

UNCLOS and the Unfortunate Oversight of Cartography

Patrick Balsano*

Abstract

There is a strong but undervalued relationship between the law of the sea and cartography, and of the influence of this relation on maritime and insular spaces. The United Nations Convention on the Law of the Sea (UNCLOS) only briefly mentions charts and stays silent about maps, thus reproducing a purely scientific conception of cartography common in public international law. This shows a lack of perception and consideration of a relationship that the law of the sea actors have a crucial need to understand. Ultimately, UNCLOS has had an unforeseen influence on the cartography and perception of maritime spaces, notably islands, due to this lack of consideration. This article asserts that it would be in the best interest of the law of the sea actors to be aware of this relationship, and of the power of maps, as it can influence the effectiveness of the law of the sea.

Keywords: Cartography, Islands, Law of the Sea, Maps, UNCLOS

* Patrick Balsano. Ph.D. Student – King's College London, The Dickson Poon School of Law, Somerset House East Wing, WC2R 2LS, United Kingdom. Patrick.balsano@kcl.ac.uk.

1. Introduction

There is a strong but undervalued relationship between the law of the sea and cartography, and of the influence of this relation on maritime and insular spaces. The United Nations Convention on the Law of the Sea (UNCLOS)¹ only briefly mentions charts, without giving any specific definitions or taking maps into account. Coastal and archipelagic States' only obligation is to give due publicity to charts officially recognised and to deposit a copy with the Secretary-General of the United Nations. However, it is submitted that States, as well as other actors, use cartography to forge concrete sovereignties, and borders claims, in the national imagination of their populations. Cartographic discourses transform maps into new models for spatial, and legal, realities that facilitate the appropriation of maritime and insular spaces into the core of a national territory.

Going beyond this underestimated link between the law of the sea and cartography, it is vital to understand their mutual influence on the social perceptions and uses of maritime and insular spaces. UNCLOS plays a crucial part in this dynamic, notably because of its lack of consideration for cartography.

The word 'charts' only appears twenty-one times in UNCLOS, and without any definition. However, it is beyond the scope of this article to look into details in the international case law concerning the role of charts in maritime boundaries delimitation disputes. Instead, it shall focus on the broader absence of consideration for cartography and maps in UNCLOS, and its influence on the construction of maritime and insular spaces. If charts, perceived mostly in UNCLOS with a scientific

1. 'United Nations Convention on the Law of the Sea - Overview' <https://www.un.org/Depts/los/convention_agreements/convention_overview_convention.htm> accessed 17 November 2021.

perspective, can be defined as a geographical map or plan especially used for navigation by sea or air, they are not to be mistaken with maps.

A definition of maps, and cartography in general, is somewhat harder to achieve. John Brian Harley challenged a purely scientific view of cartography, according to which there would be a constant evolution of the map towards a single representation of a true reality.² Harley saw the map as a biography: of the space and landscape represented, but also of its producers and those who conserve and use it.³ Maps are not frozen representations or simple reflections of the world. Even so-called scientific maps are not simply a mathematical object but the product of social traditions.

They belong to the social world that produced them, and it is crucial to look for the social forces that created them. If these issues deserve their own study, here we must keep in mind how Harley challenges the idea of the map as a mirror of nature as well as the evolution of the map towards an ever more precise representation of reality, due to the progress of science. He believes that such an approach carries with it a contempt for older maps or for non-European cartographies whose rules are different.⁴

Thus, our definition of maps is not only one that would meet a purely scientific and mathematical definition of the map. It is more appropriate to develop a definition including some of the characteristics mentioned by Gilles Palsky. The map is a representation, both a 'category of images and the product of a representation'.

2. John Brian Harley (1932-1991) was a geographer and cartographer, co-editor of the *History of Cartography* with Davis Woodward. He was a prominent force in the development of critical cartography and strongly inspired our own conception of the relationship between cartography and law.

3. John Brian Harley, 'The Map as Biography: Thoughts on Ordnance Survey Map, Six-Inch Sheet Devonshire CIX, SE, Newton Abbot' 327, 327-331.

4. John Brian Harley, 'Deconstructing the map' (1989) 26 *Cartographica* 1.

It is not ‘a recorded image but a fabricated image, resulting from human creative effort’. Therefore, it is not ‘a neutral reflection of an external reality but a construct’. This article submits that purely scientific criteria such as projection, scale, or codification are too restrictive to use for the law of the sea in its conception of maps. Rather, the law of the sea actors should endeavour to keep in mind the function of the map as defined by Palsky when he emphasises the priority to accord to the use and usefulness of the map in relation to its intrinsic nature, which is ‘to facilitate the spatial understanding of objects, concepts, processes or events in the human world’.⁵

Today, recent evolutions and technological developments in modern cartography have a significant influence on both geopolitics and public international law. Thus, if both the importance of geo-informatics in building nation-states and the uses of maps to claim and form national-territorial imagination have been stressed for land spaces, it becomes essential to extend this focus to maritime spaces as they are becoming more and more territorialised.

Moreover, both maritime and insular spaces are intrinsically resisting this evolution, a phenomenon public international law actors must have a deeper understanding of. As UNCLOS has influenced the cartography and perception of maritime spaces, and notably islands, it is thus critical for the law of the sea actors to be aware of this relationship, and of the power of maps, as it ultimately influences the effectiveness of the law of the sea.

5. Gilles Palsky, ‘Définition de la carte’ (Hypergéométrie) <<http://www.hypergeo.eu/spip.php?article266>> accessed 25 November 2021.

2. UNCLOS' Lack of Consideration of the Relationship Between Cartography and the Law of the Sea

2.1. An Undervalued Relationship by UNCLOS, Due to a Purely Scientific Conception of Maps

If previously maritime spaces may have been overshadowed by land spaces, for which the use of maps both in building nation-states and forming national-territorial imagination has already been indicated,⁶ they are now also becoming more and more territorialised. However, they are intrinsically resisting this evolution and a direct transposition must be avoided. Otherwise, if they become territories of States without considering their historical contexts, they will be caught in what John Agnew called 'the territorial trap'.⁷ It is thus essential to look beyond the reification of territories of States as spaces of secure sovereignty to have a deeper understanding of the increase and fragmentation of national territories created by the law of the sea. The next step is to understand how this evolution is translated through the medium of maps, resulting from the interaction between the law of the sea and cartography. Maps allow law to be seen, and law must be seen.⁸ But what is given to be seen?

6. See for example Christine Leuenberger, 'The Politics of Maps: Mapping the West Bank Barrier' (2019) 25 *The Brown Journal of World Affairs* 7.

7. For Agnew, it implies a conventional way of thinking the territoriality of a state that 'relies on three geographical assumptions - states as fixed units of sovereign space, the domestic/foreign polarity, and states as 'containers' of societies'. John Agnew, 'The Territorial Trap: The Geographical Assumptions of International Relations Theory' (1994) 1 *Review of International Political Economy* 53, 53.

8. As Irus Braverman perfectly summarizes: 'In order to be effective, law must be asserted in the world; it must be acknowledged; and, most importantly, it must be visually seen'. Irus Braverman, 'Hidden in Plain View: Legal Geography from a Visual Perspective' (2011) 7 *Law, Culture and the Humanities* 173, 173.

What is made visible or invisible with maps? Various actors are both seeing and showing their conception of the law of the sea when they use maps, as a map influences the legal perceptions and representations of its readers. Too often they assume that mapping public international law is only a technical process of converting a text into an image. Even if maps hide and obscure, they also demonstrate an ideological presence, raising the issue of intermediaries between law and space, for example cartographers, jurists, etc.

However, there is an absence of standardisation in the construction of geospatial data in public international law.⁹ As a result, maps are used to claim and form territorial imaginaries in the seas. Geographic Information System (GIS)¹⁰ is actively participating in building the maritime representations of nation-states. Maps are evolving as objects in form and design, but also as practice. For example, the democratisation of Participatory Geographical Information Systems (PGIS)¹¹ and the social implications of GIS lead to increased pressure on the social conscience and perception of space. As shown by Leuenberger, the control and ownership of geographical information affects social spaces insidiously, while the representation of local and indigenous spatial knowledge has an influence on how maritime spaces are conceptualised and how they form a local background for the law of the sea. Maritime spaces can now be experienced the same way as continental spaces through PGIS. This leads to deeper implications for social spaces. For example, the evolutions in the perception of environmental issues, especially at sea, greatly affect the diffusion of discourses on maritime and insular spaces.

9. See Leuenberger (n 6).

10. A system that manages all types of data and connects them to a map by linking location data and descriptive information.

11. Methods using a participatory approach to collect spatial information and data, for example by collecting local knowledge and translating it to maps.

Despite this social aspect, public international law tribunals' approach is mostly science-driven, concerning technical precision and applying sets of rules defined by UNCLOS. They may fail to perceive how maps are created, used, and their effects outside of the courtroom. This is the case when States try to convince map readers of its maritime claims on maritime areas with 'ancient' maps. A multidisciplinary approach is then crucial to underscore this. In international case law, naming a space on a map is not the basis for determining sovereignty. In critical cartography, since John Brian Harley, it has been demonstrated that naming a space on a map has an influence on the control of that space, at least symbolically.

Nonetheless, because of its purely scientific approach, the law of the sea may seem poorly equipped when dealing with these naming disputes. It faces the risk of having the authority of maps competing with the authority of law. Indeed, while the law of the sea may consider maritime and insular spaces as abstractions or purely mathematical rules, maps can give them context, content, and practice. As opposed to maps perceived as purely scientific constructs by law actors, maps as popular images became essentials for scholars studying the history of international affairs.¹² Maps as propaganda have largely been used to create strong imaginaries as public international law and cartography interact to create new representations of these spaces. In his analysis of space, Lefebvre divided the production of social space into three components, in three moments.¹³ First, the 'spatial practice' of a society determines its space (the perceived). Secondly, 'representations of space' defines a conceptualised space (the conceived), created by scientists among others. Finally,

12. See for example León W Consuelo, 'Foundations of the American Image of the Pacific', *Asia/Pacific as space of cultural production*, vol 21 (1994), 17.

13. Henri Lefebvre, *The Production of Space* (Donald Nicholson-Smith tr, Blackwell 1974), 33.

‘representational spaces’ are directly lived by its users through images and symbols (the lived). Cartography and maps play a role in each of these moments, as maps guide our social practices while cartographers shape our representations of space. Readers experience these representational spaces through the images and symbols on maps. Maps are infinite and cannot exhaustively represent a specific space. But maps are more than that as they create and modify territories. They help with the materialisation of spaces as they link together three components of defining a territory: institutionalisations of power, materialisations of place, and idealisations of people.¹⁴

Toponyms on maps give a striking example of the influence of maps on the law of the sea, especially if they benefit from a colonial and imperial background which amplifies the emotional properties of the map. Perceiving their potential legal aspects when it comes to maritime spaces is thus essential, especially since the law of the sea still fails to play an adequate role in the naming process of maritime features.¹⁵ There is no agreement for the standardisation of internationally recognised names and no common repository for boundaries or toponyms. Kathleen Claussen advises for ‘the creation of a central repository for border information that would serve as the authoritative source of boundary demarcation data’. While this concerns land boundaries, it is crucial to highlight a difference regarding maritime spaces, and how boundaries are perceived there. It cannot be stressed enough how maps play an essential part in their representations.¹⁶

14. Gearóid Ó Tuathail, ‘Borderless Worlds? Problematising Discourses of Deterritorialisation’ (1999) 4 *Geopolitics* 139.

15. See one of the first study on the legal aspects of toponyms for maritime spaces: Erik Franckx and others, ‘The naming of maritime feature viewed from an international law perspective’ 1.

16. Kathleen Claussen, ‘Invisible Borders: Mapping out Virtual Law?’ (2009) 37 *Denver Journal of International Law and Policy* 257, 258.

Therefore, this article promotes going beyond the map as a scientific object for public international law, with maps as a medium for the interactions between law and representation, as a link between words and images. Delaney pointed to ‘Law-in-Space’, whereby ‘[l]aw draws lines, constructs insides and outsides, assigns legal meanings to lines, and attaches legal consequences to crossing them’, and to ‘Space-in-Law’.¹⁷ The relationship between the law of the sea and cartography also expresses itself through climate change and environmental issues. Several academics have investigated this issue for islands, mostly from a legal, and somewhat theoretical, perspective.¹⁸ Some works point directly to the risk of an environmental crisis and how it could affect international law.¹⁹ Threats of submersion to coastal areas of a State, or even to its whole territory, are finally getting some attention.²⁰ However, most research still focuses on a legal approach to the status of States or to baselines evolution.²¹

17. David Delaney, ‘Legal Geography I: Constitutivities, Complexities, and Contingencies’ (2015) 39 *Progress in Human Geography* 96, 99.

18. Clive Schofield and David Freestone, ‘Islands Awash Amidst Rising Seas: Sea Level Rise and Insular Status under the Law of the Sea’ (2019) 34 *The International Journal of Marine and Coastal Law* 391.; Rosemary Rayfuse and Shirley V Scott, *International Law in the Era of Climate Change* (Edward Elgar 2012).; Derek Wong, ‘Sovereignty Sunk? The Position of “sinking States” at International Law’ (2014) 14 *Melbourne Journal of International Law* 30.; Charles E Di Leva and Sachiko Morita, *Maritime Rights of Coastal States and Climate Change: Should States Adapt to Submerged Boundaries?* (The World Bank 2008).; David Caron, ‘When Law Makes Climate Change Worse: Rethinking the Law Of Baselines in Light of a Rising Sea Level’ (1990) 17 *Ecology Law Quarterly* 621.

19. Cait Storr, ‘Islands and the South: Framing the Relationship between International Law and Environmental Crisis’ (2016) 27 *European Journal Of International Law* 519.; Paramjit S Jaswal and Stellina Jolly, ‘Climate Refugees: Challenges and Opportunities for International Law’ (2013) 55 *Journal of the Indian Law Institute* 45.

20. Rayfuse and Scott (n 18).; Sheila C McAnaney, ‘Sinking Islands?: Formulating a Realistic Solution to Climate Change Displacement’ (2012) 87 *New York University law review* 1172.

21. Karin Mickelson, ‘The Maps of International Law: Perceptions of Nature in the Classification of Territory’ (2014) 27 *Leiden journal of international law* 621.; Jenny Grote Stoutenburg, *Disappearing Island States in International Law* (Brill - Nijhoff 2015).; Maxine Burkett, ‘The Nation Ex-Situ: On Climate Change, Deterritorialized Nationhood and the Post-Climate Era’ (2011) 2 *Climate Law* 345.

Several disciplines are concerned with these issues, which deserve a practical approach. Christine Leuenberger studied how maps are used by both public and private actors to put forth social and political claims concerning human rights in the West Bank barrier between Palestine and Israel. She demonstrated how maps are powerful rhetorical tools to make social and political claims. The association of people's cartography and the democratisation of mapping practices strengthen maps as a form of communication. For example, the barrier promoted on Israel's maps of the region recalls China's nine-dash line.²² Social representations with maps of these phenomena in maritime spaces are becoming essential. In 2006, India's Lo-hachara Island was the first 'inhabited island to be wiped from the map'.²³ Online mapping is thus used to communicate sovereignty and the law of the sea discourses which are not also perceived by the law of the sea actors.

5.2. External Consistency

As we have seen, one of the main issues with a purely scientific approach to maps in public international law is that it is essentially descriptive. The concept of space in public international law deserves more.²⁴ It cannot settle for being based purely on zonal descriptions of sovereignty or economic rights on maps. If the concept of social space has only recently emerged, it is crucial to avoid going from the mental to the social without any kind of mediation.²⁵ There is a strong need for transition or

22. Christine Leuenberger, 'The Rhetoric of Maps: International Law as a Discursive Tool in Visual Arguments' (2013) 7 *Law & Ethics of Human Rights* 73.

23. Cited in Ann Powers and Christopher Stucko, 'Introducing the Law of the Sea and the Legal Implications of Rising Sea Levels', *Threatened island nations : legal implications of rising seas and a changing climate* (Cambridge University Press 2013).

24. For example in Human Rights Law, or more imperiously, in Environmental Law. Leuenberger (n 22).

25. Lefebvre (n 13).

articulation between the physical, the mental, and the social. Lefebvre pointed out this risk of maintaining a gap between a mental space based on logico-mathematical categories, which he called an 'ideal' space, from a space of social practice, a 'real' space. Both geography and public international law are concerned with this gap. Public international law actors focus on this ideal mathematical space at the expense of the reality of social space. Lefebvre looked for a way to bridge this division and cartography can be part of that mediation. Maps are inherently an apparatus that can close gaps between these fields, as the law of the sea codifies physical space but in doing so disrupts its link with mental perception and social practice.

Nonetheless, cartography and its critic are a complex endeavour. Any conception of critical cartography that only amounts to studying either the making of maps or their use must be criticised. Maps are in constant evolution both in production and in consumption, as they are simultaneously representations and practices. An unwary critical cartographer risks focusing on only one aspect of maps, production or use, at a time. If John Brian Harley stressed how the mapping process was part of a specific social context, he never said it was set in stone. Maps are like books; it becomes a challenge to understand what the author decided to communicate if read from a contemporary perspective. Context is crucial to perceive any imperialist, colonialist, or legal motivations behind maps. But as modern evolutions such as online cartography blur the boundary between author and reader, it becomes imperative to look for who produces and uses the data. Sovereignty discourses promoted through maps, especially those pretending to be based on the law of the sea, are not always perceived by readers. As legal actors are like any map readers, they must be taught to look at maps beyond an ever-true scientific object.

Another point to emphasise about the physical is that Lefebvre considered social space as a social product, implying that natural space, the physical, was bound to disappear. Lefebvre stated that nature was threat-

ened of being relegated to the background, as decor.²⁶ If it was worth protecting, this was shadowed by a pursuit for new resources. In the 1970s and 1980s, the law of the sea, even if aiming to protect maritime resources, might have involuntarily participated in this evolution by dividing natural space. Today, nature is back in our life through a newfound environmental awareness and maps are putting back the physical to the front. Islands facing sea level rise are now actually appearing on maps.²⁷

As these new dynamics affect the interactions between the law of the sea and cartography, shaping maritime and insular spaces, the analysis of social space must be divided between the formal (its form), the structural (its structure), and the functional (its function). UNCLOS determines the forms and functions of areas in maritime spaces. It introduced new structures that cartography represents and/or transforms on maps. These elements drive a movement towards a territorialisation of maritime spaces, triggered by States, which copy some of the dynamics of territoriality defined by Sack:

Territoriality is a form of behaviour that uses a bounded space, a territory, as the instrument of securing a particular outcome. By controlling access to a territory through boundary restrictions, the content of a territory can be manipulated and its character designed. This strategy seems to be ubiquitous across individuals and groups in their constructions of social organization.²⁸

A clear distinction existed between public international law and the law of the sea. One implied a multiplication of borders and clear territorial sover-

26. *id.*

27. Like some Japanese islands which found their way on national maps after being threatened by erosion. These maps were used to mobilize the population on these issues.

28. Peter J Taylor, 'The State as Container: Territoriality in the Modern World-System' (1994) 18 *Progress in Human Geography* 151, 151.

eignties, while the other promoted freedom of navigation and prohibition on territorial sovereignty claims. This distinction became weaker when the Truman Proclamation in 1945 extended the jurisdiction of the United States on the natural resources of the continental shelf. More recently, in 1996, Michael Shapiro was referring to the works of Gilles Deleuze and Félix Guattari, and their analysis of the evolution of the state system:

The state system, which Gilles Deleuze and Félix Guattari suggest is characterized by its resistance to flows, is under challenge, not only in terms of its control over territory but also in terms of its capture of cultural imagination and more generally its ability to control the range of felt affiliations.²⁹

Both UNCLOS and cartography raise issues on these matters, with the effect of bringing more control. UNCLOS affected control of maritime space as a territory by disrupting a space that was characterised by its flows, bringing it closer, if unsuccessfully, to a 'territorialisable' space. Cartography of these spaces is both used by States to control the cultural imagination associated with the sea, and to increase affiliations of inhabitants towards more specific places like islands.

The critical study of maps is a recent field, yet the use of critical cartography in public international law is vital to indicate the subjectivity of maps and to study the relation of law and geography and how they interact with each other. However, experienced legal academics had strong a priori assumptions when it comes to maps: 'Maps mainly depict physical relations and distribution and, as such, they have a restricted application to legal phenomena'.³⁰ Thankfully, this perception is changing.

29. Michael J Shapiro and Hayward R Alker, *Challenging Boundaries: Global Flows, Territorial Identities* (University of Minnesota Press 1996), 22.

30. William Twining, 'Mapping Law: The MacDermott Lecture' (1999) 50 *The Northern Ireland Legal Quarterly* 12, 31.

A trans-disciplinary approach between law and geography has become essential. It was started a few decades ago by academics who promoted a new field of research: Legal Geography. Going beyond legal geography as the coupling of law and geography, Philippopoulos-Mihalopoulos studies the concept of spatial justice to redefine the relationship between law and geography. He aims to ‘move the discussion by linking space not just to politics but also to law’, as he believes that spatial justice should be an opportunity for geography to consider the centrality of space.³¹ It is important to go beyond a concept of spatial justice that would only use a touch of geography and space as an adjunct.

Zoe Pearson looks at the way structures and sites of public international law development are mapped and evokes the role of international legal actors, of how they should ‘maintain an awareness about [their] role as cartographers’ of international landscapes. International law is found outside traditional maps as it is not ‘spaceless’. Norms of creative power exist not only in hegemonic places but also in more discrete spaces.³² Cartographic materials from different States and the evolution of their representations of maritime and insular spaces demonstrate some of the relation between cartography and the law of the sea. Affect must also be considered when studying the effects of maps, due to the overlooked influence of emotion. This is particularly true for the qualitative movement in GIS that focuses on the qualitative experiences used in creating a map when it comes to participatory mapping.³³ One of the main reasons for China’s assertiveness in the seas is an increase in nationalist sentiments among officials and its population. Maps are a potent medium through

31. Andreas Philippopoulos-Mihalopoulos, ‘Spatial Justice: Law and the Geography of Withdrawal’ (2010) 6 *International Journal of Law in Context* 201, 202.

32. Zoe Pearson, ‘Spaces of International Law’ (2008) 17 *Griffith Law Review* 489, 493.

33. Jc Young and MP Gilmore, ‘The Spatial Politics of Affect and Emotion in Participatory GIS’ (2013) 103 *Annals Of The Association Of American Geographers* 808.

which these sentiments can be kindled, as emotions are generated by maps but also can be harnessed to inspire them.³⁴ The easier it gets to create maps, the easier it also gets for the producer/consumer to forget how powerful they can be. UNCLOS only reinforced these effects.

3. UNCLOS, Cartography, and the Construction of Maritime Spaces

3.1. The Unforeseen Consequences of UNCLOS on the Cartography of Maritime Spaces

Ever since UNCLOS, maritime spaces are becoming more and more integrated into States' territory as UNCLOS codified sovereignty of States in maritime zones and materialised new places, facilitating the idealisation of the maritime territory of a State by its nationals. Maps put human beings in space by showing it to them. This is notably what has been happening in the China seas, for both its maritime and insular spaces. A map of China with the nine-dash line reproduced on Chinese passports ensures that its nationals always know and carry the extent of their space. Japanese maps which now show the tiniest of islands changed the scale of perception of the Japanese of their space. Maps have become popular images and have influenced these perceptions. New dynamics in online

34. As pointed to by several academics, notably Thongchai Winichakul. Studying their work can be used to point to more specific issues concerning maritime spaces and the relation between cartography and the law of the sea. See for example: Thongchai Winichakul, *Siam Mapped: A History of the Geo-Body of a Nation* (Univ of Hawaii Press 2009) ; Sumathi Ramaswamy, 'Visualising India's geo-body: Globes, maps, bodyscapes' (2002) 36 *Contributions to Indian Sociology* 151.; Mate Paksy, 'DROIT ET GÉOGRAPHIE LA QUESTION DE L'(INTER)DÉPENDANCE ÉPISTÉMOLOGIQUE' (2017) 100 *Géographie et Cultures* 109.

cartography only increase the power and scope of popular images. They bring forth new representations of maritime and insular spaces. Maps and law cooperate here. Maps can deploy both aesthetic and rationalist aspects, following dominant discourses. Maps are used to recall memories or rewrite history. Maps used by China to promote its sovereignty and its historical rights in the China seas, notably in response to the 2016 Arbitration, separate time and space. Identity is associated to the past, and as such, used to reinforce present identity. Maps create a national identity for States which includes seas and islands, and influence the law of the sea in the process.

UNCLOS played an essential, if unforeseen, part in this transformation of the perception and use of maritime spaces. The law of the sea changed conventional spatial imaginaries in a way that was neglected for far too long. Nonetheless, extensive relations exist between public international law and geography. They have only recently become a centre of interest for legal geographers, mostly from the perspective of national law. David Delaney points out the importance of ‘exploring the intersections of law and geography’ from both theoretical and methodological perspectives.³⁵ Other academics also believe that geographical aspects and contexts have been neglected in the legal culture and discourses. A quick overview of the issue lays the basis of this relation: ‘In drawing and policing boundaries between spaces and bodies, law plays a constitutive function for geography. In describing places and bodies, geography furnishes the grounds for the operation of law’.³⁶

Of course, a more conceptual approach to the evolution of maritime and insular spaces under the influence of both the law of the sea and

35. David Delaney, ‘Beyond the Word: Law as a Thing of This World’ in *Law and Geography* Eds Holder, J, Harrison, C (Oxford University Press, 2004) 67.

36. Tayyab Mahmud, ‘Law of Geography and the Geography of Law: A Post-Colonial Mapping’ (2011) 3 *Washington University Jurisprudence Review* 64, 75.

cartography is needed. New spatial practices have appeared with the divisions introduced by the law of the sea involving seas and islands.³⁷ New zones of sovereignty are deployed, and high seas areas are being reduced, with new economic usages. There is a renewal of the confrontation between closure and movement, between Grotius and Selden, economic or strategic usages, from modern and post-modern states.³⁸ Representations of these spaces are also continuously evolving, between Western and Eastern conceptions, with or without grids or texts, to new conceptions considering their dimensions. The recent evolutions in the law of the sea made differences between maritime and continental spaces on maps 'blurrier'.

New issues appear for cartography, from three-dimensional representations, multiplication of features, or new cartographic practices. As representational spaces, the way seas and islands are described and lived through our imagination, both actively and passively, changes under the influence of factors as diverse as the law of the sea, evolution in cartographic technologies, or environmental issues. Islands were considered as places of relegation but also as places of exchange and transition. UNCLOS created a new perspective and maps further transformed their duality between negative and positive spaces. An empirical perspective with a multiscale background becomes crucial to perceive the influence of UNCLOS on the perceptions and representations of islands.

Again, UNCLOS deeply transformed the use and perception of maritime spaces in unexpected ways. Categories have been transposed from continental to maritime spaces, only taking into account a scientific approach, leading to issues in their representation. Maritime and insular

37. Lefebvre's description of the Roman spatial representation of the city is part of my analysis. Lefebvre (n 13).

38. See for example Till's topology of national navies. Geoffrey Till, *Seapower: A Guide for the Twenty-First Century* (Fourth edition, Routledge 2018).

spaces evolved from being perceived and used as frontiers to become borders, on maps, and by States. These evolutions had consequences that were difficult to foretell by public international law experts (or by anyone), especially without an expanded spatial literacy. Maps work on different scales, from the scientific to the symbolic. It is essential to work on different range of spatial scales, from the international to the personal. Focusing on borders and boundaries in the production and organisation of space is fundamental. An interdisciplinary standpoint is as such essential to perceive the problematic nature of spaces of law and geography, from the physical to the social or mental spaces. One potential weakness of UNCLOS is that no one could predict these effects, in part due to its lack of precise definition.

Thus, one of the most significant issues that has arisen in the practice of the law of the sea stems from the imprecision of certain definitions, due to the difficulties of obtaining an agreement on a common text. However, due to the importance assumed by the new delimitations set by the UNCLOS, attention has been focused on the definition of islands and the distinction that must be made with rocks and low-tide elevations. As an extension of this problem, even beyond the vagueness of certain provisions, the effective application of the law of the sea is faced with the interpretation of UNCLOS. International courts had to deal with these issues concerning the methods of delimiting the Economic Exclusive Zone or the extended continental shelf.

3.2. The Lack for Precise definition of Islands in UNCLOS and its Consequences

Again, the problems introduced by changes in the law of the sea are numerous. One of the main issues which disrupts the application of UNCLOS remains its definition of islands or rocks and its consequences. The detailed study of the case law or state practice in connection

with these issues goes well beyond the scope of this article, Robert Kolb having already given a broad overview.³⁹ It is nevertheless relevant to mention it when it comes to the limits of law of the sea in dealing with cartography. Particularly important issues have emerged for the delimitations and uses of these maritime and island spaces. They find themselves confronted with a set of legal considerations which have upset their uses. Several questions seem to follow one another: what is an island? What criteria and modalities are to be used to resolve questions of sovereignty on an island, or even on a set of islands that it is sometimes difficult to define and delimit on the map? How to determine the resulting territorial boundaries and represent them on the map?

The perception of a specific duality of maritime and island spaces, between isolation and communication, is not new. Islands have been experienced by travellers as a destination and the sea as the way to get there. This duality resulted in a multitude of conceptions and representations of islands, which can make its definition difficult, and international law has not escaped this pitfall. For Sébastien Colin, the question of sovereignty over the islands of the Chinese seas only emerged recently, from the first half of the twentieth-century, as a result of the increase in rivalries between colonial powers. Before this period, the China seas were already a space of trade and commerce, where many merchants circulated. Islands like the Paracels or the Spratleys were 'then mainly perceived as sources of danger for navigation and [were] not claimed or disputed by the states of the region at a time when the concept of national sovereignty did not exist'.⁴⁰ The dual context of decolonisation and the post-war Cold War shook up questions of sovereignty, particularly at the time of

39. Robert Kolb, 'L'interprétation de l'article 121, paragraphe 3, de la convention de Montego Bay sur le droit de la mer' (1994) 40 *Annuaire français de droit international* 876.

40. Sébastien Colin, 'Litiges insulaires et enjeux géopolitiques en mer de Chine du Sud', *Les conflits dans le monde : approche géopolitique* (Armand Colin, 2012), 251.

the San Francisco Conference in September 1951, before the growing energy needs, particularly in hydrocarbons, and the development of the law of the sea does not complete the phenomenon.

So, islands have always occupied a particular place in maritime spaces, be it on maps or not. As such, they deserve some specific analysis, even more so since UNCLOS strongly modified their relation to both physical and social spaces. Representing an island on an ancient or even modern map has become tantamount to a sovereignty declaration, as if referencing on a map a space still empty of people was enough to affirm a sovereignty. These issues are not new for public international law. The use of maps in territorial disputes has already been studied by public international law experts. In 1969, Charles De Visscher wrote about ‘the great circumspection shown by arbitrators et judges with regard to the use of maps’, due to them possibly being ‘inaccurate, contradictory, or intentionally misleading’.⁴¹ Moreover, in 1986, the International Court of Justice ruled that:

Whether in frontier delimitations or in international territorial conflicts, maps merely constitute information which varies in accuracy from case to case; of themselves, and by virtue solely of their existence, they cannot constitute a territorial title, that is, a document endowed by international law with intrinsic legal force for the purpose of establishing territorial rights (§54).⁴²

It seems clear to the Court that even if maps can be accepted as the starting point of evidence in a territorial dispute, their value would remain low unless integrated in a treaty. However, these old issues found in sovereignty disputes with land spaces are still very much active when

41. Charles De Visscher, *Problèmes de confins en droit international public* (Pedone 1969).

42. Sébastien Colin, ‘Litiges insulaires et enjeux géopolitiques en mer de Chine du Sud’, *Les conflits dans le monde : approche géopolitique* (Armand Colin, 2012), 251.

it comes to maritime and insular spaces disputes. China is still using ancient maps to justify a historical sovereignty on islands against States that affirm their sovereignty through treaties or effective sovereignty. The use of Japanese maps dating from before the twentieth-century must be incorporated in a specific background: a withdrawal from maritime spaces and a cartography mostly used to transmit various ideologies and discourses.⁴³ Only then it is possible to understand how today's maritime borders and the law of the sea disputes are being perceived through maps and their effects. Harley strongly criticised any division between theory and practice in cartography and distinguished between understanding and using maps. Beyond just looking at how maps work, it is necessary to question the various practices and political projects that are deployed through them.

The absence of a precise definition of an island in Article 121 has already been indicated. However, another hypothesis is promoted here, which brings back the issue of the production of space by public international law and cartography. The law of the sea secluded islands from nature and brought them closer to being products, in a Marxist narrow sense. Indeed, Lefebvre believed that the meaning of both terms in 'production of space' needs clarification before its study. One interpretation draws on the works of Marx and Engels, who gave production a broad sense with the world produced by humans as social beings, but also a much narrower sense as a product, a thing: 'Humanity, which is to say social practice, creates works and produces things'.⁴⁴ A distinction exists between a work, characterised by its uniqueness, and a product that can be reproduced. The less creative and inventive this product is, the more it refers to labour.

43. For example, centrality and tribute for China, isolation and imperialism for Japan, colonialism and isolation of islands for both.

44. Lefebvre (n 13), 71.

The mere idea of creating space would have meant nothing to most philosophers a couple of centuries ago, because space could only be created by God.⁴⁵ Today, artificial islands create both physical and social spaces, through the law of the sea. It does not define islands in detail and is more concerned with the territorial effects they produce than with how they were constructed. However, these artificial islands can be considered both as unique works, and also as products for both the law of the sea and cartography. They most likely would be indistinguishable from each other and interchangeable on maps, unless at a very large scale. If the law of the sea does not give artificial islands the same rights as natural islands,⁴⁶ it does not forbid them altogether and allows their construction by coastal States in different zones.⁴⁷ Nevertheless, these artificial islands divide and redraw maritime spaces even more, if only with the safety zones they create and the rules they impose on navigation.⁴⁸ They have a strong link to the production of physical space from a public international law perspective.

Cartography puts islands in the social space, through maps. Thus, a new social form is created, that was not present in any previous physical space. The next step is to consider the social relationships that are hidden but present in this space.⁴⁹ It is particularly effective for what we call islands. Law brings new significance to insular places and removes islands from their context. Ultimately, they bring to the foreground an issue

45. See how a local Philippine authority named six sandbars that appeared a few years ago, due to sand drifting from Chinese dredging operation at Subi Reef. Greg Poling, 'Local Philippine authorities give new names to 6 features near Thitu (Pag-asa) Island' (*Twitter*) <<https://twitter.com/GregPoling/status/1296822202088783873>> accessed 12 July 2021.

46. Articles 11 & 60.8 UNCLOS.

47. Articles 56, 60, 80, 87.

48. Articles 60.5 & 60.6 UNCLOS.

49. For Penny English, '[a] place is not just a thing or an entity. Place is a relational concept'. Penny English, 'Space and Time: The Genius Loci of Ancient Places' (2003), 466.

easily forgotten by the law of the sea when it focuses on delimiting new zones in the seas: the issue of nature and natural spaces. What Lefebvre perceived in 1974 of the production of spaces in continental France was translated in 1982 to maritime spaces.⁵⁰ Economic, political, and strategic aspects established new criteria for the division, and domination, of nature as a resource. In doing so, by imposing mathematic and economic criteria that imply interchangeability between spaces, the main result is that ‘places are deprived of their specificity — or even abolished’.⁵¹ When divisions in the seas or distinctions such as islands and low-tide elevations are made based purely on physical criteria, like distance from the coast or submersion, nature is replaced by products. This implies a ‘commodification’ of maritime spaces, which are no longer only a means of production and instead become a product.

4. Conclusion

So, what is the role played by the law of the sea, and cartography, in the production of insular spaces? Does the law of the sea produce physical space, and cartography social space, through islands? The answer is not as straightforward. Both cartography and law transform nature by giving it a purpose and inscribing it in a social space. Cartographers and public international actors are essential mediators and must be considered as such. Perceiving the effects of UNCLOS, from the superficial to the deeper ones, is an ongoing process. On spatial aspects, understanding sea power strategies and tactics in the seas is essential for both maritime dis-

50. Lefebvre underscores that ‘the more a space partakes of nature, the less it enters into the social relations of production’. The reverse is also true. The more a space deploys social relations of production, the less it is a natural space in a strict sense. Lefebvre (n 13), 83.

51. *ibid* 343.

putes and regional security.⁵² For example, Patalano focuses on the role of the East China Sea for Japan, underlining how it acted as a space of social and economic interactions and as a barrier against invasions.⁵³ Disputes for islands exacerbated by UNCLOS must be re-integrated in this context, as the law of the sea has deeply modified this space. Sea power is also closely linked to these issues. It demonstrates that we must consider the wider context (Pan-Asianism, colonialism, Western conception of public international law, etc.) and question the effect of law on the sea on sea power and the use of maritime forces by states like Japan and China.

Going beyond a unique legal distinction between islands is necessary to understand some of the tensions to which the law of the sea is confronted in spaces like the East China Sea. States are increasing cultural and social pressures on these spaces, through maps. Control of maps and representations allow states like Japan and China to promote their spatial control. Cartography played different roles for Japan and China, creating centrality or promoting isolation. It continues today with the diffusion, control, and production of cartographic discourses. Whereas these islands are to be considered as rocks or islands is left to, or should be left to, public international law to decide. Nonetheless, UNCLOS seems to have failed in doing so in an uncontested manner. These shortcomings have consequences for the cartography of maritime and insular spaces and are exploited by States today. This raises an issue for modern public international law when states like Japan or China try to use ancient maps to affirm their sovereignty on islands, which were little more

52. Alessio Patalano notes that ‘The implementation of UNCLOS offers coastal states a crucial normative tool for the justification of national expansion at sea and, with it, the political reconfiguration of the region space’. Alessio Patalano, ‘Sea Power, Maritime Disputes, and the Evolving Security of the East and South China Seas’ (2013) 158 *The RUSI Journal* 48, 50.

53. Alessio Patalano, ‘Seapower and Sino-Japanese Relations in the East China Sea’ (2014) 45 *Asian Affairs* 34.

than dots and changing toponyms. Ulises Granados made a distinction between knowing and controlling maritime spaces,⁵⁴ a distinction that states like China or Japan are trying to erase when promoting the use of ancient maps in modern legal disputes. New environmental issues will only add more pieces to the cartographic and legal puzzle. Drawing from the cartographic history of the maritime and insular spaces is essential to understand what challenges the law of the sea and public international law will be confronted with.

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54. Ulises Granados, 'The South China Sea and Its Coral Reefs during the Ming and Qing Dynasties: Levels of Geographical Knowledge and Political Control' [2006] *East Asian history* 109.

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