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# **Territorializing the Arctic: Problem of Ice in International Law**



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## **Abstract**

Following the 2021 Suez Canal obstruction, humanity is now in search of safer and better functioning maritime trade routes, and the icy Arctic turns out to be one of the key candidates. The article contributes to the current debate concerning the status of ice in International Law, the legal status of which remains unclear, stuck in a limbo between the law of the terrain and the law of the sea. The methodology includes reconfiguring the meaning of 'territory' under International Law through conducting an evolutionary interpretation to provide grounds for the existence of a *ratione materiae* type of territory, supported by related domestic and international legal instruments of Alpine and Arctic States. The article outlines useful elements from similar experiments on the measurement of ice features employed in the process of the Alps border demarcation and administration. In conclusion, a sketch of a 'functional' Arctic is drawn to suit a world aiming at a sustainable human-nature relationship. The paper aims to introduce 'ice' as a legally valid criterion under the law of territory that can be applied in sovereignty disputes on a regular rather than *sui generis* basis. It demonstrates the fallacy of the static conception of territory in the modern day, particularly when applied in a dynamic environment such as the Arctic, while also stressing the importance of multidisciplinary learning and its critical role in advancing legal theory in domains considered to be the most normatively rigid, such as territorial sovereignty.



## **Keywords**

Arctic, ice, territory, sovereignty, Alps, borders, function theory, Inuit, reindeers, ice-breakers.

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## Introduction

At the 2019 ‘Arctic: Territory of Dialogue’ international conference, held in the Russian city of Saint Petersburg, there was featured a large sculpture showing a vertically erected mammoth tusk that had one of its ends piercing a fragment of the earth’s crust which contains a map of Russia, the end is envisaged to be planted directly at The North Pole, while the other end is topped with a figure of the Russian coat of arms. The subculture is titled ‘The Arctic Triumph of Russia’, its plaque reads: ‘The Northern Sea Route guarantees the Arctic triumph of Russia’<sup>1</sup>. This phrase arguably reflects the status of the Arctic among scholars today, of a prevalent belief of ‘Human triumph over the Arctic’, produced by the increased political and economic activities [Valková I., 2017: 1, 2]; [Kaiser B., Pahl J., 2018: 139, 140] that effectively reduced the Arctic into a regular sea [Bruun J., Steinberg P., 2018: 149, 150]. This conviction is not manifested better than by the Russian Arctic-2007 expedition that managed to descend to the seabed on the geographic North pole, and plant a Russian flag using a human-arm-like-crane<sup>2</sup>.

Nevertheless, the increasing knowledge on the appropriation of the Arctic region and its ice features causes doubts regarding the viability of the Law of the Sea in today’s Arctic, and these doubts are not new. The 1972 *Escamilla* case can provide a better understanding of the debate described. The case concerned a homicide that took the life of one of the US researchers working on ice-island ‘T-3’, floating in Canadian waters.<sup>3</sup> In the verdict, the US court recognized its jurisdiction on the case *in personam*, declaring the T-3 Island as a maritime vessel governed by the flag-of-the-ship rule. However, it is important to recall that an official waiver of jurisdiction by Canada aided reaching this smooth, uncontested verdict [Wilkes D., 1972: 23–37], but in turn preventing lawmakers and lawyers from contemplating on this decision as a precedent furnishing a basis for a growing customary law. Moreover, its hasty, vague reasoning gave rise to multiple unresolved questions on how to decide jurisdiction on dynamic ice-features such as ice islands, floes, icebergs, and glaciers.

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<sup>1</sup> URL: <https://ysia.ru/tachskrin-maket-verfi-brilliantovyy-biven-potentsial-yakutii-predstavlyat-na-arkticheskoy-forume/> (accessed: 25.04.2022)

<sup>2</sup> URL: <https://www.kommersant.ru/doc/794555> (accessed: 09.09.2021)

<sup>3</sup> United States Court of Appeals, Fourth Circuit, *United States v Escamilla*, 1972, 467 F 2d 341.

Some International Law accounts managed to identify the core problem of Arctic disputes, most of which required the inclusion of ice into a world traditionally conceived through the water-land binary. These accounts did provide new methodologies [Joyner C., 1991]; [Geon B., 1997] and comparative analyses on the *sui generis* nature of the Arctic ice [Boyd S., 1985]; [Baker B., Mooney S., 2013], albeit based on different readings of the Law of the Sea *lex lata*, but somehow ignored the elephant in the room, as when it comes to ice and International Law, *lex lata* proves to be part of the problem, if not *the* problem itself. This paper will first attempt to provide a novel framework that seeks to incorporate the ice criterion into the ambit of territorial sovereignty by tracking the conjunctions between the static conception of territorial sovereignty and the dynamic configurations of nature, similar to that of Arctic ice. Hence, after demonstrating the contextual issue of this article, the second part will attempt to analyse the topic of mapping borders in International Law and related State practice outside the Arctic, in this case it will be the practice of the Alpine States in resolving their border disputes traversing through dynamic glaciers. Then, the third part will attempt to suggest a better way to envisage sovereignty in the Arctic following a functional model of rights and duties rather than the traditional linear model, which is more in line with the spirit of contemporary International Law of increased cooperation between members of the international family.

## **1. The (Re) discovery of the Arctic**

Because of rising earth temperatures, the Arctic is rapidly opening up to States as a region of economic and military opportunities, yet carried upon the shoulders of social, political, and environmental concerns in a world ridden with rising tensions on the international level that is reminiscent of the Cold War<sup>4</sup>. The Russian flag incident might be read as being of merely scholar significance, yet it is not free from legal controversy. The UN Convention on the Law of the Sea of 1982 (UNCLOS)<sup>5</sup> is traditionally referred to as the authoritative legal framework for resolving disputes in the Arctic, and it regulates the apprehension of rights of States in maritime spaces outside their territorial sea in primarily two categories: the Exclusive Economic Zone (EEZ) and the Continental Shelf, the latter in particular requires the State to claim its rights over this space of seabed extending beyond the 200-mile enshrined in

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<sup>4</sup> URL:<http://www.theguardian.com/environment/2020/oct/16/arctic-ice-retreats-climate-us-russian-canadian-chinese-military> (accessed: 08.09. 2021)

<sup>5</sup> United Nations Convention on the Law of the Sea (UNCLOS). Approved 10.12.1982, entered into force 16.11.1994). 1833 UNTS 3.

UNCLOS through submitting geographical representation and scientific data to the 'Commission on the Limits of the Continental Shelf' established by UNCLOS<sup>6</sup>. Put differently, UNCLOS has eliminated the first-come-first-served rule for the acquisition of maritime spaces through the classical means of discovery [Rayfuse R., 2018: 410–417]. Planting a flag of discovery only provides an inchoate title to territory when applied on *terrae nullis*. International Law has long shifted towards confirming title to territory through *effectivités* when entailing an inchoate title<sup>7</sup>.

This Russian act however should not be decided as a legally irrelevant nor a wrongful act. The delimitation of a State's Continental Shelf relies chiefly on scientific consideration<sup>8</sup>, and Russia's achievement will reinforce its claims in any possible delimitation negotiation with other adjacent Arctic States that might have overlapping claims to that of Russia's, namely Canada and Denmark [Rayfuse R., 2018: 418]. Taken as benign conduct, the Russian flag incident shows that the true Arctic triumph is that of knowledge, Russia did not utilize it to claim any title to territory as such. The Russian attitude towards the Arctic is generally consistent with adhering to UNCLOS, along with the rest of the Arctic States, except the non-party USA. This positive attitude toward UNCLOS was further confirmed during the 2019 conference in a joint panel of the foreign ministers of Russia, Denmark and Norway, with the interesting presence of Artur Chilingarov — one of the researchers who led the Arctic-2007 expedition<sup>9</sup>.

The Russian flag incident is perhaps a continuation of the controversy left by the *Escamilla* verdict, and this new rush of Arctic opportunities brought new forms of dispute over rights and duties of States in the said region regarding navigation routes, exploiting natural resources, and the protection of indigenous rights and the environment. Such disputes, in principle, could be resolved if the concerned States adopt a structural approach to their claims of spatial sovereignty over the Arctic, in adherence with the spirit of International Law, embodied chiefly by the principles of equality between States, non-intervention, and the respect of Human Rights<sup>10</sup>. However, as most sovereignty disputes concern questions of land or water, as is the case with the UNCLOS dispute resolution mechanism, the element of ice is mostly overlooked and ignored. In general, the atmosphere surrounding the legal ecosystem denies the role of ice in causing the intractable problems concerned with sovereignty

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<sup>6</sup> Ibid. Article 76 (8).

<sup>7</sup> Island of Palmas (United States v Netherlands). [1928] II RIAA, No. 829. P. 34–37.

<sup>8</sup> UNCLOS. Article 76 (10).

<sup>9</sup> URL: <https://roscongress.org/en/sessions/iaf-2019-arktika-arena-protivostoyaniya-ili-sotrudnichestva/discussion/> (accessed: 10.09.2021)

<sup>10</sup> Charter of the United Nations. Approved 26.06.1945, entered into force 26.06.1945. 1 UNTS XVI; UNGA, A/RES/2625(XXV) 1970.

disputes in the Arctic. A proper allocation of sovereign rights in the Arctic have been obstructed by the ice criterion that ‘perforates’ every aspect of its ecosystem, its vapours connecting its air to land and water, blurring the lines between all elements [Bruun J., Steinberg P., 2018: 149–150].

The problem of territorializing the Arctic finds its roots in the Medieval age of Discovery and the cartographic revolution [Branch J., 2015: 36]. Sailors who dared to tread northern passages could not translate their empirical experience into the language of mapping [Vaughan R., 1982: 336]. Medievalist Arctic explorers brought back images of featureless, immeasurable spaces, implying a case of a ‘negative geography’ irreconcilable with Ptolemaic mapping [Heuer C., 2019: 10, 15]. It is particularly the immeasurability of the Arctic that describes its problem in contemporary International Law. Rules of *lex lata* do not provide any grounds for drawing logical and legal analogies to provide answers to some basic questions such as how should we appropriate a moving ice floe? Should the water and its content below or surrounding a moving ice island be recognized as a sovereign subject to the State of the moving island? How could we decide on the jurisdiction of State faculties concerning an act that is taking place on an ice feature? Or perhaps even a more general question such as the viability of applying the laws of the appropriation of land and water on ice features. UNCLOS remarkably deals with the question of ice in one single article: Art. 234, that reads:

Coastal States have the right to adopt and enforce non-discriminatory laws and regulations for the prevention, reduction and control of marine pollution from vessels in ice-covered areas within the limits of the exclusive economic zone, where particularly severe climatic conditions and the presence of ice covering such areas for most of the year create obstructions or exceptional hazards to navigation, and pollution of the marine environment could cause major harm to or irreversible disturbance of the ecological balance. Such laws and regulations shall have due regard to navigation and the protection and preservation of the marine environment based on the best available scientific evidence<sup>11</sup>.

UNCLOS Art. 234 was introduced following negotiations between Canada, the USA and the USSR. Canada in particular was most interested in preventing the abridgement of the Arctic within the law of liberal international straits<sup>12</sup>, fearing its Northwest Passage will be internationalized [Solski J., 2021: 4]. Yet UNCLOS did not provide any legal definition of what constitutes ‘ice’ or ‘ice-covered areas’, adding further vagueness to the applicability of Art. 234 on the varying ice features that could be defined as such by scientific extra-

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<sup>11</sup> UNCLOS. Article 234.

<sup>12</sup> Ibid. Articles 34–38.

legal accounts [Vylegzhanin A. et. al., 2020: 294]. Moreover, if taken in its ordinary meaning<sup>13</sup>, the outcome of the wording of Art. 234 reduced Arctic ice to 'Ice-covered areas' that can pose 'hazards' to navigation, which is a hostile attitude that seems at odds with our contemporary understanding of the Arctic, particularly the importance of ice to the climate [Döscher R., Vihma T., Maksimovich E., 2014: 13573] and the indigenous practices [Gearheard S., Huntington H., Holm L., 2013].

## 2. Ice and the Question of Measurement

The measurement of ice is the key question of that article. How to 'set' international borders in the dynamic Arctic for the purpose of incorporating it into a State's territory. How could we map a moving iceberg, or the extension of ice sheets that melts during summer? The relationship between territory and borderlines in International Law was explored in the *Burkina Faso/Mali* case, through an explanation given to an argument on the classification of the dispute as a 'frontier', 'delimitation', or 'territorial' one, and it states as follows:

In fact, however, in the great majority of cases, including this one, the distinction outlined above is not so much a difference in kind but rather a difference of degree as to the way the operation in question is carried out. The effect of any delimitation, no matter how small the disputed area crossed by the line, is an apportionment of the areas of land lying on either side of the line<sup>14</sup>.

Before one gets an overall impression that borders lack any legal dimension, The International Court of Justice (ICJ) directly proceeded to elaborate on the centrality of the evidence that can establish the rights to the disputed territory or the border, known as 'title to territory'. Title to territory comprehends both evidence which may establish the existence of a right, and the actual source of that right, and by taking into consideration the corresponding legal junctures, courts can conclude the existence of the territorial 'title' or absence thereof<sup>15</sup>. Moreover, the Permanent Court of Arbitration (PCA) in *Eritrea v Ethiopia* went -perhaps extremely- far in stating that acts of exercise of sovereign authority (*effectivités*) can be equated in their evidentiary value to instruments traditionally used to establish title to territory in International Law, virtually reducing the role of the sources of law to that of starting the

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<sup>13</sup> Vienna Convention on the Law of Treaties. Approved 23.05.1969, entered into force 27.01.1980. 1155 UNTS 331, Article 31(1).

<sup>14</sup> ICJ, Frontier Dispute (Burkina Faso/Republic of Mali), 1986, ICJ Reports, P. 563. Para 17. [*Emphasis added*].

<sup>15</sup> Ibid, P. 564. Para 18.

process of the delimitation of boundaries between States, to the extent that *effectivités* can lawfully alter instrumental provisions that established title to territory and drew the lines of borders in the first place<sup>16</sup>. For us, the most important conclusion from the PCA reasoning is that *effectivités* can provide a *bona fide* way to mark the limits of the territorial rights when the *fiat* title in question fails to suffice the processes of delimitation. Or, as specified by the ICJ on the relation between title to territory and *effectivités* in territory delimitation disputes: ‘[Finally, there are cases where the legal title is not capable of showing exactly the territorial expanse to which it relates. The *effectivités* can then play an essential role showing how a title is interpreted in practice’<sup>17</sup>.

If title to territory or *effectivités* were the only measuring tools to delimitate territory between already existing States, then how shall we act in case of a newly emerging State, should the measurement be further complicated with disputes concerning the issues of territory as a solely material concept. In *Bahrain v Qatar*, ad hoc Judge Santiago Torres Bernárdez highlighted that most territorial disputes concern ‘derivative title’ to territory; already established sovereign States contesting the acquisition of more territory, and such disputes do not touch upon the issue of the ‘original title’<sup>18</sup>, or the territory of the State ‘*ab origine*’, the very source of the legal apparatus of the State that allows it, following its creation, to establish claims on more territory<sup>19</sup>. The legal quest in such cases will be to define title to sovereignty instead of title to territory<sup>20</sup>. Its determination incorporates the deployment of a plethora of factors; legal, factual and historical, related to the rules governing State sovereignty, and acts of third-party States as in recognition or international agreements<sup>21</sup> [Schwarzenberger G., 1957, 309]; [Starke J., 1968: 11–13]. James Crawford argued that the territory requirement does not itself satisfy the criteria of Statehood. For a new State to be recognised as such it does not need to have any territorial dispute. Rather the content of the territory requirement concerns the State as having effective governance on certain space, suggesting that the requirement of territory is a constituent of government rather than a distinct criterion of its

<sup>16</sup> PCA, *Eritrea v Ethiopia*, 2002, P. 24–25, para 3.14–3.16. See also: ICJ, *Kasikili/Sedudu Island (Botswana v Namibia)*, 1999, P. 1101–1103, para 90–93. Compare the PCA’s argument with ICJ. In: ICJ *Frontier Dispute (Burkina Faso/Republic of Mali)* (no. 14) P. 586, para 63. See also: PCIJ, *Legal Status of Eastern Greenland (Denmark v Norway)*, 1933, Series A/B. No. 53. P. 45–46.

<sup>17</sup> ICJ, *Frontier Dispute (Burkina Faso/Republic of Mali)* (n 14). P. 586–587, para 63.

<sup>18</sup> ICJ, *Qatar v Bahrain* (Dissenting opinion of Judge Torres Bernárdez). 2001, P. 282, para 64.

<sup>19</sup> *Ibid.* P. 281–282, 284–286, para 60–63, 70–74.

<sup>20</sup> *Ibid.* P. 283, para 66.

<sup>21</sup> PCIJ, *Jaworzina*, 1923, Series B, No. 08, P. 20.

own [Crawford J., 2007: 52]. Malcolm Shaw is also of this opinion, providing that State territory shall not be conceived by lawyers as just the space in which the State projects its powers, State territory also encompasses the relationship between people and space, as characterized by the existence of an effective governmental authority [Shaw M., 1982: 75].

This illustrates the complexity of the concept of territory under International Law beyond lines drawn on legal instruments or the mere reach of authorities, leaving us wondering what borders actually delimit in the first place. Is it the territory of the State? Or is it the State itself?

If we might accept that the allocation and the delimitation of the borders of State territory is in essence a process of legal bounding, then we must recognize that all delimited borders have a physical manifestation through which State territory is projected. Borders are an ontological necessity, we can only identify objects through identifying their borders, just as we do when asked to draw an apple or a house on paper, we start with the borders of that object. Borders are the cognitive tool through which objects achieve actuality in our physical and metaphysical worlds [Varzi A., 2016: 50–51]. The answer of International Law to the realization of the objecthood of territory is the implementation of the legal delimitation of borders through a process referred to as ‘demarcation’<sup>22</sup>. The demarcation of borders is not a legal act per se [Prescott V., Triggs G., 2008: 66]<sup>23</sup>. It consists of the physical manifestation of the boundaries already drawn with the use of legal instruments, through installing physical structures on the ground (walls, fences, etc.)<sup>24</sup>. Demarcation is not to be interpreted as a material representation of the delimited borders in themselves, as international tribunals conventionally reject any claims of recognizing natural borders as a matter of law<sup>25</sup>. The role of demarcation is reduced to an interpretive procedure, and not an implementation that must comply with any legal instrument for delimiting the borderlines. Or as enunciated in the *Taba* arbitration:

[I]f a boundary line is once demarcated jointly by the parties concerned, the demarcation is considered as an authentic interpretation of the boundary agreement even if deviations may have occurred or if there are some inconsistencies with maps<sup>26</sup>.

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<sup>22</sup> ICJ, Territorial Dispute (Libyan Arab Jamahiriya v Chad), 1994, P. 28, para. 56; ICJ, Frontier Dispute (Burkina Faso/Republic of Mali). Special Agreement, 14 Oct 1983.

<sup>23</sup> ICJ, Land and Maritime Boundary between Cameroon and Nigeria (Cameroon v Nigeria: Equatorial Guinea intervening), 2002. P. 351, para 64.

<sup>24</sup> Ibid, P. 358. para 80.

<sup>25</sup> ICJ, Temple of Preah Vihear (Cambodia v Thailand), (Merits), 1962, P. 15; ICJ, Territorial Dispute (Libyan Arab Jamahiriya v Chad) (n 22). P. 75-76, para 38.

<sup>26</sup> Taba (Egypt v Israel), 1988, XX RIAA 1, P. 56-57, para 210.



The core task of judicial bodies in territorial disputes concern defining a contested territory through not only delimiting its frontier, but rather through the interpretation of rights related to the already defined territory<sup>27</sup>, such as non-linear rights of States in seas<sup>28</sup>. The procedure is similar to that in adjudging title to territory on the basis of *effectivités*, where courts try to trace the *de facto* borders of the *compétence territoriale* of the State for the ultimate purpose of achieving stability and finality of legal positions<sup>29</sup>, only guided by some degree of geographical encroachment<sup>30</sup>.

Drawing lines of borders acts as a binary switch that controls access to rights and duties associated with a certain legal order, operational in either State. According to the legal definition of lines of borders, these should be understood as the guarantors for stabilizing<sup>31</sup> and providing the preliminary qualifiers for the identification of the process of inclusion as the *internality*, and the process of exclusion as the *externality* of a subject of law, vis-à-vis an already existing legal regime, regardless of the *loci*. International Law does not approach territory through measuring *territory per se*; a physical space identified through lines on maps, but through reading its attributable statuses as rights, interests or duties, considering questions of legality and legitimacy, or more eloquently through what is referred to as *territoriality*: the ‘process of [legal] bounding’ [Johns F., 2017: 110–111]. Put differently, deciding *territoriality* through the allocation of rights before proceeding into delimiting and demarcating borders in a way that allows for the continuous administration of these borders to maintain their function of legal bounding [Donaldson J., Williams A., 2008: 682–687], while not prioritising geographical encroachment as such.

The materiality of the State as a matter of fact, is conceived through the concept of effectiveness, operating as an element for the assessment of a State’s territorial competence, with effectiveness understood as a legal-normative organising concept, which helps comprehend the transformation of effective realities into international law [Milano E., 2006: 24]. This conclusion corresponds with the conceptual legal definition of a sovereign State as a legal package [Shaw M., 1997: 76].

<sup>27</sup> ICJ, Dispute regarding Navigational and Related Rights (Costa Rica v Nicaragua), 2009. P. 263, para. 134.

<sup>28</sup> ICJ, Qatar v Bahrain, 2001, P. 91, para 167.

<sup>29</sup> ICJ, Temple of Preah Vihear (Cambodia v Thailand), (Merits), (n 25), P. 34.

<sup>30</sup> ICJ, Sovereignty over Certain Frontier Land (Belgium v Netherlands). 1959. P. 229; ICJ, North Sea Continental Shelf (Federal Republic of Germany v Netherlands), 1969. P. 53, para 101. See also: PCA, Eritrea v Yemen (Maritime Delimitation), 1999. P. 40–41, para 130; PCA, The South China Sea Arbitration (The Republic of Philippines v The People’s Republic of China), 2016. P. 223–225, para 534–536; PCA, Croatia v Slovenia, (Final Award), 2017. P. 318, para 1008.

<sup>31</sup> UN Doc. A/CN.4/SER.A/1982/Add. I (Part 2) 1982. P. 60–61, para 5; ICJ, Territorial Dispute (Libyan Arab Jamahiriya v Chad) (n 22). P. 37, para 73.

## 2.1. The Measurement of Ice: Lessons from the Alps

There have been attempts to measure ice independently from any land features recognizable as *terra firma*. Borders of Alpine States traverse through some glaciers and were historically delimited to follow watershed lines<sup>32</sup>. However, the ICJ once cast doubts on this method as to whether it fulfils the goal of finality and stability set by border treaties, as watershed lines fail the mapping test<sup>33</sup>. In 1970, a joint Italian-Austrian surveying commission documented large-scale changes beyond superficial shifts in the borderlines demarcated on Alpine glaciers. The Italian and the Swiss governments acknowledged this inevitable natural cycle and agreed on the concept of '*confini mobili* [moving borders]', once created by the *Istituto Geografico Militare* [Military Geographic Institute] (IGM), which performs the functions of the cartographic body of the Italian State under the auspices of the Italian Army<sup>34</sup>. The concept of moving borders, as adopted by the Italian parliament, describes a continuous process of delimitation through aerial photography, operating within specified intervals, yet without specifying mapping techniques that shall be used<sup>35</sup>.

To translate the concept of 'moving borders' into two-dimensional maps, an independent multidisciplinary project titled '*Italian Limes*'<sup>36</sup>, tried to draw the moving Alpine borders using a grid of GPS sensors placed on a glacier to transmit the changes in the location of the surface of the glacier into an automated pantograph. The experiment resulted in maps that presented certain degrees of inevitable inaccuracy due to the machine's limited capacity and the unpredictable pace of moving glaciers, particularly their vertical shifting. Nonetheless, there are a few lessons we can learn from the Alpine experience. First, the process of *making* borders requires efforts from historians, geographers, engineers, and not only lawyers. Second, machines are still unable to provide an accurate and stable two-dimensional linear representation of all-natural configurations which are considered as the crux of the border-making process that consists of the allocation; the establishment of title to territory,

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<sup>32</sup> Ratifica ed esecuzione dell'Accordo tra la Repubblica italiana e la Repubblica d'Austria per la manutenzione, misura e materializzazione del confine di Stato comune, con Protocollo finale ed Allegati, fatto a Vienna il 17 gennaio 1994 ed il relativo Scambio di lettere integrativo firmato a Roma il 31 ottobre 2000 Serie Generale No. 6, del 9-1-2006 2005. No. 283.

<sup>33</sup> ICJ, *Temple of Preah Vihear (Cambodia v Thailand)*, (Merits), (n 25). P. 34.

<sup>34</sup> Norme sulla cartografia ufficiale dello Stato e sulla disciplina della produzione e dei rilevamenti terrestri e idrografici 1960, *Gazzetta Ufficiale*, No. 52, dell'1 marzo 1960.

<sup>35</sup> Ratifica ed esecuzione dello Scambio di Note tra la Repubblica italiana e la Confederazione svizzera relativo ai confini «mobili» sulla linea di cresta o displuviale, effettuato a Roma il 23 e il 26 maggio 2008, 2009. No. 2208 XVI.

<sup>36</sup> *Italian Limes*. URL: <http://www.italianlimes.net> (accessed: 25.03.2021)

followed by delimitation and demarcation as described above, and then administering the now international borders [Donaldson J., Williams A., 2008: 688]. If that is the case with the Alpine borders that are, actually, reinforced by a *terra firma* crust beneath, we can only imagine the difficulties that may arise when applying a similar method to the ice-covered sea areas as those in the Arctic that are certainly more dynamic and hard to grasp statically. Despite its technological advancement, every map drawn by the pantograph is already out of date and does not necessarily represent the situation on the ground. Further, the rationale behind the concept of ‘moving borders’ was to present lawmakers with an acceptable formula that mimics the traditional linear comprehension of borders as devoid of any value on their own. This concept denies any economic, social, or political value to the alpine glacier despite their contribution to the energy and agriculture through its water streams, and also their key role in nurturing a growing tourism industry [Buixade F., Pasqual E., Bagnato A., 2018: 114, 166, 175–178].

Furthermore, while International Law rejects the notion of natural borders, particularly when associated with irredentist claims, the political and historical significance of certain natural configurations could contest certain legal claims. In 2016, Norway aborted a plan to ‘gift an Arctic mountain’ to Finland (mount. Halti), as this act would violate Art. 1 of the Norwegian constitution, which stipulates that ‘The Kingdom of Norway is a free, independent, indivisible and inalienable realm’<sup>37</sup>, but the reference to the ‘mountain’ meant merely shifting the line of borders 40 meters to encompass one of its two summits (the summit of Hålditšohkka). This apparent generosity underlies an old problem of demarcation resulting from the overlaying of a geometrical line over a geophysical terrain that leads to placing both summits in the Norwegian side, instead of each being in either country, hence remedying this ‘geophysically illogical’ border. Some Norwegian international lawyers argued that minor border adjustments resulting from naturally shifting dynamic features does not violate the territorial integrity of a State, as such incidents are frequent and inevitable, and the regional practices support this argument [Elden S., 2017: 210, 211]. The Norwegian official stance seems to advocate the importance of the summit as an identifier to the mountain as a whole, and Norway does not welcome its loss. The ‘moving borders’ denial of a glacier’s identity and value, risks future political and legal disputes as States might claim that saving their glaciers as they are part of their national identity and sovereignty. For example, Switzerland tried to protect the Rhône glacier as one of its own through cover-

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<sup>37</sup> URL: <http://www.theguardian.com/world/2016/oct/15/halti-plan-halted-norway-will-not-gift-mountain-top-to-neighbour-finland> (accessed: 13.09.2021); Kongeriket Norges Grunnlov (17.05.1814, Amended: 14.05.2020), URL: <https://lovdata.no/dokument/NLE/lov/1814-05-17?q=grunnloven> (accessed: 13.09.2021). Article. 1.

ing it and supplying it with artificial snow to prevent it from retraining, citing economic interest in sustaining ski sports [Dodds K., 2021: Ch. 2].

Highlighting the key result from the experiment of the Alpine 'moving borders' showed that States place a lot of trust in machines, and they are open to new approaches, given the existence of a positive political atmosphere encouraging a high level of cooperation, such as the one between Italy and Switzerland. Italy shares borders through Alpine glaciers with France, yet the two countries are at odds regarding their Alpine cooperation. The two countries dispute the summit of Mont Blanc/Monte Bianco, triggered by economic and political interests of both States<sup>38</sup>. Furthermore, Italy constantly accuses France of allowing its law enforcement (*Gendarmerie*) to operate on the Italian side of the Alps during the former's attempts to quell the large flow of migrants reaching its southern borders through rugged Italian Alpine passages<sup>39</sup>. The strictness of borders reflects the anxiety and mistrust between States, allowing little room for cultivating nascent approaches, regardless of initial critique.

The 'moving borders' legislation designates one important development to how States approach their borders. The text did not indicate any rule concerning the interval between the aerial photography adopted to identify the borderlines, but in one of its paragraphs the law reads 'The time interval between one survey and another will be established by the existing Commission for the maintenance of the Italian-Swiss state border on the basis of technical choices.' The task of maintaining the borders was assigned, through legislation, to the IGM on the Italian side, and the Federal Office of Topography on the Swiss side<sup>40</sup>. The significance of this step is that in the traditional border-making process, the conclusion of the demarcation marks the completion of the creation of the borders, and the borders are considered to be determined. The maintenance of borders is somehow reduced to an ancillary process of demarcation, aiming to preserve the status of demarcated borders through keeping them fixed and recognizable [Donaldson J., Williams A., 2008: 695]. In the case of the 'moving borders' however, the issue was, from a border-making point of view, that even with the current state of technology it is impossible to demarcate borders indefinitely on glaciers, the role of the administration of

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<sup>38</sup> URL: <http://www.theguardian.com/world/2020/oct/22/italy-reignites-mont-blanc-border-dispute-with-france> (accessed: 13.09.2021)

<sup>39</sup> URL: <https://www.rainews.it/dl/rainews/articoli/Migranti-autorita-francesi-ammets-tono-sconfinamento-Un-errore-b1fbb2f6-940a-4799-8793-cdea31f709ad.html> (accessed: 12.09.2021); <https://www.independent.co.uk/news/world/europe/taly-france-migrant-spat-latest-nigerian-urine-drug-test-border-patrol-agents-europe-refugee-crisis-a8283771.html> (accessed: 13.09.2021)

<sup>40</sup> *Ratifica ed esecuzione dello Scambio di Note tra la Repubblica italiana e la Confederazione svizzera relativo ai confini «mobili» sulla linea di cresta o displuviale, effettuato a Roma il 23 e il 26 maggio 2008, (n 35).*

borders replaced its demarcation entirely. States were convinced, as a matter of law, to put their ‘obsession’ with static lines [Marchetti P., 2014: 17] of separation aside, opting instead for borders as a continuous agreed-upon structural process.

And from this last point, one can draw a hypothesis to recognize a new valid type of international border that does not necessarily need to pass the test of Ptolemaic mapping by means of merging law with technology.

### 3. Ice and Territory: Towards a Functional Arctic

International Law approaches State territory through the prism of the *competence theory*, to which territory itself is not a question of *res* but *in rem*. Put differently, according to that, the State is defined as a coercive legal order, and its territory becomes the metaphysical sphere of the validity of that order rather than a property owned by the State [Kelsen H., 2007: 207–208, 211]; [Oppenheim L., 1955: 452]<sup>41</sup>. The State is not an owner, to use private law analogy, but a regulator. Territory refers to the limits set by International Law on the State’s exercise of its jurisdiction [Shaw M., 1997: 76]. The State exercises its sovereign jurisdiction as a ‘plenitude’ of rights and duties [Verzijl J., 1970: 12–13], primarily in its two main spheres of application. The first of which is the spatial jurisdiction or *ratione loci*, or what is referred to broadly as territorial sovereignty [Verdross A., 1962: 192]. The second jurisdiction is personal; *ratione personae*, the exclusive application of State jurisdiction on its subjects, autonomous from spatial competence, and this competence is recognized generally through the bond of citizenship. A State can always project its powers on its subjects regardless of their *loci*, as in taxation or the alteration of their civil status [Verdross A., 1955: 235–242, 244–247]<sup>42</sup>.

The dogma of the traditional *competence theory* is centred on a monistic approach to the relation between International and national law [Schmitt C., 2008: 122–124], which was unable to resolve the issues of a possible overlap between autonomous personal jurisdiction and static spatial jurisdiction, nor did it try to provide a framework for such a settlement<sup>43</sup>. The solution here is not to suggest an alternative theory, but rather to elaborate a new framework for the application of the competence theory in a dualistic approach, the key in which is the definition of a State as a sum of legal institutions centered around

<sup>41</sup> See also: Delimitation of Maritime Boundary between Guinea-Bissau and Senegal, 1989, II XX RIAA 119, P.144, para 63.

<sup>42</sup> See also: ICJ, *Nottebohm (Liechtenstein v Guatemala)*, 1955. P. 23.

<sup>43</sup> See an example of overlapping competences: PCIJ, *Lighthouses case between France and Greece*, 1934, Series A/B, No. 62, P. 26; PCIJ, *Lighthouses in Crete and Samos*, 1937. Series A/B, No. 71. P. 101–103.

a multiplicity of subjective competences, only protected by International Law and not endowed by it [Conforti B., 1995: 74–77]. The territory of the State is simply a manifestation of these jurisdictional competences, with primacy to *ratione loci* over any contesting *ratione personae* which is referred to only in cases of the absence or the waiver of the former. That said, the predetermination of competences allows to establish a third category according to the function served through practicing relevant sovereign powers. The Function theory allows the State to project its powers *ratione materiae* only when it is necessary to reach a predefined object or to satisfy a predetermined interest [Conforti B., 1993: 140–151]. This new functional jurisdiction is particularly important in our modern world that faces challenges insurmountable by the apparatuses of a single State as in case of environmental issues, piracy, terrorism, or even perhaps cybersecurity, the latter being exempt from both *ratione loci* and *ratione personae* jurisdictions [Milano E., 2006: 69–70].

The Function theory is a creation of Italian researchers, a product of professors Rolando Quadri's and Benedetto Conforti's collective efforts. Functions are not self-evident and need to be proven by means of international legal instruments [Conforti B., 1995: 76]. So far, its key field of application is the domain of the sea, particularly the issues related to the configuration of rights in the EEZ and the Continental Shelf, for example, the *Bahrain v Qatar judgement* reads as follows, "The delimitation to be carried out will be one between the continental shelf and exclusive economic zone belonging to each of the Parties, areas in which States have only *sovereign rights and functional jurisdiction*"<sup>44</sup>.

A reference to a functional type of border was also roughed out in the 2017 *Croatia v Slovenia* arbitration:

That legal boundary is not necessarily the same as what might be called the "practical" boundary. In any particular place, it may have been the habit to treat that location as part of one or other republic -for example, for the purpose of allocating postal codes or connecting to public utilities such as gas, electricity, water and sewage-on the basis of practical convenience or local traditions or preferences, and without regard to the precise location of the legal boundary<sup>45</sup>.

Moreover, the 2020 US-sponsored 'Deal of Century', concerning the Arab-Israeli conflict, suggested the establishment of transportation corridors that guarantee a functional 'transportation contiguity' to the geographically divided Palestinian land territories in the West-Bank and Gaza, following the premise that:

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<sup>44</sup> ICJ, *Qatar v Bahrain* (n 28), P. 91, 93, para.170. [*Emphasis added*].

<sup>45</sup> PCA, *Croatia v Slovenia*, (Final Award), (n 30). P. 109, para 337.

Sovereignty is an amorphous concept that has evolved over time [...] The notion that sovereignty is a static and consistently defined term has been an unnecessary stumbling block in past negotiations. Pragmatic and operational concerns that effect security and prosperity are what is most important<sup>46</sup>.

A similar provision was also included in the 2020 Nagorno-Karabakh cease-fire agreement concerning new functional transport links between Azerbaijan and its enclave of Nakhchivan, traversing the land territory of Armenia:

The Republic of Armenia shall guarantee the safety of transport links between western regions of the Republic of Azerbaijan and the Nakhchivan Autonomous Republic with a view to organising the unimpeded movement of citizens, vehicles and cargo in both directions<sup>47</sup>.

In the examples above, the drafters implicitly argued that sovereignty needs not to follow specific lines that cut across humongous spaces, rather, sovereignty can be traced through the acts that are intended to be an exclusive interest to the State concerned. These instruments tried to establish that sovereignty could be that ascribed to the interest of transportation, the interest of passage, the interest of trade, and the interest of connecting isolated spaces, or any interest *ratione materiae*. Their concept of State territorial sovereignty was differentiated from State's territorial supremacy, that better describes State territory *ratione loci* [Verdross A., 1955: 190–195]. Sovereignty and territory became synonyms as territory reflects the manifestations of sovereignty into the realm of human cognition. Territory itself is treated as an object of political rule that transforms, subordinates, controls, and situates objects into State territories (territorialization) to attain political and/or organizational goals [Agnew J., 2017: 38], through engaging mental and material processes; geographical, political, technical, and legal [Elden S., 2017: 21]. The related States in the examples above implicitly recognized the impunity of representing their non-spatial interests through two-dimensional mapping, hence, they adopted a Functional approach to territory created chiefly through laws that protect the outcome of territorialization rather than the processes involved.

During the Cold War, the Arctic States have acknowledged the impunity of the Arctic from spatial mapping, yet did not recognize this as a defeat. Their triumph came through shifting their territorialization strategies from the horizontal two-dimensional into verticality, conceiving the Arctic as empty volumes that need filling. Because this filling cannot be achieved through the

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<sup>46</sup> URL: <https://www.whitehouse.gov/wp-content/uploads/2020/01/Peace-to-Prosperty-0120.pdf> (accessed: 09.07.2020) [*Emphasis added*].

<sup>47</sup> URL: <http://kremlin.ru/events/president/news/64384> (accessed: 25.11.2020) Article 9.

traditional medium of geopolitical occupation, it is done through hostile biopolitics (relocation of population, increasing militarization) [Dodds K., Nuttall M., 2016: 58] to fulfil State interest not centred on the apprehension of horizontal spaces. The Cold War prevented the creation of legal regimes that can help regulate contested State interests in the Arctic, and attempting to do so now requires identifying what is a State interest, and how to decide whether they are worthy of protection by International Law. This task is beyond the limits of this article, but for the purpose of this article it will be argued that the interest of territorialization dictates how States regulate territory according to certain goals rather than drawing lines, and these goals in turn identify the functions inquired. To systematize the establishment of 'functional territories' some scholars tried to build an all-encompassing blueprint for a functional model of territory through a utilitarian analysis of the relationship between the State and territory, concluding that State territory assumes four primary functions: a source of security; a source of economic resources; facilitating the effective exercise of jurisdiction; a source of historical and cultural resources [Bílková V., 2017: 25–28]; [Gottmann J., 1973]. All those functions prioritise the allocation of rights and their administration, without a need for actual delimitation or demarcation, or conceiving them in exclusive spatial settings.

Drawing on this preliminary hypothesis I will attempt to illustrate how a functional model of territory can provide a solution to some current Arctic disputes. By 'disputes' I do not refer to ongoing judicial disputes. The reference to disputes mirrors the existence of the contested interests between actors, interests that are a matter of law. The Permanent Court of International Justice (PCIJ) defined dispute as 'a disagreement on a point of law or fact, a conflict of legal views or *interests* between two persons'<sup>48</sup>. Therefore, since a 'dispute' refers to the content of a question that opposes certain actors [Kohen M., Hébié M., 2018: 5–6]. it is this content that we are interested in.

### 3.1. A Model for a 'Functional Arctic'

While it is impossible to include all possible contested interests of Arctic States, this article will provide a legal framework that can facilitate resolving possible disputes concerning, firstly, the perforation of ice by what is described as a land-based activity, with the example of reindeer herding [Forbes B. et. al., 2016]. Secondly, the perforation of ice by maritime activities in the Arctic ocean, traditionally governed by the UNCLOS.

Indigenous reindeer herding is an intrinsically transboundary phenomenon, and requires vast open spaces for human-animal interaction for graz-

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<sup>48</sup> PCIJ, *Mavrommatis Palestine Concessions (Greece v Great Britain)*, 1924, Series A, No. 02, P. 22. [*Emphasis added*].



ing, mating, or seasonal migrations, something that was ousted from the 1985 Schengen Agreement, leaving this matter to National orders. The rights of the indigenous Sámi herders, who are traditionally reindeer herders in their indigenous homeland of Sapmi, expanding across the northern regions of Russia, Finland, Sweden, and Norway, are generally protected by International Law through Article 27 of the International Covenant on Civil and Political Rights<sup>49</sup>. Yet the most detailed instrument to indigenous rights is the Indigenous and Tribal Peoples Convention (ILO C. 169), which only Sweden made accession to<sup>50</sup>. This, perhaps, limits the grounds to which a transboundary reindeer herding regime could be established. Reindeer herding is one of the contentious issues in the Arctic, caused by the static interpretation of State territory on one hand and the denial of the transboundary or the transnational reality of Sámi identity by international law. Despite that, the 1751 Treaty of Strömstad between the Kingdoms of Sweden and of Denmark — then included Norway and Finland- guaranteed in its annex '*Lapp Codicil*', the continued practice of transboundary Sámi reindeer herding. However, the operation of this treaty came to an end following the Russian control over Finland in 1809 reinstalled borders between Norway and Sweden [Kirchner S., 2020: 58, 60–62]. These spatial restrictions of indigenous reindeer herding led to some controversies, such as in 2011. In this year, in Finland, indigenous families were forced to slaughter all their herd to meet the limit on their counts, which have been imposed by national law to comply with available space. This threatens the occupation and lifestyle of Sami reindeer herders<sup>51</sup>.

Here we can propose a type of functional territory that spans different spatial territories, regardless of this territory extending through *terra firma* or sea ice. The function here is based on *territory* being a source of economic and cultural resources, represented as a right to access certain inter-States spaces on a *ratione personae* (indigenous herders) and a *ratione materiae* (only for the purpose of herding) basis. The same logic could be deployed for activities that actually take place on sea ice, such as indigenous hunting of seals or polar bears. Considering the *Tootalik* case<sup>52</sup>. In contrast to the *Escamilla* decision, the Canadian territorial Court in the Northwest Territories denied claims of its lack of jurisdiction on the alleged unlawful polar bear hunting by local Inuits, since the act occurred on sea ice. The court, however, recognized sea

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<sup>49</sup> International Covenant on Civil and Political Rights. Approved 16.12.1966, entered into force 23.03.1976. 999 UNTS 171, Article 27.

<sup>50</sup> Convention (No. 169) concerning indigenous and tribal peoples in independent countries. Approved 27.06.1978, entered into force 05.09.1991). 28383 UNTS 1650.

<sup>51</sup> UN Doc. CCPR/C/110/D/2102/2011 2014.

<sup>52</sup> Northwest Territories, Territorial Court, Regina v Tootalik, 1970, 71 WWR 435.

ice as land<sup>53</sup>. This uncertainty of the on-ice jurisdiction could be avoided if Inuit communities were granted functional territory for hunting akin to that of reindeer herders.

This space is measured in spans as large as reasonably needed to provide the indigenous peoples with their cultural and economic rights, or borders in the things themselves [Varzi A., 2016: 51]. Borders of security, borders of climate or cultural preservation, borders of economy, et cetera, regardless of spanning across water bodies or frozen sea spaces or the *terrae firma* of Tundra. The Functional territory and spatial territory do not eliminate each other, they can coexist as layered spaces; each has a border of a specific kind that only prevents a specific type of intrusion, but proves irrelevant towards others, as a fence wide enough to allow small creatures to pass but hindering big ones from entering. This can be possible by deploying a regime of monitoring cross-border movements of herders and their herd between States following corresponding *loci*, in a similar manner to the Italy-Switzerland data-sharing regarding their moving Alpine borders. In fact, Sweden and Norway have concluded an agreement to establish co-controlled zones regarding customs control and customs clearance. These zones extend inside the spatial territory of the other State, effectively granting the Swedish custom officers' powers to act as Norwegian civil agents according to the Norwegian laws, inside the spatial territory of Norway, and vice versa for Norway<sup>54</sup>. Hence, a similar model for co-controlled reindeer herding zones in which the spatial State can delegate certain aspects of their territorial supremacy to the functional State, this State could be the State of citizenship of herders, or the State beneficiary of the economic and cultural interests of reindeer herding. The functional State will act cooperatively with the spatial State to ensure the administration of those zones, in terms of law enforcement without prejudice to the territorial sovereignty of the spatial State. The same model can be applied for Inuit hunters, to avoid the vagueness left by the *Tootalik* case. The theoretical and practical grounds for such zones are possible through the functional territory theory which blurs the material separation between land and ice as a ground for jurisdiction, opting instead for the act concerned (hunting or herding).

The same logic could be deployed with regard to maritime activities. We can further expand on other features or issues of the Arctic where technology can help fulfill the condition of surveyable stability, not interpreted as a need for fixity. Under the auspices of the Arctic Council, the Arctic States concluded

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<sup>53</sup> Ibid.

<sup>54</sup> Riksdagsförvaltningen, Lag (1959:590) om gränstillsamarbete med annan stat Svensk författningssamling 1959 [SFS 2016:255].

the ‘Arctic Search and Rescue Agreement’<sup>55</sup>, which established special zones in the Arctic ocean. The borders of those zones fulfilling the ‘maritime search and rescue’ function were not drawn by the Arctic States to correspond to the theoretical maritime domains designated by UNCLOS, but rather, were based on the old theory of Sectoral division [Lakhtine W., 1930]; [Cavell J., 2019: 1168, 1176-1177] that covers the whole Arctic, effectively creating layered territories between those established pursuant to UNCLOS and those drawn by the ‘maritime search and rescue’ treaty, expressly stating in Art. 3(2) that ‘the delimitation of search and rescue regions is not related to and shall not prejudice the delimitation of any boundary between States or their sovereignty, sovereign rights or jurisdiction’. The administration of the maritime search and rescue borders relies on a satellite-based network of monitoring systems providing real-time measurements<sup>56</sup>, which is not much different from the method adopted in Alpine’s ‘moving borders’.

The ‘Arctic Search and Rescue Agreement’ provides an example of the necessity to carefully navigate between the two judicial points of view regarding the applicable legal regimes in the Arctic. While the sector theory seems by today’s standards as an extreme opinion that risks prejudicing the conviction of the *res communis* status of the Arctic as an ecosystem<sup>57</sup>, it has the merit of recognizing the special situation of the Arctic, mainly the existence of ice, something that the proponents of the exclusive application of UNCLOS, mostly NATO and EU countries unrealistically deny. The 2008 Ilulissat Declaration tried to strike a balance between the two opinions, by stressing the importance of the law of the sea as a ‘solid foundation for responsible management’ of Arctic maritime disputes, and by also recognizing the uniqueness of the Arctic ecosystem that the littoral State have ‘[B]y virtue of their sovereignty, sovereign rights and jurisdiction in large areas of the Arctic Ocean the five coastal states are in a *unique position to address these possibilities and challenges*’<sup>58</sup>. The Ilulissat declaration provided for a declaratory instrument of the regional practices describing the status of the Arctic as it is already reflected in customary international law [Berkman P., Vylegzhanin A., Young O., 2019], the content of which is denial of the ‘need to develop a new comprehensive international legal regime to govern the Arctic Ocean’<sup>59</sup>. Yet, care should be placed on the wording as not to convey a holistic cross-cutting approach, exclusive

<sup>55</sup> Agreement on Cooperation on Aeronautical and Maritime Search and Rescue in the Arctic. Approved 12.06 2011, entered into force 19.01.2013. 50 ILM 1119.

<sup>56</sup> Ibid. Article 3, Annex 1.

<sup>57</sup> URL: <https://papers.ssrn.com/abstract=2193744> (accessed: 23.09.2021)

<sup>58</sup> Ilulissat Declaration, Arctic Ocean Conference, Ilulissat, Greenland, 27-29.05.2008. URL: <https://arcticportal.org/images/stories/pdf/Ilulissat-declaration.pdf> (accessed: 23.09.2021)

<sup>59</sup> Ibid.

to the law of the sea, but acknowledges its incomprehensiveness [Rothwell D., 2013: 272, 274–275], and allows for other regulations to exist parallel to the international law of the sea on national and regional levels, akin to that of 'Arctic Search and Rescue Agreement'. Syllogistically, nothing prevents the inclusion of further functions outside firm spatial limitations, such as granting maritime trade routes carved by ice breakers a territory of their own, that could be ascribed a contiguous zone status<sup>60</sup> as long as those passages are navigable and ensure that the core functions of a contiguous zone are fulfilled, those being customs and sanitary control, supervision, and enforcement of the laws of the State operator of the icebreaker [Tanaka Y., 2019: 148] rather than the littoral States'. Those temporary passages can be recognised through predefined, regularly issued, scientifically grounded forecasts, in a manner that can guarantee security to the operator of the icebreaker not to have its rights prejudiced by a rise of international icebreaking competition<sup>61</sup>, and to those third party States whose ships will be now traversing through a clearly identified legal regime, and not anymore navigating into the unknown. Moreover, controlled icebreaker activity can help reduce the excessive damage to the Arctic ice sheet integrity. Due to its continuous fragmentation, the Arctic ice cannot fulfil its natural function of reflecting the sunlight back to the atmosphere, instead the heat is absorbed by the water which increases ocean warming and eventually leads to the melting of more ice (the heat sink effect) [Döscher R., Vihma T., Maksimovich E., 2014: 13573]<sup>62</sup>. The same monitoring and administration logic could be deployed to govern calving ice and other moving ice features, or any other natural feature Arctic scientists conclude to be a possible territory for human-nature relationship.

The leading role of an Arctic State will certainly be amplified following an ice-centred functional Arctic. The claimed exclusivity of Canada's North-West Passage (NWP) and Russia's North-East Passage (NEP) [Vylegzhanin A. et. al., 2020: 288–291] can only be envisaged if the States manage to foster their claims alongside claims of 'special measures' and 'special status' of Arctic States that could consequently alter the status of the spaces concerned. Ice is key here, Canada's policy regarding its NWP is fundamentally structured on its special rule for preserving the free navigation within its icy Arctic passages [Solski J., 2021: 4, 5]. Its interpretation of an international strait corresponds to the two criteria codified by UNCLOS, the first is geographical; straits are those connecting 'one part of the high seas or an exclusive economic zone

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<sup>60</sup> UNCLOS, Article 33.

<sup>61</sup> URL: <https://www.forbes.com/sites/davidhambling/2020/06/12/us-seeks-armed-nuclear-icebreakers-for-arctic-show-of-force/> (accessed: 30.04.2021)

<sup>62</sup> URL: <https://nsidc.org/cryosphere/icelights/2012/04/are-icebreakers-changing-climate> (accessed: 30.04.2021)

and another part of the high seas or an exclusive economic zone'. The second is functional: 'straits used for international navigation' [Tanaka Y., 2019: 118]. The ICJ in *Corfu* argued that the primacy is for the geographical criteria, however, it did not depart from the important functional criterion<sup>63</sup>. Canadian lawyers contrasted the opinion of the court, arguing that '[T]he test of what is a strait, unlike the test of what is a bay, is not so much geographical, therefore, as functional' [O'Connell D., Shearer I., 1982: 497] In this vein, Donat Pharand, who extremely disapproved the sector theory suggested a functional criteria of what constitutes an international strait: The actual use of a strait, and not the mere potential use; The strait does not have to constitute a necessary route for international navigation and may only be an alternative one; The strait must have a history as a useful route for international maritime traffic and episodic or infrequent transit is insufficient; The sufficiency of the use is determined mainly, although not exclusively, by reference to two factors: the number of transits and the number of flags represented; and: The numbers of transits and flags should normally be substantial, but the location of the strait and other relevant circumstances might render lower numbers sufficient [Pharand D., 1998: 220–221]. Condition 1 is suggesting an interesting factor that relies completely on the ability of the ships to navigate ice-free waters. A task most likely will only be feasible to the littoral State or a State authorized to have its ice-breakers carving this maritime passage.

## **Conclusions: The Arctic and the Triumph of Knowledge**

While at the 2019 'Arctic: Territory of Dialogue' conference, I proposed a question to the panellist of 'Arctic Researchers' Dialogue': whether the scholarship needs to rethink ice outside the reductionist framework of UNCLOS Art. 234, and instead to start recognizing ice as a stand alone criterion. The answer was a firm 'Yes!', pronounced by the panel moderator Professor Vladimir Pavlenko, vice-president of the International Arctic Science Committee<sup>64</sup>. This opinion is hardly questionable, as reducing the Arctic to a regular body of water seems largely at odds with our current knowledge of our natural world, while ignoring its uniqueness proves damaging if taken with the relentless reductionism that some lawyers are so eager to advocate.

That said, it was not aim of the article to undermine the value of the currently operational legal regimes recognized by the Arctic States. UNCLOS re-

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<sup>63</sup> ICJ, *Corfu Channel (United Kingdom v Albania)* (Contre-mémoire soumis par le Gouvernement de la République d'Albanie populaire), 1948. P. 28.

<sup>64</sup> URL: <https://roscongress.org/en/sessions/iaf-2019-arktika-arena-protivostoyaniya-ili-sotrudnichestva/discussion/> (accessed: 10.09.2021)

mains a valuable instrument that describes rights and duties of States in domains not necessarily intrinsic to the issue of ice, such as the Continental Shelf or aerial passages. The Arctic is a territory in its own right and dividing it with lines, no matter how arithmetically equal might be, resembles the test of the Judgement of Solomon. Instead of engaging in a lengthy debate between the reasoning of *Tootalik* and *Escamilla* cases, the Arctic ice should be approached as a plurality of beings each serving a specific organic purpose in the much larger Arctic-human interaction. The emphasis in identifying the Arctic borders should be shifted towards the ultimate aim of borders; their administration, rather than delimitation and demarcation, as those two phases should be perceived as interim steps in border-making. Perhaps our job as lawyers might be limited to translate this interaction into a language that States can understand; International Law, particularly in terms of jurisdictional competences. This demands a high level of interdisciplinary cooperation between researchers, and most importantly an atmosphere of peace and trust between States, similar to the one with Alpine States as previously discussed, and here perhaps, Arctic-relevant international organizations and forums should extend the scope of their activities beyond the traditional role of advocating peace and rapprochement between States, to accommodate an epistemic community integral to international policy making. The Russian president, Vladimir Putin, has called for such an interdisciplinary structure to combat sea piracy due to difficulties with ‘the specifics of the situation’ of fighting piracy individually<sup>65</sup>, and, theoretically, nothing now prevents expanding this proposed collective framework to Arctic issues, and only then can we talk about the Triumph of the Arctic.

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