



## The Antarctic Peninsula: Argentina and Chile in the era of global change

Florian Vidal

To cite this article: Florian Vidal (2023) The Antarctic Peninsula: Argentina and Chile in the era of global change, The Polar Journal, 13:1, 13-30, DOI: [10.1080/2154896X.2023.2205236](https://doi.org/10.1080/2154896X.2023.2205236)

To link to this article: <https://doi.org/10.1080/2154896X.2023.2205236>



© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 09 May 2023.



Submit your article to this journal [↗](#)



Article views: 395



View related articles [↗](#)



View Crossmark data [↗](#)

# The Antarctic Peninsula: Argentina and Chile in the era of global change

Florian Vidal 

Department of Social Sciences, UiT The Arctic University of Norway, Tromsø, Norway

## ABSTRACT

While Argentine–Chilean relations have long been swayed between cooperation and confrontation since their independence in the 19<sup>th</sup> century and a long-standing presence in Antarctica, the stretch between Tierra del Fuego to the Antarctic Peninsula stands as the closest lane (i.e. about 1,000 km) to any other continent. Despite their territorial dispute over islands on the fractured southern tip of South America and territorial claims on the Antarctic, their common diplomatic ground successfully defuses any potential geopolitical instability. Along with Chile and Argentina, British claims overlap in the Antarctic Peninsula, which establishes unique geopolitical conditions in the whole of Antarctica. In this context, scientific missions and growing tourist activities could transform the region into the Antarctic gateway. From potential mineral resources exploitation to the United States–China global competition, the South Atlantic area could become a strategic bridgehead in light of the brewing geopolitical shift during the 21<sup>st</sup> century. Considering that climate change and geostrategic conditions evolve somewhat quickly to transform the Western Antarctic area, this article aims to assess and comprehend how these external drivers may affect the two South American countries. Given the fact that Antarctica is part of their respective national narrative, how do Argentina and Chile intend to maintain their presence and protect their interest in these shifting conditions? What are the vectors for partnering with the world’s great powers, such as China? Ultimately, could this space become a choke point through the 21<sup>st</sup> century?

## KEYWORDS

Antarctic Peninsula; Chile; Argentina; South Atlantic; Antarctic gateway; mineral resources

## Introduction: addressing the geopolitical awakening of the sixth continent

When Russia launched its full-scale invasion against Ukraine on February 24<sup>th</sup>, 2022, this war sped up the transformative geopolitical landscape seeing the growing competition between the two great powers: China and the United States. In that moving global context, the Antarctic Treaty System (ATS), formed by several international agreements, treaties and instruments, has successfully ensured the peaceful and scientific use of the polar continent through a sophisticated legal regime.<sup>1,2</sup> Among them, the Antarctic

**CONTACT** Florian Vidal  [florian.vidal@gmail.com](mailto:florian.vidal@gmail.com)  Department of Social Sciences, ISV Faculty of Humanities, Social Sciences and Education (HSL-fak), UiT The Arctic University of Norway, PO Box 6050 Langnes, Tromsø N-9037, Norway

<sup>1</sup>Lord, ‘The Antarctic Treaty System and the peaceful governance of Antarctica: the role of the ATS in promoting peace at the margins of the world’.

<sup>2</sup>Scott, ‘Institutional Developments within the Antarctic Treaty System’.

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

Treaty (AT, 1959), entered into force in 1961, remains a stable legal framework and will continue to be, although the region is entangled in wider global geopolitical dynamics. The Cold War context and the military showdown between the two superpowers have laid the groundwork to establish the ATS, making this territory a haven dedicated to peace and science.<sup>3</sup> As Buchanan argues, however, the Antarctic exceptionalism – unique on Earth – appears to be something fragile while this area ‘sits at the intersection of many strategic forces’.<sup>4</sup> All of which connect to the planetary changes affecting Antarctica.<sup>5</sup> Regarding climate change impacts, they are magnified in the polar regions. For instance, temperature rates vary regionally but are at their most rapid in these areas. At the South Pole, the average temperature increase is higher than 1.5°C as the Antarctic Peninsula observed a rise from almost 3°C in the last 50 years.<sup>6</sup> To comprehend how Antarctic geopolitics could mutate in the present and the future, the South Pole becomes subject to ever-greater demands to better manage, regulate, and understand it.<sup>7</sup> Although the Southern Hemisphere is not, in the foreseeable future, the ‘pivot’ of global geopolitics, it is likely to become a stage for events that play out elsewhere. In light of the emerging global confrontation, the new geopolitics is shifting towards the Indo-Pacific and thus is far closer to, and includes parts of, the Southern Hemisphere, exposing de facto the South Pole.<sup>8</sup>

In that context, the Antarctic Peninsula is emerging as a critical geopolitical spot for the coming decades. Ferrada underlines that the geographical closeness between South America and the Antarctic Peninsula may set to become a discussion matter in the future considering the new conditions of international relations (2019).<sup>9</sup> Argentina and Chile are the two States closest to the Antarctic continent. From this perspective, this proximity offers them a strategic and pivotal role in the future governance of the polar territory. For several decades, both countries were politically and scientifically active in the work that has been taking place within the AT Consultative Meetings (ATCMs). In addition, they respectively gather six permanent stations operating all year round and run a main airfield in the Antarctic Peninsula. Since 2004, the AT Secretariat established in Buenos Aires stands as a critical landmark for better positioning the Latin American South Cone. Despite the geopolitical rivalry that both countries have displayed since their independence in the 19<sup>th</sup> century and the nationalistic tone that is still in use, they contribute to expanding joint collaborative work in the Antarctic governance system. To prove their common political ground on the Antarctic stage, they issued among other several joint Chilean-Argentinian papers in the working groups.<sup>10</sup> The scientific, economic, and political stakes for regulating human activities at the South Pole are decisive to building a shared vision between the two countries, while the great powers, such as China, are expanding their struggle to get further influence in the governance structures of this space.

---

<sup>3</sup>Ibid.

<sup>4</sup>Buchanan, ‘The end of Antarctic exceptionalism?’.

<sup>5</sup>Dodds and Boulegue, ‘Ukraine: The impact on international collaboration in the Antarctic’.

<sup>6</sup>WMO, ‘WMO verifies one temperature record for Antarctic continent and rejects another’.

<sup>7</sup>Dodds, ‘Antarctic geopolitics’.

<sup>8</sup>Rogers et al., *Chile and the Southern Hemisphere: Antarctica in Transition*.

<sup>9</sup>Ferrada, ‘Latin America and the Antarctic Treaty System as a legal regime’.

<sup>10</sup>Ibid.

Climate change and a more aggressive geostrategic environment put the Antarctic Peninsula at risk of a potentially more conflictual tipping point in the coming decades. How will Argentina's and Chile's approaches evolve, based on national fundamentals, in a rapidly changing context? When it comes to global geopolitical competition, how will the Antarctic and its status change in the coming decades? What role could be assigned to the two Latin American countries? With regard to these emerging conditions, this article aims to highlight and analyse the issues surrounding the South Pole through the prism of the presence of these two South American states, particularly in the Antarctic Peninsula.

## The long-standing South America-Antarctic conundrum

As above mentioned, the Antarctic Peninsula stands as a singular territory from the rest of the continent due to its geographical proximity to South America and the South Atlantic region. This feature is remarkable for the relevance it acquired over the past two centuries. Thus, some geopolitical conflicts concerning Antarctica have confronted Chile, Argentina, and the United Kingdom. At the expense of the end of the Spanish Empire, the independence process frames the political and territorial conditions in this Antarctic area.

Despite the persistence of the British imperial projections, in 1831, General O'Higgins, the first ruler of the new Republic of Chile (1817–1823), in a letter to the British government, stated the extension of Chile:

Old and new Chile extends in the Pacific from Mejillones Bay at latitude 23°S to new South Shetland at latitude 65°S, and in the Atlantic from the San José Peninsula at latitude 42°S to new South Shetland.<sup>11</sup>

For the first time, the Antarctic Peninsula is incorporated into the Chilean territorial boundaries. This public statement came long before the country officially claimed a sector located between 53°W and 90°W in 1940. Chile thus tripled its surface area, but over territory claimed in part by the United Kingdom and a few years later by Argentina. Based on historical depth, this long-term geopolitical entanglement represents a fundamental fact of this part of Antarctica that surrounds the future of regional stakeholders.

## State-building, identity, geopolitical rivalries: Argentina and Chile in the South Pole

Since its independence from Spain on 9 July 1816, Argentina indicated special attention to its southernmost territory and the South Atlantic. Thus, the country extended its borders with the capture of the Falkland Islands, the gateway to the South Pole. This attraction, facilitated by its geographical location, gradually led the Argentinian authorities to take an interest in Antarctica. This geopolitical ambition is based on two principles: the *uti possidetis* (a principle of customary international law that serves to preserve the boundaries of colonies emerging as States) and the reappropriation of the Spanish legacy (formed by the southward expeditions dated back from 17<sup>th</sup> century) that

---

<sup>11</sup>Romero, 'Presencia de Chile en la Antártica', 36.

best express the country's positioning in its regional claims.<sup>12</sup> Until recently, Argentina referred to this vision to assert a national identity that extends to the South Pole. In 2020, the Argentinian executive power promulgated the Law 27.757 on maritime spaces voted by the Congress which is a revision of the Law 23.968.<sup>13</sup> The new regulation defines the demarcation of the outer limit of the continental and insular Argentine Continental Shelf. Following the promulgation of this law, the official map of the country's territory includes the Antarctic Peninsula to form a bicontinental state.<sup>14</sup> As expected, the publication of this map also sparked fresh diplomatic tensions with Chile.

As Mancilla recalls, Argentina and Chile used their colonial inheritance to legitimise their ties and presence in Antarctica by starting their link as early as the end of the 15<sup>th</sup> century and nurturing this chronological design with all the elements connecting the navigation of the Spanish navy near the Antarctic coasts.<sup>15</sup> While there is no international legal ground to recognise these national doctrines, this retrospective construct is consolidated in the two South American countries. Over the long term, this erected narrative helped to enhance the legitimacy of their claims among their respective domestic audience. To reflect this political vision, all official maps of Argentina and Chile include a sector of the Antarctic continent to uphold their political statement about the nature and value of this polar territory.<sup>16</sup> More broadly, the relationship maintained by both countries for the polar region is similar as both applied 'doctrines of continuity, contiguity, and the sector principle'.<sup>17</sup>

Interestingly, both countries share common ground concerning the United Kingdom in the South Atlantic and Antarctic Peninsula. Starting late 1940s, Argentina and Chile increased their cooperation in light of growing British activities and the U.S. presence in the area.<sup>18</sup> But, because of the prevailing rivalry between the two South American powers, they never achieved establishing a full-fledged alliance against the United Kingdom.<sup>19</sup> This triangle configuration has defined the geostrategic setting since the 19<sup>th</sup> century, with no possibility of forging a common tripartite understanding. This state of affairs has durably crystallised diplomatic frictions, primarily between the United Kingdom and Argentina.

In the South Atlantic region, the Falklands Archipelago is an abscess that harms the dynamics of bilateral relations. While Argentinian territory, the British capture of the Falklands in 1834 established a lasting sticking point between the two countries. The Argentinian authorities have never recognised the legitimacy of the United Kingdom over the archipelago, which recognises the strategic value of its southern projection. In such circumstances, the Falklands military crisis of 1982 recalls the profound ramification of long-standing bilateral antagonistic relations. This geopolitical quagmire reminds the 'volatility' and tensions between Argentina and the United Kingdom over the South Atlantic territories.<sup>20</sup> Yet, the Kirchner era (2003–2015) has tirelessly worked to promote

<sup>12</sup>Szalánczi, '„Antártida Argentina' Argentine interests and activities in the south polar region before the Antarctic Treaty (1820–1959)".

<sup>13</sup>Boletín Oficial (Argentina), *Espacios Marítimos*, Ley 27.557.

<sup>14</sup>Niebieskikwiat, 'El nuevo mapa de la Argentina que ubica a Tierra del Fuego en el centro del país'.

<sup>15</sup>Mancilla, 'South American claims in Antarctica: colonial, malgré tout'.

<sup>16</sup>Cardone, 'Shaping an Antarctic identity in Argentina and Chile'.

<sup>17</sup>Mancilla, 'South American claims in Antarctica: colonial, malgré tout', 30.

<sup>18</sup>Cardone and Fontana, 'Latin-American contributions to the creation of the Antarctic regime'.

<sup>19</sup>Szalánczi, '„Antártida Argentina' Argentine interests and activities in the south polar region before the Antarctic Treaty (1820–1959)".

<sup>20</sup>Joyner, 'Anglo-Argentine Rivalry After the Falklands/Malvinas War: Laws, Geopolitics, and the Antarctic Connection', and Grioffreda, 'Los espacios vitales del sur argentino: el Atlántico Sur y el futuro de la Antártida'.

Argentina's grievance about the Falkland Islands in regional and international forums, including the UN, the Summit of the Americas, and the Organization of American States (OAS). This territorial dispute becomes henceforth consistent with the building of the country's identity. For the Argentines, the issue of sovereignty is not 'settled', and garnering support in international forums is a part of their strategy. Dodds assesses that 'there is little or no prospect, after all, of any Argentinian government renouncing its claim to the sovereignty of these South Atlantic islands, especially if substantial oil and gas revenues are realised'.<sup>21</sup> From the Argentinian point of view, the Falkland Islands act as a strategic lock that limits the projection of the South American country on all its southern flank, and so the Antarctic Peninsula.

For Chile, Antarctica has been a critical territory in the national imagination since the early 20<sup>th</sup> century, a fact compounded when President Gabriel Gonzalez Videla became the first head of state to visit the continent amid the first Chilean Antarctic Expedition (1947–1948). As Roger et al. recall, Chile considers itself a 'tri-continental country' – with territories spanning South America, the Pacific, and Antarctica. In this background of regional rivalry, the nature of Chile's relationship with Argentina has structured the geopolitical conditions of the South Atlantic space. The conflict around the Beagle Strait has kept bilateral tensions over the delimitation of maritime boundaries in the southern zone in the spotlight for many decades.<sup>22</sup> It was not until 1984 and the Treaty of Peace and Friendship (*Tratado de Paz y Amistad de 1984 entre Chile y Argentina*) that resolved the long-standing military dispute between the two countries over the international borders. Later, the Maipú Treaty (*Tratado de Maipú*), signed in 2009, aimed at strengthening their bilateral relations. Since then, the two countries have gone beyond the confrontation level for recognising their southern geographical areas. Regarding Chile, its priority aims to reposition itself as a regional power facing the Indo-Pacific in the 21<sup>st</sup> century.<sup>23</sup>

To prevent potential conflicts, diplomatic mechanisms exist in this large area connecting the South Cone region and the Antarctic Peninsula. This unique triangular relationship at the South Pole, where three state claims overlapped the Antarctic Peninsula, makes it a pivotal gateway for the polar continent, specifically in light of great powers' competition. The geopolitical shifting conditions, set in the first quarter of the 21<sup>st</sup> century, underlined the strategic importance of the 'dynamic political equilibrium' required to maintain geopolitical stability in the extensive geographic area.<sup>24</sup> This remains the case of the thorny issue of the Falklands/Malvinas dispute, which still opposes Argentina to the United Kingdom. To ease tensions around this territorial quarrel around the archipelago, the South Atlantic Council formed in December 1983 intends to encourage communication between the involved populations to seek cooperation and understanding. In the long term, a sustainable and peaceful dispute resolution should yet be achieved between the Argentines, the British, and the Falkland Islanders in the long term.<sup>25</sup> Ultimately, Chile and Argentina agree on general principles such as the

---

<sup>21</sup>Dodds, 'Stormy waters: Britain, the Falkland Islands and UK – Argentine relations', 683–700.

<sup>22</sup>Manzano Iturra, 'La disputa por el canal del Beagle y sus consecuencias geopolíticas para la zona austral-antártica', 799–815.

<sup>23</sup>Rogers et al., *Chile and the Southern Hemisphere: Antarctica in Transition*.

<sup>24</sup>Lorenzo and Roldan, 'The Conservation of Biodiversity: Argentina and Chile at the Commission for the Conservation of Antarctic Marine Living Resources', 177.

<sup>25</sup>Willets, *Delimitation of the Argentine Continental Shelf*.

idea of South American Antarctica and the current Antarctic principles between the two governments. Their bilateral cooperation is primarily characterised by their relationships in the Antarctic,<sup>26</sup> while both countries have influentially contributed to the establishment and consolidation of the legal status of the polar continent.<sup>27</sup> Although competition occurs between the two countries through the symbolism use and the diplomatic relations stimulated towards the great powers, they promote and engage in a constructive approach in regard to their shared interests in the peninsula.

### Science, tourism and resources in the Antarctic Peninsula: evolution of human-Antarctica relationships

The Antarctic Peninsula exemplifies the slow transformation underway at the South Pole, which reflects the evolution of the relationships humans have attributed to a region that long stayed away from the rise of human civilisation. Henceforth, this area is witnessing growth and diversification of human activities. For a century, science continued to be the cornerstone of the human presence in this South Pole area. The implications of scientific research have deepened from understanding life on Earth to anticipating the effects of climate change in the polar region and its global repercussions. In the Antarctic Peninsula area, particularly the South Shetland Islands, several countries established scientific permanent or summer research stations along with Chile and Argentina. In that respect, other Latin American countries (Brazil, Ecuador, Peru, and Uruguay), Russia, the United Kingdom, the United States, and Asian countries (China and South Korea) are among the nations to manage scientific activities in this part of the polar area.<sup>28</sup> One of the central challenges for Argentina and Chile includes the ability to sustain a research policy in the area. This element is prominent for both countries to retain their rightful place as polar stakeholders. In 2015, Chile undertook a decisive step to reframe its Antarctic policy underlining some identified weaknesses, such as the loss of competitive advantage due to a lack of investment in infrastructures and logistics in previous decades to catch up with growing international scientific competition.<sup>29</sup>

Beyond scientific research activities dedicated to peaceful purposes, the Antarctic Peninsula has experienced, for some decades, the surge of activities related to the tourism sector. This development alters the paradigm in the relationship that human society has fostered with the South Pole. In the 1950s, the first tourist activities started, including the first sightseeing flight departing from Chile (1956) and the Antarctic cruise from Ushuaia (1958).<sup>30</sup> Gradually, the Antarctic Peninsula observes a perceptible rise in the number of tourists that comprises the development of cruises and the deployment of tour operators.<sup>31</sup> The growth of the tourism industry in Antarctica has, hitherto, been largely a Western-sourced and controlled industry. Structural changes within that industry,

---

<sup>26</sup>Lorenzo and Roldan, 'The Conservation of Biodiversity: Argentina and Chile at the Commission for the Conservation of Antarctic Marine Living Resources'.

<sup>27</sup>Arpi, 'La relevancia del derecho antártico frente a los desafíos regionales y el papel primordial de Argentina y Chile en su fortalecimiento'.

<sup>28</sup>COMNAP, 'Antarctic Station Catalogue'.

<sup>29</sup>Ministerio de Relaciones Exteriores (Chile), 'Chile en la Antártica: Visión Estratégica al 2035'.

<sup>30</sup>Carey, *Is it time for a paradigm shift in how Antarctic tourism is controlled?*.

<sup>31</sup>Bender et al., 'Patterns of tourism in the Antarctic Peninsula region: a 20-year analysis', 194–203.

including new players and tourists from China and other Asian states, are likely to affect the levels, trajectory, entry routes, and key control points for the industry.<sup>32</sup> For the two South American countries, the control of the expansion of tourism and the ecosystem that is being set up is a further reminder of the need to uphold this legitimacy in the Antarctic Peninsula. Among the tourists, those coming from China travel mainly to the Antarctic Peninsula. The interest of Chinese visitors to the region is linked to the proximity of the first national polar station *Great Wall* station. As a matter of fact, in most of the Chinese travel group charters, this polar station is set as a must-go destination and promoted by Chinese tour agencies in the Antarctic Peninsula materials.<sup>33</sup> Despite the nationalistic tone for sponsoring such travel, 50% of Chinese tourists expressed ‘exploring the unknown Antarctic as the dominant motivation to join an Antarctic expedition’.<sup>34</sup> The Chinese example emphasises that the growth of tourism in this area in the next few decades will rise a fundamental question: the adequacy of the increasing number of visitors, the building of infrastructures to address the demand, and the specific regulatory framework for the conservation of the natural ecosystem. For Argentina and Chile, this is a critical challenge, while other activities could add complexity to the management of this territory.

### **The long journey to unlock the mineral resources potential**

The Antarctic mineral resources may appear distant from contemporary Antarctic geopolitics in spite of the issue of mineral resource extraction opens up new perspectives in the long term due to ecological transition policies that require further raw material needs.<sup>35</sup> From a geological perspective, the Antarctic continent is divided into three metallogenic provinces. The Antarctic Peninsula belongs to the Andean metallogenic provinces that share a geological continuity with the South American continent. By analogy with the Andes, the Antarctic Peninsula appears to be one of the locations in Antarctica having significant base metal deposits and potential associated gold and silver (U.S. Congress 1989).<sup>36</sup> As Curtin et al. stated, the question is not about minerals’ existence in Antarctica but rather the viability of extracting them on economic, social, and political grounds (2003).<sup>37</sup> In the Antarctic Peninsula, copper, molybdenum (occasionally with gold), lead, and zinc have been found where potential reserves are located in the most accessible area in the polar continent.<sup>38</sup>

In 1980, negotiations among the Antarctic Treaty Parties began to construct an agreement that could regulate mining activities and their environmental impacts in Antarctica. The diplomatic discussions were pre-emptive, whereas some companies expressed interest in considering the possibility of leading extractive activities. There had been no mining in Antarctica, although minerals and hydrocarbons had been

---

<sup>32</sup>Hemmings, ‘Antarctic politics in a transforming global geopolitics’.

<sup>33</sup>Cheung et al., ‘The growth of Chinese tourism to Antarctica: a profile of their connectedness to nature, motivations, and perceptions’.

<sup>34</sup>Ibid, 204.

<sup>35</sup>Vidal et al., ‘Global Trends in Metal Consumption and Supply: The Raw Material – Energy Nexus’, 319–324.

<sup>36</sup>US Congress, *Polar Prospects: A Minerals Treaty for Antarctica*.

<sup>37</sup>Curtis et al., *Resources in Antarctica: With the World’s dwindling natural resources, is there a chance for exploitation in Antarctica?*.

<sup>38</sup>Ibid, and Wright and Williams, *Mineral Resources of Antarctica*.

discovered in the region, no mineable deposits had been proven, and there were no active prospects afoot. The negotiations to regulate Antarctic mineral activities continued through the decade, but there was increasing agitation from environmental non-government organisations (NGOs) to ban mining in Antarctica. Among Antarctic claimant states, France and Australia firmly opposed this move in the South Pole area. The agreement to the Convention on the Regulation of Antarctic Mineral Activities (also known as the Wellington Convention) was concluded in June 1988.<sup>39</sup> However, the lack of a sufficient number of countries to ratify the document failed to bring a key diplomatic breakthrough.<sup>40</sup> Instead, the Protocol on Environmental Protection to the Antarctic Treaty (also referred as the Madrid Protocol, 1991) replaced the previously negotiated agreement.<sup>41</sup> Article 7 of the protocol establishes the principle of a broad ban on the exploitation of mineral resources. Consequently, exploration and exploitation are limited to scientific activities. As Choquet recalls: ‘an exclusive right to mining activities is granted to scientists’.<sup>42</sup> After 1990s, no research publication on Antarctica’s mineral potential has been released preventing further economic prospecting.<sup>43</sup>

The current provision in the Madrid Protocol, non-negotiable until at least 2048, makes unlikely the possibility of overturning the prohibition on mining and thus unless a radical geopolitical shift.<sup>44</sup> From that scenario, great powers may nurture strategies to facilitate breaking the current legal conditions and fill a new framework. Due to the high complexity of initiating the review process in 2048, there is a low prospect for radically changing the legal framework on restrictive conditions of using mineral resources. Even then, the prohibition on mining activities of Antarctic mineral resources would remain in place unless a mandatory legal regime is in force concerning them.<sup>45</sup> In contrast to this perspective, no known extraction activities are taking place in Antarctica despite some stakeholders asserting that various scientific activities conducted by China and Russia may lay the groundwork for future mineral extraction.<sup>46</sup> In the meantime, such countries could advocate to shift the current ban with a more permissible ban that may allow non-commercial mineral resource prospecting opening the way for surveys and exploration drilling.<sup>47</sup>

Notwithstanding, an implemented rule would not be enough if there is no political determination to respect it in the long term.<sup>48</sup> Beyond the legal dimension of the ATS, the future governance consideration will be challenged in the coming decades about the potential industrial exploitation of mineral resources in the Antarctic Peninsula, leaving Argentina and Chile de facto subject to mounting geostrategic pressure.

---

<sup>39</sup>‘Convention on the Regulation of Antarctic Mineral Resource Activities’.

<sup>40</sup>Choquet, ‘Interdiction de l’exploitation minière en Antarctique, une réalité menacée ?’.

<sup>41</sup>*Protocol on Environmental Protection to the Antarctic Treaty*.

<sup>42</sup>Choquet, ‘Interdiction de l’exploitation minière en Antarctique, une réalité menacée ?’, 52.

<sup>43</sup>Talalay and Zhang, ‘Antarctic mineral resources: Looking to the future of the Environmental Protocol’.

<sup>44</sup>Press and Bergin, ‘Coming into the Cold: China’s interests in the Antarctic’, 561.

<sup>45</sup>Choquet, ‘Interdiction de l’exploitation minière en Antarctique, une réalité menacée ?’.

<sup>46</sup>Seikh et al., *Antarctica: Overview of Geopolitical and Environmental Issues*.

<sup>47</sup>Talalay and Zhang, ‘Antarctic mineral resources: Looking to the future of the Environmental Protocol’.

<sup>48</sup>Choquet, ‘Interdiction de l’exploitation minière en Antarctique, une réalité menacée ?’.

**Table 1.** Key characteristics of Ushuaia (Argentina) and Punta Arenas (Chile)<sup>57</sup>.

	Ushuaia	Punta Arenas
Establishment	1884	1848
Inhabitants	67,600	125,000
Administrative status	Capital of the Argentinian province of Tierra del Fuego, Antarctic and South Atlantic Islands	Capital of the Magallanes y la Antártica Chilena Region
Distance from Antarctic (km)	About 1,000	About 1,300
Development and strategic policy	<ul style="list-style-type: none"> <li>• Most attractive bridgehead for Antarctic tourism (90% of the more 35,000 tourists who travel per year)</li> <li>• Key role for sharing scientific knowledge and Antarctic identity</li> <li>• Further economic and social involvement for the local community</li> </ul>	<ul style="list-style-type: none"> <li>• Key site and principal point of entry for scientific missions</li> <li>• Over 20 countries use Punta Arenas as a gateway to the Antarctic</li> <li>• New development plan for improving infrastructure</li> <li>• Further support to strengthen Antarctic identity among the local community</li> </ul>

### **Punta Arena v. Ushuaia: the great hub competition**

To respond to the growing operations on the Antarctic Peninsula, Argentina and Chile rely on a harbour settlement to ensure access to the polar territory – respectively, Ushuaia and Punta Arenas (see Table 1). As previously stated, Argentina and Chile share a feverish history marked by episodes of notorious border and territorial disputes. From that perspective, Ushuaia and Punta Arenas were spots of border disputes related to the regions of Southern Patagonia and the island of Tierra del Fuego. Despite the difference in size and location, the two port cities undergo a similar process of territorial construction within their respective national groups. These cities were built to demonstrate the advance of the Argentinian and Chilean territorial conquests in the great south and to control the ship traffic in the Atlantic-Pacific straits (Magellan and Beagle). Therefore, they are cities of the conquest of the southernmost frontier of America that, over time, have become command centres dedicated to the control and valuation in these remote territories.<sup>49</sup>

Since the second half of the 20<sup>th</sup> century, Ushuaia and Punta Arenas, located in the extreme south of the American continent at the edge of the world and labelled as *finibusterres*,<sup>50</sup> are also two gateways leading to the polar continent. The twin gateways achieve, therefore, a corresponding territorial function within their respective national boundaries.<sup>51</sup> Their location makes them perfectly fit to turn as a critical bridge towards the Antarctic Peninsula. For Ushuaia, its journey started at the end of the 19<sup>th</sup> century, with Argentina carrying out Antarctic initiatives in order to erect the southern port settlement as a national symbolic landmark. At the same time, Punta Arenas in Chile and Hobart in Australia also showed their prominence as strategic ports in the itineraries of expeditions and national policies of each country.<sup>52</sup> From a political standpoint, Argentina and Chile are defined as ‘bridge countries’ to the Antarctic Peninsula since

<sup>49</sup>Carrizo and Velut, ‘Nouvelles territorialités en Amérique australe. Activités énergétiques et intégration dans les terres et les mers magellanes’.

<sup>50</sup>*Finibusterres* literally means ‘at the ends of the earth’.

<sup>51</sup>Guyot, ‘La construcción territorial de cabezas de puente antárticas rivales: Ushuaia (Argentina) y Punta Arenas (Chile)’.

<sup>52</sup>Trezza, ‘El papel de Ushuaia en la política antártica argentina y la influencia del capitalismo en la ciudad a través del turismo antártico en el siglo XX’.

a significant part of the activities of other countries on this side of the continent must, at one time or another, pass through the facilities and infrastructure of Punta Arenas and Ushuaia.<sup>53</sup>

The connection with Antarctica activates their function as port gateways to the South Pole due to geographic proximity and international connectivity. In fact, the toponymy of the two southernmost administrative regions of Chile and Argentina refers to the Antarctic territory respectively: Region of Magallanes and Chilean Antarctica, and Province of Tierra del Fuego – Antarctica and South Atlantic Islands.<sup>54</sup> Beyond the political and administrative status, the two port cities also play a critical function in carrying out rescue missions at sea, including the presence of the Joint Antarctic Naval Patrol (PANC) and joint exercises within the Antarctic Combined Rescue Patrol Argentina-Chile (PARACACH). Their interoperability seeks to improve rescue emergency response capabilities in the areas where their bases operate, as well as search and rescue planning, but it also demonstrates robust bilateral cooperation beyond the brewing geoeconomic rivalry.<sup>55</sup>

Both cities belong to a wider process of emerging Antarctic cities plugging the polar region into the rest of the world. Ushuaia and Punta Arenas are rising as prime logistic and economic hubs in the coming decades. As Salazar et al. pointed out from their research project, inhabitants from both cities expressed their ‘hope’ in light of their future development as part of the Antarctic and no longer as a gateway.<sup>56</sup> In short, the confidence in the future of these two cities leads the official authorities to keep on and extend the influence promised by the awaited mutations over the next few decades.

## Into the nets of the great power competition

Due to their geographical position, Argentina and Chile uncover them to global geopolitical dynamics. The ensuing Earth system transformations might create new opportunities for the leading economic and military powers in a region previously isolated from international tensions. The Antarctic Peninsula is likewise in the net of the geostrategic competition that is taking place at the planetary level opposing the United States and China. Both are leading a fierce struggle for economic, political, and military primacy. Since the beginning of the 21<sup>st</sup> century, the speeding up of global competition between the great powers expanded to new spheres, including the polar areas. Such a dynamic could shake the international order and directly affect the South Pole, which is no longer insulated from the global reshaping that is taking place.<sup>58</sup> In general, the interest in Antarctica is a fairly new phenomenon. But in light of technological advancement and the growing need for natural resources, this new paradigm dramatically changes this perception. All these combined factors may generate a powerful attraction towards the

<sup>53</sup>Salazar Urrutia, ‘La República Popular de China en la Antártida y su acercamiento diplomático a Argentina y Chile’.

<sup>54</sup>Guyot, ‘La construcción territorial de cabezas de puente antárticas rivales: Ushuaia (Argentina) y Punta Arenas (Chile)’.

<sup>55</sup>Sanchez, ‘Argentina, Chile and the Joint Antarctic Naval Patrol: a successful confidence building mechanism’.

<sup>56</sup>Salazar et al., ‘Custodians of Antarctica: how 5 gateway cities are embracing the icy continent’.

<sup>57</sup>Comparative table based on Salazar et al., ‘Five cities that could change the future of Antarctica’; Salazar et al., ‘Custodians of Antarctica: how 5 gateway cities are embracing the icy continent’; and Trezza, ‘El papel de Ushuaia en la política antártica argentina y la influencia del capitalismo en la ciudad a través del turismo antártico en el siglo XX’.

<sup>58</sup>Lord, ‘The Antarctic Treaty System and the peaceful governance of Antarctica: the role of the ATS in promoting peace at the margins of the world’.

Antarctic Peninsula. While powers like France and Russia have long been leading scientific activities in the region, Asian powers such as India, South Korea, and China are emerging as competitors due to their economic influence, technical capacity, and confidence in their geopolitical aspirations. This state of affairs gives these countries a competitive advantage to increase their presence in the future.<sup>59</sup>

In the case of China, this began earlier in the 1980s when it acceded to the Antarctic Treaty in 1983 and the first Chinese research expedition was sent to the Antarctic Peninsula region. Then, the country established its first permanent Antarctic scientific base, named *Great Wall*, in 1985, located on King George Island in the South Shetland Islands and initiated a gradual geostrategic positioning of the People's Republic of China (PRC) in West Antarctica in close connection with the mainly Chilean installations on this island. The Antarctic Peninsula signalled China's active entry into the polar geopolitical arena. If Chile closely assisted China's earliest incursion in Antarctica, other South American countries – notably Argentina – have entered into collaborative relationships with China.<sup>60</sup>

This trend has since been confirmed at the South Pole and reveals a gradual rise in Chinese expertise in the polar regions. Since the dawn of the 21<sup>st</sup> century, China remains the only country to build research stations and tends to be more engaged and influential in technical and scientific Antarctic fora (e.g. the Council of Managers of National Antarctic Programs – COMNAP; and the Scientific Committee for Antarctic Research – SCAR), and in the premises of the ATS. This incremental expansion of Chinese involvement within working groups confirms their insertion in Antarctic affairs.<sup>61</sup> China is diversifying its activities in Antarctica by betting on the economic dimension to strengthen its presence: the country has increased krill fishing and expanded tourism in the region.<sup>62</sup> The Antarctic Peninsula, therefore, seems to be the most appropriate access for expanding its footprint on this continent and requires securing its influence in Latin America.

Taking in a broader context, security cooperation between China and South America is part of the PRC's overall strategy to consolidate its status as a great power. Although the Belt and Road Initiative serves Chinese interest for its global projection, Beijing's approach with Latin American countries continues to focus primarily on economic ties.<sup>63</sup> Nonetheless, scientific and military matters are also included in the growing Chinese footprint, including in Argentina and Chile. For instance, Argentina granted a 200-hectare facility in Neuquén province, in 2015, for building the first Chinese space monitoring station outside the Chinese territory and thus for 50 years.<sup>64</sup>

For Argentina and Chile, the increase in Chinese presence and activities directly affects the policy and strategy of these two South American countries. Their pre-positioning on the Antarctic Peninsula makes these two countries unavoidable lock

---

<sup>59</sup>Hemmings, 'Antarctic politics in a transforming global geopolitics'.

<sup>60</sup>Salazar Urrutia, 'La República Popular de China en la Antártida y su acercamiento diplomático a Argentina y Chile'.

<sup>61</sup>Hemmings, 'Antarctic politics in a transforming global geopolitics'.

<sup>62</sup>Seikh et al., *Antarctica: Overview of Geopolitical and Environmental Issues*.

<sup>63</sup>Jenne, 'Cooperación en seguridad con los países sudamericanos: Un área de rivalidad entre Estados Unidos y China, no de conflicto', 179, and Manela, 'La evolución de la gran estrategia de China y su impacto en las relaciones con América Latina'.

<sup>64</sup>Jenne, op. cit., 191.

states in the deployment of China's strategy in Antarctica, but also of the other great powers, first and foremost the United States. China maintains and develops economic and political relations with the two South American countries. Separately, Argentina and Chile welcome the development of a strategic partnership with Beijing.<sup>65,66</sup> These relations are aimed at the polar dimension of this varied cooperation, on the one hand, and are part of the Latin American strategy developed by China, on the other. To this end, Chinese diplomacy has developed several frameworks for dialogue with its Chilean and Argentinian partners. For instance, in 2019, China began talks with Chile to use the port of Punta Arenas to receive its ships and as a stage for Antarctic exploration. Negotiations on the agreement took place at the first meeting of the Chile-China Joint Cooperation Committee on Antarctica.<sup>67</sup> As for Argentina, the official support of the Chinese authorities for the country's sovereignty over the Falkland Islands emphasises the strategic nature of this bilateral partnership.<sup>68</sup> The consistent and intense use of bilateral dialogue – Sino-Chilean and Sino-Argentinian – strengthens the bonds of trust and develops shared work practices in this area. In other words, Chinese authorities favour parallel and balanced diplomacy as the bilateral strategy does not include a three-way approach. This attitude allows China not to create competition between its two partners. As a result, China may rely on two distinct channels for settling itself lastingly in the Antarctic Peninsula and widely applying its polar strategy.

China refers to Antarctica as a key geostrategic space, although the Antarctic Treaty's requirements forbid militarising the area.<sup>69,70</sup> Among its long-term priorities, the PRC aims to reach its potential resources. Concerning their plans for exploiting mineral resources, China has worked tirelessly within existing rules, grey areas, or in outright breach, to establish dual-use capabilities for explicit development in the future.<sup>71</sup> Chinese authorities have stated the desire to have future 'equitable access' to Antarctic minerals.<sup>72</sup> Indeed, the PRC is anticipating Antarctica's potentially sizeable resources, including minerals, as a potential store to supply Chinese industrial heartlands.<sup>73</sup>

Through the South American gateway, China is keen to establish itself on a long-term basis and to pursue the establishment of its legitimacy on the Antarctic scene. On an operational level, China makes use of existing infrastructure to provide increased logistical support for its Antarctic stations. In this regard, Chile's Punta Arenas and Argentina's Ushuaia represent successful cases to support Chinese activities. Those two cities serve as the primary ports where tourist ships sail to and from Antarctica.<sup>74</sup> On a diplomatic level, the PRC's approach is engaging relevant countries economically to leverage political support against the day that the Antarctic Treaty will be renegotiated.

---

<sup>65</sup>Ministerio de Relaciones Exteriores, Comercio Internacional y Culto (Argentina), 'Argentina y la República Popular China profundizan sus vínculos de cooperación'.

<sup>66</sup>Ministerio de Relaciones Exteriores (Chile), 'Programas Antárticos de Chile y China inician nueva etapa de cooperación'.

<sup>67</sup>Salazar Urrutia, 'La República Popular de China en la Antártida y su acercamiento diplomático a Argentina y Chile'.

<sup>68</sup>Ministerio de Relaciones Exteriores, Comercio Internacional y Culto (Argentina), 'Declaración Conjunta entre la República Argentina y la República Popular China sobre la Profundización de la Asociación Estratégica Integral Argentina-China'.

<sup>69</sup>Brady, 'China's undeclared foreign policy at the poles'.

<sup>70</sup>Article 1, *Antarctic Treaty*.

<sup>71</sup>Yermakova, 'The future of the white continent and the need for its democratisation'.

<sup>72</sup>Press and Bergin, 'Coming into the Cold: China's interests in the Antarctic', 351.

<sup>73</sup>Rogers et al., *Chile and the Southern Hemisphere: Antarctica in Transition*.

<sup>74</sup>*Ibid.*

While China seeks to increase its influence in governance processes and decisions, in the long run, the renegotiation of the ATS over the next few decades could reflect the advent of new balances of power at the South Pole. Lastly, Argentina and Chile are gradually being integrated into China's diplomatic and operational system, enabling it to secure a permanent foothold in the Antarctic Peninsula.

### **A potential choke point?**

In light of these geopolitical dynamics, the stretch separating the South Cone from the Antarctic Peninsula may shift towards a more geostrategic spot in the coming decades. However, based on the conventional criteria of a 'choke point',<sup>75</sup> this 1,000 km wide stretch does not fit this definition in contemporary geopolitics. In this respect Palàs gives the following meaning: 'a geographical area with strategically-military valences, whose possession gives control over communication routes of any kind within a significant geographic region'.<sup>76</sup> In addition, this maritime space does not stand as a key passage for commercial traffic. Since 1914, the Panama Canal has displayed a critical node for connecting the Atlantic to the Pacific Ocean while benefiting the U.S. economic expansion.<sup>77</sup> Notwithstanding, the South Cone includes a few 'choke points', such as the Magellan Strait and the Falkland Islands, as abovementioned. However, Lewis reminds the term 'choke point' has been seen 'as a relative, rather than an absolute concept'.<sup>78</sup> Thus, this notion holds intellectual and scientific flexibility that can evolve. Based on this observation, the climatic and geopolitical alteration conditions enable us to speculate on the emergence of a choke point in the South Atlantic region.

Against the backdrop of the current global trade, the South Atlantic region does not pin as a vital spot for sea lanes.<sup>79</sup> Nonetheless, this area connecting the two ocean systems may see its status evolve due to the shifting conditions. Considering the brewing confrontation between the United States and China, this stretch may become a potential flashpoint as this geopolitical rift deepens in the 21<sup>st</sup> century. The opening question lies in the potential choke points in the Antarctic Peninsula, where multiple national interests are intertwined. The territory of the Antarctic Peninsula is made up of several archipelagos that entangle the three claimant states and other countries owning scientific stations in the area. In a scenario of destabilising the post-1945 international legal order, further increasing scientific and potentially economic activities in the Antarctic Peninsula may contest the Chilean and Argentinian security presence. According to this paradigm, instead of seeing the whole South Atlantic as a choke point, it should be comprehended as a network of choke points.

### **Conclusion: the Antarctic Peninsula, the dawn of the transformation era**

The Antarctic, similarly to the Arctic, is associated with the most iconic impacts: ice melts and the resulting sea level rise. The South Pole is a critical spot to curtail further climate

---

<sup>75</sup>Lewis, 'The role of choke points in the ocean context'.

<sup>76</sup>Palàs, 'The geostrategic choke points of Bosphorus and Dardanelles in the context of the New Silk Road', 65.

<sup>77</sup>Maurer and Rauch, 'Economic Geography Aspects of the Panama Canal'.

<sup>78</sup>Lewis, 'The role of choke points in the ocean context', 509.

<sup>79</sup>Aaltola et al., *Towards the Geopolitics of Flows*.

change consequences that may jeopardise human societies in the coming centuries.<sup>80</sup> The Antarctic Peninsula will likely play its part as ‘predicted warming could result in up to a three-fold increase in the area of ice-free ground in the central and northern’ areas.<sup>81</sup> As Lee et al. observed, the Antarctic Peninsula has experienced one of the most rapid temperature rises in the Southern Hemisphere that may stand as one of ‘the greatest projected future changes in climate by the end of the century’.<sup>82</sup> For instance, projections indicate that the South Orkney Islands are likely to become completely ice-free in most melt scenarios leading to a whole transformation of the physical environment, namely biodiversity change.<sup>83</sup> These changing global conditions under the impulse of anthropogenic climate change are challenging the physical borders of the planet. The emergence of these new boundaries will question human political boundaries that rose during the Holocene as the Earth system no longer functions as a stable and passive ground.<sup>84</sup> According to this long-term assumption, the Antarctic Peninsula may become a future geographical landmark for human civilisation. To put it another way, human communities may cope with new geographic spaces on Earth that could become vital for a sustainable civilisation. In those circumstances, Antarctica as a remoted terrestrial space remains, yet a boundary, in the same way as the marine world, in the arrangement of the living spaces of human settlements.<sup>85</sup>

Relations between the South Pole and the humans started to be increasingly developed throughout the 19<sup>th</sup> century as scientific missions and expeditions expanded. In the absence of native populations, neither permanent settlers, Argentina and Chile are prime examples of a narrative design that links the respective national identity of these countries to this vast continent. As Senatore recalls, human-thing entanglement in Antarctica has progressively grown ‘in complexity and scale to an extent from which disengagement has become difficult’.<sup>86</sup> Indeed, thanks to technological advancement, humans succeeded in settling in Antarctica by setting up permanent scientific bases. Also, technology has made it a lot less remote, and as humans have begun to be able to do things there beyond the shareable public goods of scientific research, new economic interests have emerged.<sup>87</sup>

In the long term, the geopolitical effects will be disrupted due to the intertwining of the climate component as a transformative factor. By the end of the century, the Antarctic Peninsula will undergo significant changes in its status under the mounting pressure of the economic, political, and military face-off between China and the United States. This pressure will directly impact the legal system at work in Antarctica and will push the claimant states into a new geopolitical paradigm, starting with Argentina and Chile. Until now, the ATS succeeded in managing ‘the uniquely complicated situation of territorial claims’.<sup>88</sup> Thus, as long as the

---

<sup>80</sup>On the coming threats related to profound environmental change see Dodds, *Border Wars*.

<sup>81</sup>Hugues et al., ‘Developing resilience to climate change impacts in Antarctica: An evaluation of Antarctic Treaty System protected area policy’.

<sup>82</sup>Lee et al., ‘Climate change drives expansion of Antarctic ice-free habitat’.

<sup>83</sup>Ibid.

<sup>84</sup>Lövbrand, ‘The Anthropocene and the geo-political imagination: Re-writing Earth as political space’.

<sup>85</sup>Vidal, ‘The Anthropocene New Stage: The Era of Boundaries’.

<sup>86</sup>Senatore, ‘Things in Antarctica. An archaeological perspective’.

<sup>87</sup>Hemmings, ‘Antarctic politics in a transforming global geopolitics’.

<sup>88</sup>Lord, ‘The Antarctic Treaty System and the peaceful governance of Antarctica: the role of the ATS in promoting peace at the margins of the world’, 4.

Treaty is in force, territorial issues are on hold, freezing the awakening of a diplomatic conflict between the Antarctic powers, especially in the Antarctic Peninsula. This condition is arguably the weak point of the Antarctic Treaty: more than the long-term resolution of territorial disputes, this legal framework masks them. One of the greatest challenges for the coming decades will be the ability of the actors to maintain the effectiveness of Antarctic institutions while ‘shifts in governance processes do not seem feasible in the short term and will need consideration of feasible timelines’.<sup>89</sup> In that respect, external drivers – from geopolitical competition to geological shift – will decisively affect the two South American countries towards their southerner areas. These extensive dynamics will encapsulate Argentina and Chile, both domestically and internationally.

Overall, the Antarctic Peninsula sets the case for demonstrating the complexity that the impacts and implications of accelerating global change may undergo. As for now, future scenarios remain to be undertaken through refined processes and a supported interdisciplinary approach.<sup>90</sup> This emerging state of affairs sets the stage for a weakening of the position of Argentina and Chile in the Antarctic Peninsula, which must consider the multiplier, non-linear effects of the changes that will take place in this polar region.

## Disclosure statement

No potential conflict of interest was reported by the author.

## ORCID

Florian Vidal  <http://orcid.org/0000-0002-6499-7546>

## Bibliography

- Aaltola, M., J. Käpylä, H. Mikkola, and T. Behr. *Towards the Geopolitics of Flows. Implications for Finland*. Helsinki: Finnish Institute of International Affairs, 2017.
- Antarctic Treaty*, 1 December 1959, 402 UNTS.
- Arpi, B. “La relevancia del derecho antártico frente a los desafíos regionales y el papel primordial de Argentina y Chile en su fortalecimiento.” *Revista Tribuna Internacional* 10, no. 20 (2021): 69–88. doi:10.5354/0719-482X.2021.65595.
- Bender, N., K. Crosbie, and H. Lynch, “Patterns of Tourism in the Antarctic Peninsula Region: A 20-Year Analysis.” *Antarctic Science* 28, no. 3 (2019): 194–203. doi:10.1017/s0954102016000031.
- Boletín Oficial (Argentina), Espacios Marítimos, Ley 27.557, August 25, 2020. Accessed February 22, 2023: <https://www.boletinoficial.gob.ar/detalleAviso/primera/234033/20200825>.
- Brady, A.-M., “China’s Undeclared Foreign Policy at the Poles” *The Interpreter*, May 30, 2017. Accessed February 20, 2023. <https://www.lowyinstitute.org/the-interpreter/china-s-undeclared-foreign-policy-poles>.
- Buchanan, E., “The End of Antarctic Exceptionalism?” *The Interpreter*, March 18, 2022. Accessed August 20, 2022. <https://www.lowyinstitute.org/the-interpreter/end-antarctic-exceptionalism?s=03>.
- Cardone, I.J. “Shaping an Antarctic Identity in Argentina and Chile.” *Defense Strategic Communications* 8, no. 8 (2020): 53–88. doi:10.30966/2018.RIGA.8.2.

<sup>89</sup>Frame, ‘Towards an Antarctic scenarios integrated framework’, 16.

<sup>90</sup>Frame et al., ‘Antarctica’s Gateways and Gatekeepers: Polar scenarios in a polarising Anthropocene’, 1–11.

- Cardone, I.J., and P.G. Fontana. "Latin-American Contributions to the Creation of the Antarctic Regime." *The Polar Journal* 9, no. 2 (2019): 300–23. doi:10.1080/2154896X.2019.1685174.
- Carey, P.W. *Is It Time for a Paradigm Shift in How Antarctic Tourism is Controlled?*. Washington: Wilson Center, 2020. Polar Perspectives no. 1.
- Carrizo, S., and S. Velut. "Nouvelles territorialités en Amérique australe. Activités énergétiques et intégration dans les terres et les mers magellanes." *Espace Géographique* 34, no. 2 (2005): 161–75. doi:10.3917/eg.342.0161.
- Cheung, W., T. Bauer, and J. Deng. "The Growth of Chinese Tourism to Antarctica: A Profile of Their Connectedness to Nature, Motivations, and Perceptions." *The Polar Journal* 9, no. 1 (2019): 197–213. doi:10.1080/2154896X.2019.1618552.
- Choquet, A. "Interdiction de l'exploitation minière en Antarctique, une réalité menacée ?" *Natures Sciences Sociétés* 26, no. 1 (2018): 49–59. doi:10.1051/nss/2018016.
- COMNAP, "Antarctic Station Catalogue," Council of Managers of National Antarctic Programs (New Zealand), (2017), [https://static1.squarespace.com/static/61073506e9b0073c7eaaf464/t/611497cc1ece1b43f0eeca8a/1628739608968/COMNAP\\_Antarctic\\_Station\\_Catalogue.pdf](https://static1.squarespace.com/static/61073506e9b0073c7eaaf464/t/611497cc1ece1b43f0eeca8a/1628739608968/COMNAP_Antarctic_Station_Catalogue.pdf).
- "Convention on the Regulation of Antarctic Mineral Resource Activities." Accessed on February 22, 2023: [https://documents.ats.aq/recatt/Att311\\_e.pdf](https://documents.ats.aq/recatt/Att311_e.pdf).
- Curtin, R., M. Hayes, A. Jakob, H. McClatchy, and N. Schleich. *Resources in Antarctica: With the World's Dwindling Natural Resources, is There a Chance for Exploitation in Antarctica?*. Christchurch: University of Canterbury, GCAS, 2003. Syndicate Report: Antarctic Resources, 2004).
- Dodds, K. "Stormy Waters: Britain, the Falkland Islands and UK–Argentine Relations." *International Affairs* 88, no. 4 (2012): 683–700.
- Dodds, K. "Antarctic Geopolitics." In *Handbook of the Politics of Antarctica*, ed. K. Dodds, A. Hemmings, and P. Roberts, 199–214. Cheltenham: Edward Elgar Publishing, 2017.
- Dodds, K. *Border Wars. The Conflicts That Will Define Our Future*. London: Ebury Press, 2021.
- Dodds, K., and M. Boulegue, "Ukraine: The Impact on International Collaboration in the Antarctic," *Council on Geostrategy*, July 6, 2022. Accessed August 20, 2022. <https://www.geostrategy.org.uk/britains-world/ukraine-the-impact-on-russias-posture-and-international-collaboration-in-the-antarctic/>
- Ferrada, L.V., "Latin America and the Antarctic Treaty System as a Legal Regime." *The Polar Journal* 9, no. 2 (2019): 286–99. doi:10.1080/2154896X.2019.1685185.
- Frame, B. "Towards an Antarctic Scenarios Integrated Framework." *The Polar Journal* 10, no. 1 (2020): 3–21. doi:10.1080/2154896X.2020.1757822.
- Frame, B., Y. Yermakova, P. Flamm, G. Nicklin, G. De Paula, R. Badhe, and F. Tuñez. "Antarctica's Gateways and Gatekeepers: Polar Scenarios in a Polarising Anthropocene." *The Anthropocene Review* 9, no. 3 (2021): 1–11. doi:10.1177/20530196211026341.
- Gioffreda, C. "Los espacios vitales del sur argentino: el Atlántico Sur y el futuro de la Antártida." *URVIO, Revista Latinoamericana de Estudios de Seguridad* no. 30 (2021): 40–57. doi:10.17141/urvio.30.2021.4609.
- Guyot, S. "La construcción territorial de cabezas de puente antárticas rivales: Ushuaia (Argentina) y Punta Arenas (Chile)." *L'Espace Politique* 9, no. 18 (2013): 11–38. doi:10.4000/espacepolitique.2466.
- Hemmings, A. "Antarctic Politics in a Transforming Global Geopolitics." In *Handbook of the Politics of Antarctica*, ed. K. Dodds, A. Hemmings, and P. Roberts, 507–22. Cheltenham: Edward Elgar Publishing, 2017.
- Hughes, K.A., P. Convey, and J. Turner. "Developing Resilience to Climate Change Impacts in Antarctica: An Evaluation of Antarctic Treaty System Protected Area Policy." *Environmental Science & Policy* 124 (2021): 12–22. doi:10.1016/j.envsci.2021.05.023.
- Jenne, N., "Cooperación en seguridad con los países sudamericanos: Un área de rivalidad entre Estados Unidos y China, no de conflicto," In *China y América Latina: claves hacia el futuro*, Ed., J. Sahd, (Santiago de Chile: Centro de Estudios Internacionales UC, 2021), 174–199. In *China y América Latina: claves hacia el futuro*, Ed., J. Sahd, (Santiago de Chile: Centro de Estudios Internacionales UC, 2021), 174–199.

- Joyner, C.C. “Anglo-Argentine Rivalry After the Falklands/Malvinas War: Laws, Geopolitics, and the Antarctic Connection.” *University of Miami Inter-American Law Review* 15, no. 3 (1984): 467–502.
- Lee, J., B. Raymond, T. Bracegirdle, I. Chadès, R. Fuller, J. Shaw, and A. Terauds. “Climate Change Drives Expansion of Antarctic Ice-Free Habitat.” *Nature* 547, no. 7661 (2017): 49–54. doi:10.1038/nature22996.
- Lewis, A.M. “The Role of Choke Points in the Ocean Context.” *GeoJournal* 26 (1992): 503–09.
- Lord, T. “The Antarctic Treaty System and the Peaceful Governance of Antarctica: The Role of the ATS in Promoting Peace at the Margins of the World.” *The Polar Journal* 10, no. 1 (2020): 22–51. doi:10.1080/2154896X.2020.1757821.
- Lorenzo, C., and G. Roldán. “The Conservation of Biodiversity: Argentina and Chile at the Commission for the Conservation of Antarctic Marine Living Resources.” In *Latin America in Times of Global Environmental Change*, ed. C. Lorenzo, 171–81. Cham: Springer, 2019.
- Lövbrand, E., M. Mobjörk, and R. Söder. “The Anthropocene and the Geo-Political Imagination: Re-Writing Earth as Political Space.” *Earth System Governance* 4 (2020): 100051. doi:10.1016/j.esg.2020.100051.
- Mancilla, A. “South American Claims in Antarctica: Colonial, *Malgré Tout*.” *The Polar Journal* 12, no. 1 (2022): 22–41. doi:10.1080/2154896X.2022.2062558.
- Manela, J. “La evolución de la gran estrategia de China y su impacto en las relaciones con América Latina.” *COLECCIÓN* 31, no. 1 (2020): 37–52.
- Manzano Iturra, K.I. “La disputa por el canal del Beagle y sus consecuencias geopolíticas para la zona austral-antártica.” *Revista Científica General José María Córdova* 19, no. 35 (2021): 799–815. doi:10.21830/19006586.786.
- Maurer, S., and F. Rauch, “Economic Geography Aspects of the Panama Canal,” CEPR Discussion Paper No. DP13820, June 2019. Accessed September 5, 2022: <https://ssrn.com/abstract=3428340>.
- Ministerio de Relaciones Exteriores, Comercio Internacional y Culto (Argentina), “Declaración Conjunta entre la República Argentina y la República Popular China sobre la Profundización de la Asociación Estratégica Integral Argentina-China”, February 6, 2022. Accessed February 22, 2023: <https://cancilleria.gob.ar/es/actualidad/noticias/declaracion-conjunta-entre-la-republica-argentina-y-la-republica-popular-china>.
- Ministerio de Relaciones Exteriores (Chile), “Chile en la Antártica: Visión Estratégica al 2035”, December 9, 2015. Accessed February 22, 2023: [https://minrel.gob.cl/minrel/site/artic/20121010/asocfile/20121010172919/vision\\_estrategica.pdf](https://minrel.gob.cl/minrel/site/artic/20121010/asocfile/20121010172919/vision_estrategica.pdf).
- Ministerio de Relaciones Exteriores (Chile), “Chile y China firman acuerdos para afianzar su relación bilateral”, April 24, 2019. Accessed February 22, 2023: <https://www.minrel.gob.cl/minrel/noticias-antiores/chile-y-china-firman-acuerdos-para-afianzar-su-relacion-bilateral-1>.
- Ministerio de Relaciones Exteriores, Comercio Internacional y Culto (Argentina), “Argentina y la República Popular China profundizan sus vínculos de cooperación”, July 27, 2022. Accessed February 22, 2023: <https://www.cancilleria.gob.ar/es/actualidad/noticias/argentina-y-la-republica-popular-china-profundizan-sus-vinculos-de-cooperacion>.
- Niebieskikwiat, N., “El nuevo mapa de la Argentina que ubica a Tierra del Fuego en el centro del país,” *Clarín*, September 9, 2020. Accessed September 5, 2022. [https://www.clarin.com/politica/nuevo-mapa-argentina-ubica-tierra-fuego-centro-pais\\_0\\_LiGigfu2U.html](https://www.clarin.com/politica/nuevo-mapa-argentina-ubica-tierra-fuego-centro-pais_0_LiGigfu2U.html).
- Palàs, D. “The Geostrategic Choke Points of Bosphorus and Dardanelles in the Context of the New Silk Road.” *The Romanian Economic Journal* 22, no. 73 (2019): 63–73.
- Press, A., and A. Bergin. “Coming into the Cold: China’s Interests in the Antarctic.” *Australian Journal of International Affairs* 76, no. 3 (2022): 340–58. doi:10.1080/10357718.2022.2057921.
- Protocol on Environmental Protection to the Antarctic Treaty*, opened for signature 4 October 1991, 30 ILM 1455 (entered into force 14 January 1998) (*Madrid Protocol*).
- Rogers, J., A. Foxall, and M. Henderson. *Chile and the Southern Hemisphere: Antarctica in Transition*. Santiago: AthenaLab, 2021.

- Romero, P. "Presencia de Chile en la Antártica." In *Política Antártica de Chile*, ed. F.O. Vicuña, M. T.I. Caffi, and P.A. Armanet, 35–50. Santiago: Universidad de Chile, 1984.
- Salazar, J.F., E. Leane, L. Magee, and P. James, "Five Cities That Could Change the Future of Antarctica," *The Conversation*, October 5, 2016. Accessed July 20, 2022. <https://theconversation.com/five-cities-that-could-change-the-future-of-antarctica-66259>.
- Salazar, J.F., E. Leane, K. Marx, L. Magee, M. Khan, and P. James, "Custodians of Antarctica: How 5 Gateway Cities are Embracing the Icy Continent," *The Conversation*, November 30, 2020. Accessed July 20, 2022. <https://theconversation.com/custodians-of-antarctica-how-5-gateway-cities-are-embracing-the-icy-continent-148006>.
- Salazar Urrutia, M.A. "La República Popular de China en la Antártida y su acercamiento diplomático a Argentina y Chile." In *Antártida: la mirada histórica latinoamericana y su proyección pedagógica integral* Ed., E.L. Facchin, (Buenos Aires: UNDEF Libros, 2021), 301–327.
- Sanchez, W.A. "Argentina, Chile and the Joint Antarctic Naval Patrol: A Successful Confidence Building Mechanism." *The Polar Journal* 7, no. 1 (2017): 1–12. doi:10.1080/2154896X.2017.1310488.
- Scott, K. "Institutional Developments Within the Antarctic Treaty System." *The International and Comparative Law Quarterly* 52, no. 2 (2003): 473–87. doi:10.1093/iclq/52.2.473.
- Seikh, P.A., B. Vaughn, and K. Procita. *Antarctica: Overview of Geopolitical and Environmental Issues*. Washington, DC: Congressional Research Service, 2021 R46708.
- Senatore, M.X. "Things in Antarctica. An Archaeological Perspective." *The Polar Journal* 10, no. 2 (2020): 397–419. doi:10.1080/2154896X.2020.1799610.
- Szalánczi, J.K. "Antártida Argentina" Argentine Interests and Activities in the South Polar Region Before the Antarctic Treaty (1820–1959)." *Öt Kontinens* 1 (2014): 67–81.
- Talalay, P.G., and N. Zhang. "Antarctic Mineral Resources: Looking to the Future of the Environmental Protocol." *Earth-Science Reviews* 232 (2022): 104142. doi:10.1016/j.earscirev.2022.104142.
- Trezza, V.A. "El papel de Ushuaia en la política antártica argentina y la influencia del capitalismo en la ciudad a través del turismo antártico en el siglo XX," In *Antártida: la mirada histórica latinoamericana y su proyección pedagógica integral*, Ed., E.L. Facchin, (Buenos Aires: UNDEF Libros, 2021), 203–16.
- U.S. Congress, Office of Technology Assessment. *Polar Prospects: A Minerals Treaty for Antarctica*, OTA-O-428. Washington, DC: U.S. Government Printing Office, 1989.
- Vidal, F. "The Anthropocene New Stage: The Era of Boundaries." In *The Palgrave Handbook on Environmental Politics and Theory*, ed. J.J. Kassiola and T.W. Luke, 599–626. London: Palgrave MacMillan, 2023.
- Vidal, O., F. Rostom, C. François, and G. Giraud. "Global Trends in Metal Consumption and Supply: The Raw Material–Energy Nexus." *Elements* 13, no. 5 (2017): 319–24. doi:10.2138/gselements.13.5.319.
- Willets, P. *Delimitation of the Argentine Continental Shelf*. London: South Atlantic Council, 2016. Occasional Paper no. 14.
- WMO, "WMO Verifies One Temperature Record for Antarctic Continent and Rejects Another." *World Meteorological Organization (Geneva)* 2021. <https://public.wmo.int/en/media/press-release/wmo-verifies-one-temperature-record-antarctic-continent-and-rejects-another>
- Wright, N.A., and P.L. Williams. *Mineral Resources of Antarctica*. Reston: U.S. Geological Survey, 1974.
- Yermakova, Y. "The Future of the White Continent and the Need for Its Democratization." In *The Global Race for Antarctica: China Vs the Rest of the World*, ed. G. Sciorati, 15–17. Rome: ISPI, 2019.