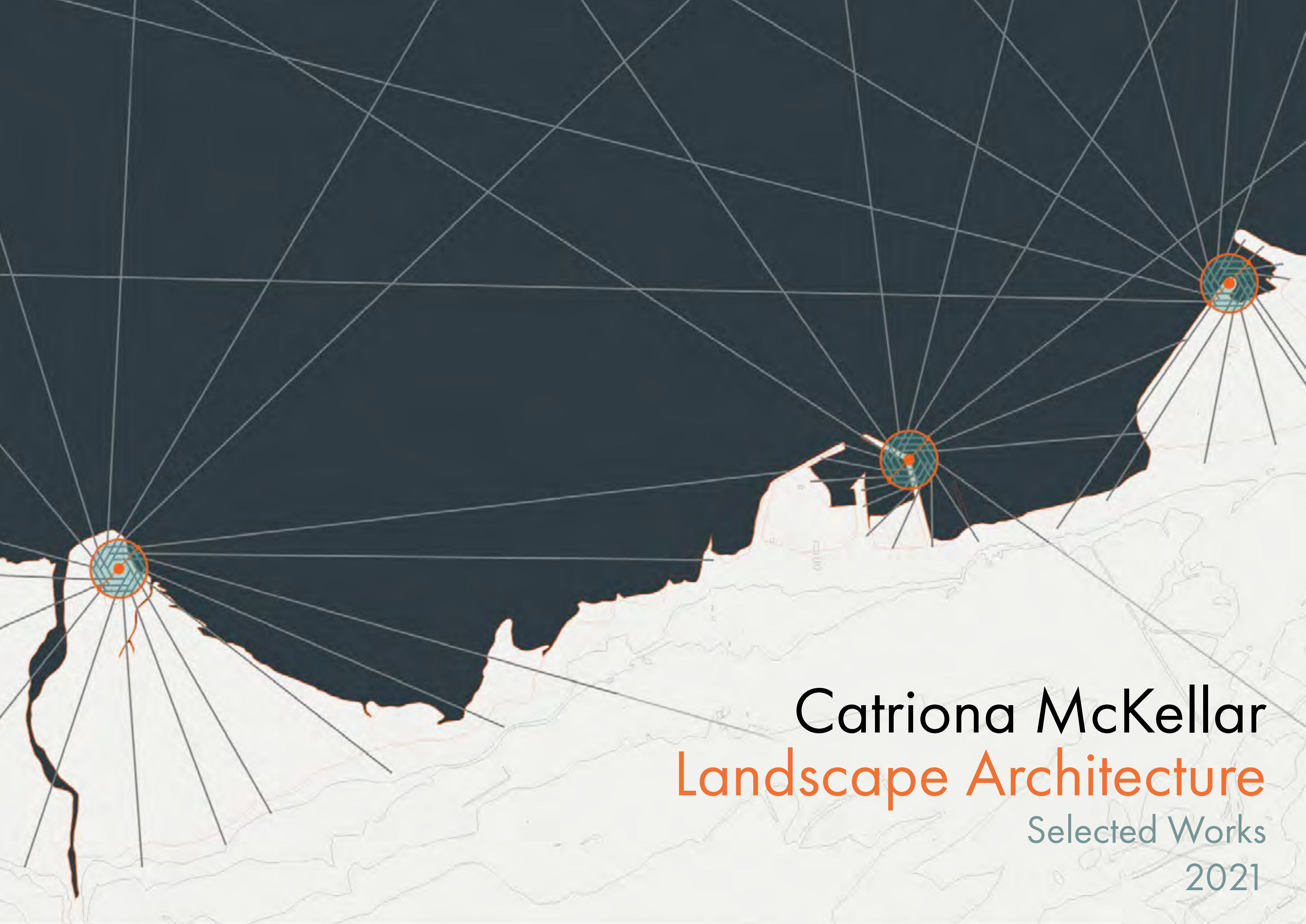




Catriona McKellar
Landscape Architecture

Selected Works
2021

Design Ethos

I believe that landscape architects have an incredible opportunity to work with history in a way unique to any other profession. Every site has a history and that heritage, no matter how small, should be honoured through design. To me, the most engaging aspect of a design is juggling with the juxtaposition of preserving and remembering the history of a landscape, versus designing for future wants and needs.

Looking forward by appreciating the past, it means analysing complex ways of use to inform for fast-paced modern day. I find urban settings to be of particular interest – mixing the layers of context from history, to varied cultures, to the varied people living in one space and benefiting from the same design. From history, an adaptable design for the future can be created.

It is my firm belief that it is local communities which significantly benefit from a site history - as seen in the majority of my projects, and also in the conclusion of my dissertation. These people remember the site before and in one way or another, it unites them. Any good design should culminate with the establishing and enrichment of a community who will be able to take a design forward even long after the landscape architect has stopped working on a project.

A landscape architect assists with the future of a site but ultimately, it is the community, with memories of a site's past, who will continue contributing to its future.

Contents

Silver-knowes

Page 3
Landscape Design, 2021



Go With the Flow

Page 8
Urban Design, 2019



Sleeping Giants

Page 12
Landscape Design and
Ecology, 2019



Ramp-Age

Page 15
Landscape Planning, 2019



Dissertation

Page 18



Connecting Gems

Page 19
Landscape Planning, 2020



Silver-knowes

Individual Design Project

Landscape Design
2021

 Silverknowes, Edinburgh

Silverknowes is currently a golf course situated on the coast of Edinburgh, Scotland. It is a large, steep site and it cuts the local areas of Silverknowes and Muirhouse off from the city's coast.

Despite its long history of golf, Silverknowes is one of three golf courses in the local area and so, the decision to change the existing use of this site was appealing. However, the history of the site will be remembered through juxtaposing it; the design of this new park will combat the former monoculture it once was, by having rich, biodiverse planting.

The permeability of the design is reliant on the community for its success. By having 'hotspots' of activity on the edges of the site, people will be drawn into the larger area and be interested in the park itself as a location, and not just as a place to pass through. With heavy programming focusing on the community, there will always be activities in the park to draw people in.

Overall, this design battles with the steep terrain, harsh climate and permeability of this course and creates a rich, diverse park which is a location in its own right. The site becomes permeable for residents almost immediately but as the site matures, it also becomes permeable for wildlife such as mature woodland and meadow as many habitats begin to come into fruition.

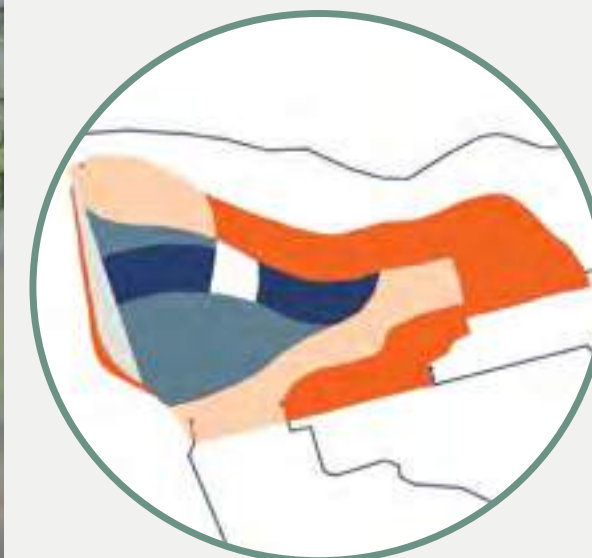
Image (left)- Visualm, looking up to the retrofitted community club and playpark



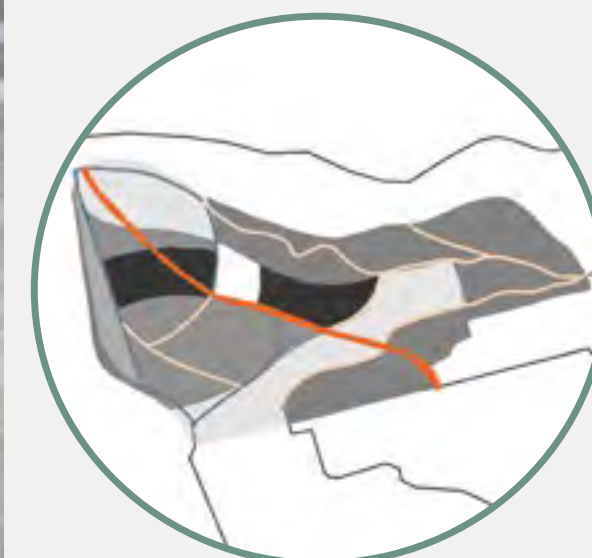
Key

- | | |
|-------------------------------|-----------------------------------|
| 1 Terraced Entrance with ramp | 7 Allotments for locals |
| 2 Lawn | 8 Former golf club- Community hub |
| 3 SUDS planting | 9 Outdoor learning classrooms |
| 4 Perennial Meadow | 10 Football pitches |
| 5 Natural Regeneration | 11 Mature Woodland |
| 6 Plaza | |

0m 1:3000 400m



Types of Nature



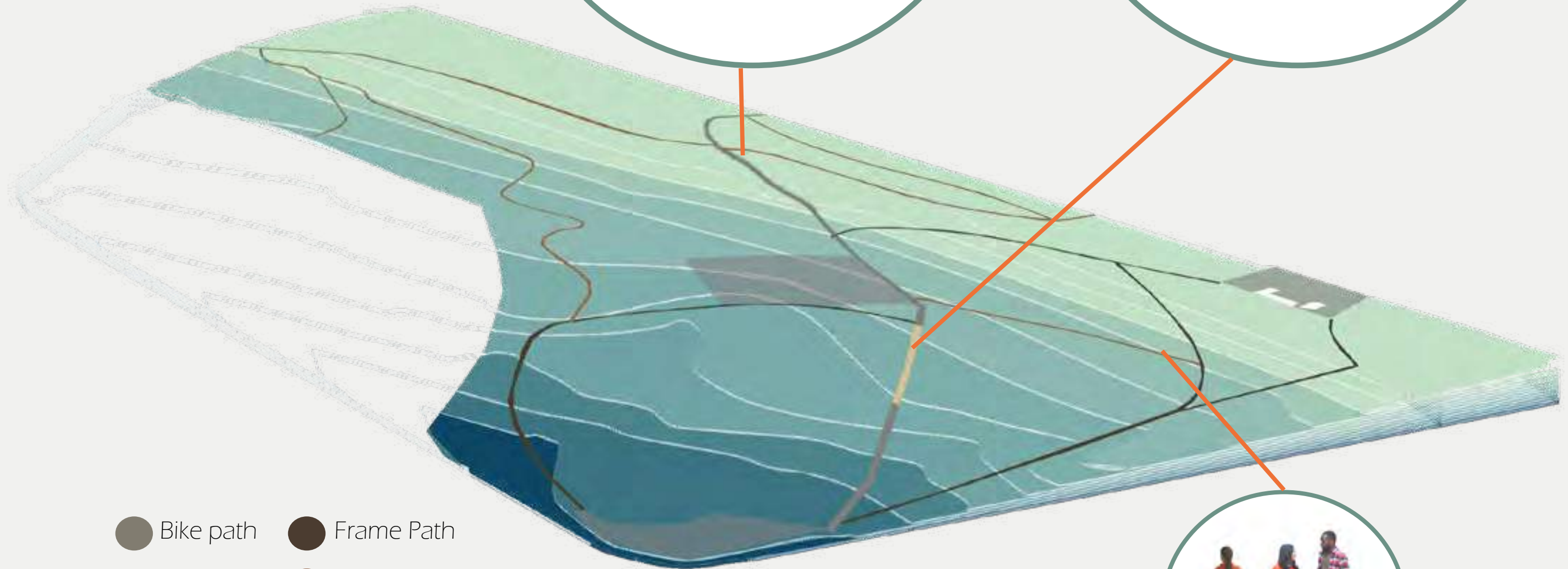
Circulation



Visibility

Paths

This model of the site shows how steep it is, making it a challenge to move around easily. Thus, the three different paths have been designed to move with the contours. The main flow through the site is the 'Bike' path, creating an artery flowing through the middle of the site.



-  Bike path
-  Frame Path
-  Board walk
-  Forest Path

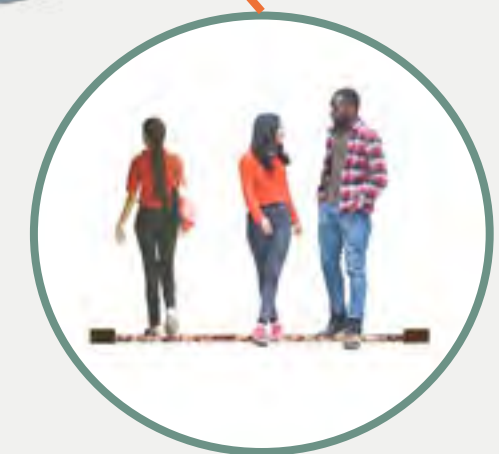




Image- Visual, of woodland walk at full maturity

Woodland Management

Despite some semi-mature woodland currently living on the site, the majority of the woodland in the masterplan will need to be planted. The W18 woodland will mature over time, creating new habitats for wildlife and also creating a connection with the community. who will plant it.



1+ years planted



10 years planted



20 years planted

0m 1:200 10m

Natural Regeneration



As seen in the Masterplan, two areas of the site have been dedicated to 'natural regeneration', in which these sections are fenced off and limited human contact and interference is made to these areas. This is to juxtapose the former amenity grassland of the previous golfcourse. Seen in the section and visuals, the fences are low with large gaps to discourage people from entering but this will not be a large barrier to the wildlife of the park, ensuring the biodiversity of these new spaces.



Meadow



Natural Regeneration





Go with the Flow

Group Design Project

Nikki Petrova

Antoni Stamm

Poppy Main

Kate MacLeod

Urban Regeneration
2019



Millennium Mills, London

Setting eyes on the Millennium Mill in London, it is a true eye catcher.

Currently, it is a brownfield site and is inaccessible to the public; which captured our imaginations and drew us to the site. The large mill and the surrounding site are steeped in a rich history and as a team, we wanted the site to honour the history of the site but also build a strong community around the old mill.

Being a flour mill in the years following WWII, the majority of the surrounding neighbourhoods were employed by either the mill or the London docks, where the site connects to. With this connection in mind, we wanted the old Mill to be retrofitted to not just be housing but also be a community centre, to increase the flow around the site but also the surrounding neighbourhoods and create a hub of activity.

Located directly beside London City Airport, the design battles with the desperate need for housing London needs versus quality green and blue space needed in the city, to create an attractive location and not just another housing estate. The design features a wetland park area with a filter system for the man-made Victoria dock, to eventually clean the water of pollutants and also allow building extensions onto the water in the future.

Image (left)- Visual, walking across the bridge to the Mill

Strategy Scale

To achieve the bustling and vibrant site, a wider strategy was designed to link the surrounding neighbourhoods of the docks- all culminating at the mill. This strategy is the creation of pedestrian routes which would be built over time. The design and names of these paths were inspired by the London tube maps as these paths, like the tube, have many 'stations' of local amenities and places of interest.

Key

1. Ginger Willow Walk

A major north - south pedestrian and cycling route, bisecting Becton Park from the Ginger Willow pond and will connect with the Silver Circle route.

2. Beckton Corridor

The pre-existing green infrastructure will be connected to the Mills via a new bridge.

3. LCY Loop

This loop circles the former runway of LCY and creates a loop around a large area of land which will be developed.

4. Lock Links

Adding to the pre-existing promenade in the west, Lock Links creates a full loop around the south of the dock, when combined with the Silver Circle route.

5. Millennium Way

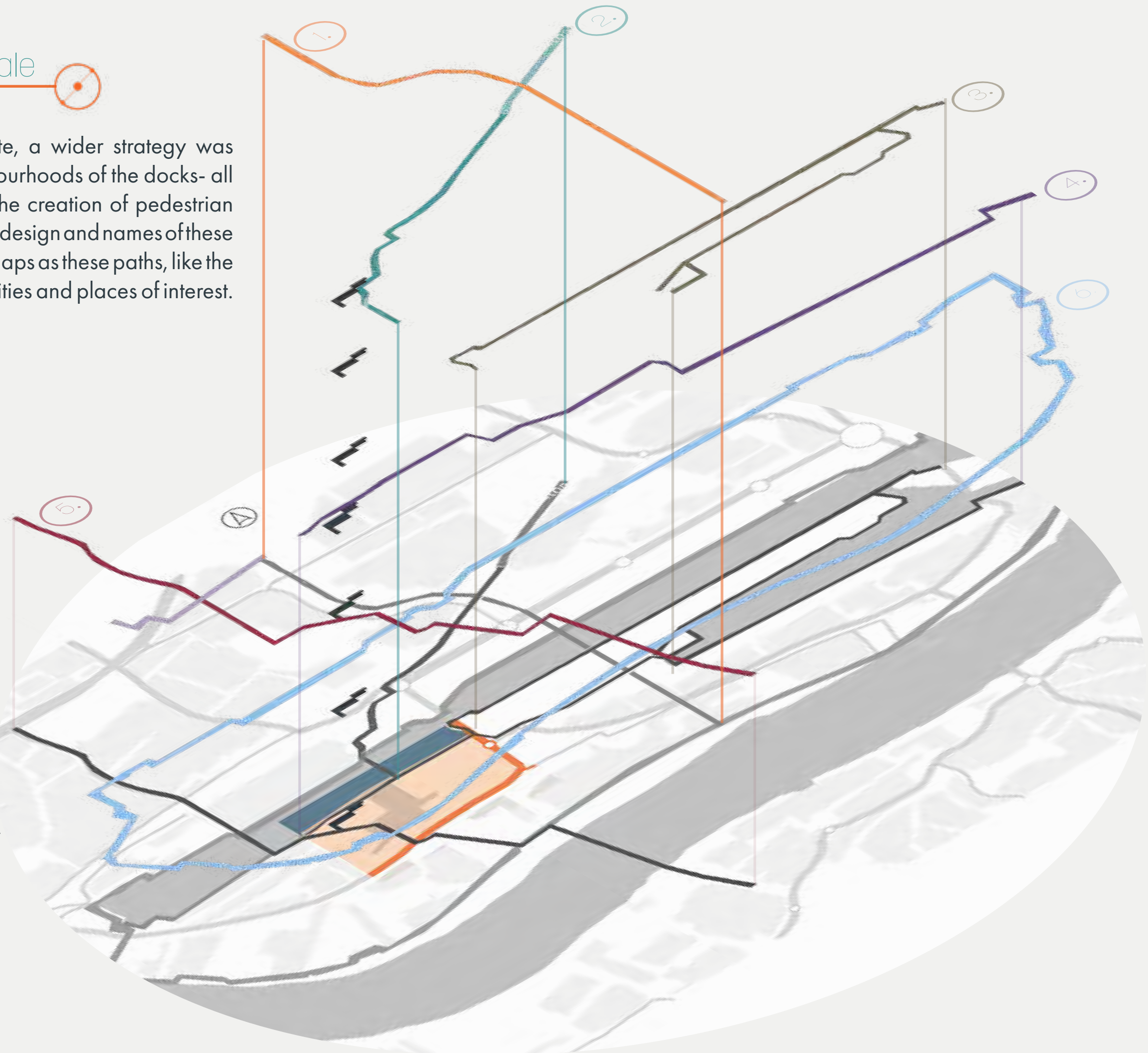
By creating a route which extends over the Thames Barrier, a new alternative to the Woolwich Foot Tunnel appears and connects the south of the river.

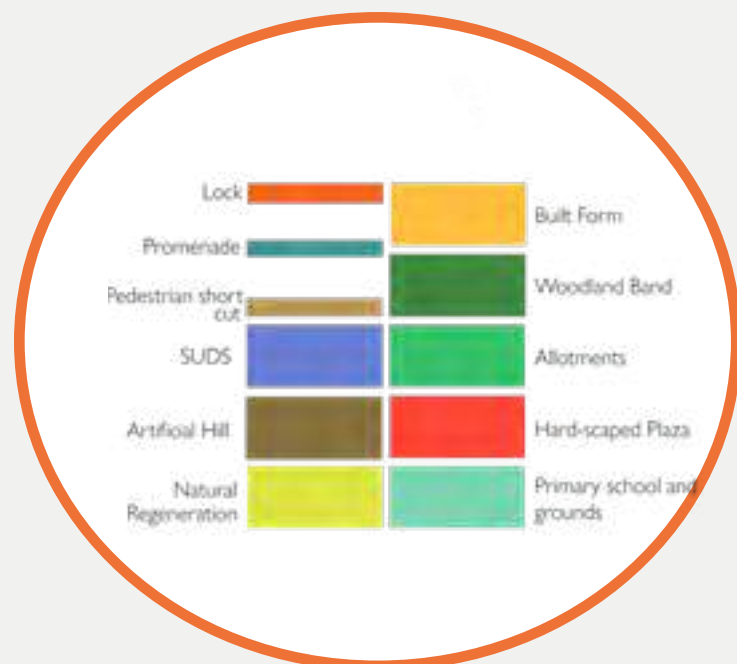
6. Silver Circle

Circling the entire Royal Docks, pedestrians and cyclists are diverted away from 2 major roads- the A1020 and A112- and a promenade is created.

The Site - the Mill

All of these paths link up and accumulate at the Mill, which can be seen on every layer of this drawing for context.





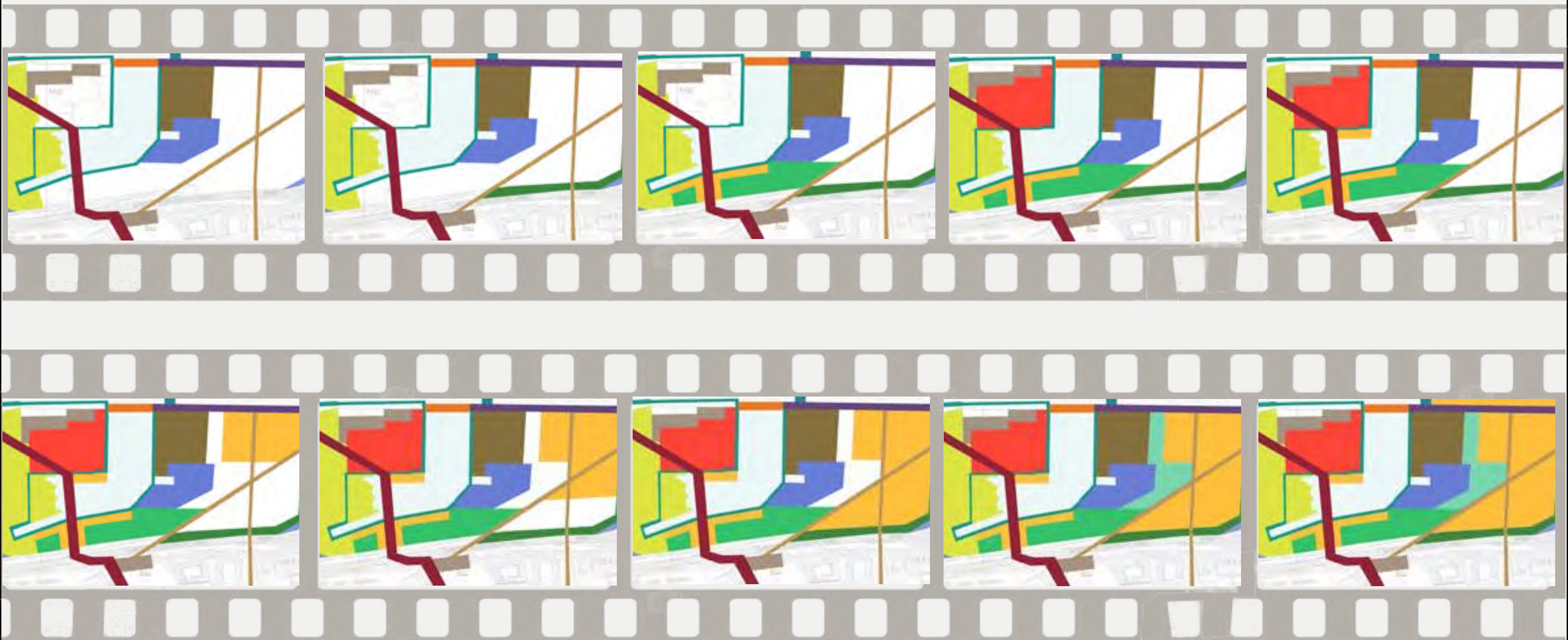
Key



Flipbook

Site Strategy

After the paths of the wider strategy have been established and people are already moving around the site, the strategy scale begins. The site is built in stages, as demonstrated in a flip-book to minimise the disruption to the community. As seen below, the community elements are added first – the SUDS and the hill park for example, so when the various housing typologies are built, they are being built into an established community setting. Thus, through the two strategies combining, a vibrant community is established on the site even before the residents move in.



Masterplan

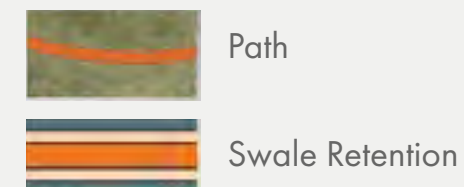


Key

- 1 Millennium Mill- Community hub and housing
- 2 Large plaza for markets
- 3 Docks for houseboats
- 4 Former Silo
- 5 The colonies

- 6 Allotments
- 7 Excavated SUDS pond
- 8 Hill
- 9 Local school
- 10 Water houses

0m 1:1000 200m





Sleeping Giants

Individual Design Project

Landscape Design and Ecology
2019

 Whiteness, Inverness

This former oil rig fabrication port, located in Ardersier, created many oil rigs which have been draining our planet of resources since the 1960's. Many of these oil rigs still exist today and are sitting out in the North Sea or temporarily retired in the Cromarty Bay, waiting for reuse despite years of waiting.

However, the oil industry is beginning to wind down in favour of renewable energies. This begs the question- what do we do with these huge giants, hidden out at sea?

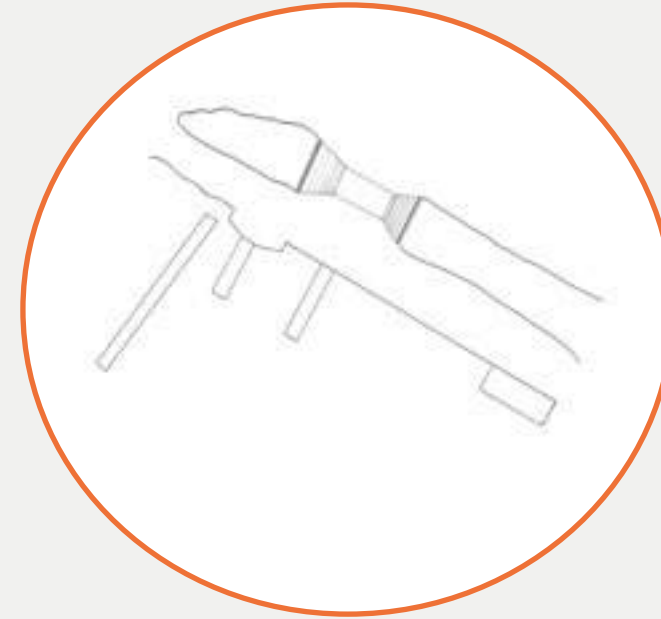
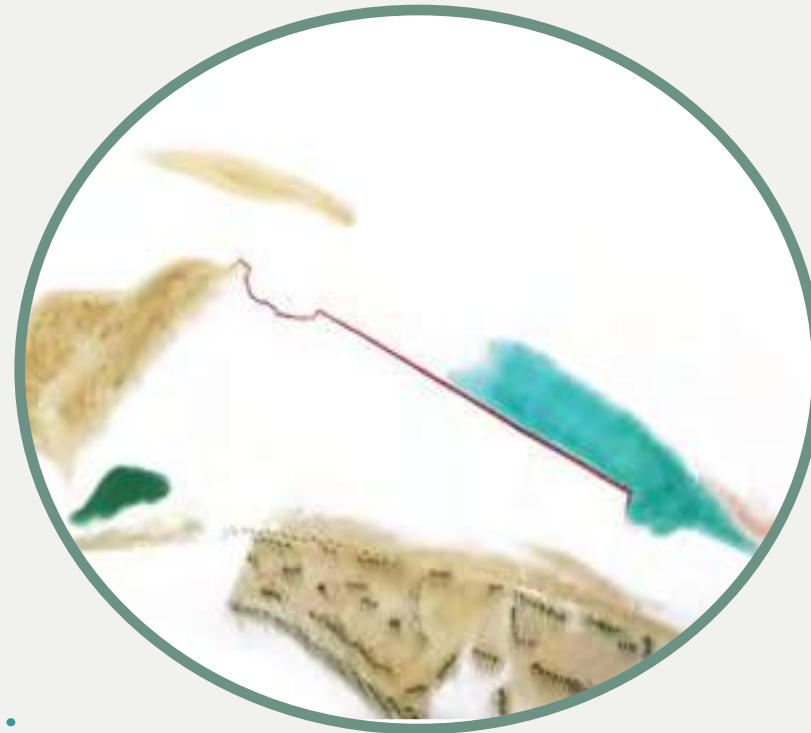
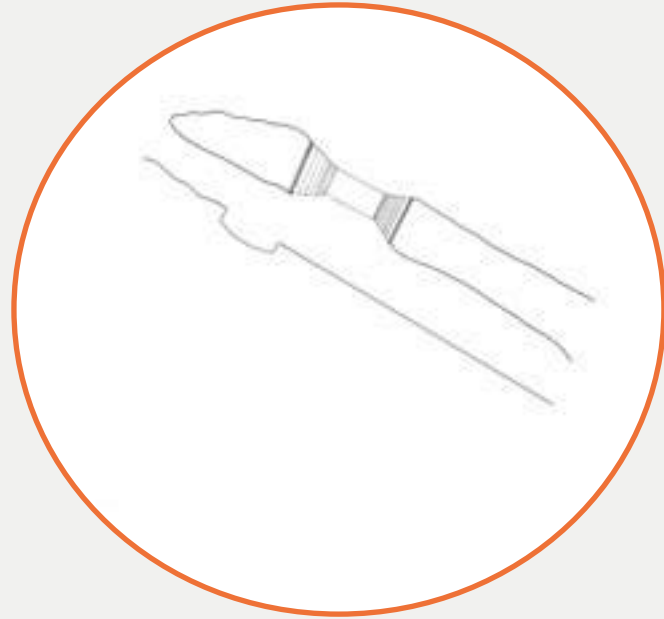
This is where the former port comes in; being a site that used to create these rigs, it will be able to have them back to deconstruct them. It is almost as if the site is giving back to the planet. In the last century, it created these structures which have created a severe negative impact; however, in this century, it is going to reverse this. It will also give back to the economy of Moray, create jobs and give this space back to the local people but also make it an ecological haven- the planet recovering, healing an area.

Overall, this site will marry the three aspects of industry and economy; ecology and public interest, bringing money, wildlife and the public into the site, further benefiting Moray as a whole. As these giants are put to sleep, the ecologies grow back into this brownfield site- almost as if it is healing old wounds.

*Image (top left)- Aerial visual of site after the Industry has left, allowing for walks around the site
(bottom left)- Aerial visual of Industry on site, with the small educational area for visitors*

Timeline

These diagrams demonstrate how the industry (left) and the ecology (right) evolve over time. The industry shows the edge of the site being reinforced on its historical tracks, to use the same techniques to retrieve and deconstruct these rigs. By the end of the industry, the ecology is beginning to mature and be noticeable on the site.



Years 1-5

Years 5-7



Year 7-20

Years 20+



Ecological Climax

Once the industry has faded out completely the site will be an ecological park for the people.

It has a historical walk dedicated to the oil industry, explaining both the good and bad elements of the industry as -despite the damages- it brought wealth and jobs to the people of Moray. It deserves to be remembered. There is also a woodland walk and educational area which will explain the ecological elements to the site.



Year 50+

Key

- 1 Spit develops and grows
- 2 The 'cut' is allowed to refill
- 3 The reinforced edge
- 4 The sanddune wildlife

- 5 Mature trees along path
- 6 Pond
- 7 Woodland develops into site
- 8 Green roofs on education building

- 9 Education area
- 10 Undredged area of water



Ramp-age

Individual Technical Project

Urban Regeneration - Planting
2019

 Portobello, Edinburgh

In a previous design unit, we designed a site at Portobello named "Ramp-Age". As the name suggests, these buildings were designed using Fleming's "Velotopia" design principles- to design for the bicycle. This idea led to finger-like buildings, each with their own ramp to be accessed. These bizarre looking buildings are accessible for all residents and also have the incredible sea views, right on the Edinburgh coast.

One unique concept of these buildings was that these strands of buildings had little pocket parks in between them and this raised interesting questions about the planting of the site. Situated directly on the promenade, who were these small spaces for? These spaces are to be appealing for all- residents looking down from their property, but also for people walking down the promenade. Thus, areas of semi-private 'pockets' were created. These function as formal gardens for the residents as they leave their homes but as they move through the landscape, the planting changes to indicate that the user is now in a public space.

The planting designs had to adapt to the harsh climate of the Edinburgh coastline, whilst also having year-round seasonal interest and also indicating the change in public to private - with formal, ornamental planting near the residential blocks versus native, randomised planting down by the public promenade.

Image (left)- Visual, walking through the residential blocks, down to the prom



Planting Strategy

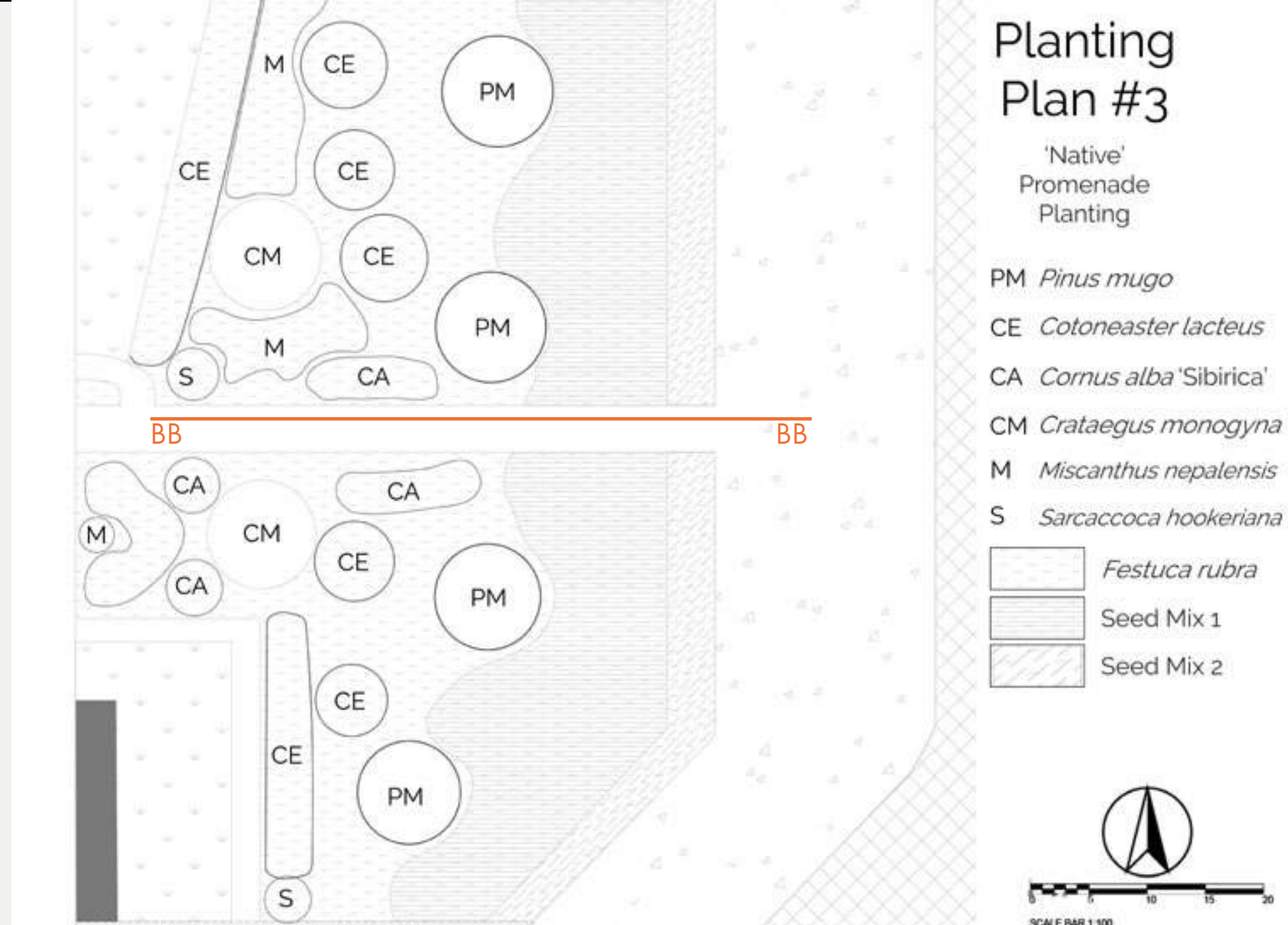
This map shows the planting strategy for this site. The Climate Emergency was a major factor to our initial design, adding ramps to the buildings for bikes and removing cars from the area, and this can be seen in our planting. The building typology lends itself well to green roofs and also encourages the woodland to creep into the back of the site, adding more to the local nature reserve. Planting is also used to establish shelter and sense of place – seen by the avenue trees. The *Betula pendula* 'Zwister's Glory', for example, were chosen for their low maintenance but striking appearance.



Planting Detail



This planting plan is an example of the 'informal' edge of one of the urban blocks, right where the pocket park meets the promenade. As seen by the species list, plants were chosen by their adaptability to the harsh, coastal, Scottish climate but also for their benefits to nature and seasonal interest.



Walk down to the promenade (Summer)



Section BB

17 0m 1:10 2m

Walk down to the promenade (Winter)



Section BB



Stemming from my Design Ethos, my dissertation focuses on a small area of a unique design history - Scottish New Towns. I grew up in Livingston, West Lothian, one of the five post-war 'new towns' and I discovered that each town has its own unique, planned landscape design. However, as people forget the history, these designs are being lost to time. Thus, focusing on another Scottish New Town, Cumbernauld, I asked the question - should these unique landscapes be preserved?

PRESERVING LANDSCAPE HISTORY :

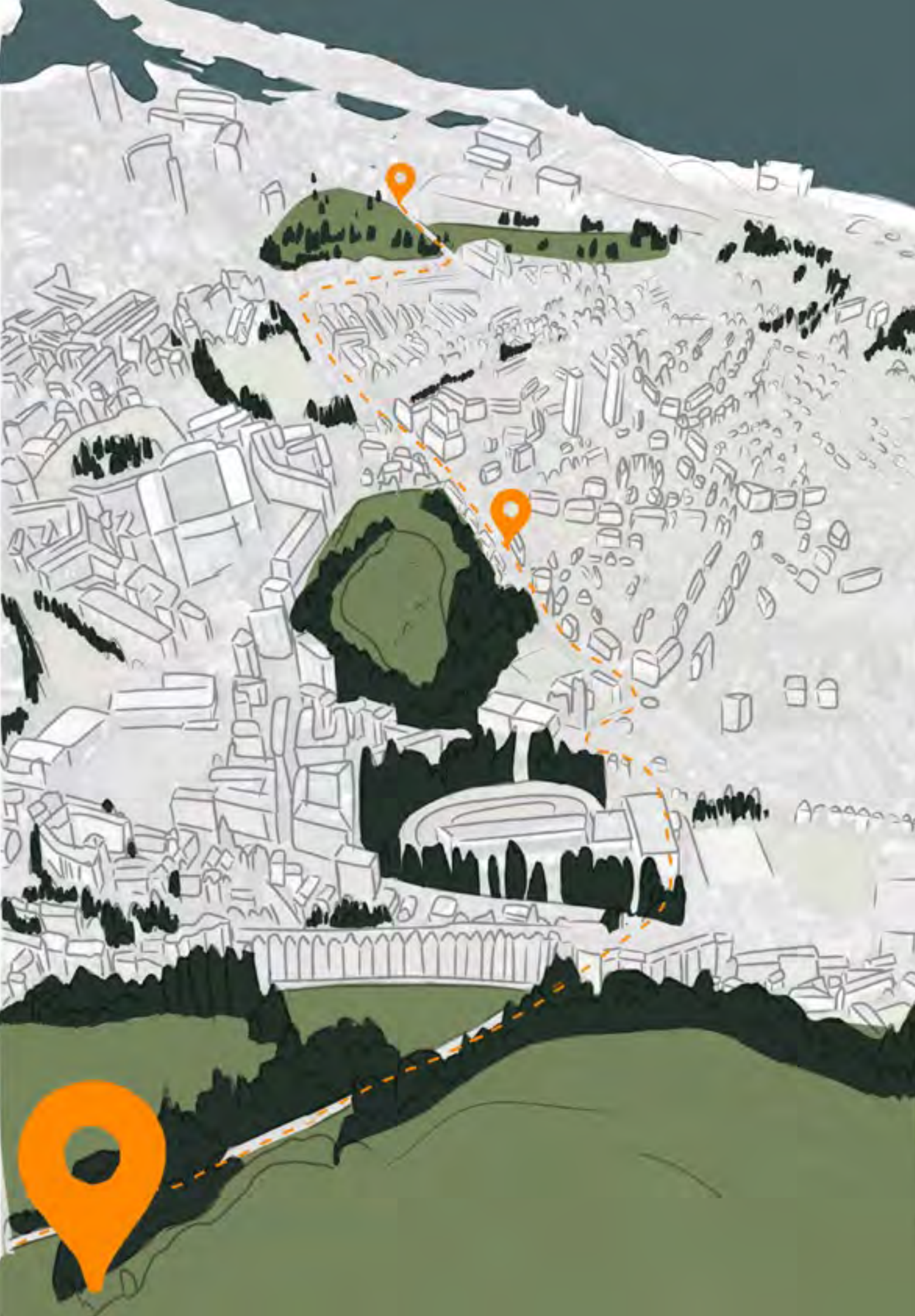
The exploration of the experimental landscape design of the new town of Cumbernauld, Scotland and whether it should be preserved due to its historical significance.

Abstract

Shy of a century following the events of the Second World War, many post-war landscapes designed in and around the era are being forgotten, landscapes such as the British 'new towns'. However, after years of following similar principles, Cumbernauld, Scotland was designed in 1950 to challenge the towns before it- a radical design experiment to achieve 'urbanity'. However, Cumbernauld's fame has been mostly forgotten, despite it being a turning point in British design history.

Analysing Cumbernauld's landscape design principles through the design lens of the past, present and future, my conclusion is that the history of the town will be preserved in the communities' memory, as they maintain the landscape to what they believe they require.





Connecting Gems

Individual Design Project

Landscape Planning
2020

 City of Edinburgh

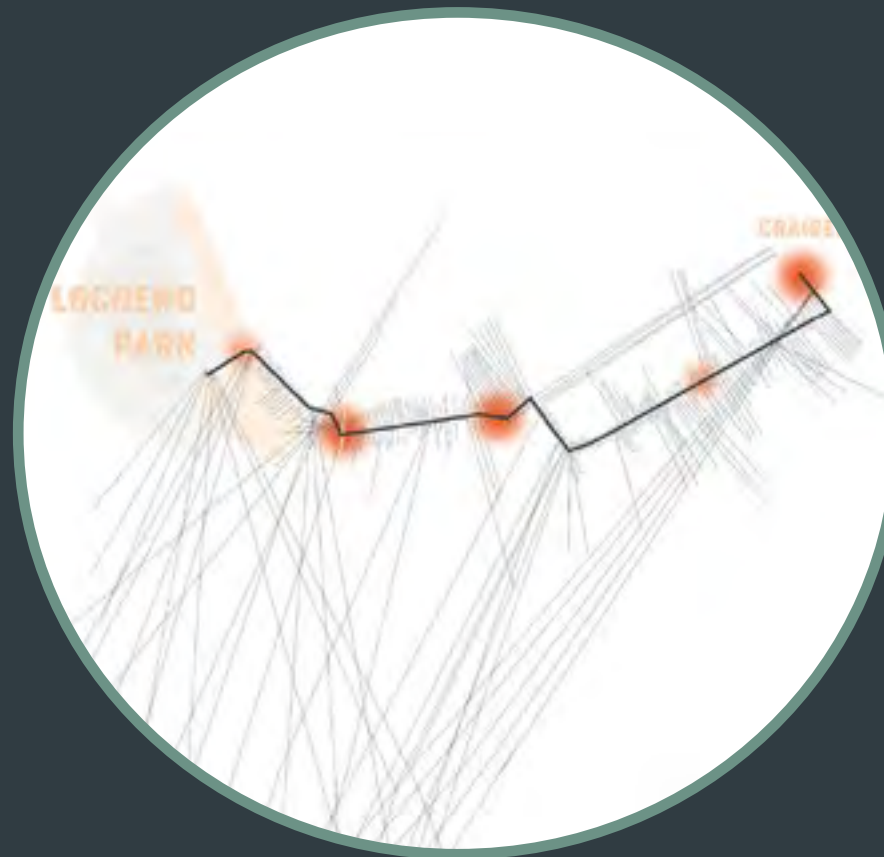
“Connecting Gems” is a strategy for Edinburgh, exploring the past, present and future of public parks in a post-Pandemic world. By exploring existing parks and the “experience” of accessing and passing through them, a new design has been created to connect them but to also pave the way for new open spaces.

The main goal was to allow people to discover and experience these “hidden gems” of Edinburgh. The current challenge of these parks was that tourists -and also many locals- were not aware of their existence. Many of these spaces have great historical intrigue but also could do with rejuvenation, such as biodiverse planting and a change of programme due to underuse, which would hopefully encourage usage by local people. Thus, this strategy project is the proposal of how to entice people - tourist or local- into these sites and also encourage these parks out of themselves; to create long, green corridors connecting the wider city and overall, making one large park around the north-east of the coast.

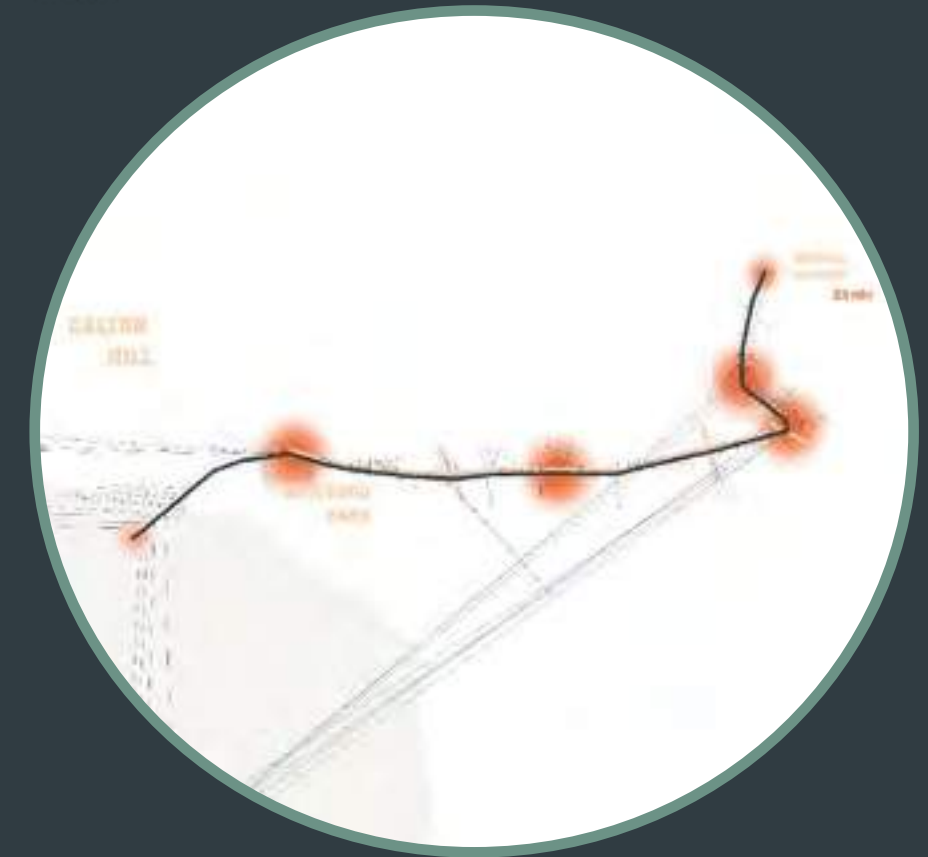
These connections will link tourists to the wider city, the city back to its coastline and locals to their local parks and businesses. By becoming seamless links, they will rejuvenate and connect the wider city: creating major green corridors, safe, obvious walks for residents and tourists alike and new areas for parks around the coastline.



Gipsy Brae Experience Diagram



Lochend Park Experience Diagram



Holyrood Park Experience Diagram

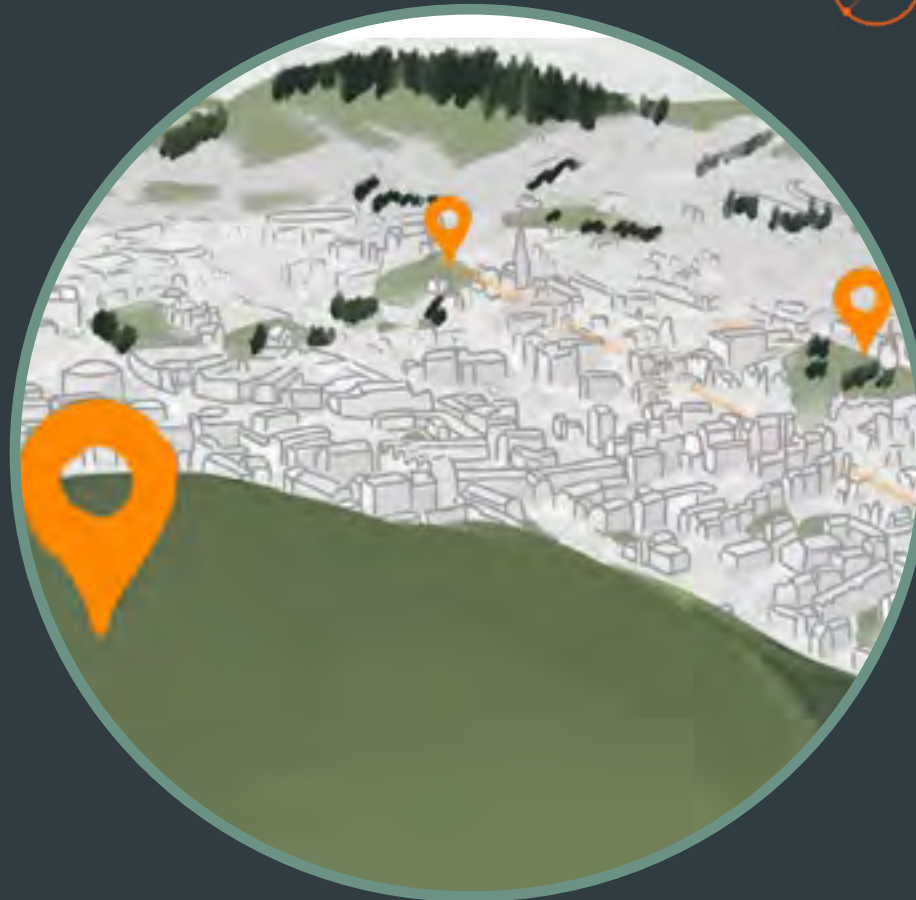
At first, the project focused on 5 parks in the city and as a team, we focused our research on the “experience” of each park.

We picked a random address in the park’s catchment area and walked to it, as if we were a local. We then documented maps of our vision- how far we could see, the noise levels and the barriers we faced. One element we discovered was that the majority of the parks were hidden and unnoticeable until we arrived at the entrance- very unassuming.

The design, using the parks from our research phase, was to connect Leith Links, Lochend park and Arthur’s seat because of their individual histories and differing infamies.



Site Design



The three parks in the strategy, shown for tourists



A link between the parks, with avenue trees and lit at night

The beginning of this strategy begins with the three parks themselves - Holyrood Park, Lochend Park and Leith Links - and how they are adapted for this wider strategy implementation. Pathways will be constructed to link them and so, they need to be maintained.

These parks are where tourists and locals will intersect. On a smaller scale, these parks are for the locals and what they want. One major aspect for the parks is that the trees which are currently missing are replaced to combat climate change and attempt to reach Edinburgh's Million Tree goal by 2030.



Coastal Development

The wider stretch of coast will be developed to become a modern stretch, which absorbs various brown and greenspaces around the path- intending it to become a destination in of itself.

Finally, this development will encourage the development of three particular ports- these will also create final 'destinations' in the coastal area of Granton.



The Central Loop- dedicated to local business, linking the main tourist attractions



The History Loop- connecting areas such as the Botanical Gardens, Stockbridge and the Meadows.



The Coast loop- linking the highest point of the city (excluding the Pentlands), Arthur's Seat to the coast and the city's island- Cramond.



Work Experience

Garden Centre Assistant

I have worked predominantly on the tills, learning about plants and occasionally assisting in the gardens. Having worked there for 5 years, I can withstand the pressure of working in a fast-paced environment. I always serve with a smile and try to give the best advice I can!

Work Experience : HTA

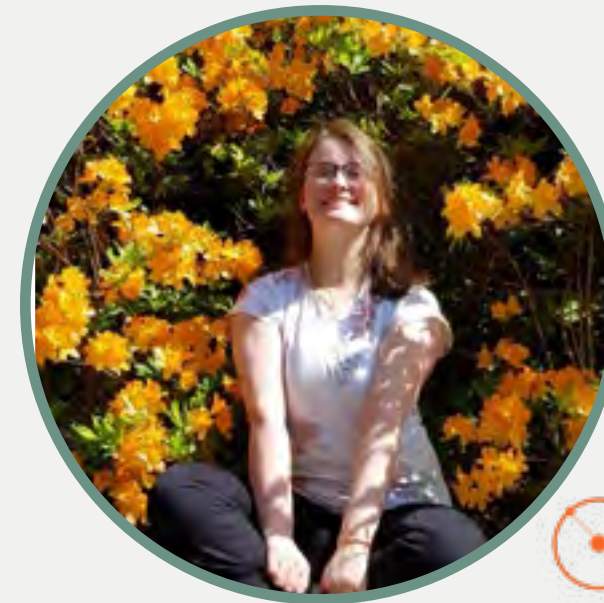
I worked on a small personal project while in London - a little flavour which helped me determine my career path! Sat in meetings about specific sites and saw the interaction between different fields.

Garden Design Assistant

I helped survey a garden for a client in Morningside, Edinburgh, discussing site-specific challenges and the potential plants which were suitable. An interesting challenge on a much smaller scale!

Internship : RFB

Worked on Vectorworks, working on details for many different projects. Unfortunately, my time was cut short due to COVID-19.



Cat McKellar

18/02/99

MA (Hons) Landscape Architecture
University of Edinburgh
Graduate 2021

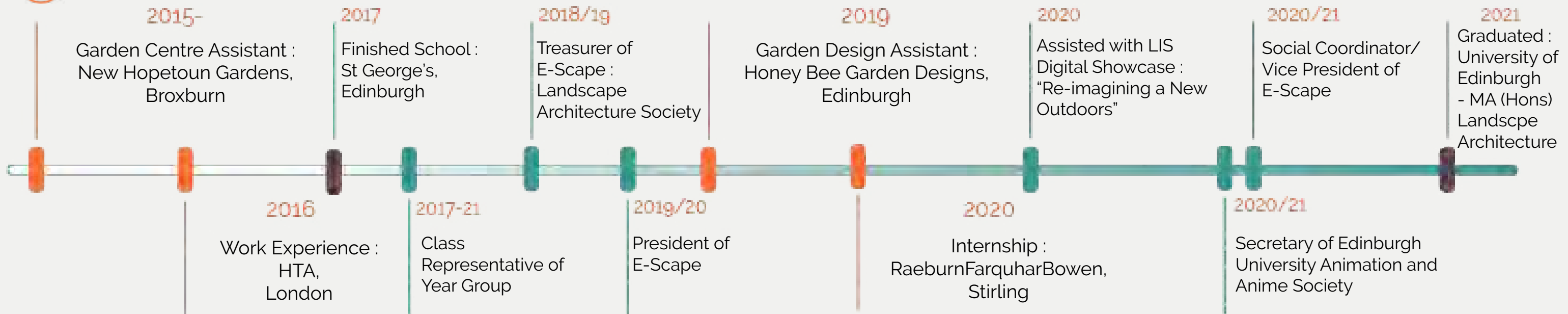


Edinburgh, Scotland

catriona.mckellar18@gmail.com

07392322744

Timeline

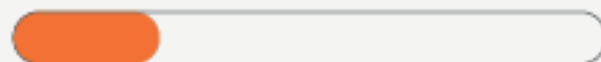


Languages

English



Japanese



Mandarin Chinese (Intermediate)



I am fluent in English. Throughout high-school, I studied (and helped teach) Mandarin to Advanced Higher Level and am hoping to sit HSK4 Chinese Fluency exam soon. Japanese is for interest and fun!

Software



Photoshop



InDesign



Illustrator



Vectorworks



AutoCAD



Microsoft Suite

