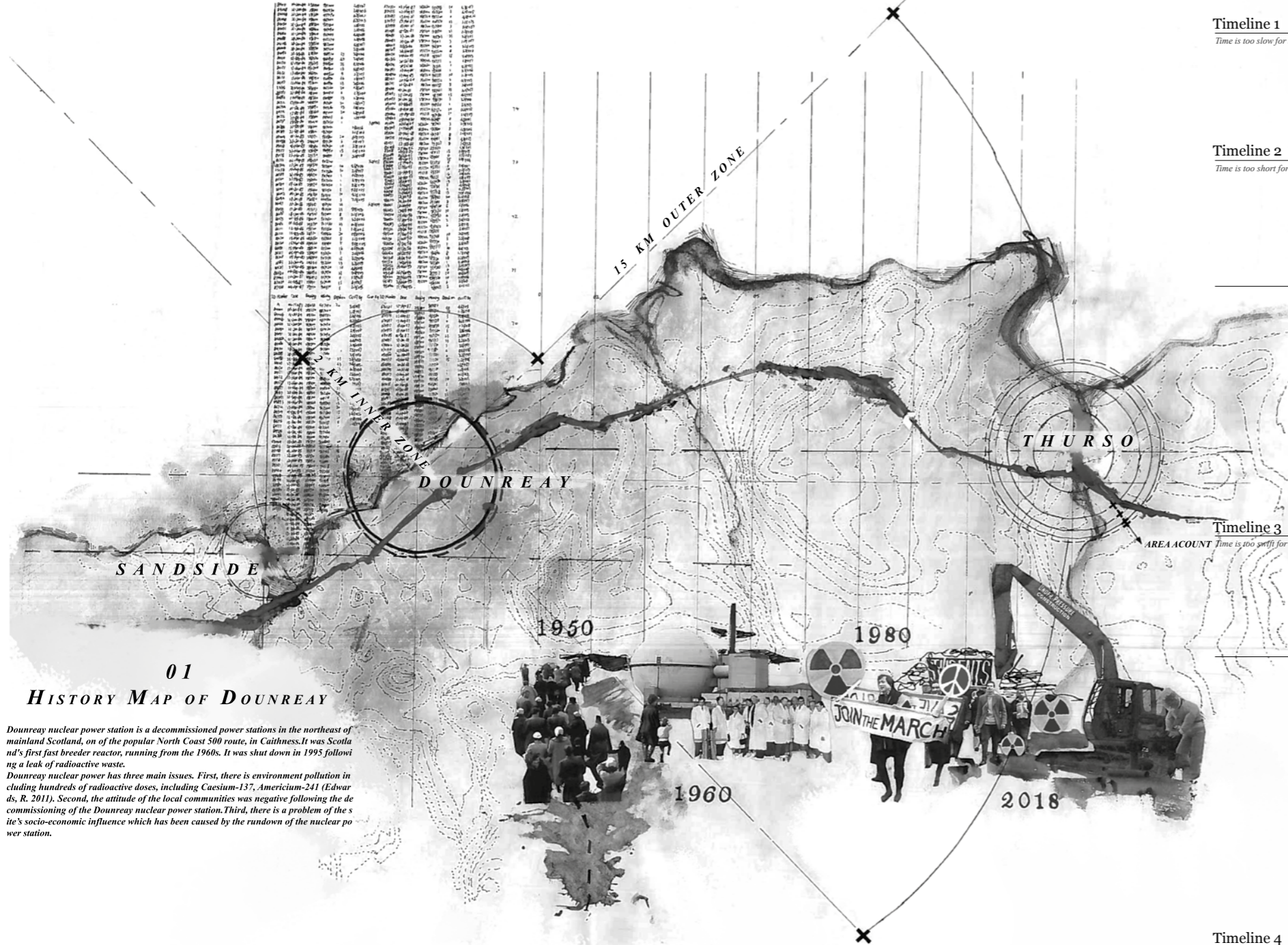




# 1. THE MYTH OF THE DOUNREAY



**Timeline 1**  
Time is too slow for those who wait. [ 00:13 ]



**Timeline 2**  
Time is too short for those who rejoice. [ 00:33 ]



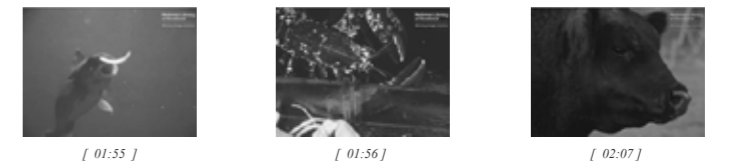
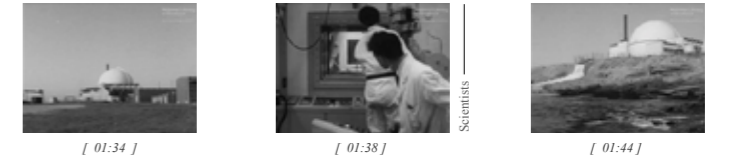
Excited.. [ 00:57 ]



**Timeline 3**  
AREA ACCOUNT Time is too swift for those who fear. [ 01:30 ]



Fear. [ 01:49 ]



Big contrast between police and against people

**Timeline 4**  
Time is too long for those who grieve. Decommission time [ 2018 - 2030 ]

The decommissioning process of the Dounreay will end in 2030. However, degrading the radioactive waste on the site takes 300 years.

Food production are largely required by local community

Unsafety food and environment lead to the against of public

Country / City ..... United Kingdom/ Scotland/ Edinburgh .....

University / School ..... University of Edinburgh, ESALA - Edinburgh School of Architecture and Landscape Architecture .....

Academic year ..... 2018 - 2019 .....

Title of the project ..... Intervene within Dounreay .....

Authors ..... Yiyu Zhu .....



## TECHNICAL DOSSIER

Title of the project	Intervene Within Dounreay
Authors	Yiyu Zhu
Title of the course	Landscape Architecture Portfolio 3 & 4
Academic year	2018-2019
Teaching Staff	Elinor Scarth (Course Organiser and Programme Director) and Anaïs Chanon (Studio Unit leaders)
Department/Section/Program of belonging	ESALA - Edinburgh School of Architecture and Landscape Architecture/Postgraduate MLA programme
University/School	University of Edinburgh



### Written statement, short description of the project in English, no more than 250 words

INTERVENE WITHIN DOUNREAY is a hypothetical graduate student project developed by Yiyu Zhu in 2019 as part of the Master of Landscape Architecture. The design studio was led by Anaïs Chanon and Elinor Scarth at Edinburgh School of Architecture and Landscape Architecture at ECA. Yiyu focused project work upon the former site of Dounreay nuclear power station. The design research project imagines a speculative future 'The Myth of Dounreay' and investigated socio-economic issues at the regional scale, the impact of radioactive coastal contamination, bioremediation techniques and landscape regeneration methods. The project reimagined the future of the site by focusing upon a central transect perpendicular to the coast and speculated upon the power of landscape restoration through time. The 'Unrestricted Use of Site' proposals are framed through four stages as part of a time-based strategy. At stage one and two, it is imagined that public can observe the process of decommissioning from out with the restricted areas. Landforms are created to provide suitable conditions for microorganisms to degrade the radioactive particles present in soil and groundwater. At stage three, the site could partially open to the public. Due to time-based landscape process that harness environmental dynamics such as wind and water should be considered. At stage four, vibrant life forms start to "take hold" of the reworked landscape. Birds, marine species will ecologically 'occupy', and then transcend the current 'boundary' of the designated site. The proposed landforms protect the site from flooding in consideration of climate change.



# CLIMATE CHANGE AGAIN

11th International Biennial Landscape Barcelona

For further information  
Máster d'Arquitectura del Paisatge -DUOT - UPC

T: + 34 93 401 64 11 / +34 93 552 0842  
Contact via email at: [biennal.paisatge@upc.edu](mailto:biennal.paisatge@upc.edu)

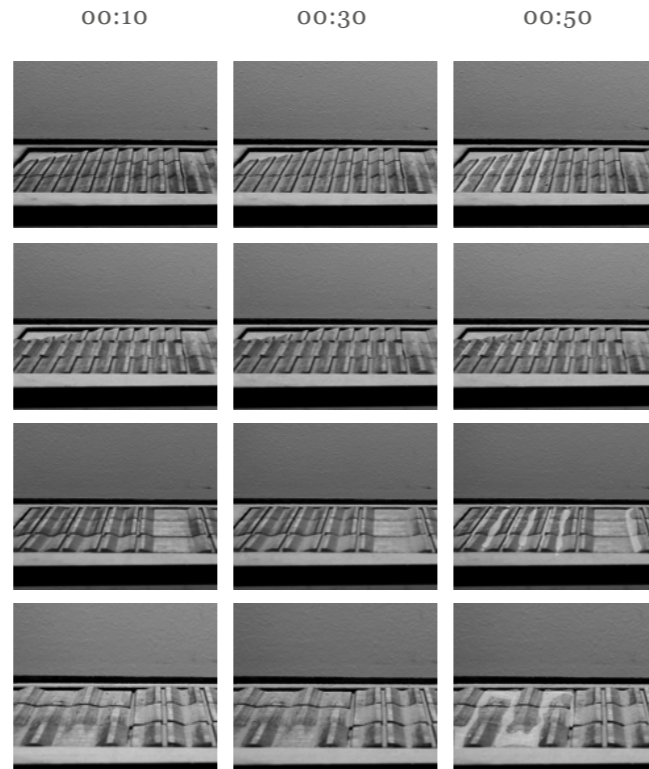
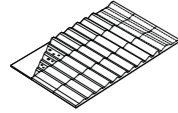
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d'Arquitectura de Barcelona  
Avenida Diagonal, 649 piso 5  
08028 Barcelona-Spain

Barcelona September 2020  
SCHOOL PRIZE

## 2. TESTING THE LANDFORMS

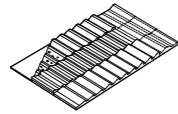
### [ 0 1 / SIMULATION CATALOGUE ]

Sugar caught by the coastal side of landform, and climb up after 50 seconds. So birds might potentially breed here during the breeding season. Besides, rough surface-catch more sugar than the smooth surface.



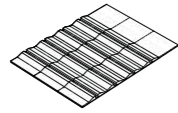
### [ 0 2 / SIMULATION CATALOGUE ]

The landform with vertical surface can catch the sugar. Instead of climbing up, the sugar spread two sides.



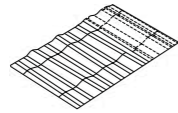
### [ 0 3 / SIMULATION CATALOGUE ]

Sugar tend to extend along the corridors shaped by landform.



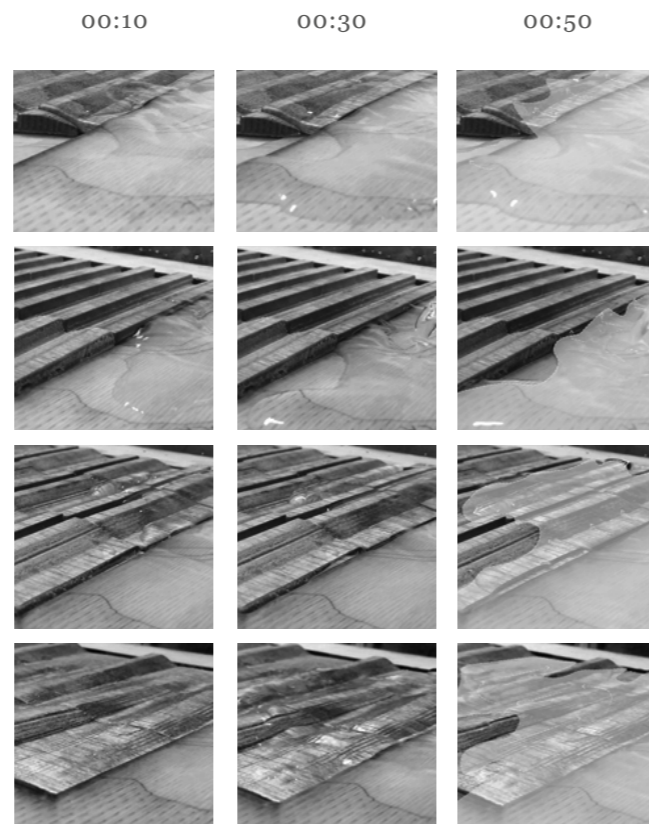
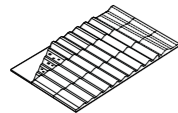
### [ 0 4 / SIMULATION CATALOGUE ]

Sugar flow naturally following the changed topography of this landform. Lower land gather more sugar at the end.



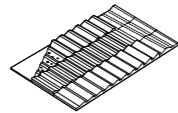
### [ 0 1 / SIMULATION CATALOGUE ]

This type of the landform can protect the sea level rising in some extent. However, the water still can climb up the slope.



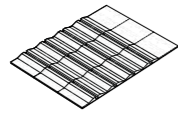
### [ 0 2 / SIMULATION CATALOGUE ]

Water stop when meet the vertical slope.



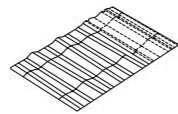
### [ 0 3 / SIMULATION CATALOGUE ]

Water can easily come in the site and then spread along the corridor.

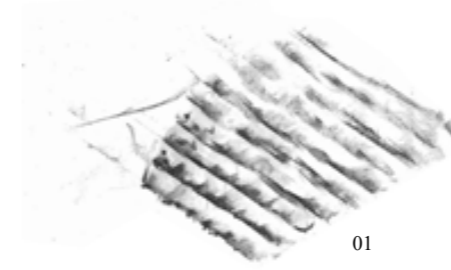


### [ 0 4 / SIMULATION CATALOGUE ]

The "up and down" type of landform allows water flow into the site. Lower area hold more water.



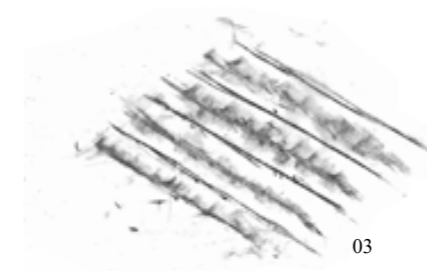
## 3. TESTING SUMMARY



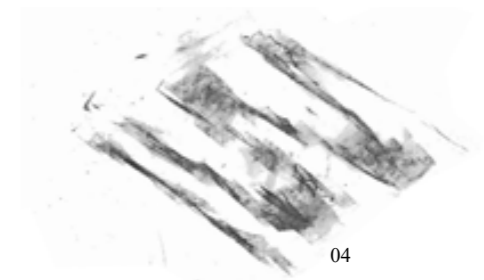
01



02

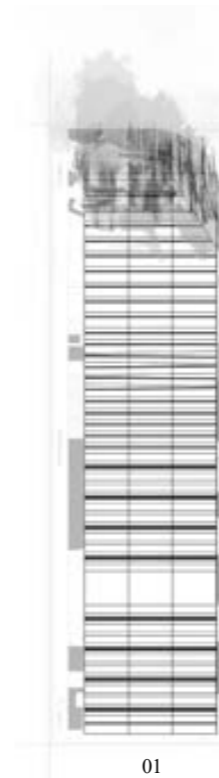


03

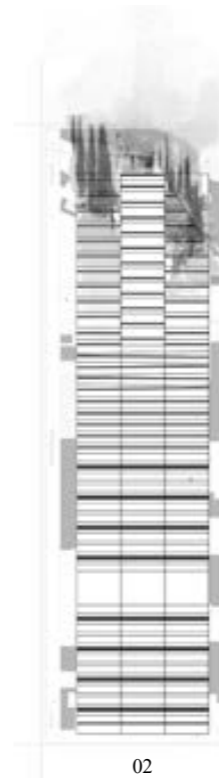


04

Sketch shows the result of the simulation of sugar



01



02



03

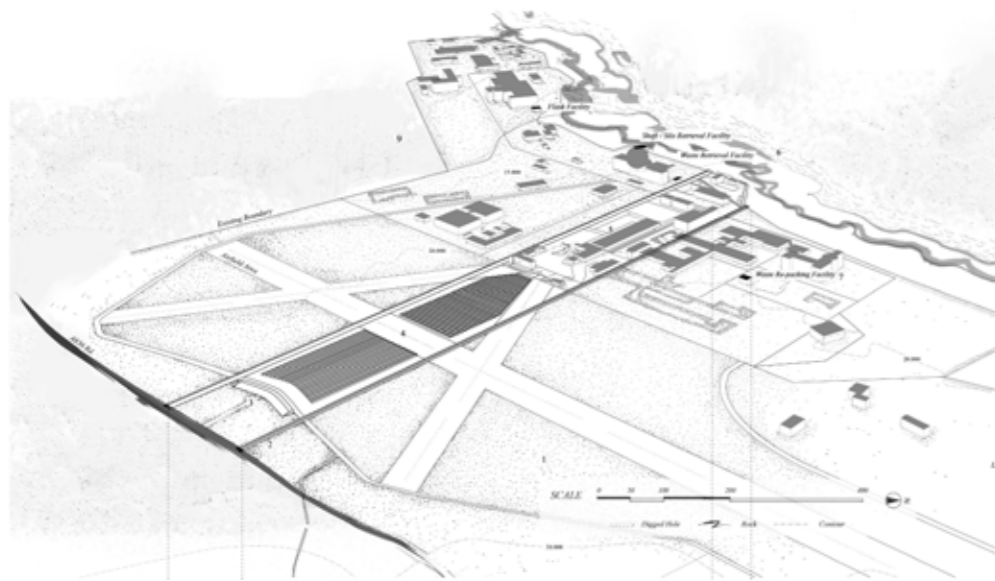


04

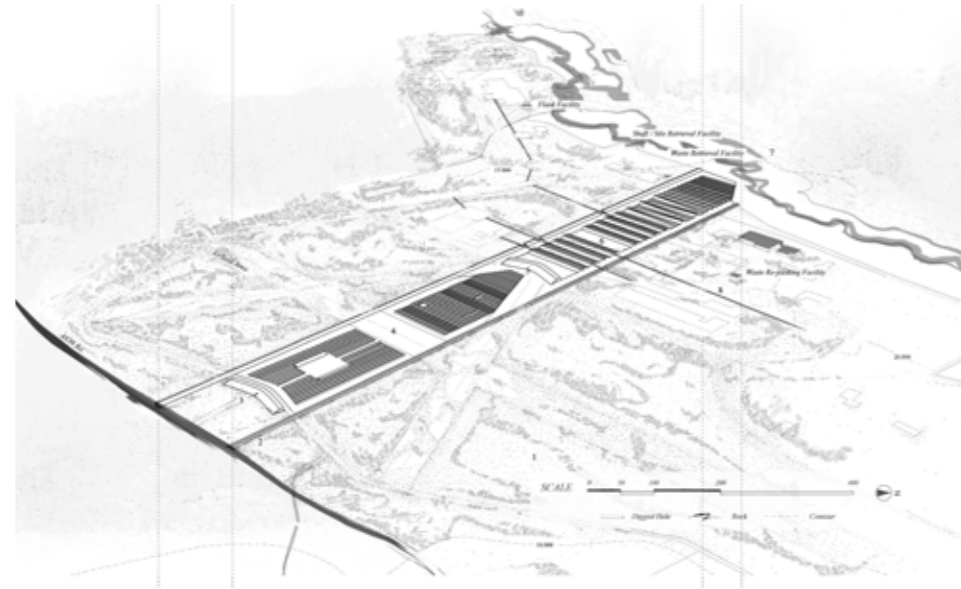
Sketch shows the result of the simulation of water

## 4. UNRESTRICTED USE OF SITE

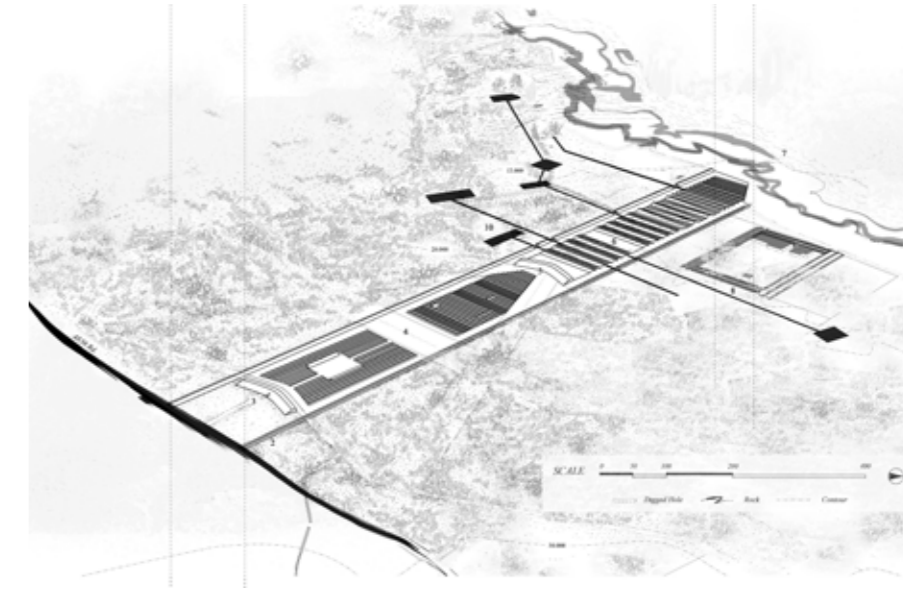
Stage One & Two  
Decomission



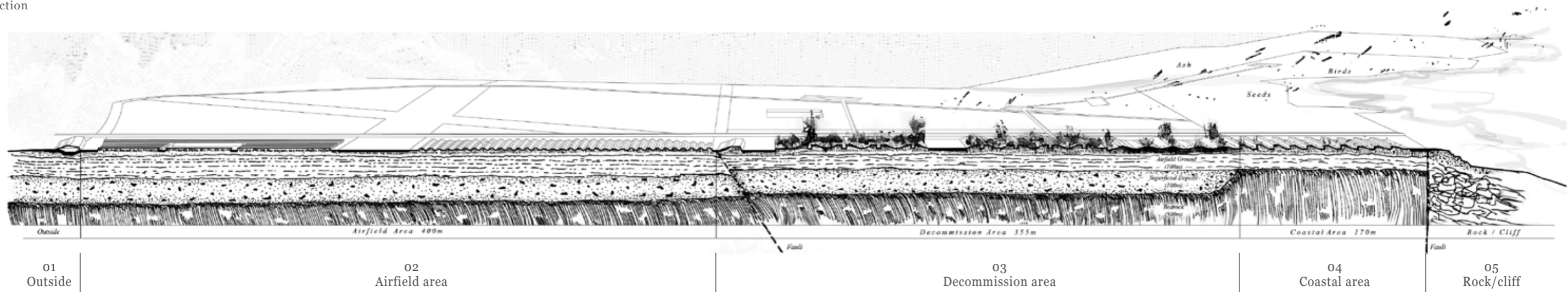
Stage Three  
Bioremediation



Stage Four  
Vibrancy

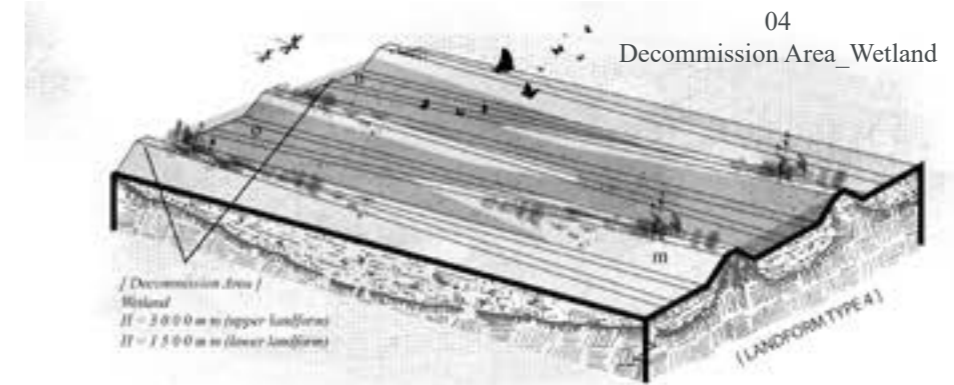
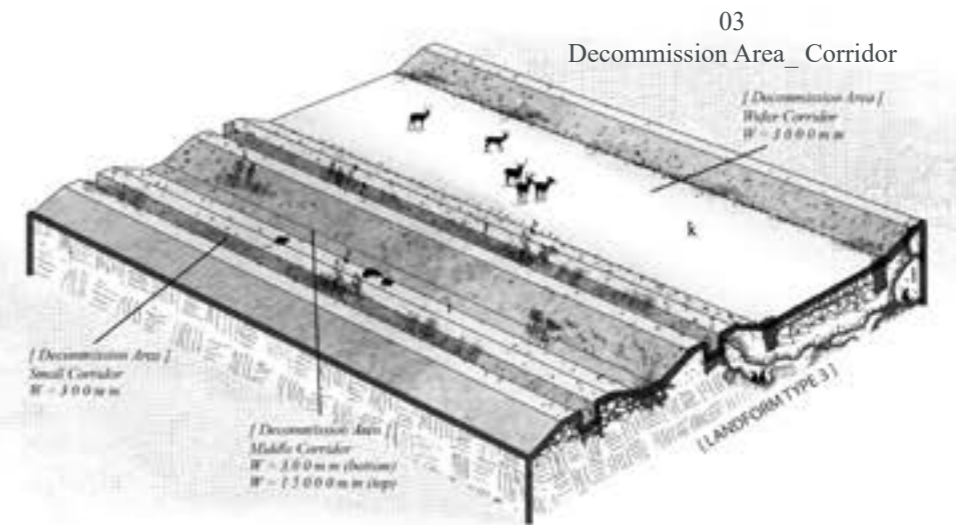
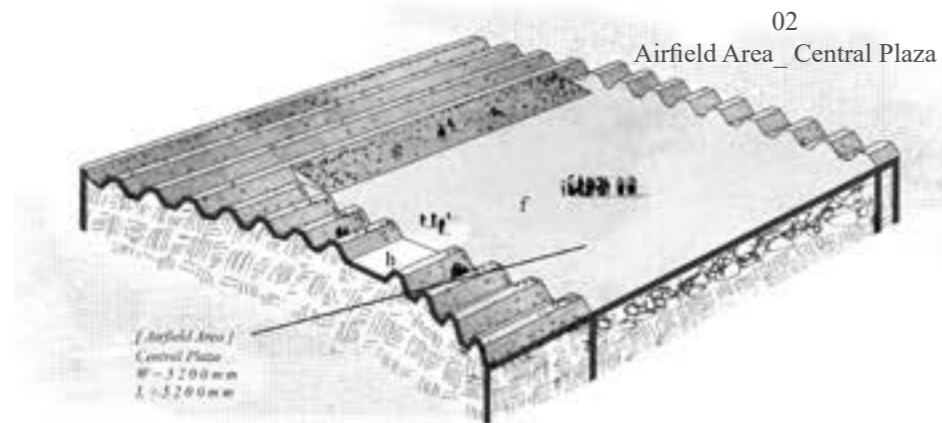
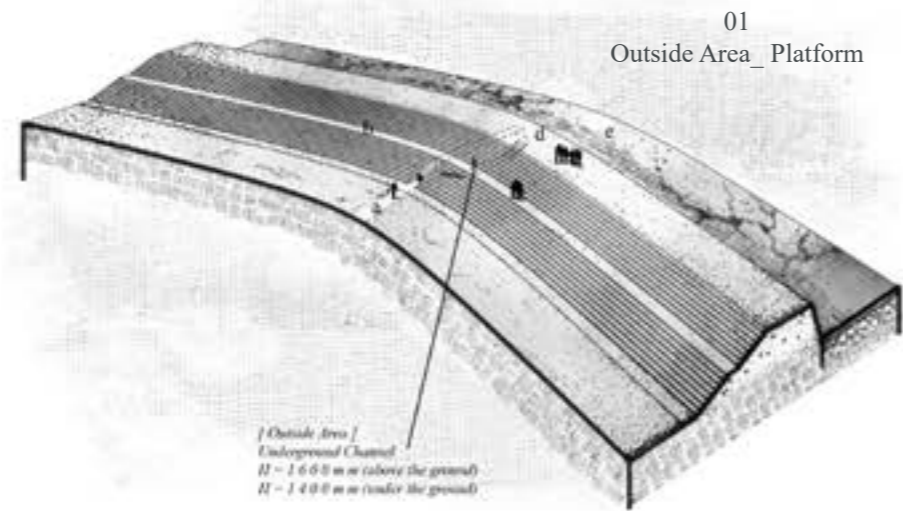


Section



## 5. DETAIL OF THE PLATFORM & AIRFIELD AREA

The public can view the site when standing at the platform, which is four meter high outside of the Dounreay. Visitors can easily access to the platform when driving along the A836 road. Concrete steps embed into the higher landform providing a panorama of the site for the public.



Vibrant lifeforms will “take hold” of the reworked landscape. People, birds, scrubs, animals will all “occupy”/“colonise” within the stripe of the site. For instance, marine species like seaweeds, crabs, lobster, otters can stay at the coastal landform. Birds including Oystercatcher, Arctic Tern, Common Gull and wild-fowl are welcome breeding and nesting here. The landform is also the home for small and middle animals, such as deer, rabbit, badger etc.

Key: a- Entrance b-Steps c-Underground channel d-Exit e-Path inside f-Central plaza g-Slope h-Entrance

Key: i-Middle corridor for small animals j-Narrow corridor k-Wider corridor for larger animal pass l-Underground burrows m-Upper landform n-Lower landform