

NAOMITHIRU Oortfolio

DELTAS IN CLIMATE CHANGE (RE)IMAGINING LIVING IN THE DELTA TANA DELTA, KENYA

This thesis is a spatial exploration of the delta and its resources, as pertaining to settlements and the communities that depend on it, and explore how this drastically changing environment can be regenerated, and hence create better living conditions. It attempts to explore how urbanism can address the conflict through a thorough study of the spatial elements of the landscape and the interplay between natural and human dynamics.

The delta ecosystem is highly dependent on the Tana River. Waters from the Tana bring with it alluvial sediments and water that replenished the lakes, farms, and floodplains. As a vast alluvial floodplain flanked on either side by terraces, it is a mosaic landscape that supports a wide range of flora and fauna. This landscape is home to some of Kenya's minor indigenous communities, who have depended on it for centuries. In recent times, however, changing climate and increasing populations has made the delta resources more scarce. Changes in the river's hydrology can also be directly attributed to human activity upstream, that have led to reduced water flows that have turned the delta into a less productive, high potential landscape.

The study seeks to address a two part research question.

1 How can an understanding of the delta system help in enhancing its resilience.

2.How can urbanism address conflict in the delta.

esig

bd

Research

MASTERS THESIS

Aerial image of the Tana Delta





EXPLORING POTENTIALS OF THE DELTA

NATURAL SYSTEMS OF THE DELTA



The delta is inhabited by farmers and pastoral communities. While the farmers have historically settled and farmed next to the river, nomadic communities come to the delta's floodplain for their cattle to graze in the dry season. The nomadic communities move from one area to another in search of water and pasture. There is increased tensions between the two communities as they compete for the delta's shrinking water resources due to increased encroachment into forbidden territories.



Proposed projects in and around the delta pose a threat to the delta's ecosystem and livelihoods. Large-scale irrigation schemes are proposed on the floodplain which is used as dry season grazing grounds for a large population of pastoralists. These projects are also proposed without regard to the natural systems of flooding of the delta, leading to the displacement of settlements and blocked main grazing corridors, and disrupted the way of living of the inhabitants.

The new Lamu port, currently under construction, also brings development that will cut-off livestock and wildlife migratory routes and infringe on the agriculturally productive areas of the delta. Most of the proposed new settlement areas are adjacent to, or infringing upon protected areas.

PROPOSED PROJECTS IN THE DELTA

FLOODING DYNAMICS



The delta's dynamic flooding system is used to cultivate, fish, graze, gather and hunt. The Tana River flows into the floodplains, supplying water and nutrients to natural and cultivated vegetation, which in turn provide food, grazing zones, building materials and other vital resources to the region's inhabitants. Its flowing pattern is bi-modal, with peak flows occurring during the long March to May, and short November and December rainy seasons.

The subsequent floods can be either productive or destructive inputs for agricultural activities depending on their predictability, timing and force. Moderate floods sustain fishing, rice cultivation and dry season grazing land. Extreme and often early floods cause drastic losses for farmers and livestock keepers by destroying the fields and blocking herd escape routes to higher land.



Flood Season

The flood is important to the delta because it not only brings much needed water to charge both the water bodies and the ground water, it also brings sediments from upstream that fertilize the lands. An alteration of the flooding patterns has led to an interruption of these patterns and negatively affected the productivity of the delta. The time between flood occurrence has become longer and the intensity is and more destructive.

Dry Season

During the dry season, which occurs for longer periods than the wet season, the vegetation in the floodplain is able to regenerate and provide grazing grounds for pastoralists who travel from hundreds of kilometres away.

ENHANCING THE RESILIENCE OF THE DELTA



An exploration of the research questions entails shifting of scales to a strip that runs along the delta, through a terrace, levee land, floodplain, and another terrace. The selected strip exhibits all of the main factors of the delta and properly frames the pertinent issues that arise in this area. It has settled farming communities, and pastoralists communities living alongside each other on either side of the river. The pastoralists community is sedentary, unlike a lot of pastoralists found in the delta that are nomadic.





The floodplain is primarily grassland and scattered bushland. However, prolonged dry conditions and an increased population of animals and pastoralism into the delta has resulted in poor more loosened soils, over-grazing and low productivity of the land.

Asphalt Road
All weather Road
Paths

Livestock migration route

THE STUDY AREA

DEGRADED DELTA MOSAIC

REGENERATION OF THE LANDSCAPE



Cut operations on the landscape will allow for flooding of water in defined areas, setting the ground for the growth of new vegetation. This material from cutting and scraping the land will create ridges along the landscape where nomads can put up their shelter.



route



Cut operations on the landscape

The flood areas will then encourage the growth of plants, with the vegetation guided by the soil composition below and the plant species that occur naturally around the new areas of water. The cut and fills along the habitat corridors will in this same way encourage the growth of plants along it and thus interconnect the landscape Enhanced plant cover in the delta will ensure reduced erosion, more food for livestock and restore the delta landscape. The habitat corridor creates a new element on the landscape as a series of water bodies and vegetation.



- All weather Road Paths

Livestock migration route

A MA MA



I. NEW WATER

II. STREAM- FLOOD - VEGETATION

URBANISM ADDRESSING CONFLICT IN THE DELTA

THE CONCEPT

The concept follows the natural logic of the landscape of movement of water and landscape potential.

The concentration of settlements in the area was because of availability of arable land and water. However, since the lake was cut off from the main river due to the high levee and reduced water flows. It is now as seasonal lake, completely drying out in the dry season.

A re introduction of the water back into the lakes by reducing the height of the levee will allow water to flow into the lake during tiles of high water flows.



De-silting of dry lakes and breaking the levee



THE PROJECT | THE THIRD PLACE



A difference of cultures, practices and language have led to a separation of the delta communities. Given the remoteness of the area, the infrastructure is not very well developed. To enhance the delta communities there is need to provide social services.

Increased productivity will also create the need to create collecting and manufacturing centres. Following the habitat corridor, this can intersect with a new infrastructure later that will tie the four settlements together. That is roads, new settlements and a new centre for trade and manufacturing. This new economic and social centre will become the settlements way to connect to the rest of the district and thus join the productivity belt of the country.

A new social centre which brings together the different communities to participate in joint activity like trading, working, learning and recreation will further contribute in breaking down the barriers between them, and create a new way of living

New farming settlements can begin to form along the new far lands, giving on option for the expansion of Ngao town along the lake. The new permanent water will be for both subsistence household use and farming. The new settlements will also adopt water harvesting practices to collect water for household use during the rainy seasons.

The existing woodlands will be strengthened to prevent an encroachment of these areas for farmlands. A logging of the natural vegetation has been a major problem and has led to the systematic destruction of the delta landscapes.



ements and a new social and economic centre

I. NEW FARMING SETTLEMENTS





The partial de-silting of Lake Shikababo is envisioned to change the landscape of the area, by providing permanent water and new farming areas along the lake. The silt material from the lake will be used as top soil on the areas along the river to agriculture creating new terraced crop lands. In the dry season, the waters of the lake recede and provide new grazing lands along the migratory corridor.

III. MIGRATION CORRIDOR



The migration corridor is protected on either side with vegetation, to keep the animals from straying into farmlands which is one of the issues that triggers community conflicts in the area. The corridor is wide, with a series of shallow ponds along it that fill with water for the animals during the rain season. This forms a new landscape figure that is not only functional to the pastoralists, but also contributes to the regeneration of the delta landscape.

II. NEW CENTRE





Transformation of a 'crossing point' to a meeting place. The new area for social services will provide spaces for the different communities to interact with each other, build an understanding of each other all the while gaining personal skills that will uplift their societies in general. This area will also be a local economic centre. As the provision of water and improved farming and grazing practices lead to an increase in yields, better organized area of trading will be essential.

IV. NEW PASTORALIST SETTLEMENTS



This area details a landscape that is suitable for temporary settlements for the pastoralists, on an area of scattered bushland, between a seasonal water body and a de-silted lake. The availability of water creates favourable ground for wet season settlements of nomadic communities away from the floodplain, as a crucial part of the migration corridor. Sediments from the de silted lake will be used as top soil in the area to bolster plant growth. The new water will greatly improve the productivity of the farming activities

Bridge

ALTERNATIVE FUTURES FOR THE ANTWERP AIRPORT Antwerp, Belgium

This project focused on imaginings of the future of the Antwerp Airport. The explorations sought a switch of strategy from the 'legal battle' against the airport, to investigation of positive alternative futures that are economically, ecologically and socially sustainable, for what could become 'a fantastic open space of 190 ha'. and thus trigger a process of 're-commoning' the space. This project was done in collaboration with the citizen-platform 'Vliegerplein' and the socio-spatial research office Endeavour(Antwerp), with invaluable input from various departments of the Flemish Government.

1 The Green Fingers

STRATEGIC PLANNING (Participatory Planning)





4 Built Heritage

Deurne airport is more than a modern white box, is a flexible operational machine which could rapidly adapt to new uses.

What Next?

• With these eight themes centered around nostalgia, the Platform can start forming new coalitions with other stakeholders like neighborhood communities, learning institutions, cultural institutional and landscape conservationist

• The discussions toward an alternative future for the airport will however require some compromises with parties heretofore have been strongly opposed to closure of the airport. Proposals and agreements can be made that speak to the business community, but still preserve the open landscape of a park.

POTENTIAL ACTORS MAPPING

A thorough understanding of all of the actors involved and how they are connected according to their interests in the airport. The actors involved are also a representation of the policies that are in place that support the status quo. However, an overlapping of these interests and policies present new opportunities to achieve positive progress that is satisfactory to the parties involved, and ensure a way forward in the future imaginaries of the airport.



A HERITAGE OF AVIATION

AVIATION IN BELGUIM

HISTORY

In the turn of the 20th Century, the aviation industry was gaining interest in Belgium. By 1914, about one hundred Belgians had obtained an official pilot's license, flying individually or in meetings and contests. Aviation evoked a sense of wonder to the community and led people to come together in celebration of this new technology.









Prince Albert (later King Albert I) (left) 1909 makes a flight in the Airship "Zodia (Jean-Pierre Lauwers Collection)

CREATIVITY AND INNOVATION

In pre-war Belgium, aircraft production remained a craftsman like inventor's activity, with many Belgians also constructing their own aeroplanes. It is estimated that more than one hundred Belgians built original aircraft. This period saw passionate pioneers combine skills of aircraft construction, pilot and stunt flyers in the same person, with flying being a '... pastime for daredevils and a sensational pageant for the masses'.



Pilot Rougier with his aircraft a Voisin

biplane (N° 2) (Jean-Pierre Lauwers

Collection)

CURRENT SITUATION

OPPORTUNITIES

The airship Zodiac and a Voisin biplane over the Wilrijk aerodrome during the show. (Jean-Pierre Lauwers ries, one of Belgium's most successful First Collection)

PROBLEMATICS

The Antwerp airport has over the recent years, owing to the presence of an international airport inZaventemnotlessthan40kmsaway,lostmuch of it's significance and is heading for closure. Some of the problems fom the airport include.

In looking to the future, the airport then presents an opportunity to recapture the old spirit of creativity and a coming together of the community to create a new vision of a place where once again people can express themselves as

By focusing on the value that the airport once had can contribute to the reframing of the airport as a place of creation, innovation and inclusivity can then build opportunities for new economy, foster stronger communities and This can be achieved by a close collaboration with the artistic community to create an outdoor museum that is complementary to the existing airport building that already has a rich history as one of Belgium's distinct modernist building.













Financial Losses

Enclosure

刻計







Jan Olieslagers (1883-1942) was, for all that he was officially credited with just six victo-World War fighter pilots. The very popular Jan Olieslagers in his Bleriot.

WAY FORWARD

A FUTURE IDENTITY

CASE STUDY. PANAMARENKO

Panamarenko's work is a good example of technology meeting culture Panamarenko, a Belgian artist/sculptor from Antwerp primarily works on 'aircraft that does not fly'.

An exploration of the innovative oeuvre of Panamarenkos can inspire and be a starting point in imagining a new future for the airport. Panamarenko was always exploring new avenues by means of drawings, writings and calculations.

The airport can be used as an area for development of expertise, a space for the artist community to express themselves. The airport can be used as a place of teaching and learning. The presence of a flight school offers a good base to expand on this. Other than learning about the history of aviation and the airport, it can be a place that offers learning of new skills and technologies





Learning Centers of new technology Drone School

Artists Collaborative Workspaces, Sun Valley Center of Arts, Idaho







The sculptures of Panamarenko on outdoor exhibitions in various places in Antwerp



"Archaeopterix Lithografica", Panamarenko Art displayed at the Middelheim Museum



Scotch Gambit, MAS Anwerpen





Panama. Aeromodeller I

An uncanny resemblance can be observed between the Zodiac from the early 1900s and Panamarenkos Aeromodeller





Outdoor Museum and Exhibitions, Flying Leatherneck Aviation Museum San Diego, California.

WATER EXPLORATIONS OF THE TAMANDUATEI RIVER BASIN Sao Paulo, Brazil

Sao Paulo's original settlement laid beside Tamanduatei River's banks. With the construction of the first railway network, this floodplain became one of the first axis for the city's development. In the recent years, in order to re-qualify its former industrial floodplains, the municipality conceived redevelopment programs, the most recent called Urban Operation "Bairros do Tamanduatei" (Tamanduatei neighborhood).

Taking advantage of the discussions generated by these redevelopment plans, this study envisions alternative urban design scenarios, giving a wider role to the river in the floodplain's redevelopment. The design proposals address the complexity and conflicts represented by the superposition of infrastructure, floods and water management (river, rain and sewage waters), listed buildings and industrial heritage, productive industrial area, the need for housing and new housing typologies, the existence of informal areas, and the site's current decay.

Differently from the ongoing municipality's propositions, this exercise attempts to focus on the river, the potentials of the floodplain, searching for a reconciliation, between waterscapes and city spaces.

The urban design explorations address the following research question:

How water urbanism and urban design strategies would be able to shift the eastern part of Sao Paulo, currently shaped by infrastructure.



The canalization of the Tamanduatei River started at the close of the 19th century and was completed by the 1950s. The canal has an average depth of 15 meters, was made to control flooding.

The increased urbanization over the past century led to an increase of impervious surfaces which, coupled by poor waste water disposal systems led to an increase in the contamination levels of the waters of Tamanduatei River.





SITE EXPLORATIONS

TRANSPORT SYSTEMS



The transport system of Sao Paulo is an elaborate network of super infrastructure to accommodate trams, trains and RBT. With the growth of the city, the road network expanded making the metropolitan area of Sao Paulo largely car-based. The mesh of road network is very well interconnected, forming a favourable base for the introduction of good water sensitive urban design and practices in order to re caliberate the water system of the Tamanduatei River.

The morphology of the urban tissue of Sao Paulo has been largely shaped by its rivers and flood plains. The centre of the city lays between the Taanduatei and the Pinherros rivers. As the city grew outwards, it exhibited distinct urban forms guided by the structure of the Tamanduatei river, with earlier settlements developing in regular patches on the higher ground away from the flood plains.

With the gradual canalization of the Tamanduatei river to control flooding and make way for development, new settlements formed in the old flood plains in between the previous regular patches. The urban forms that are studied today resulted from the concurrent process of a shifting river flood plain and rapid urban development, exhibiting a matrix of regular and irregular forms.



Water System: The water system of the Tamanduatei river currently comprises of a vast network of tributaries buried under layers of urbanization activities over the past century. Now confined in pipes, these waters along with waste wayer endu up in the Tamanduatei River.



Soil Pattern: The area of study along Tamanduatei river lays within its wider floodplain. Study was able to reveal distinct patterns of soil deposits congruent with the floodplain and the topography of the

SUPER GRID CONCEPT

Understanding the human and landscape conditions of the study area, we have found great potential on the basin's edges, what led to the general proposal of this exceptional area in the tissue, built up as SUPER GRIDS. In the Super Grids proposal, the perimeters works as part of the city mobility system, whereas the inner streets works as shared places or RIVER STREETS.

These river street system intends to; Collect, Lead, Treat, Reveal and Release the rain water, by creating a new parallel water flow. New proposed Reservoirs would store the waters leading to the river streets. This system would avoid that this grey water reaches the highly contaminated currently system. The inner streets work as this shared place during dry season, while accommodates the water surplus during wet season.





SUPER GRID PROPOSAL - RIVER STREETS

SUPER GRID PROPOSAL



This axes represented by Tamanduatei floodplain and marked by the railway, represents a binary mobility system that fostered industrial activities on the area. The outcome of this process is a detached urban tissue. The Super Grid Proposal intends to redefine the site's urban form, fostering a more comprehensive approach to urban waters, exploring its potential as the lead element to a new type urban development.





Floodable Streets-Dry Season

Floodable Streets-Wet Season

The selected strategic projects presents a site specific solution to the Super Grid Concept, that is oriented upstream, from the confluence of Corrego dos Meninos stream and Tamanduatei river, to Park Dom Pedro, at the city center.

Parque Dom Pedro

Henry Ford is an area under intensive pressure for redevelopment. The strategic project explores in depth the relation of a new water system as a backbone for redevelopment.

The several shapes of a possible new river of Parque Dom Pedro and its archipelago of civic functions exemplifies how can one use this new water system to recuperate one of the most important public spaces of the city.

STRATEGIC PROJECTS



STRATEGIC PROJECT 1

SECTOR HENRY FORD

USING WATER TO TRANSFORM THE AREA AND TO ENCOURAGE URBAN DEVELOPMENT

The site is an industrial area, with increasing underuse and a shift towards new development. A study of various elements led to identifying the particularity of the site to guide the implementation of the strategies for the creation of the new water system.

These include, A Strong Longitudinal Urban structure characterized by a coarse fabric of large buildings and industrial sheds and an interesting presence of heritage structures which would help mould the character of the area and structures that can make way for new development, topography of the area which includes a large difference in topography leading to the valley of the floodplain and micro Topography inside the floodplain, the tributaries of the Tamanduatei that run under the ground surface in pipes and the presence of Open spaces running along the railway axis and interspersed within the urban structure.



READING THE SITE-POTENTIAL





MICRO-TOPOGRAPHY AND EXPECTED WATER FLOWS



Via-duct

is created.



A combination of these elements in the Henry ford Sector are explored to adopt the strategy of the new water system by water collection, harvesting and reuse, a defragmentation of the rigid industrial fabric and creating a favourable environment for the new development. The ground is prepared for a water system by creating a micro topography to guide water as a cascading system through the site to form a new river. Thus, a guiding landscape for new development for the area New development is then required to adopt urban design strategies to complement the creation of this new water framework. The sources of water to this system are the grey water from the surrounding neighbourhoods, storm water which currently runs in pipes, the surface runoff water and rain water, and from daylighting existing water tributaries of the Tamanduatei to form interconnected ponds and channels, creating an urban sponge.









High river flows during a flooding season through the urban fabric





NORMAL FLOW

STRATEGIC PROJECT 2 PARK DOM PEDRO AN URBAN ARCHIPELAGO

Park Dom Pedro was a significant place in the everyday life of people, and is currently rendered a place of passage and abandonment. The banks of Tamanduatei that had vibrant social functions have lost their previous strong connection to the city.

The idea is to revitalize the area, with a proposed archipelago concept that will make space for the river as well as provide public realm with functional islands. As the water of the new river arrives at Park Dom Pedro as clean and usable water, this area will create spaces for activities of interaction between the people of the city and the water. Parts of highways and viaducts will be turned in to boulevards which are downgraded to have more spaces for pedestrians and merged with green systems. With the concept of archipelago, the city will have a chance to reconnect with the river and adapt with flooding.

The River and the island would be formed following four principles

- 01. Following the topography and Water flow
- 02. Trying to keep the existing house and buildings
- 03. Keeping the vehicular traffic peripheral
- 04. Green as buffer.









Public realm near bus terminal with green pocket



Soft landscape near bus terminal overlooking to the jungle of concrete



SESC with civic square at the metropolitan node near Municipal market



Use of space in floodable condition in rainy season



Re-engage activity under viaducts



Water activity in the bank of the river while looking towards boat club



Section-cc

Design strategies are Re-naturalization,Reintroducing water through flow of water, Producing Public Realm through Archipelago Preserving History, Culture and Heritage,Green corridor.



Master plan concept showing re-naturalization, flow of water, historic buildings with public realm, green islands with new functions, transformed viaducts in pedestrian access and overpass

A HYBRID GROWTH OF ZAVENTEM SOUTH GUIDED THROUGH THE LANDSCAPE AND AN ALTERNATE MOBILITY

URBAN DESIGN

The project aims at creating a hybrid growth between industry and living, with the highway, the Leuvensesteenweg, acting as a catalyst, by creating a dialogue between the tissue and its environment. The project focuses on strengthening the landscape and creating an alternate mobility system in order to achieve the same. By hybrid growth, the project not just targets the rising population growth but also provides a chance for growth of economy by guiding the industries to densify in a sensible manner.

The project works on three basic principles. de-mixing the mobility, creating mono-functional to multifunctional growth and reducing floor area with the landscape acting as a guideline for future densification.



LEGEND



500m

ANALYSIS DECONSTRUCTION OF THE BUILT TISSUE OF ZAVANTEM SOUTH





15-20 years. Short term

Big parts of the industrial area are owned by one and the same owner who sub-rents the plot. This in combination with the cheap prices of the constructions, indicates a crucial rotation between the buildings on site.

ROTATION OF INDUSTRIES





🛞 Construction site
Built - Economical F.
Built - Economical - offered
Empty lot - Not offered
Empty lot - offered
Community service
Not built - Economical F.
Green buffer
Private housing

STRATEGIES



1. MOBILITY





GREEN SYSTEM

The potential of Zaventem South lies in the landscape with fully grown trees. It is harnessed by strengthening and enhancing this pattern to create usable green spaces as well as enveloping the parcels to guide future appropriation with the shift of industries.



2. LANDSCAPE AS A GUIDING ELEMENT

The existing green system is used to introduce a blue system with elements like permeable parking, retention basins to recharge groundwateraswellasenhancethecharacterofLeuvensesteenweg.



rain water harvesting



retention basin







RE-CONFIGURING PRODUCTIVE MEGALOPOLIS, CHALLENGES AND DYNAMICS OF A MINING TERRITORY Megalopolis, Greece

This one-week intensive international workshop in Megalopolis Greece, focused on reflecting on the challenges and dynamics of a contemporary mining territory aiming to mobilize the inhabitants and local stakeholders to get involved in a new vision for the future of the mining area.

STEPS & SLOPES FROM RIDGE TO PIT.

Transition to a post-mining environmental legacy

The lignite extraction is dramatically and radically altering the topography of this territory. A new system of large-scale steps and steep slopes has been and is being inserted into the centre of the basin. steps of mining extraction, tailings of inert material or waste and tailings of fly ash.

The artificial topography steps created by the mining can be literally recycled and offer a wide variety of new forms of economic opportunity and re-domestication. Terraced agriculture can provide a reference for a way to reoccupy the steps with new forms of horticulture, agriculture, aquaponics, renewable energy, productive forests, small and medium size enterprises, etc.



Conveyor belts truncate the landscape

Old ruins heritage site within the study area



Mining infrastructure











The regenerated landscape maximizes the existing landforms by proposing different functions and creating a mosaic that enhances the resilience of the landscape and re-growth of the city.

Overall view of the mines, exhibiting the effects of the mining activities of the landscape

The integration of the natural topography that guides the water systems, with the new topography left behind by the mining activities

Operational cross section of the mine, showing the cyclic relation between the new proposed functions of the site







Conversion of old conveyor belts into part of a productive landscape

The revitalisation of the city by an expansion of functions following the phasing out of mining





A mixture of functions to boost the productivity of the landscape by for example a combination of farming activities and energy production.



Conservation the heritage sites by use of landscape elements to allow visitors to explore while preserving the antiquities

(Re)Cycle Limburg Kerkrade, Netherlands

Carboonplein-Akerstraat. a central, urban public space surrounded by shops with apartments above. Carboonplein together with the Akerstraat is the main shopping area in Kerkrade West, but suffers from vacancy due to economic and demographic decline. Akerstraat came to development from the 1920s onwards. Developed in 2007-2010, Carboonplein is supposed to be a square but is mainly arranged and used for parking.





Small pocket of open space off the street used as parking



Empty shops, with posters on the windows



Carboonplein, the main shopping area with the square used as a parking



Square and parking next to the church



MAPPING

CONCEPT



the street reveals where there is the areas along the streets. highest concentration of businesses, and the services that they offer

Mapping of the different activities on Mapping of the existing parking



Mobility Analysis, to establish the flow of vehicular traffic, from the busy highway to the connecting streets. An exploration was then done to be able to redirect traffic in various sections of the roads.



green pockets





High traffic road One way street Car-free zone Neiahbourhood road network

Open spaces



Initial interventions, using color and art-work to highlight vacant store fronts



A car free zone with added greenery, and fur niture for a pleasant walk, rest and shopping.





A car free zone, with movable street furniture



OFFICE BLOCK ROOF GARDEN NGONG ROAD, NAIROBI

PROJECT DESCRIPTION. Landscaping for an Office Block along Ngong Road, Nairobi

CONCEPT. The Scope of works included design and implementation works supervision of a ground garden and a roof garden for an office block. The Roof Garden, an interesting feature in the building, will provide an urban oasis for the users of the building

EXECUTION. The Roof Garden, entailed construction of planters to hold the proposed vegetation, introduction of pergolas for shaded spots and pebble-filled trenches to both add interest to the garden and serve as drainage channels for the roof area. The ground landscaping seeks to provide green shaded spots for rest and relaxation, as well as reduce surface water run-off.

The project is complete.











RESIDENTIAL GARDEN RUNDA ESTATE, NAIROBI

PROJECT DESCRIPTION. The project is a garden for a private residence in Runda Estate

CONCEPT. The client wanted a garden that constituted of a large sprawling lawn, with minimal flower beds. Owing to the slope at the site, the design divides the garden into two sections. The upper garden around the house and pool area has flower beds and the lower garden is open lawn with a water feature back drop.

EXECUTION. The garden ended up with well created destinations, and high quality finishes to clearly outline the lawn, which was very important to the client.















RESIDENTIAL GARDEN ONGATA RONGAI

PROJECT DESCRIPTION. The project is a garden for a residential house in Ongata Rongai.

CONCEPT. The landscape is set on a rocky and steep land and the challenge was to create a design that will integrate green spaces and existing rock.

EXECUTION. The challenge was to create definition of the private external spaces of the residence, wile taking advantage of the rocky breathtaking views of the neighborhood









Site Context. A view showing the site neighbourhood, and a definition of the landscape.





Sloping landscape



Level change into the garden



Pebble clad steps and Gate pillar, adding a rustic flair to the garden



