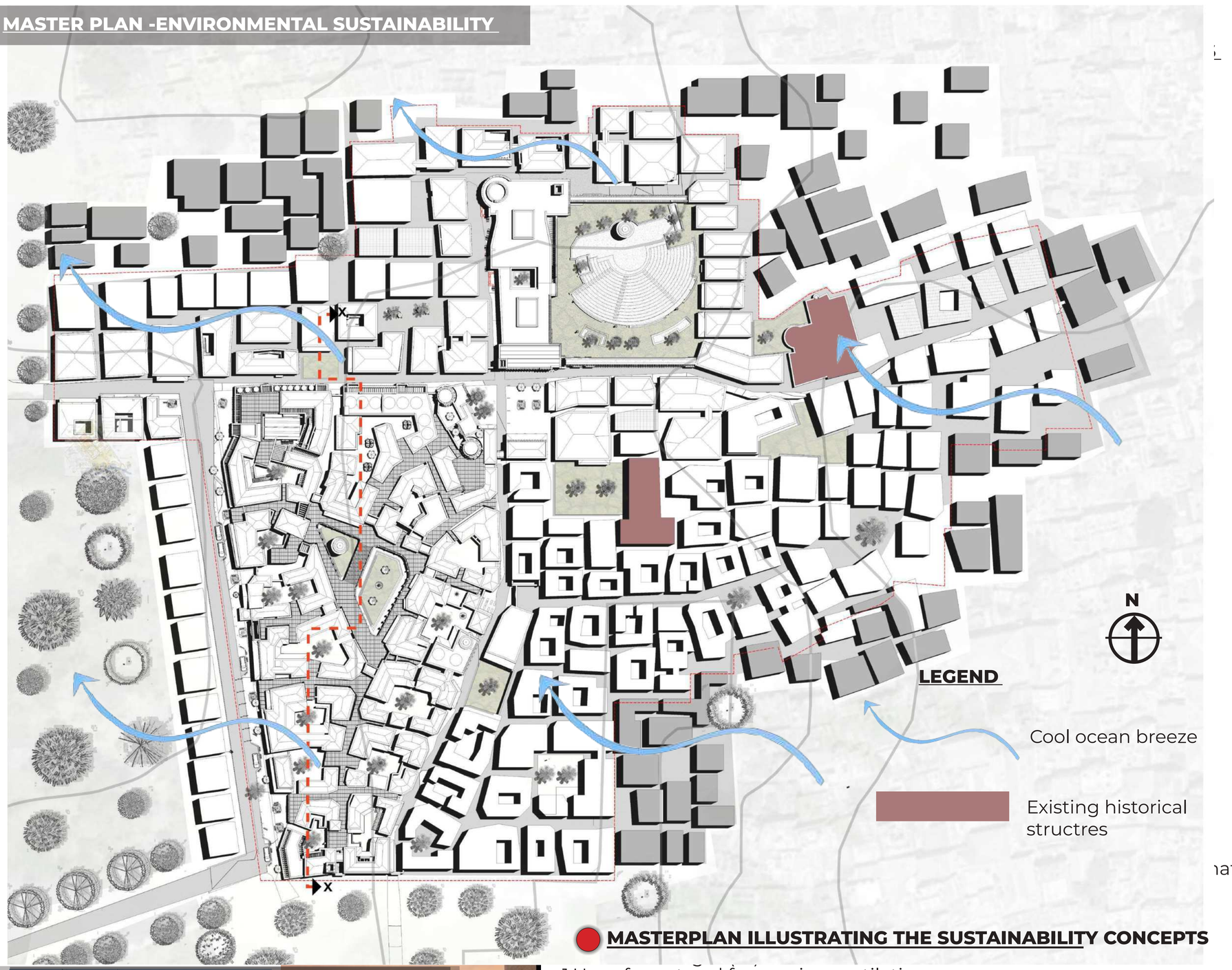


Universal access ramps





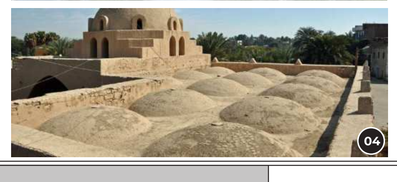
MASTER PLAN -ENVIRONMENTAL SUSTAINABILITY

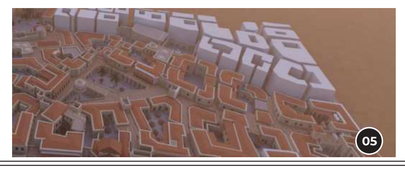


MASTERPLAN ILLUSTRATING THE SUSTAINABILITY CONCEPTS

ENVIRONMENTAL SUSTAINABILITY

Windcatcher system





1.Use of courtyard for passive ventilation
2.Solid waste manangement by recycling
3.Natural lighting of all spaces through single banking and narrow plans
4.High thermal mass of upto 600mm thick coral rag walls walls to increase time lag
05 .Use of biogas power plants
6.Recessing of windows and doors as well as use of entry canopies as sunshading devices
7.Use of bioswales along the service lane and permeable cobblestones to ensure water percolation into the ground
8.Use of compost pit latrines and xeriscaping concepts.
9.Rainwater harvesting and solar harvesting .
10.Use of buildings to shade each other ,by compact building.Variation of building heights within the same context to prevent thermal accumulation.
11.Use of light coloured material finishes to reflect exessive heat away.

MATERIAL PALETTE

FLOORING

1.Rammed earth
2.Terrazo (Fish market)
3.Traditional persian carpet in mosques

WALLING

1.Coral Rag walls (Undressed and dressed)
2.Terrazo (Fish market)
3.Bamboo partitions
4.Lime plaster for kasas and zidaka niches
5.Recycled sacks for insulation

ROOFING

1.Clay tiles
2.Makuti for the penthouses
3.flat roofs,(Screed and APP)
4.Hardwood timber brackets
5.Hardwood fascia boards

CEILING AND INTERIOR LIGHTING

1.Mangroove poles (Boriti and banaa beams)
2.Whitewashed lime plaster
3.Flat roofs,(Screed and APP for waterproofing)
4.Ceiling Friezes lime plaster

WINDOWS AND DOORS

1.Hardwood timber for the pannels(African iroko-teak wood)
2.Mangroove Lintels
3.Wrought iron burglar proofing vertical bars
4.Reed ceiling mats for pent houses

REVITALIZATION ASPECTS

KEY OVERALL ISSUES ADDRESSED

The second bit of the project seeks to breathe new life into the the existing built forms addressing key issues ;
1.Creation of formal and informal social spaces that bring the diffrent groups together.
2.Bridging the Gap between the old and the new in terms of continuity and change.
3.Provision of appropriate conditions(environmentally) for both outdoor and indoor activities .Such aspects will be adrressed by configurations of paths and the buildings ,SDGs 11 on sustainable cities .
4.Key open spaces and new activities such as inviting snake charmers for exhibits and moving some of the displays from the Lamu museum to Ngomeni Gallery will ensure a magnet of attraction into the new City'.
5. Value addition services such as fish preparations and ferrying to other wards,as well as leather and crafts shop .

COSTI SQUARE

Costi square,a historical square lies underused and misused for the Solid waste disposal.The Square was initially utilized for among other activities,maulidi procession,Kirumbizi dances,as well as the auctioneering of the goats,sheeps and donkeys.This project set out to bring those and more back by:
1.Creation of an outdoor amphitheatre 450 pax for the events and other traditional events viewing.Outdoor cinemas by adding the stage. and a flexible system for anchoring the screen.
2.Provision of public facilities such as public drinking fountains that allow for sometimes drinking the donkeys-a community thing .
4.Additional shophouses that server both as commercial and residentil services thus keeping costi square active upto late hours and improving security.

COSTI GALLERY AND COSTI CINEMA HALL

The historical outdoor cinema hall ,is dilapidated ,and is thermally and accoustically uncomfortable.Bearing this in mind this project bridges this by providing the following solution as per thhe conservation Guidelines on Authenticity.
1.Expansion of the old gallery to have a more controlled lighting of arts,such as saw tooth roofs .
2.Connecting the Costi square to the residential by an arcade that passes through an opn courtyard that lights and ventilates the cojoined cinema and display gallery.
3.Accoustic retrofiting and extension of the existing cinema hall to host more people as well as the overal experience of the user

NEW MARKET IN AMU

This is the highlight .There is no such existing facility within.The nearest is very extroverted and serves very limited customers .The Amu market will bridge this gap by providing a variety of functions while opening it to the outside world by having open pockets of spaces for social interaction. this is done by:
1.Provision of a produce market ,an industrial section and a crafts centre that brings hybridity of form and functions ,a one stop shop.For the market to remain vibrant and safe to walk at night .Some of the spaces at first floor are rented out to the vendors thus allowing them to extend their working hours.
2.Thermal control precedence by introduction of contextual wind catchers and thermal chimneys.
3.Bridging the aspects of net zero and xeriscaping in one -Amu Market .

REVITALIZATION ASPECTS

THE BIRIKANI AREA

A historical street having donkey wells and troughs along it.The street also has to contend with constant waste disposal.Thus this historical street linking Matondoni and Lamu old town need intervention.The proposal does the following.
1.Retaining the historical significance of the birikas by just relocating them appropriately along the street.
2.Provision of social spaces for kahawas and street foods
3.Appropriating the street edge to the vendors such as street food vendors .Additional street lights for additional secutity.
4.Provision of public drinking facilities such as wells to ensure continuity of the hospitality of wa-Amu people.
5.Procision of a cool environment for street users by providing benches and ensuring the buildings asade each other and the street a as well.

THE SOCIAL SPACES

Another key issue that was addressed was the disparity between the open and the built up area .The gendered third spaces were also lacking.This aspects are sorted bith at a macroscale and at a microscale level as follows:

1.Introduction of Grand Bazaars that also double as social spaces at the nodes .the width is adjjusted to suite the different needs of compression and relaxation to increase the overal user experience.
2.The grand courts and squares such as Kirumbizi,Jukwani ,Mzuka and wikioni squares are major courts created within the selected larger context.
3.The smaller squares include the minazi miwili and the Baoni where they form avenues of social interction.This bridges the social spaces.
4.The ladies are also provided for such as the Alakhytan Islamic centre and the Madrasa courts as well as the heena classes courts .
5.The open spaces for shared facilities such as the wells and retail shoping also serves this imprtant social function.Therefore,the projects sets the framework for a cohesive environment both socially and economically for the Costi and Gardeni people by availing the opportunities through the architecture.

NJERI CYRUS MBURU
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