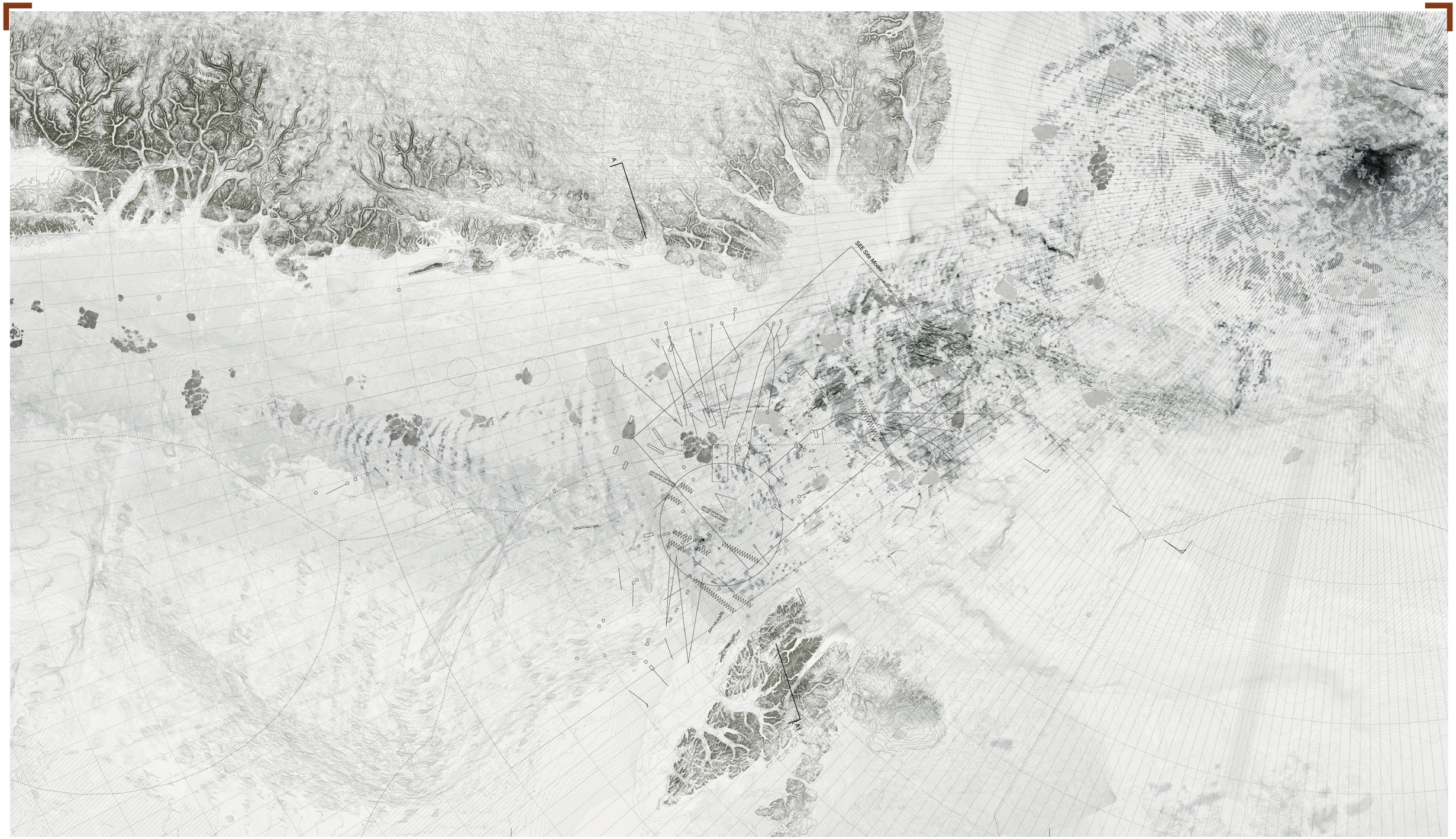

Country /City Norway, Tromsø

University / School UiT The Arctic University of Norway

Academic year 2022-2023

Title of the project Drifting as Agency - More-than-human marine spatial planning in the Fram Strait

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TECHNICAL DOSSIER

Title of the project Drifting as Agency - More-than-human marine spatial planning in the Fram Strait

Authors Aniella Sophie Goldinger

Title of the course Diploma

Academic year 2022-2023

Teaching Staff Mari Bergset (Course Leader); Eimear Tynan (student supervisor)

Department / Section / Program of belonging Academy of Arts, Landscape Architecture

University / School UiT The Arctic University of Norway

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

Current climate change models predict an ice-free Arctic Ocean as early as 2035. This is expected to advance opportunities for increased human activities such as trans-polar marine traffic, sea-bed mining and oil/gas exploration. Meanwhile, there is huge uncertainty on the repercussions for marine ecosystems and its dependence on the remaining sea-ice. In response to potential conflicts and disruptions, this innovative research and speculative design project draws attention to the current and prospective planning and management of the Arctic Ocean. A key question posed in this project asks how this vulnerable marine environment could be managed if commercial infrastructure and extractive industries were not the main organizing agencies. This is addressed through a multi-method approach that incorporates in-situ fieldwork on board a research vessel in the Arctic Ocean, critical cartographic explorations, model-making and scenario visualizations. The project culminates with a series of planning strategies that prioritizes more-than-human drifting stakeholders. These stakeholders include drifting ice, migrating fish, birds and mammals, and marine vegetation. The project concludes that a future management plan for the Arctic Ocean must operate on various tempo-spatial logics and one that can adapt to the seasonal and long-term dynamics of a changeable and unpredictable environment. This project demonstrates how landscape architects have a key role to play in the future planning, management and protection of our vulnerable oceans.

For further information

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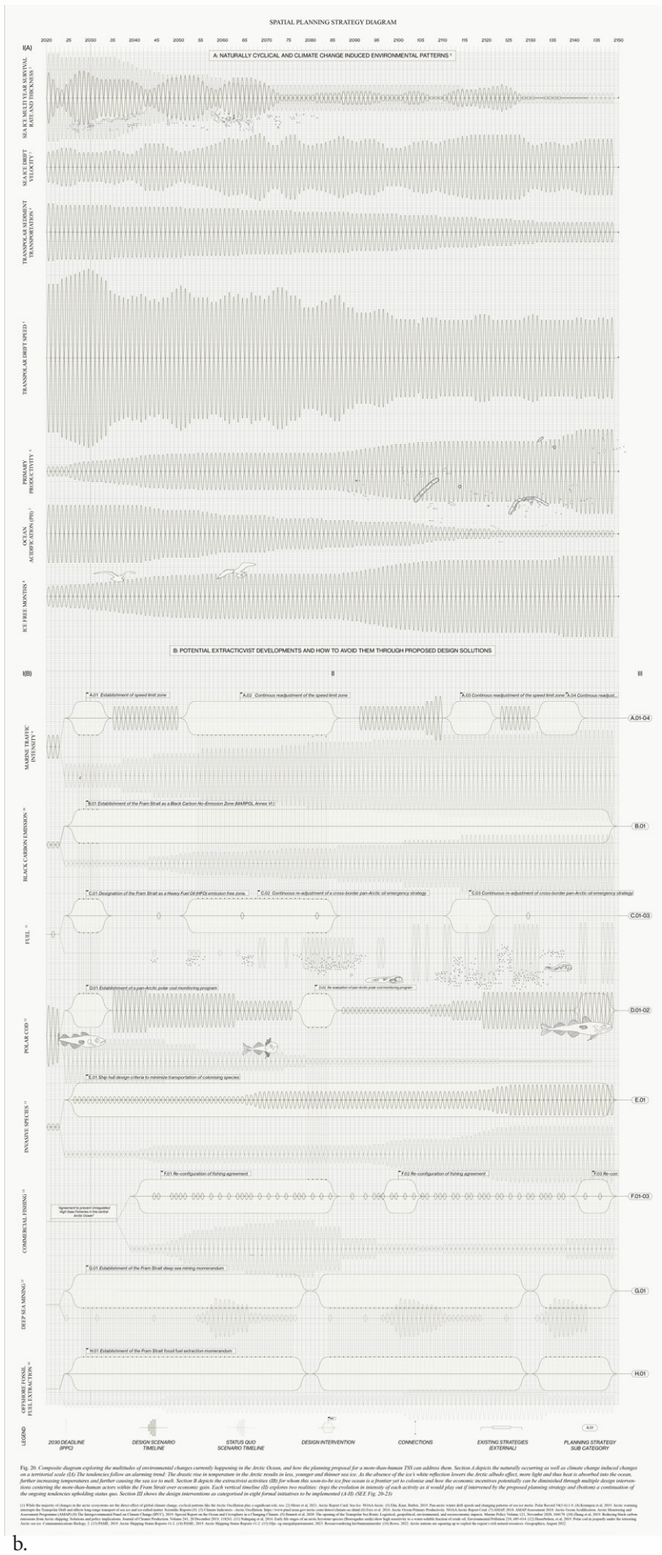
12th International Biennal Landscape Barcelona

Barcelona **November 2023**

SCHOOL PRIZE

a.



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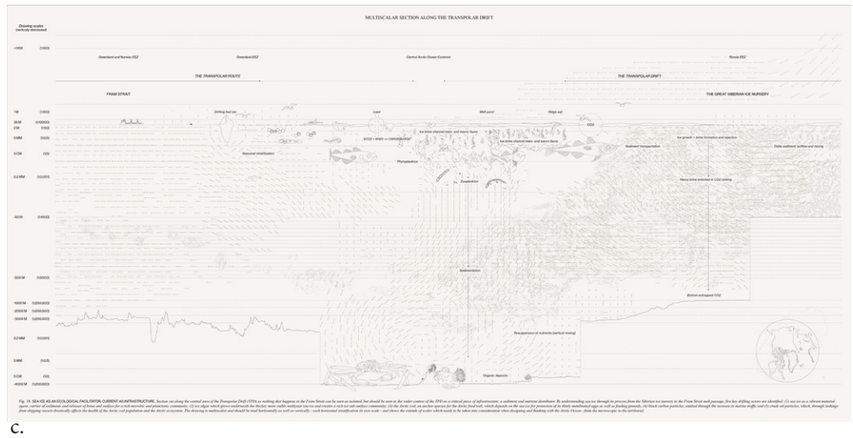

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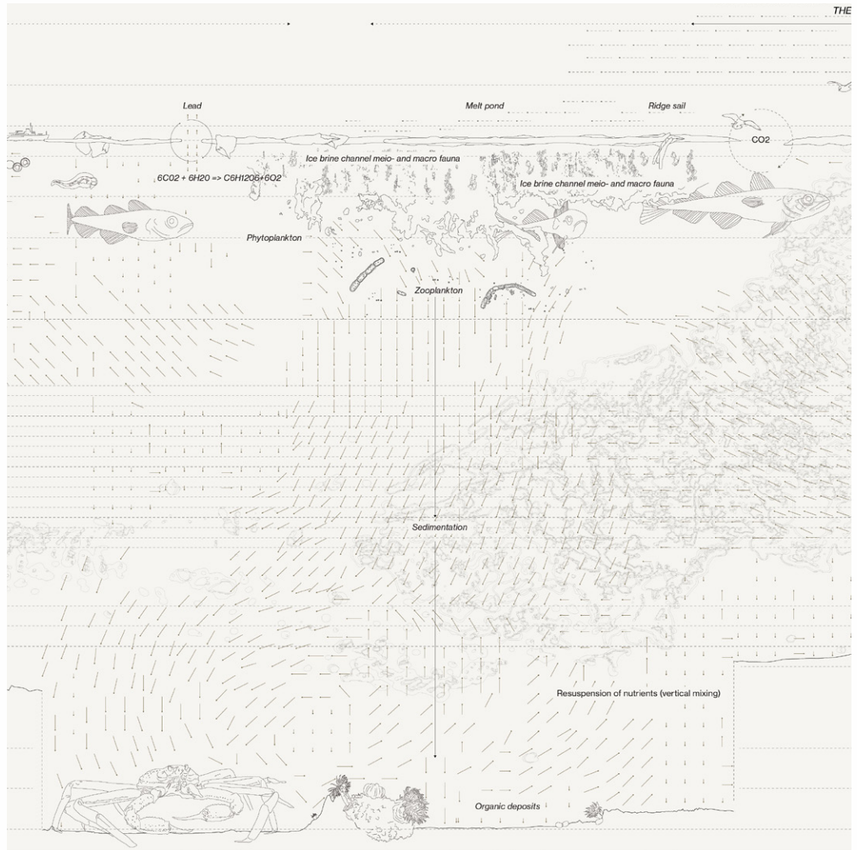

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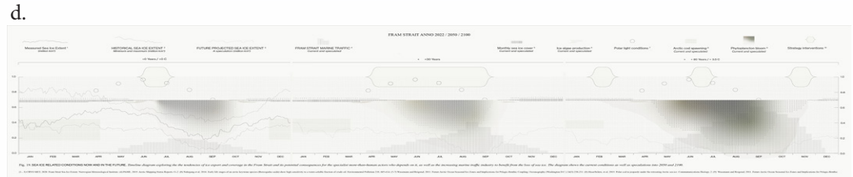


e.

a. THE TRANSPOLAR DRIFT AND THE FUTURE TRANSPOLAR ROUTE. *Sea ice extent (per 23/03/23) superimposed with a decades marine traffic intensity and the Transpolar Drift. Neither land, nor water, the sea ice emerges as a dynamic, tentacular positive figure, clearly encroached on by the increasing marine traffic. b. Composite diagram exploring the multitudes of environmental changes currently happening in the Arctic Ocean, and how the planning proposal for a more-than-human TSS can address them. c.* SEA ICE AS AN ECOLOGICAL FACILITATOR; CURRENT AS INFRASTRUCTURE. *Section cut along the central area of the Transpolar Drift (TPD) as a critical piece of infrastructure; a sediment and nutrient distributor. d. Close up. e.* SEA ICE RELATED CONDITIONS NOW AND IN THE FUTURE.

f.

h.

g.

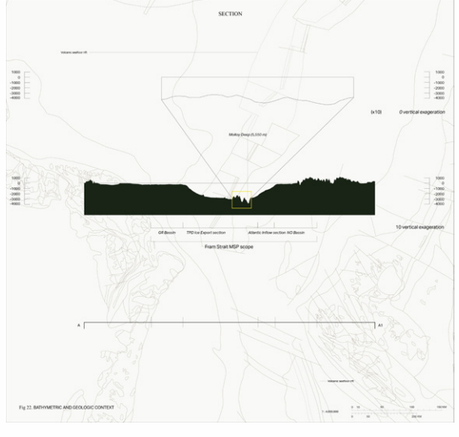
f. - h MODEL EXPERIMENTATION: FIELD OF NEGOTIATIONS. *Speculating in future Arctic territorial conditions through material movements. (sand, oil, baking soda, and vinegar on a light table)*

I. BATHYMETRIC AND GEOLOGIC CONTEXT (SECTION)

j. Fram Strait anno 2023: April sea ice extent) and current marine traffic intenstity

k. Fram Strait anno 2100: A completley ice free scenario, SPECULATIVE MARINE TRAFFIC INTENSTITY.

l. Fig 21. IMPLEMENTATION OF A DYNAMIC MSP. *Design language borrowed from the field work drawings #1-3..*



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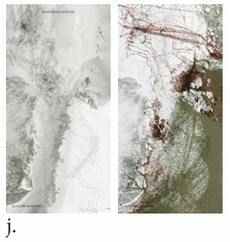

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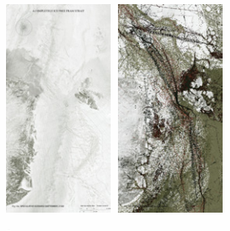

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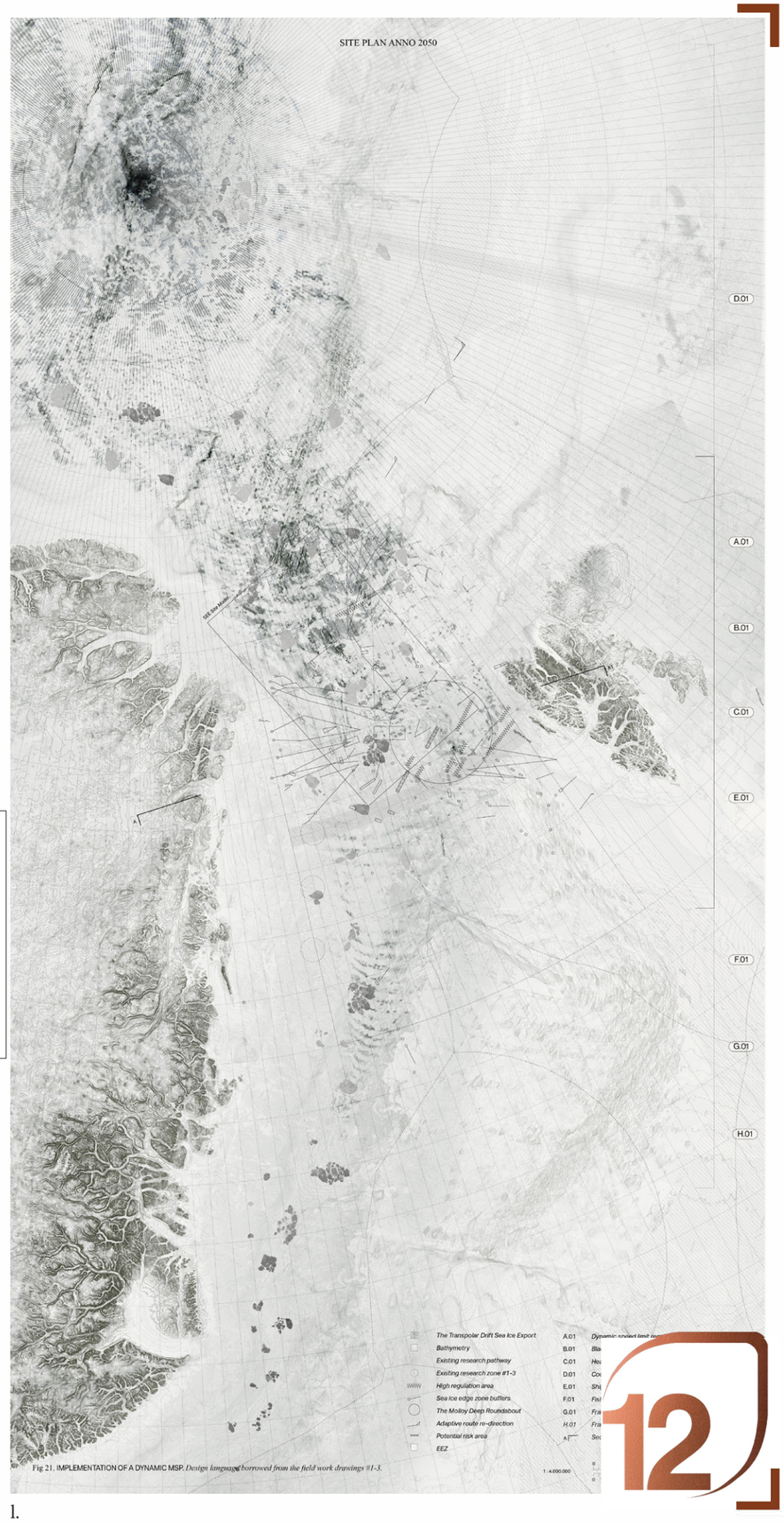

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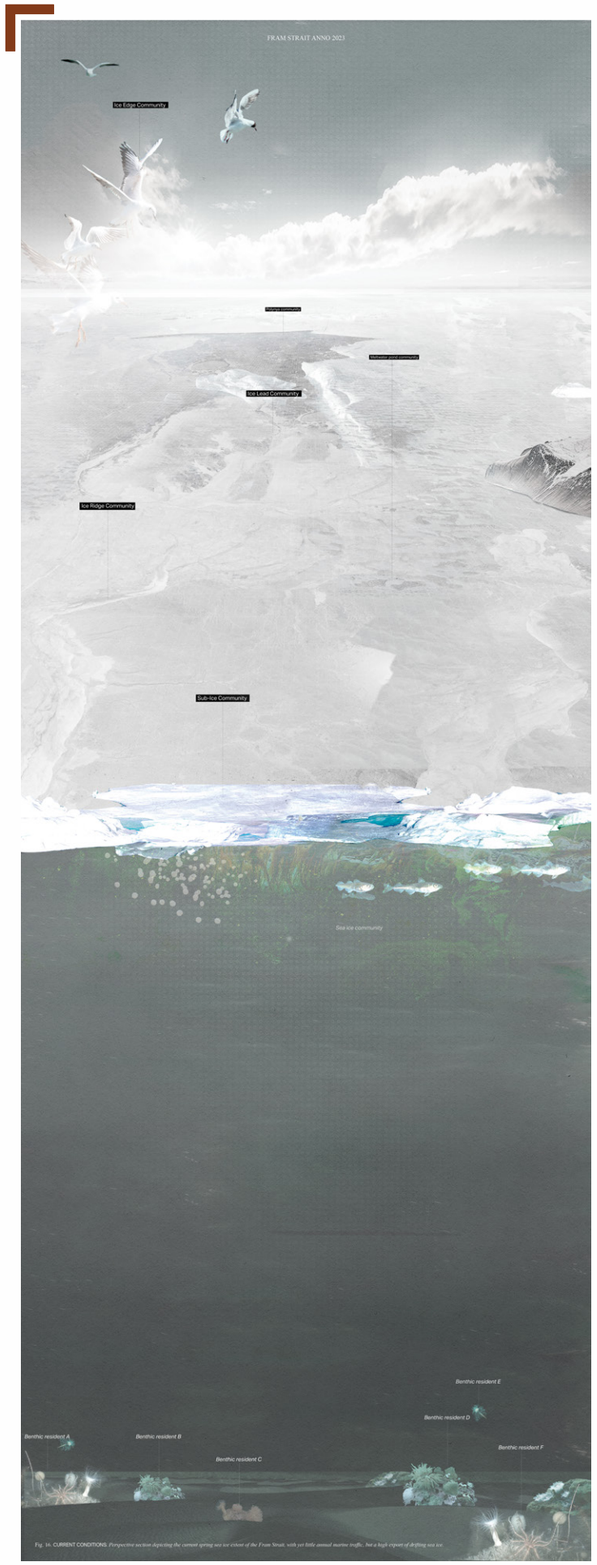

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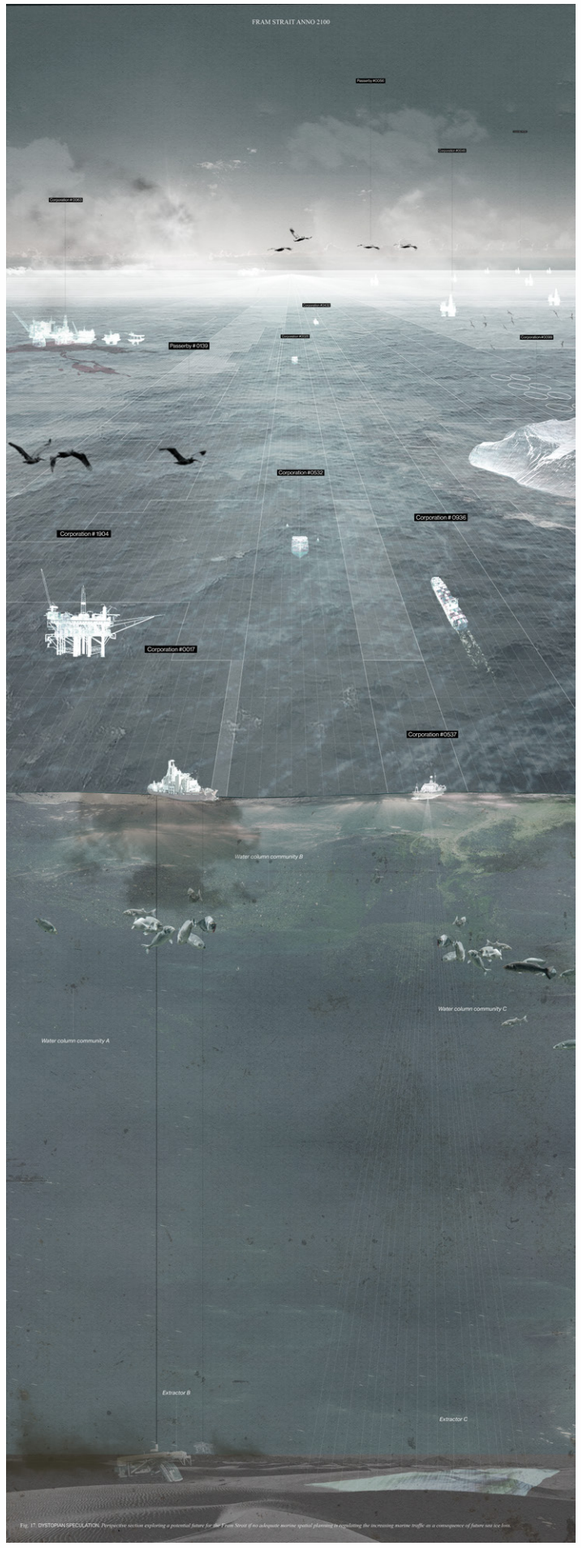

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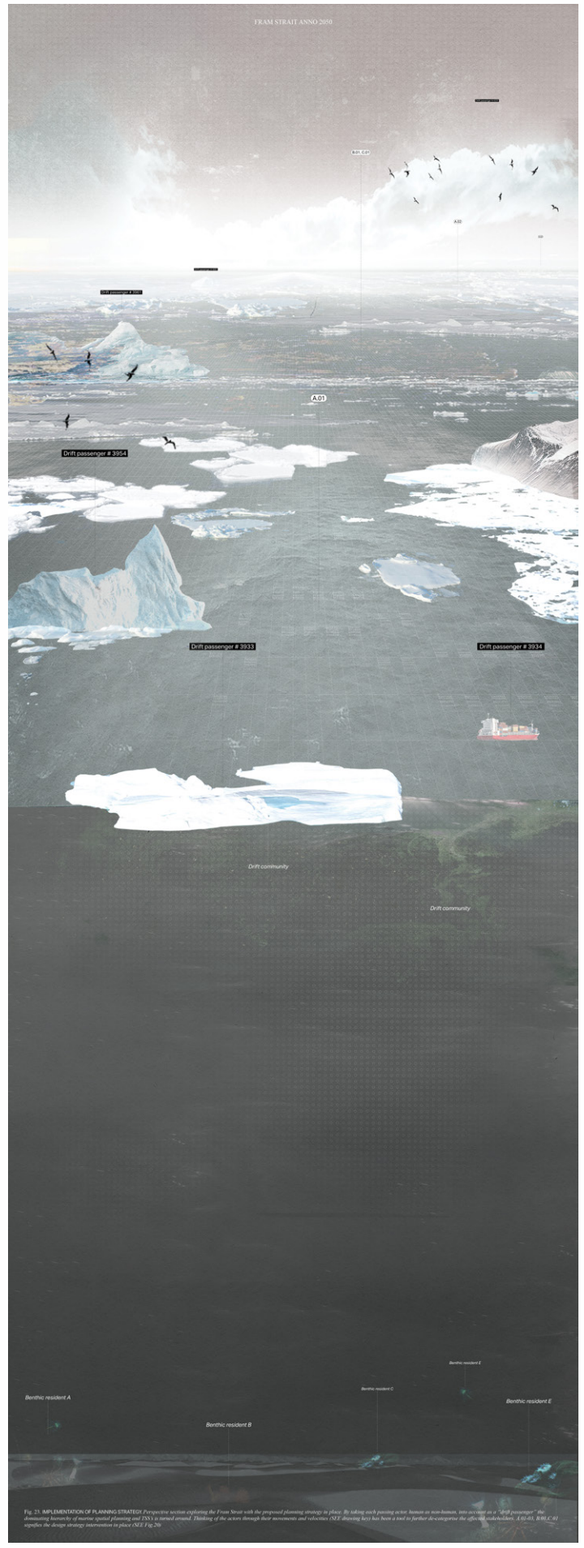

o.

m. CURRENT CONDITIONS. *Perspective section depicting the current spring sea ice extent of the Fram Strait, with yet little annual marine traffic, but a high export of drifting sea ice.*

n. DYSTOPIAN SPECULATION. *Perspective section exploring a potential future for the Fram Strait if no adequate marine spatial planning is regulating the increasing marine traffic as a consequence of future sea ice loss.*

o. IMPLEMENTATION OF PLANNING STRATEGY. *Perspective section exploring the Fram Strait with the proposed planning strategy in place. By taking each passing actor, human as non-human, into account as a "drift passenger" the dominating hierarchy of marine spatial planning and TSS's is turned around. Thinking of the actors through their movements and velocities (SEE drawing key) has been a tool to further de-categorise the affected stakeholders. A.01-03, B.01,C.01 signifies the design strategy intervention in place.*