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OCEANURB- the unseen spaces of Extended Urbanisation in the North Sea

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Publication date

2018

Document Version

Proof

Citation (APA)

Couling, N. (2018, Sept 28). OCEANURB- the unseen spaces of Extended Urbanisation in the North Sea. Unpublished.

Important note

To cite this publication, please use the final published version (if applicable). Please check the document version above.

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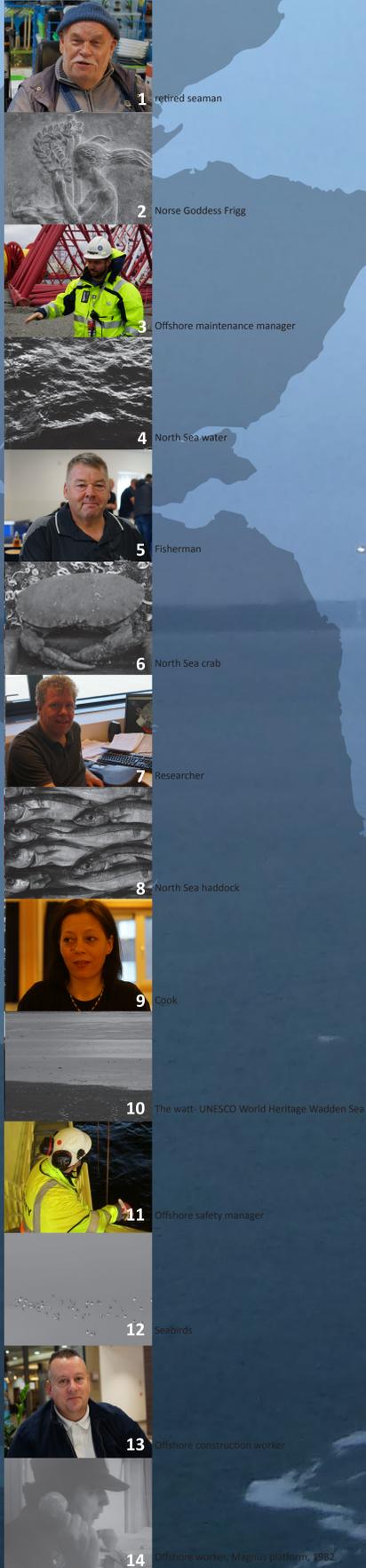
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OCEANURB

the unseen spaces of extended urbanisation in the North Sea

CHARACTERS



OVERVIEW

This project investigates the ocean as a spatial realm and the site of unfolding urbanisation processes—a challenging new field within urban studies. Although the ocean is investigated by many scientific fields, research about ocean space is scarce. But increases in energy production, extraction of resources, infrastructural and logistical development has resulted in an exponential shift in the scale and intensity of spatial demands;

– North Sea oil and gas production occupied 2nd place in combined offshore oil/gas quantities in 2006 after the Persian Gulf.¹ It is still the location of the most offshore rigs world-wide with a count of 184 in 2018,² but an estimated 1200 wells are to be plugged and abandoned and their structures removed from the North Sea in the foreseeable future through decommissioning.³

– 185 million people live in the highly industrialised northern European countries of the North Sea watershed, which carries unwanted substances down into the North Sea ecosystem.

– The EU is marked by a significant energy gap and is still 80% dependent on sea-borne oil imports to North Sea ports and refineries.⁴ Liquid bulk makes up the most important sector along the North Sea shipping routes, in particular in Europe's nr. 1 port Rotterdam.⁵

– Wind energy is expanding into vast offshore areas in most North Sea countries, requiring new trade routes for component supply, construction, servicing and labour.

The North Sea is now one of the most industrialised seas in the world. It is marked by a specific type of “extended” urbanisation⁶ made up of strategic territorial planning, technological infrastructure, massive construction projects, periodic cycles of intensive work and artificially condensed living conditions. Marine ecosystems have been transformed and are under continuous adaptive pressure.

OBJECTIVES

– Promote a holistic, inter-disciplinary view of the ocean which connects its geo-physical, biological and socio-economic dimensions through spatial means. Placing the North Sea at the centre of the territorial investigation, rather than at the periphery, represents a paradigm shift in perspective. The project enables the invisible urbanisation processes to be represented, evaluated and shared as data to a range of stakeholders and academics.

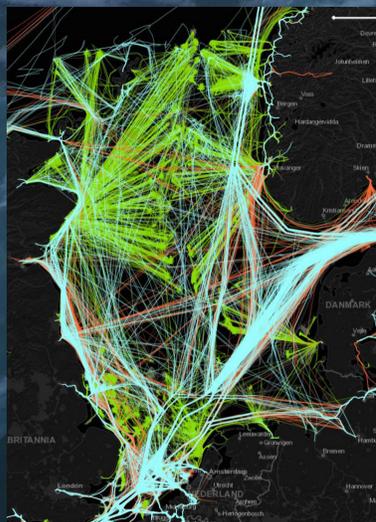
– Support theoretical reflections by producing a case-study on current urbanisation processes in the North Sea across the land-sea threshold, demonstrating how the greater sea-space has influenced urban development.

– Critically examine and theorize the contradictory spatial dimensions of maritime transport - although the backbone of globalization, consuming increasing on- and offshore areas, carrying increased loads, shipping's spatial typologies are elusive, lacking architectural quality and interaction with urban contexts.

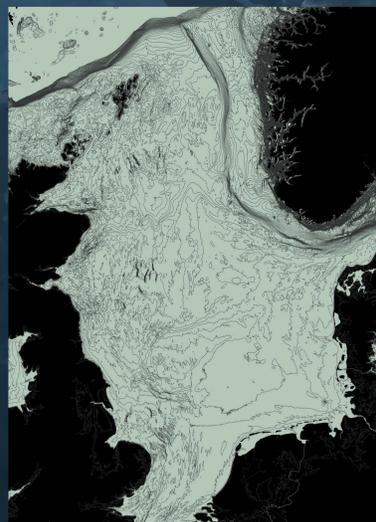
1. Lucien Chabason, "Toward International Regulation of Offshore Oil Drilling?", in *Oceans: the New Frontier*, vol. 2011, A Planet For Life (Delhi: TERI Press, 2011), 216–19.
 2. Statista, "Number of Offshore Rigs Worldwide as of January 2018 by Region", Statistics (London ; New York: Statista Ltd., 2018), <https://www.statista.com/statistics/279100/number-of-offshore-rigs-worldwide-by-region/>.
 3. Julian Manning, Baker Hughes Process & Pipeline Services, presentation, Offshore Energy Conference, Amsterdam, 10 October 2017.
 4. North Sea Commission, "CPMR North Sea Commission – Integration Approach to Sustainable Development in the North Sea Region" (Brussels & Gothenburg: North Sea Commission, 27 November 2017), <http://cpmr-northsea.org/download/cpmr-north-sea-commission-integration-approach-to-sustainable-development-in-the-north-sea-region/>.
 5. Port of Rotterdam, "Throughput Port of Rotterdam 2017", Statistics (Rotterdam: Port of Rotterdam, 2018), <https://www.portofrotterdam.com/en/news-and-press-releases/container-throughput-drives-growth-in-rotterdam>.
 6. Neil Brenner and Christian Schmid, "Towards a New Epistemology of the Urban?", *City* 19, no. 2–3 (4 May 2015): 151–82, <https://doi.org/10.1080/13604813.2015.1014712>.

OUTCOMES

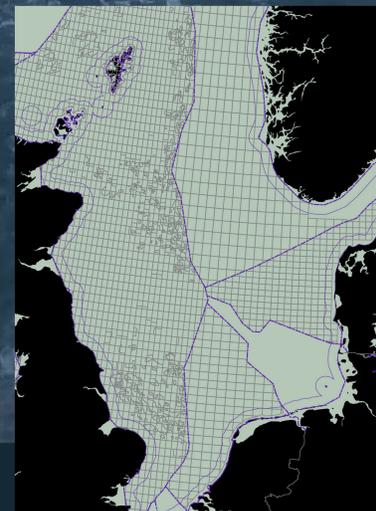
The selection of maps below helps us to read the North Sea as a territory of intense human intervention and to identify direct links back to the mainland. These landings- gas & oil, fisheries, shipping and wind energy, sustain the North Sea economic region. Interviews have revealed the cultural impact of fifty years of North Sea oil and gas extraction since the first major discovery (Ekofisk, Norwegian continental shelf) in 1969; it has developed into a particular stream of maritime culture, partly absorbing traditional fishing and sailing professions and particularly in the case of Norway, now etched into the national identity.



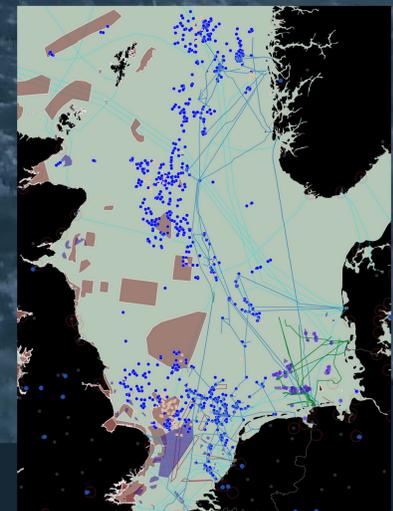
1. Energy-related North Sea shipping during the month of December 2017
Source: www.havbase.no



2. North Sea bathymetry (author)



3. National EEZ borders and petroleum extraction grids in the North Sea (author)



4. Protected natural areas, windparks and infrastructure (platforms, pipelines, cables) in the North Sea (author)

CHALLENGES & BENEFITS

An urbanised sea is a difficult new concept for which we must find new visions and ways of interacting. This research makes a small step towards such a goal by first presenting a spatial view of current conditions. An urbanised sea, however, implies an intensified social component and public input. I hope the research will demonstrate firstly how densely occupied the sea has become by certain industrial sectors and secondly, how we must swiftly react to stake out space for what must become an ecological commons.