

ARTIFICIAL ISLANDS UNDER UNCLOS: ROOM FOR 'NEW BEASTS'?

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Abstract

This contribution discusses how the term artificial islands as used in article 60 of the United Nations Convention on the Law of the Sea ("UNCLOS") may be interpreted. The 1982 United Nations Convention on the Law of Sea has not provided a definition for the term "artificial islands". This contribution first discusses UNCLOS in relation to the term "artificial islands", followed by an analysis of a grammatical interpretation of the relevant provisions and the context of the relevant provisions. The contribution then analyses the definition of artificial islands as *man-made deposits of sand, rock and gravel*. The contribution further concludes that it can be argued that artificial islands do not overlap with the categories of installations and structures referred to in article 60 UNCLOS.

1 Introduction

The last law in the Netherlands in the French language, the '*Loi concernant les Mines, les Minières et les Carrières*' introduced by Napoléon Bonaparte in 1810, its successor the Dutch Mining Act, the ownership of hydrocarbons under national and international law, and European regulation of the oil, gas and electricity sectors are but a few topics of Martha's research, lectures and academic presentations throughout the years. The law of the sea,

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however, takes a special place within her work. Not only because of her work on the decommissioning and re-use of offshore mining installations and the regulation of carbon capture, transport and storage, but also in particular because of her PhD on ‘The legal framework of pipelines in the oil and gas industry: the regulation of petroleum pipelines in the European Community, the Netherlands and the North Sea’.

The law of the sea and the North Sea also play an important role in my work with Martha, with Martha being first supervisor of my PhD research on ownership, security rights and private law coastal state jurisdiction relating to offshore energy installations, in which the law of the sea and the Netherlands as a North Sea jurisdiction are instrumental. Moreover, from 2011, we worked together on the North Sea Energy Law Programme and we have made many trips together in the North Sea area to our partners in Aberdeen, Oslo and Copenhagen.

Topics which usually are of additional interest to Martha are those relating to which many questions and unknowns exist, which is often the case for those which in her words are a ‘new beast’ or an ‘entirely different beast’. This contribution tries to honour this tradition by discussing a question in relation to coastal state jurisdiction regarding offshore energy facilities, which facilities may also include ‘new beasts’ such as floating installations and offshore energy islands.

This contribution will focus on the question how the term artificial islands as used in the article 60 of the 1982 United Nations Convention on the Law of the Sea (“UNCLOS”) may be interpreted.

2 Treaty law

In addition to article 60 UNCLOS, also article 56 UNCLOS is relevant for the answer to the question which facilities are subject to coastal state jurisdiction under international law. Pursuant to article 56 UNCLOS coastal states enjoy sovereign rights for the purpose of exploring and exploiting, conserving, and managing the natural resources in their Exclusive Economic Zone (“EEZ”), and with regard to other activities for the economic exploitation and exploration of the zone, such as the production of energy from the water, currents and winds. Article 56(1)(b)(i) states that coastal states enjoy jurisdiction as provided for in the relevant provisions of UNCLOS with regard to the establishment and use of artificial islands, installations and structures. This is specified in article 60 UNCLOS, which is the main provision discussed here.

Article 60(1) UNCLOS

In the EEZ, the coastal state shall have the exclusive right to construct and to authorize and regulate the construction, operation and use of:

1. artificial islands;
2. installations and structures for the purposes provided for in article 56 and other economic purposes;
3. installations and structures which may interfere with the exercise of the rights of the coastal state in the zone.

The subsequent paragraphs of article 60 UNCLOS provide more detail on the jurisdiction of coastal states. Amongst others, the coastal state must give due notice of the construction of artificial islands, installations and structures, must maintain permanent means for giving warning of their presence, and must remove installations and structures no longer in use in whole or in part, in order to ensure safety of navigation.² The coastal state can establish safety zones of 500 meters around the artificial islands, installations and structures.³ The artificial islands, installations and structures do not have a territorial sea of their own, nor do they influence the delimitation of the maritime zones.⁴

3 Grammatical interpretation and context

While article 60 UNCLOS specifies what the coastal state may regulate in relation to artificial islands, installations and structures, and thus provides more clarity than article 56(1)(b)(i) UNCLOS, the provision leaves ample room for questions relating to interpretation. For example, a definition of 'artificial islands', 'structures' or 'installations' is not provided. Therefore, the rules of public international law on the interpretation of international agreements, notably the 1969 Vienna Convention on the Law of Treaties ("VCLT"), must be consulted to conclude which types of facilities coastal states may construct and regulate, and for which purposes.

Article 31(1) VCLT provides that a treaty shall be interpreted in good faith in accordance with the ordinary meaning to be given to the terms of the treaty in their context and in the light of its object and purpose. A grammatical interpretation (according to the Oxford Dictionary of English) provides that installations are 'a large piece of equipment installed for use', such as 'a military or industrial establishment'.⁵ A construction is defined as 'a building or other object constructed from several parts' or 'something (such

2 UNCLOS, article 60(3).

3 UNCLOS, article 60(5); CSC, article 5(3).

4 UNCLOS, article 60(8); CSC, article 5(4).

5 Angus Stevenson (ed.), *Oxford Dictionary of English* (3rd edn, OUP 2010). The Merriam-Webster defines installations as 'something that is installed for use' or 'a military camp, fort, or base'.

as a building) that is constructed'.⁶ Artificial islands are defined as 'a man-made island or other structure surrounded by or floating on water'.⁷ All of these definitions are very broad and could be used to argue that any type of facility qualifies as an artificial island, installation or structure. The VCLT provides, however, that the ordinary meaning should be seen within their context, which includes the text of the treaty.

For example, other UNCLOS provisions where similar terms are used could potentially assist in the interpretation of the terms artificial islands, installations and structures. Article 1(5) UNCLOS on dumping speaks of 'vessels, aircraft, platforms and other man-made structures at sea', article 147 refers to 'installations' used for carrying out activities in the Area, article 194(3)(c)(d) to measures to reduce pollution from 'installations and devices' used for the exploration and exploitation of natural resources, article 209(2) on pollution in the Area refers to 'vessels, installations, structures and other devices', articles 258-262 refer to 'installations or equipment' used for marine scientific research, article 94(7) speaks of damage to 'ships or installations', article 109(2) of radio or TV transmission from a 'ship or installation' and article 87(1)(d) to the freedom of the high seas to construct 'artificial islands and installations'.

UNCLOS does not provide definitions of these terms either. It is clear that the use of these terms throughout the Convention is highly inconsistent and incoherent. Noting the lack of consistency, the Drafting Committee of UNCLOS had considered the introduction of a new subparagraph stating that installations also include artificial islands and structures, but such a subparagraph was not introduced.⁸ The ordinary meaning of these terms, and the other treaty provisions set out above, thus provide no definite answers, while the dictionary definitions may be used to argue that each term can capture any type of facility.

4 Artificial islands as man-made deposits of sand, rock and gravel

In the absence of a definition of artificial islands, installations, and structures in UNCLOS, many commentators have argued that because article 60(1)(1) UNCLOS does not contain a limit to coastal state rights regarding *artificial islands*, entirely man-made structures

6 *ibid.* The Merriam-Webster provides 'something (such as a building) that is constructed'.

7 Not defined by the Oxford Dictionary of English, but from there referred to Lexico.com (by Oxford).

8 Satyah N Nandan and Shatbai Rosenne (eds), *United Nations Convention on the Law of the Sea 1982: A Commentary*, vol 2 (Martinus Nijhoff Publishers 1993) 584.

and facilities are in fact artificial islands and thus subject to coastal state jurisdiction.⁹ The result would be that any type of fixed, floating or mobile 'facility' could potentially qualify as an artificial island. While the distinction between the three categories (artificial islands, installations, and structures) may be difficult to determine,¹⁰ recognizing coastal state jurisdiction regarding any type of 'facility' within their EEZ and continental shelf seems to be incorrect when taking other factors into account.

While artificial islands are defined in neither article 60 nor any other provision of UNCLOS, the context can provide assistance in this instance, as UNCLOS contains a definition of islands. Article 121(1) UNCLOS provides that an island is 'a naturally formed area of land that is above water at high tide'. By extension, an artificial island could be defined as follows:

'a non-naturally formed area of land that is above water at high tide'.¹¹

'Naturally formed' in the context of article 121 UNCLOS means by natural processes, without human intervention such as dumping sand and stones in shallow waters.¹² An 'area of land' excludes constructions which are entirely concrete, steel or otherwise.¹³ Following this line of reasoning, this leads to the conclusion that artificial islands could be defined as being created through the artificial deposit of natural substances such as sand, gravel and rocks in the sea.¹⁴

Considering that article 31 VCLT provides that the text of the treaty should be taken into account, it is somewhat surprising that many commentators do not refer to article 121(1) UNCLOS for the interpretation of artificial islands.¹⁵ Instead, several (leading) commentators note that "it is paradoxical that artificial islands can be constructed for any

9 Barbara Kwiatkowska, *The 200 mile Exclusive Economic Zone in the new Law of the Sea* (Martinus Nijhoff Publishers 1989) 108; referring to David Attard, *The Exclusive Economic Zone in International Law* (Clarendon Press 1987) 87-89; Nikos Papadakis, *The International Legal Regime of Artificial Islands* (Sijthoff 1977) 79; Elmar Rauch, 'Military Uses of the Ocean' (1985) 28 *GYIL* 229, 254.

10 See, for example, Donald R Rothwell and Tim Stevens, *The International Law of the Sea* (Hart 2010) 91; Robin Churchill and Vaughan Lowe, *The law of the sea* (Manchester University Press 1999) 168; Kwiatkowska (n 9) 106.

11 In agreement, Alex G Oude Elferink, 'Artificial Islands, Installations and Structures' in *Max Planck Encyclopedia of International Law* (2013) para 3.

12 Papadakis (n 9) 93.

13 *ibid.*

14 See also Alfred HA Soons, 'Artificial Islands and Installations in International Law' (1974) 22 *Occasional Paper Series University of Rhode Island Law of the Sea Institute* 3; Edward D Brown, 'The Significance of a Possible EC EEZ for the Law Relating to Artificial Islands, Installations, and Structures, and to Cables and Pipelines, in the Exclusive Economic Zone' (1992) 23 *ODIL* 115, 122.

15 There is a number of exceptions, including Oude Elferink (n 11).

purpose, unlike installations and structures, when artificial islands are presumably larger and thus create a greater impediment to other uses of the EEZ.”¹⁶ This argument leads to several observations.

Firstly, the notion that artificial islands are presumably larger than installations and structures seems to contradict the other abovementioned argument that all man-made structures qualify as ‘artificial islands’ and therefore are subject to coastal state jurisdiction. By stating that artificial islands are presumably larger than installations and structures, these commentators apparently assume that there is a distinction between them. Such distinction may prohibit the classification of all man-made objects as artificial islands – and thus two opposing ‘camps’ can be identified.

Secondly, it can be argued that the view that artificial islands are presumably larger than installations and structures seems to corroborate the interpretation of artificial islands as ‘a non-naturally formed area of land that is above water at high tide.’ The physical area of the ocean which oil and gas production platforms, and especially wind turbines, cover is relatively small – disregarding their security zones and wake fields. Conversely, examples of artificial islands created through dumping or fill – although currently exclusively within the territorial seas or states’ internal waters – may be between five and ten kilometers wide such as the international airports in Hong Kong, Singapore Changi, Kansai in Osaka, Japan, or the palm and world islands in Dubai.

In the context of energy production at sea and plans beyond the territorial sea, the Danish parliament has in 2020 decided to begin preparations for the construction of two energy islands in Denmark – in the North Sea and in the Baltic Sea. Under the nomenclature of the North Sea Wind Power Hub, the electricity TSOs in the Netherlands (TenneT) and Denmark (energienet.dk) have been cooperating to research the options to construct offshore energy islands, and that research shows that possibilities include one or more sand islands, caisson islands or platforms.¹⁷ The initial concept of the North Sea Wind Power Hub featured rock and sand dumping to create an area of land which remains above water at high tide. The various concepts indicate that the island(s) could be relatively small, or could be large and feature a harbour, a landing strip and accommodation, all to allow for the construction of wind farms offshore and for the connection

16 Churchill and Lowe (n 10) 131-132; Kwiatkowska (n 9) 108, also referring to Winston C Extavour, *The Exclusive Economic Zone* (A.W. Sijthoff 1979) 198; L Dolliver M Nelson, ‘The Drafting Committee of the Third United Nations Conference on the Law of the Sea: The Implications of Multilingual Texts’ (1986) 57 *BYIL* 169, 178-179, 184.

17 North Sea Wind Power Hub, ‘Modular hub-and-spoke specific solution options’ (NSWPH 2019) 6 https://northseawindpowerhub.eu/wp-content/uploads/2019/07/Concept_Paper_3-Specific-solution-options.pdf.

of multiple states through electricity interconnectors and/or hydrogen pipelines, as the wind farms may be used to produce hydrogen offshore.¹⁸

Considering that oil and gas production platforms rarely have a length and width exceeding 120 meters and rarely have a topside elevated higher than one hundred meters above water level, sand-filled islands would most likely cover a larger sea area than oil and gas production platforms.

The observation that artificial islands are presumably much larger than installations and structures is thus supported by practice, when interpreting artificial islands in line with article 121(1) UNCLOS as an area of land above the water at high tide. This interpretation opposes the view that the lack of limitations on artificial islands in article 60 UNCLOS provides coastal states with jurisdiction regarding any type of offshore facility constructed for any purpose. In addition, during the negotiations of UNCLOS, proposals to explicitly make all installations subject to coastal state jurisdiction were rejected, and limitations were purposely introduced to the purposes for which coastal states may regulate installations and structures in article 60(1) UNCLOS under 2 and 3.¹⁹

5 Conclusion and further questions

Taking into consideration the drafting of article 60 UNCLOS, the more limited purposes for which the coastal state is allowed to construct installations and structures, and the above interpretation of artificial islands, it can be argued that artificial islands do not overlap with the categories of installations and structures listed in article 60.²⁰

Undoubtedly to the pleasure of Martha, many additional questions arise in this context. For example, are coastal state rights under article 60(1) UNCLOS relating to artificial islands restricted to certain purposes? Are there clear rules on which types of facilities, ships, cables and pipelines may be regulated by the coastal state? What is the scope and what are the limits of the jurisdiction of the coastal state, which areas of law does it include and what are the other relevant limits? Are there potential jurisdictional conflicts and, if so, how should such conflicts be resolved?

18 The North Seas Countries' Offshore Grid Initiative (NSCOGI) was established in 2009. The countries bordering the North Sea reaffirmed their commitment in 2016 through the Political Declaration on energy cooperation between the North Seas Countries. Concerning the artificial island, Energinet.dk has expressed interest in cooperating, as has TenneT GmbH, which is the TSO in the German part of the North Sea.

19 Rothwell and Stevens (n 10) 91; Nandan and Rosenne (n 8) 584.

20 In agreement regarding the argument that the categories are not intended to overlap: Churchill and Lowe (n 10) 168.

With regard to floating installations the question arises where the distinction lies between floating installations and structures which are subject to coastal state jurisdiction, and ships which are subject to flag state jurisdiction. In addition to different types of floating installations used in the oil and gas sector, there are many new ‘floating beasts’ at sea. For example, floating pontoons may be used for an ‘energy island’, and floating offshore wind turbines are expected to scale-up in the coming decade, while floating electricity production units from the waves and tides are being tested and may be combined with wind energy or hydrogen production or storage. In addition, the world’s first floating photovoltaic panels in open seas have been installed in Martha’s academic and personal ‘backyard’ in the Dutch part of the North Sea.²¹

These and other further questions are addressed in both my own and the (PhD) research of others at the Groningen Centre for Energy Law and Sustainability. As Martha would say, “Never a dull moment”.

²¹ See oceansofenergy.blue.

EUROPEAN OUTLOOK
