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Building 4Humanity
 DESIGN COMPETITION
Category 3
 Realistic Projects (Student Teams)
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 Project Location: Zanzibar City, Tanzania
 Team Code: B4H-DC3129



NG'AMBO

- THE OTHER SIDE

A HOLISTIC PLAN FOR THE FUTURE CITY CENTER OF ZANZIBAR, TANZANIA

PUBLIC SPACE

- 1 The Green Network
green veins for the existing Green Corridor plans
- 2 Neighborhood community centers
culture centers for all neighborhoods either through renovation or new projects
- 3 Zanzibar Culture Center
a new central hub for Zanzibar's unique culture

PRIVATE SPACE

- 1 Flood-resilient Housing
dense housing solutions fit for flooding
- 2 Housing on Stilts
elevated housing solutions fit for flooding
- 3 Green Community Housing
upgraded urban farming community housing
- 4 Swahili Community Housing
upgraded community housing highlighting the swahili culture



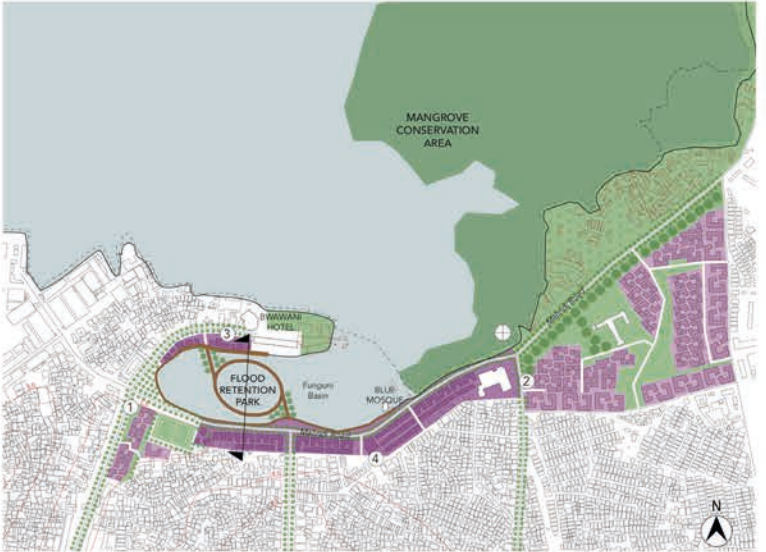


Future scenarios of sea level rise considering current practices in growth rate. Bawani area is highlighted.
Current sea level in Zanzibar. 2100 scenario with +1.5 meters sea level 2100, worst-case scenario. rise and flooding.

ENVIRONMENTAL SYSTEM SCALE. An analysis of the natural ecosystem services of the area lead the way to study the environmental impact over the growing city. Projections over the urban challenges of climate change, ecosystem provision and waste management in the local context were thoroughly investigated. Future development plans that propose the reclamation of land in Bwawani area were assessed. Proposed infill of the natural water basin and losing a dense mangrove forest will result in losing the ecosystem services provided to the southern residential area. The results of the environmental assessment stated a viability over a controlled development of the area, taking priority to protect the ecosystem services.

	FULL DEVELOPMENT	PROHIBITED DEVELOPMENT	CONTROLLED DEVELOPMENT
Flood control	-7 10		-2 10
Prevention of erosion	-10 10	+10 8	+8 10
Storm protection	-10 10		+7 10
Biodiversity	-8 5	+8 5	+6 5
Housing provision	+6 4	-10 4	+3 4
Employment	+10 6		+8 6
Economic cost	-10 8		+2 10
TOTAL	-29 53	+8 17	+32 55

Environmental assessment in Bwawani area, considering future possibilities of development and density.



Proposal for development in Bwawani area after the environmental assessment.

URBAN LIVABILITY SCALE. Hand in hand with a street regulation proposal, the project for a Green Network develops within Ng'ambo. Embedded in the urban fabric and cultural importance of open spaces for recreation, sports and meetings, the Green Network is an urban scheme that reflects Zanzibar's ambition to achieve a more walkable and inclusive city. It introduces lively green streets and nodes that improve neighbourhood connections to the surrounding city and the future Green Corridor (existing plans for the main axis roads). The Green Network connects high quality, safe urban public spaces strategically located within the neighborhoods to boost social and public life, cultural heritage and overall resilience.



Green Network. Proposed street section in the inner neighborhoods. According to its width, a different vegetation and program is proposed.



Different housing typology solutions.



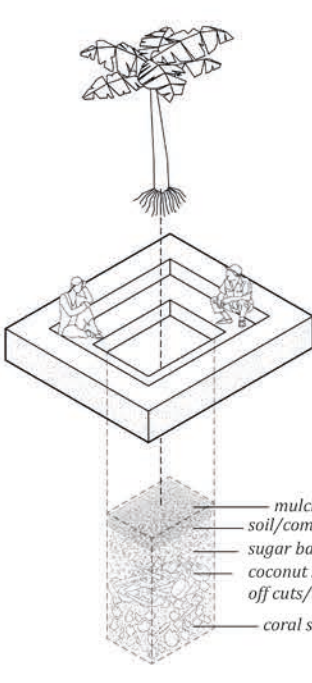
Housing on Stilts. Section. The proposal elevates living to upper floors, thus leaving the ground floors for plants, open space and flooding water.



Green Community Housing. Section. The proposal is a design solution that integrates urban gardening and activates the street level for businesses.



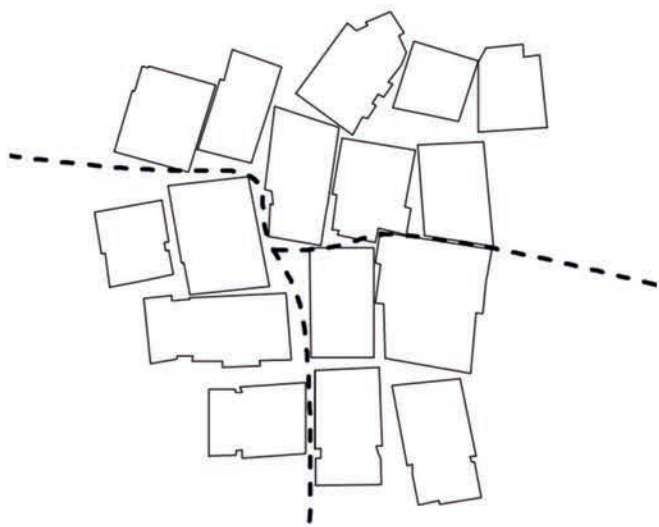
Swahili Community Housing. Section. The proposal highlights the swahili heritage of Zanzibar.



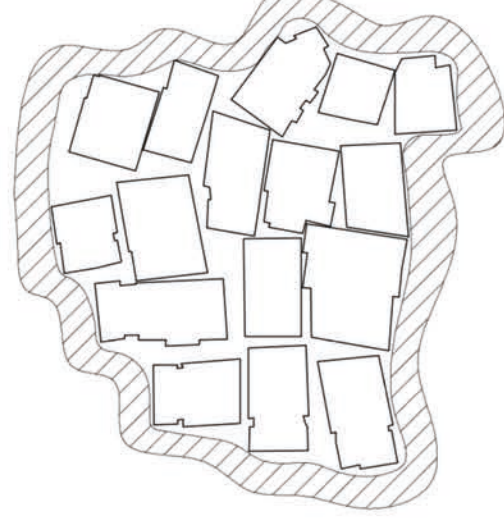
Flood-resilient housing solutions. Designed in a location with run-down, abandoned buildings, the Flood-resilient Housing proposal suggests raising living partly on stilts and incorporates improved water-collecting systems, flood-resistant storm drains through plants, open air ground floor spaces and public water access points.

Water-collection on roofs.

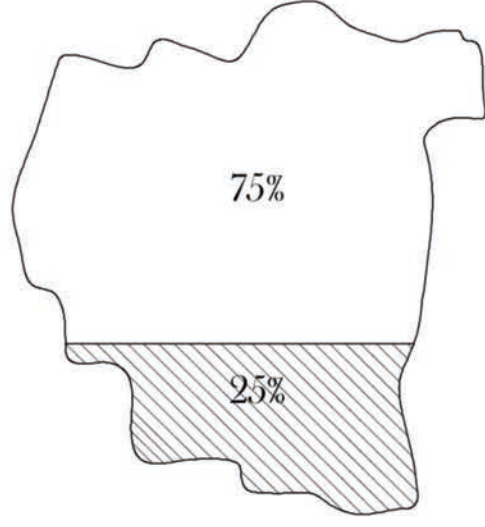
Regulating ways of growth. Proposed regulations on shaping the complex inner neighborhoods:



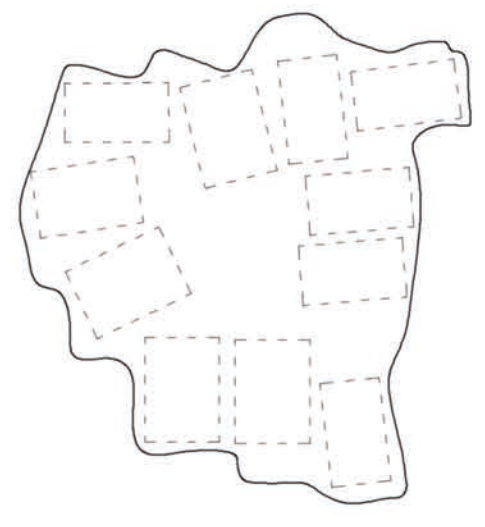
Subdivide in smaller areas for easier management.



Facilitate space for future street development.



Keep at least 25% of open space in areas.

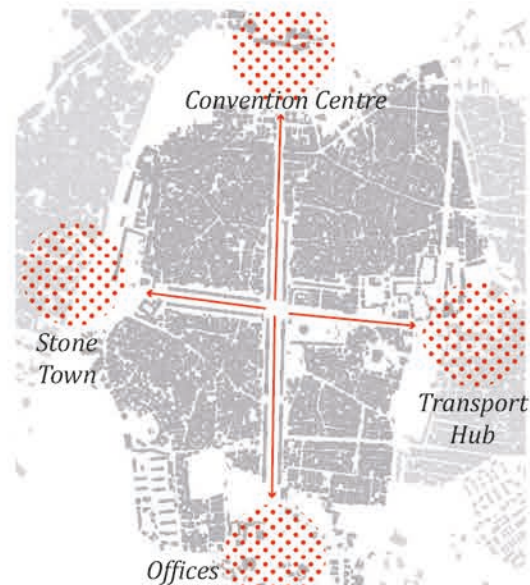


Control building footprint.

URBAN DEVELOPMENT SCALE. Ng'ambo has no clear regulations or systems controlling its fast development and densification. As part of the proposal, building and urban principles for regulation were created to control Ng'ambo's growth and development. The approach proposed goes from an urban level to small scale planning. Size regulation contains guidelines for future development for street hierarchy, building height and plot handling. Contextual regulations contain anti-privatization initiatives, as well as climate related suggestions for building, including livability matters in private and public space.

PUBLIC SPACE AND COMMUNITY SCALE. A series of public life studies throughout the different areas of Ng'ambo were done through observation, sketching, counting and interviews. This helped in the identification of neighbourhood cultural identities, community needs and site-specific space potential. As a result, embedded and connected through the Green Network (1) is a cultural chain of community centres (2A, B, C, D) that aim to empower the local communities in the four quarters by providing neutral spaces for meeting, encouraging business, skill training, self expression & performance. Cultural traditions and practices are regarded with great importance and are embodied at the heart of Ng'ambo through the Zanzibar Culture Centre (3); a public building that aims to maintain and enhance these traditions of self expression, whilst also enlivening and creating a cultural hub in the center of the city.

PRIVATE SPACE SCALE. Creating site-specific housing designs with a focus on the human scale and environmental resilience. The final scale of the design programme zooms even closer into the everyday life of Ng'ambo. It presents proposals for sustainable densification through an analysis of current living, and incorporates the inhabitants' future views. The proposals create housing typologies for flood-resilience, urban farming and cultural heritage. Unlike the other design solutions, the housing proposals focus only on one quarter of Ng'ambo – the built area with the highest flooding risk.



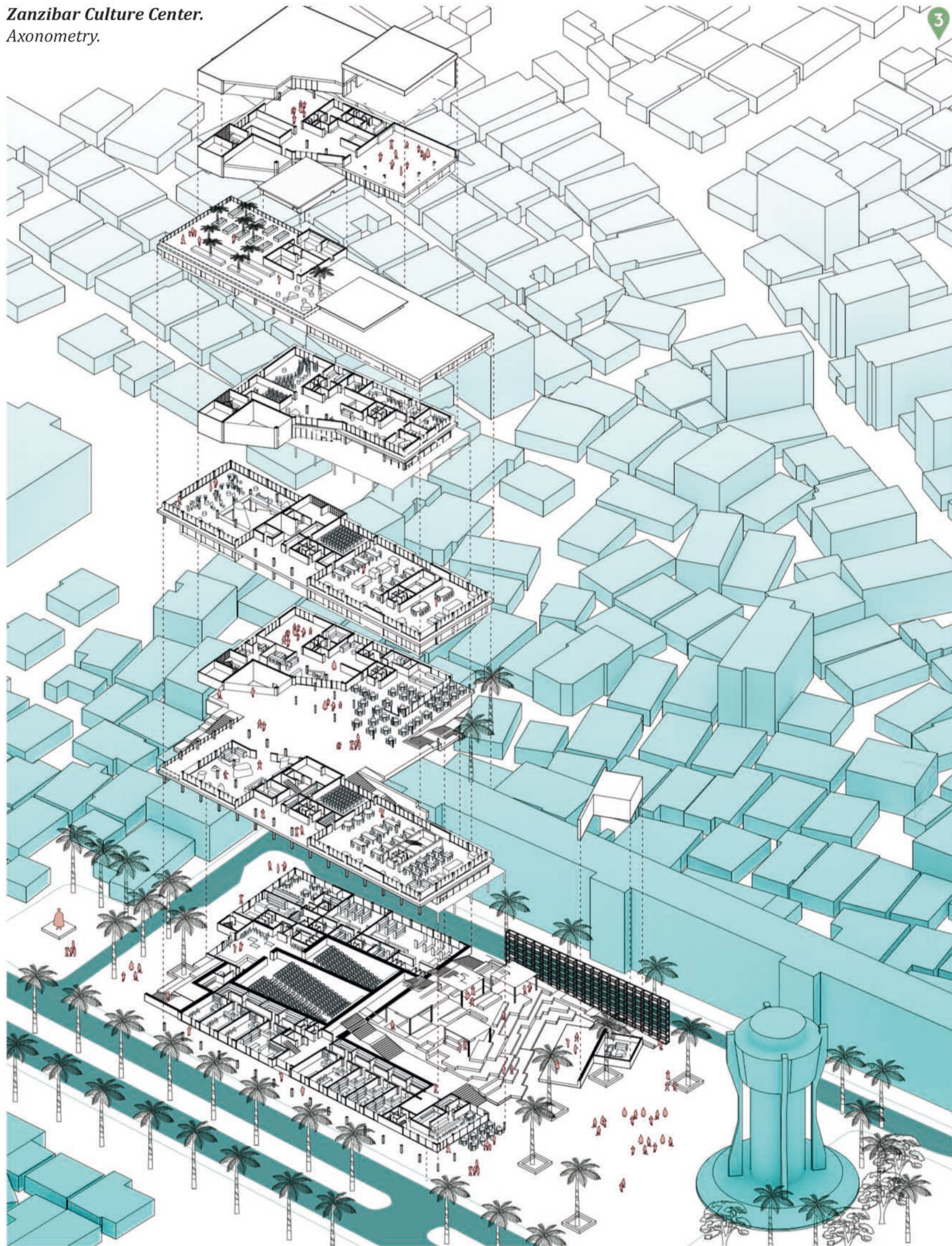
Important future centres creating outward pulling forces, leaving the centre of Ng'ambo void of activity.



Proposing Zanzibar Culture Center as the main building in the center to create an important cultural district within Ng'ambo in the bigger urban context.



Chain of Community Centres proposed as nodes in each quarter of Ng'ambo, which connect to the delicate fabric of the individual districts and aim to serve their communities.



Zanzibar Culture Center. Section.



Proposal furniture for the Green Network and Community Centers.

NG'AMBO - THE OTHER SIDE

COMPLETE DESIGN PROGRAMME

Zanzibar City, Tanzania lies geographically low and close to sea level. In the last three years, Zanzibar city has experienced severe floods in several areas, especially during the three-month rainy season. Heavy rains, loss of wetlands and retention areas, such as mangrove forests, and accelerating urbanisation in these areas are some of the main contributors to this issue. Before the effects of climate change and, consequently, sea level rise are even fully known, there are many areas in the city that repeatedly struggle with flooding and blocked drainage every year.

DESIGN STRATEGY: a unified proposal that aims to respond to the risks on multiple urban scales from ecosystem service design to an urban network and finally through building design proposals, from public to private.

Analyzing Zanzibar's complex challenges on site has resulted in a closely intertwined network of urban and architectural development proposals which focus on impacting the different main scales of Zanzibar's urban fabric. The proposal works as a system, where all the links are touching sensitive fibers for Zanzibar's future city center development. It envisions Ng'ambo's through a holistic design strategy, layered in different urban scales, each with conscious architectural proposals for the future of Ng'ambo.