

PCAS 19 (2016/2017)

Critical Literature Review
(ANTA602)

*China and Antarctica:
Hot ambitions in an icy climate*

Andrea Herbert

Student ID: 93198349

Word count: 3106

Abstract:

The Chinese presence is becoming increasingly conspicuous in Antarctica. With four established bases and plans for further bases on the continent, China appears intent to become a leader on the ice. A full consultative party (CP) since 1985, China has, within a relatively short amount of time, become an AT member that seems especially eager to grow and consolidate its presence on the ice. China's Antarctic engagement appears to reflect its general foreign policy and economic intentions (i.e. economic expansion and growth of socio- or geopolitical presence and resulting power). This critical review explores China's history, developments, and ambitions in Antarctica as part of a global commons environment. The hypothesis is brought forward that developments are indicative of an international development towards militarization and spatial expansion in Antarctica, in the context of 'the Asian century'. In terms of international cooperation and co-existence in Antarctica, China's scramble for increased presence and geopolitical reach could lead to increasing suspicion and tension among Treaty members and an elevated need for the ATS to monitor, secure, and govern international adherence to its basic principles and ambitions. Suggestions for further research are given.

Key words: China, Global South, Asian Century, Antarctica, geopolitics, Antarctic Treaty System.

Contents

Introduction.....	01
Chinese activity in the Antarctic: Historic developments	02
China: a threatening presence in Antarctica?.....	03
Environmental concerns.....	04
Evaluating China’s scientific contributions: substantial or political?.....	06
Chinese reservations towards the ATS.....	09
Discussion and conclusion.....	11

Introduction

For several decades, the world has been witness to massive economic developments in South Asia, especially China, for which a “dramatic new era” and a “meteoric rise” are underway (MacDonald et al 2008:3). China today is the second largest economy in terms of GDP after the United States of America. This can be partly traced back to China opening up its foreign policies, normalising trading relationships with the USA, and joining the WTO in 2001 (Harrington 2015:5). China newly and explicitly prioritises economic growth next to military security as a basis for its national security and sees the years 2000-2020 as an “important period of strategic opportunities for economic development” (Yang 2010:264f).

China’s economic progress and increasing engagement, cooperation, and influence in international science and organisations fuel the idea that the twenty-first century belongs to Asia and threatens to put an end to Western global domination (Mahbubani 2008, Chaturvedi 2012:227f).¹

The immense shift in economic prowess is also visible in China’s increasing polar engagement. Since the 1990s, the nation’s annual Antarctic investment has tripled to US\$55 million (The Economist 2013). While other nations are forced to decrease their Antarctic investments (ASPI 2013:2), increased funding and the strong national interest in being visible

¹ The *Asian Century*, or the “twenty-first century of projected Asian economic if not political supremacy” (Mahbubani 2008), is contested amongst scholars. Gillen (2016:74, also see Chander 2010) argues that the term “Asia” lacks definition and unity in its assumed identity, and that more pressing political issues in Asia are likely to take precedence over global demonization. Furthermore, cultural influences from Asia have always been present worldwide, which the simplistic, dualistic term “Asian Century” appears to deny. Hemmings (in press, p. 511) points out that what fuels the West’s anxiety towards China is both a fear for the decline of Western values and the underlying belief that processes can only be a “zero-sum game”, i.e. only one economic power leads, to the detriment of economic and cultural coexistence.

in Antarctica are reflected in China’s evolution of its physical presence: the number of its Antarctic bases has risen to four, with a fifth one planned. The perception of an “Asian threat” (see Chander 2010) has arrived to the ice, with questions regarding China’s attitude towards the Antarctic Treaty System (ATS) and its values, China’s interest in resource exploitation, and the consequences of that for Antarctica and other nations in the ATS at the forefront.

In this critical review, I discuss China’s engagement in Antarctica and portray how these developments are reflected and interpreted in Western publications. By outlining key themes regarding China’s engagement and pointing out incongruences, I analyse the East-West relationship on the ice and finish with recommendations for further research.

Chinese activity in the Antarctic: Historic developments

Brady (2014b) outlines five phases of Chinese activity in the Antarctic. These start with tepid beginnings in the 1950s, when China’s foreign policies and its shaky relationships to other nations prevented it from successfully engaging first in the International Geophysical Year (IGY) and then the Antarctic Treaty (AT). The following phases entail increasing confidence and determination, i.e. cooperation with other Antarctic nations and the development of its own programme and internal administrative infrastructure, and culminate in China finding its feet in terms of scientific contributions and Antarctic infrastructure. China became a Consultative Party to the ATS in 1985 and has since then continuously improved its Antarctic infrastructure and increased its research activities (see Table 1).

Table 1: Overview of key Chinese activities in Antarctica

Phase (according to Brady 2014b)	Date	Occurrence
Early interest (with external hindrances)	1953	China unsuccessfully applies to participate in IGY
	1950s	China unsuccessfully attempts to join ATS
	1/12/1959	<i>Antarctic Treaty is signed</i>
	1966	China’s State Oceanic Administration founded
	1971	PRC replaces the ROC as the legal representative of the Chinese nation in the UN
	1978	China discusses joint Antarctic research plans with other nations
Cooperation with other Antarctic powers	1979	First Chinese journalist (Jin Renbo) travels to Antarctic Continent on Chilean (Australian?) expedition
	1981	National Antarctic Expedition Committee, China, is founded
	1981	First female scientist (Li Huamei) travels to Antarctica
	1983	First Chinese delegation attends Antarctic Treaty Consultative Meeting (ATCM) as a Non-Consultative Party (NCP)

	1984	First Chinese Antarctic scientific expedition (logistic support provided by Argentina) in response to ATS decision-making exclusion
Development of own programme and bases	20/2/1985	"Great Wall", first Chinese Antarctic station, established on King George Island
	1985	China becomes a full consultative member of the ATS
	1986	China joins SCAR
	1989	Polar Research Institute of China founded in Shanghai
	1989	"Zongshan Station" established in Larseman Hills in Prydz Bay
Focus on improving quality of Antarctic science	1990	China's first land crossing in Antarctica (<i>Xinhua</i>)
	1990	China carries out first Antarctic Inspection of other bases (Brazil, Uruguay, Korea, Russia, Argentina, Poland)
	1991	<i>Antarctic Treaty Environmental Protocol</i>
	1994	Chinese Advisory Committee for Polar Research is founded
	1994	China purchases its first polar ice breaker, <i>Xuelong</i>
	1996	China officially ratifies Environmental Protocol
	1996	China's first attempt to reach Dome A fails
	1999	Chinese Polar Science Database System is established to promote China's polar research and achievements
	2003	Polar Research Institute changes name to Polar Research Center and includes the Arctic in its research expansion
	2003	China joins Asian Forum for Polar Science (with India, Japan, Korea, and Malaysia)
Upgrading of Antarctic activities and quest for leadership	2005	Chinese team summits Dome A for the first time
	2005	Chinese team spends 130 days exploring Grove Mountains, including extensive naming of landmarks
	2005	Chinese (Zhang Zhanhai) becomes vice-president of SCAR
	2006	China joins Convention on the Conservation of Marine Living Resources (CCAMLR)
	2007	China becomes full consultative member of CCAMLR
	2009	"Kunlun" (summer station) established on Dome A
	2013	China releases draft environmental assessment report for 5 th station on Inexpressible Island
	2/1/2014	Chinese ice breaker <i>Xuelong</i> rescues 54 passengers from Russian scientific vessel <i>Akademik Shokalskiy</i>
	2014	"Taishan" station established on Princess Elizabeth Land
	2015	China carries out 2nd Antarctic Inspection of several bases (Russia, Korea, Uruguay, Chile)
	2015	China signs five-year accord with Australia for resupplying fuel and food on way to Antarctica

Following this success story that sees a politically isolated and economically struggling Asian nation rise to join international ranks among developed nations at the pole within a few decades, the question then is: Why, from a Western standpoint, does China appear to be perceived as a threat in Antarctica?

China: A threatening presence in Antarctica?

In messages disseminated mostly inside of China, China emphasises its intentions to strategically position itself for a possible lift of the ban on mineral extraction in Antarctica (Brady 2010:773ff). This is eagerly picked up and focused on in Western media (Perlez 2015;

The Economist 2013) and feeds into the negative² Western image of China. But how alarming is the fact that China is vocal about its intentions in regards to mineral extraction? It seems to be unusual both in Western and diplomatic environments: Other Antarctic powers - especially the established Western ones - regard the open discussion of Antarctic exploitation as taboo, focusing instead on heritage and protection (Brady 2012c). However, this does not indicate that the West was or is not interested in Antarctica's resources (see Hemmings in press, p. 511ff). An Australian strategy publication that examines how best to remain a leading power in Antarctica mentions the value of Australia's Antarctic territory including minerals, "even if not exploited" (ASPI 2013:5). While mineral exploitation was banned with the Madrid Protocol in 1996, new resources have arisen since: fishing, bioprospecting, and tourism, all of which are currently Western owned and controlled. Commercial interests are "shared by all the other major states active in the Antarctic" (Dodds and Hemmings 2013:1430). Brady (2014a:247) concedes that many states see the polar regions as resources and opportunities to be exploited, but when discussing New Zealand's economic interests in Antarctica mentions only non-exploitative commerce (2010:131). Still, China's interests in regards to Antarctica, namely "maximising national opportunities, status and future options" (Hemmings in press, p. 508), are integral to those of other nations, too.

What alarms the West about China's rise is the perception that different values are at play which might threaten existing Western values in the ATS. It is mostly environmental concerns that are used by Western scholars and media as justification for a concern towards China's presence in Antarctica.

Environmental Concerns

The West is concerned about future ecological destruction by an Asia that is energy-hungry and in need of increasing amounts of energy resources in the near future. China has a bad track record when it comes to environmental performance: Of the world's thirty most smog-

² For an example of selective negative portrayal of China, take the reporting on the fact that during exploration trips from the early 21st century on, China gave over 300 sites Chinese names is mentioned in several of the scanned literature (Brady 2010:767, Perlez 2015); sometimes this is explicitly presented as concerning (ASPI 2013, The Economist 2013). This seems to overlook the thousands of non-Chinese place names that have been allocated to Antarctic features or man-made structures since the first engagement on the continent. Selective perception is indicative of hegemonic fears, or, as Dodds and Hemmings (2013:1430) succinctly phrase it, Polar Orientalism: In the middle of what seems to be a global reordering process in terms of economics and cultural values, any activity by the states most distrusted by the West, i.e. China, India, Russia, or Korea, is perceived as worrying.

affected cities, twenty are Chinese (Kapoor 2007:301). However, compared to the greenhouse gas emissions of the developed nations, the contribution of South Asia including India and China is currently roughly a tenth of overall values. Nevertheless, China has a questionable image in the Western perception when it comes to its attitude towards the environment (see Dodds and Hemmings 2013:1433; Perlez 2015), and the Chinese eagerness for resource acquisition is seen to trump its environmental conscientiousness (Brady 2012c).

However, the criticism directed at China comes from developed nations whose own environmental attitude came about only after decades of unrestrained consumption and pollution. The fear evoked by an Asia with similar behavioural and consumption patterns (Chaturvedi 2012:226) therefore needs to be seen in the context of Western post-colonialism.³

How founded are concerns for China's environmental considerations in Antarctica? Harrington (2015:7) points out that China strongly supported CRAMRA in 1982, a regulation which would have legalised mining and mineral extraction, and suggests that the driving force behind China agreeing to the Madrid Protocol in 1991 was merely "because [it was] aware of international decline of support [for CRAMRA]". China's environmental attitude in Antarctica might have been questionable in the beginning (Lee 1990:585), but appears to have since adjusted to international requirements (see Brady 2010:772). There is room for improvement, as Zou and Liu (2015) point out with regards to the unsatisfactory establishment of a comprehensive domestic legal system that adheres to ATS guidelines on environmental protection. Likewise, Chinese environmental values may not line up with international values in regards to attitudes to Antarctic wilderness (Tin et al, in press). Nevertheless, there is no evidence that the Chinese are not adhering to the ATS environmental regulations. Harrington (2015:9; 14) even suggests that China's dedication to the Environmental Protocol helps its bonding with other nations and makes China, in its scientific aspirations in regards to climate change, an emerging leader of the developing world.

³ Alternative views on this are that the West has learned from its mistakes and, for the common good, strives to prevent others from repeating them.

Nevertheless, the Western distrust remains: insinuating Chinese science to be merely instrumental for political reasons, it expresses itself in the scrutinization of China's scientific contributions. Science, an "important currency in the realm of governance" (Elzinga 2013:197), is a major point of discussion amongst Western academics in regards to China's relation to Antarctica, especially in regards to perceived quality.

Evaluating China's scientific contributions: substantial or political?

Antarctica is a continent dedicated to peace and science. Article IX, paragraph 2 states that any consultative party that is not an original signatory must engage in ongoing "substantial research activity"⁴ in order to maintain consultative status. Science plays an important role for the acquisition and increase of Antarctic leadership and status (Brady 2012b:35). There seems to be disagreement among Western scholars in regards to the quality of China's scientific output (Brady 2012b; Harrington 2015:10). Brady holds that China's main achievements to date relate to infrastructure, but that a pool of experts for conducting high quality science is lacking (2012b:37f; Brady 2014b). This has prevented China from delivering a scientific output that is anything other than "still very small" (Brady 2010:780).

Since its joining in 1985 (ATCM XIII) China has contributed comparatively few Working Papers and governance initiatives to the ATCM. Figure 1 shows a comparison between USA, New Zealand and China in terms of number of Working Papers submission. Judging by these numbers, China's scientific output does not reflect increased Antarctic infrastructure, a finding that is confirmed in a study⁵ by Gray and Hughes (2016).

⁴ Note that while the exact criteria for above article are unclear, it is commonly accepted that constructing a base meets the requirement. Also note that the twelve original signatories to the AT are excluded from the requirement of continuously providing evidence of substantial science, which could imply a sense of entitlement (see Hemmings in press, p. 510).

⁵ This study looked at the Antarctic research output within a specific timeframe, the research quality (gauged by taking into account the corresponding numbers of Scope citations) and a nation's Antarctic logistic capability, i.e. bed space numbers. In the case of China, calculations included three (all-year) stations, 128 beds, 1036 Antarctic-related research papers and 6.98 cites per paper, which translated into a national focus (i.e. the proportion of the nation's overall scientific output connected to Antarctica) of 0.05%. While China produced a higher quantity of scientific output than the average nation in their study, the overall quality was lower (NZ ranked 10.13 and the US ranked 12.2) as was the national focus (the average focus was 0.181 among Consultative Party members). However, results are ambiguous, as a disclaimer was inserted that rightly suggested that the lower citation number, which resulted in lower quality rating, could be connected to the language barrier which would prevent Chinese-language publications from being cited.



Figure 1: Comparison of number of Working Paper (WP) submissions at ATCM 13-39 between China, USA, and NZ (includes joint WPs).⁶

China itself is conspicuous about its increased scientific achievements: in 1999, an English-language website was set up that reported all Chinese achievements in regards to Antarctic operations. Nevertheless, China’s current engagement in science is interpreted by some Western authors as doing the bare minimum to keep politically relevant and maintain its position as CP (Brady 2010:780; Lee 1990:585; Brady 2012b:38) - with the ultimate goal of preparing for potential resource exploitation (Brady 2010:770).

However, the construction of Dome A⁷ is perceived as promising for future scientific operations conducted by China (Brady 2012a:105; Brady 2012b:38). Provided that drilling into the ice core is successful and will render unprecedented insights into 1.5 million years of climate change, the resulting scientific success is expected (or feared) to translate into increased influence for China in Antarctic geopolitics (Perlez 2015). But even in the acknowledgment of potentially game-changing science, there lies the West’s perception of China as an environmentally unconcerned nation. For example, Brady (2010:769) states that China’s motivation in extracting data from Dome A stems from the hope for evidence that the influence of man-made greenhouse gas emissions on climate change is smaller than currently (commonly) accepted. If this were the case, it could be used as justification to continue current environmental and consumption patterns.

⁶ Data extracted from: http://www.ats.ag/devAS/ats_meetings_doc_database.aspx?lang=e&menu=2 (8/12/2016).

⁷ Australia mentions that Asia is on the rise in AA for intelligence collection as well, pointing out that Dome A is ideal for intelligence due to its strong satellite signal reception (ASPI 2013: 9f).

However, not all academic voices are doubtful in terms of China's scientific engagement – Harrington (2015:14) highlights China's positive influence on Antarctic research and governance, especially in the field of climate change. He holds that China defends the AT governance system, contributes to scientific achievements, and proves its long-term scientific intentions with immense infrastructure investment.

In January 2014, China released a draft environmental assessment report for its fifth Antarctic research station (see Figure 2) to the CEP.⁸ Before going into technical construction details, China justifies the new base in merely one and a half pages, stating that it will “provide an international platform for regional multidisciplinary research focusing on the chain reactions caused by the changing climate” (PRC 2014:2), followed by five bullet points of general intentions. These include support for the study of bio-ecology and satellite remote sensing.

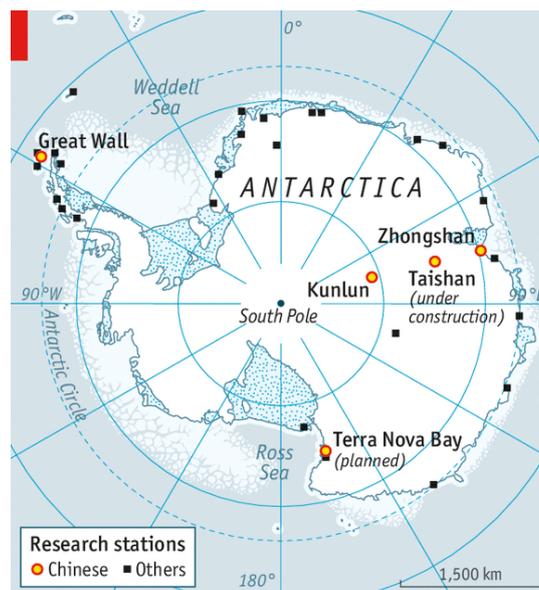


Figure 2: Location of China's bases.⁹

Stations, “surrogate expression of colonialism” (Elzinga 2013:197) or geopolitical power, have considerable environmental impact on Antarctica. Used as a means of consolidating scientific capability, are they really necessary in the production of science? While Antarctic science can be undertaken offshore or in shared facilities (Gray and Hughes

⁸ See Hemmings and Kriwoken (2010:205) on a critique of CEE, describing it as more diplomatic and administrative than effective, as no action or follow-up is required of applicants and a veto-function is missing.

⁹ Source: The Economist (2013). http://cdn.static-economist.com/sites/default/files/imagecache/original-size/images/print-edition/20131116_CN917.png. Note that Taishan has since been completed.

2016), of approximately 110 currently existing stations in the Antarctic, only two are shared (Hemmings 2011). Shared Antarctic infrastructure would indicate an overall approach to Antarctic engagement that was less nationalistic and less focused on territorial and resource aspirations (Hemmings 2013:13). Especially in the case of China, whose new base will place it in close proximity to the US (who currently have six bases), a renunciation of increased territorial sovereignty in favour of international collaboration and joint research is seen as unlikely (Hemmings 2011; Elzinga 2013). Into this play notions of hegemony and lack of privilege, perceived more severely from nations such as China that were not among the original signatories to the AT, as I show in the following section.

Chinese reservations towards the ATS

There are only six nations from the “Global South”¹⁰ present among the ATS, of which only three are Consultative Parties: India, South Africa, and China (Verbitsky 2014). While China’s (eventual) participation in a system that is run and dominated by developed nations has instigated national feelings of pride and prestige (Lee 1990:580f), resentments remain. China has been vocal in its criticism about the inherent elitism and exclusivity of the Antarctic Treaty¹¹ and perceived the early exclusion¹² from joining the AT in 1959 as unjust (Brady 2010:761). The Chinese perceive of the AT as an exclusive “rich man’s club” and a “collective hegemony” run by developed countries (Brady 2014a:250; Lee 1990:576ff; Rajan 1987; Verbitsky 2014:329, also see Elzinga 2013).

Stretching to present times, internal communications in China reveal that China is dissatisfied with the status quo of the AT and eager to obtain more leadership in it (Lee 1990:583f; Brady 2012b:41), with some Chinese authors pushing for a re-discussion of the Antarctic Question¹³ (Brady 2010:773). China’s main critique of the ATS encompasses the

¹⁰ The Global South is here understood as a nation whose Human Development Index is rated as low or medium (see Verbitsky 2014:321).

¹¹ Antarctic science, which is the metaphorical glue that keeps the AT together, is an expense that only wealthy nations can afford. In the funding days of the AT in the 1950s, the only nations able to participate in the making of the Treaty and then in the conduction of Antarctic science that was prioritised in the AT were first-world nations.

¹² The reason for this was that China declined to participate in the IGY because the US and other nations did not ban Taiwan from participating. The USA and other nations subsequently vetoed China’s joining of the AT.

¹³ The Antarctic Question was introduced and driven by Malaysia in the 1980s, at a time when mining activities were expected to begin in the near future and non-AT nations feared to be left out of the distribution of mining rights (Verbitsky 2014: 322). The Antarctic Question (“who does Antarctica belong to?”) included the proposition that Antarctica be governed by international laws instead of the multilateral collective ATS that appeared to favour a few wealthy, developed nations.

potential future access to and distribution of resources (Lee 1990:581). Brady points out that China perceives the ATS emphasis on environmental protection and the existence of ASMAs as means for “more established powers [to] maintain their assets” (Brady 2010:774).

In Western contexts and official communication, however, China (a nation that does not have a territorial claim in Antarctica) presents itself as compliant with the ATS. This is interpreted as superficial acquiescence and self-interest driven cooperation on the way to getting its political and economic goals met (Brady 2010: 779, Harrington 2015:11). China’s subscription to the AT’s intrinsic goals of peace and science given in the name of common interests of mankind is suspected to be nothing more than lip service within the boundaries of the existing system (Lee 1990:583f).

Among Western scholars, some focus on encouraging the Global South to help overcome the ATS hegemony and the “constitutional inequity fundamentally inscribed in the system” (Elzinga 2013:201). Verbitsky (2014:329f) interprets the founding of the Asian Forum for Polar Science (AFoPS)¹⁴ in 2004 as indicative of a general Asian dissatisfaction with the ATS and suggests that the Global South “confront and challenge hierarchic structures and exclusionary procedures within the ATS” by prioritising Antarctica in their national foreign policy agendas and aiming to accede to and join the ATS to bring about change from within.

Despite all concern, it is commonly acknowledged that the AT was also strengthened by China’s joining, as this meant an end to China supporting Malaysia’s anti-AT movement (Brady 2010:762). Furthermore, admitting a nation of the Global South to a to-date predominantly Western hegemony meant that the system had started to open up (Rajan 1987:61), thereby strengthening its (arguably aspirational) democratic values. Having approximately 80% of the world’s population represented in the AT thanks to China’s joining is bound to weaken the opposition in the wake of the Antarctic Question. Nevertheless, concerns remain among Western nations about China being nothing more than a “reluctant

¹⁴ The AFoPS is a non-governmental organization that intends to encourage and facilitate cooperation for the advance of polar sciences among Asian countries. It currently consists of five members (China, Japan, South Korea, India, and Malaysia), and four observers (Indonesia, Thailand, Philippines, Vietnam) (AFoPS 2015).

stakeholder” to the ATS (Brady 2012c), adhering to a governance system as long as it is convenient and no better options have been created.

Discussion and conclusion

In the consulted literature for this critical review, two general viewpoints have emerged: one side represents the uneasy truce and alarmist expectations that the West seems to have about China in regards to its global and Antarctic rise. The other side acknowledges China’s ongoing push forward as the long-deserved rise of the Global South. Both sides stress the need for the West to be prepared, as change on a global and a polar scale seems inevitable. The alarmist faction appears to suggest that an appropriate reaction to developments revolves around a push-back, race-along, and infrastructure-focused standpoint. The other faction recommends change in more structured and diplomatic ways: an updated ATS (currently still heavily driven by the twelve original signatory nations) that actively welcomes and accommodates value shifts and diverse aspirations and abilities from developing nations, especially from the Global South. A more accepting approach towards a leading Asia in general and China in specific is the basis for these recommendations.

A rising Asia that comes to dominate the world politically and economically brings with it shifting values. Challenges in regards to the environment both on a global scale and in Antarctica could be managed better with traditional Asian values of simplicity and frugality, as Kapoor (2007:302) suggests, instead of continuing the pattern of overconsumption that the West has spearheaded. The call for a humane leadership that is respectful of the Other (Kapoor 2007:304; Chander 2010) would be relevant for an Asian rise in Antarctica too. The role of the other nations and stakeholders in Antarctica would then be to engage with the growing powers in a supportive way, influencing and inducing a shared sense of responsibility for the environment from within.

Instead of allowing an increasingly nationalistic bloc-building to continue, attempts should be made to further the internationalisation of Antarctic affairs. Western scholars’ suggestions include New Zealand (and other nations) joining AFoPS (Brady 2012a:111), more transparency on China’s activities and intentions (Brady 2010:765; Brady 2014b), and continued engagement in a diversifying AT (Hemmings in press). The oft-mentioned track-two

diplomacy at work in Antarctica (Brady 2012b:33; also see Saunders 2010) will be essential in this undertaking. Part of this is the need for the ATS to become more culturally sensitive in order to remain relevant and capable to deal with ongoing changes (Brady 2012a). The ATS should be adjusted to accommodate the fact that different communication styles, value systems, and aspirations, including national development and resource acquisition, are unavoidable and need to be reconciled under one fair, flexible, inclusive system.

Further research will be needed especially into developments in regards to Chinese tourism (Brady 2010:770, Perlez 201) and relationships between emerging powers of the Global South (China, India, Korea), as well as how the ageing ATS will accommodate greater influence and differing aspirations from emerging powers (Hemmings 2009).¹⁵ Now that new resources (bioprospecting, Antarctic tourism, fishing) are being explored, it is likely that more developing nations will likely become interested in securing a share for themselves (Hemmings 2009:68).

China, at present still perceived as “a medium power with big-power aspirations” (Brady 2010: 781) that is exploring its options for change in the ATS, is sure to continue its ascent in Antarctica. What will be more interesting for Western academia is how the ATS accommodates these changes and absorbs them in a way that ensures a coexistence without disadvantaging or alienating any party – not the established CP, not the Global South, and not the emerging powers of Asia – while ensuring the protection and maintenance of the Antarctic continent and its surroundings.

¹⁵ A culturally more sensitive ATS with a growing number of developing countries involved would have to operate on the understanding that different environmental values are at play. These are generally traceable to cultural differences. A non-hegemonic perspective would also accept that the present system is driven by stakeholders with territorial and/or nationalistic aspirations in which science is implicitly seen as instrumental.

Sources:

- Asian Forum for Polar Sciences - AFoPS (2015). Who are we? (Online) <http://www.afops.org/m11.php> (last sighted 7/12/2016).
- Australian Strategic Policy Institute (ASPI) (2013). Cold calculations. Australia's Antarctic challenges. *ASPI Strategic Insights*, 66. 25 pp.
- Brady, A. (2014a). Polar politics and history. *The Polar Journal*, 4(2), 247-252.
- (2014b). Evaluating China as an Antarctic state. Presentation (Online). <https://www.wilsoncenter.org/event/china-and-antarctica> (last sighted 17/11/2016).
- (2013). Diplomatic chill: Politics trumps science in Antarctic Treaty System. *World Politics Review*. 9-14.
- (2012a). The emerging economies of Asia and Antarctica: Challenges and opportunities. In: Jabour, J., Haward, M. & Press, A. *Australia's Antarctica: Proceedings of a Symposium to mark 75 years of the Australian Antarctic Territory*. Hobart, 24 August 2011. Institute for Marine & Antarctic Studies Occasional Paper #2, 103-113.
- (2012b). China's Antarctic interests. In: Brady, M. (ed.). *The Emerging Politics of Antarctica*. Taylor and Francis. 31-47.
- (2012c). Polar Stakes: China's Polar Activities as a Benchmark for Intentions. *China Brief*, 12(14) Accessible at: <https://jamestown.org/program/polar-stakes-chinas-polar-activities-as-a-benchmark-for-intentions/#sthash.OHIJMTUI.dpuf> (last sighted 17/11/2016)
- (2011). New Zealand's strategic interests in Antarctica. *Polar Record*, 4 (241), 126-134.
- (2010). China's Rise in Antarctica? *Asian Survey*, 50(4), 759-785.
- Chander, A. (2011). The Asian Century? *44 U.C. DAVIS Law Review*, 717-734.
- Chaturvedi, S. (2012). Geopolitical transformations: 'Rising' Asia and the future of the Arctic Council. Paper presented at International Conference 'The Arctic Council: Its Place in the Future of Arctic Governance'. Toronto, Canada, 17-18 January 2012. 225-260.
- Dodds, K. & Hemmings, A. (2013). Britain and the British Antarctic Territory in the wider geopolitics of the Antarctic and the Southern Ocean. *International Affairs* 89, 1429-1444.
- Elzinga, A. (2013). Rallying around a flag? On the persistent gap in scientific internationalism between word and deed. In: Brady, A. *The Emerging Politics of Antarctica*. London: Routledge. 193-219.
- Food and Agriculture Organization of the United Nations (2016a). China. (Online) <http://www.fao.org/china/fao-in-china/en/> (last sighted 29/11/2016)
- (2016b). China at a glance. (Online) <http://www.fao.org/china/fao-in-china/china-at-a-glance/en/> (last sighted 29/11/16)
- Gillen, J. (2016). Some problems with "the Asian Century". *Political Geography* 50, 74-75.
- Global Times (18 February 2015). China celebrates 30 years of Antarctic expeditions. (Online) <http://www.globaltimes.cn/content/908172.shtml> (last sighted 2/12/2016)
- Gray, A. & Hughes, K. (in press). Demonstration of 'substantial research activity' to acquire consultative status under the Antarctic Treaty. Manuscript. *Polar Research*.
- Harrington, J. (2015). China in Antarctica: A History. *Southeast Review of Asian Studies*, 37, 1-19.
- Hemmings, A. & Kriwoken, L. (2010). High level Antarctic EIA under the Madrid Protocol: state practice and the effectiveness of the Comprehensive Environmental Evaluation process. *International Environmental Agreements* 10, 187-208.

- Hemmings, A. (in press) Antarctic politics in a transforming global geopolitics. In: *Handbook on the politics of Antarctica*. Manuscript. 507-522.
- (2011). Why did we get an International Space Station before an International Antarctic Station? *The Polar Journal* 1(1), 5-16.
- (2009). From the new geopolitics of resources to nanotechnology: Emerging challenging of globalism in Antarctica. In: Alfredsson, G., Koivurova, T. & Leary, D. (eds.). *The Yearbook of Polar Law*. Leiden & Boston: Martinus Nijhoff Publishers. 55-72.
- Lee, J. (2016). The fragile foundations of the 'Asian Century'. *The Journal of East Asian Affairs*, 30(1), 41-66.
- Lee, W. (1990). China and Antarctica: So Far and Yet so Near. *Asian Survey* 30(6), 576-586.
- Kapoor, R. (2007). Asian Century, planetary change? *Futures* 40(3), 300-304.
- MacDonald, G., Yit-Seng, Y. & Xing, L. (2008). *Innovation in China: The Dawning of the Asian Century*. Adonis & Abbey Publishers Ltd.
- Mahbubhani, K. (2008). *The new Asian hemisphere: The irresistible shift of global power to the east*. New York, USA: Public Affairs.
- Ministry of Foreign Affairs of the People's Republic of China (31/12/2015). Chinese Delegation Successfully Carries out Antarctic Inspection. (Online) http://www.fmprc.gov.cn/mfa_eng/wjbxw/t1329545.shtml (last sighted 25/11/2016)
- People's Republic of China (undated). Gate to the Poles. (Online) <http://www.polar.gov.cn/en/index/> (last sighted 2/12/2016)
- Perlez, J. (3 May 2015). China, Pursuing Strategic Interests, Builds Presence in Antarctica. *New York Times* (online) http://www.nytimes.com/2015/05/04/world/asia/china-pursuing-strategic-interests-builds-presence-in-antarctica.html?_r=0 (last sighted 17/11/2016)
- Permanent Mission of China to the WTO (2011). China in the WTO: Past, present and future. (Online) https://www.wto.org/english/thewto_e/acc_e/s7lu_e.pdf (last sighted 29/11/2016)
- Polar Research Institute of China (2014). Proposed Construction and Operation of a New Chinese Research Station, Victoria Land, Antarctica. Draft Comprehensive Environmental Evaluation. (Online) http://www.ats.aq/documents/ATCM37/att/ATCM37_att029_e.pdf (last sighted 3/12/2016)
- Rajan, M. (1987). China in Antarctica. *China Report* 23(1), 57-64. New Delhi, Newbury Park, London: Sage Publications.
- Romero, S. (29 December 2015). Countries rush for upper hand in Antarctica. *The New York Times* (online). http://www.nytimes.com/interactive/2015/12/29/world/countries-rush-for-upper-hand-antarctica.html?_r=0 (last sighted 25/11/2016)
- Saunders, P. (2010). Chinese foreign policy in Asia: Implications for the South Pacific. In: Brady, A. (ed.) *Looking North, Looking South. China, Taiwan, and the South Pacific*. Hackensack, NJ: World Scientific Publishing. 227-256.
- Tiezzi, S. (17 February 2016). China to Establish Antarctic Air Squadron in 2016. *The Diplomat* (online). <http://thediplomat.com/2016/02/china-to-establish-antarctic-air-squadron-in-2016/> (last sighted 17/11/2016)
- Tin, T., Summerson, R., & Yang, H.R. (in press). Wilderness or pure land: tourists' perceptions of Antarctica. Manuscript. *The Polar Journal*.

- The Economist (16 November 2013). Antarctic research. They may be some time. (Online) <http://www.economist.com/news/china/21589908-putting-down-roots-antarctica-they-may-be-some-time> (last sighted 3/12/2016)
- The Economist (10 December 2011). China's economy and the WTO. All change. (Online) <http://www.economist.com/node/21541448> (last sighted 29/11/2016)
- Verbitsky, J. (2014). Just transitions and a contested space: Antarctica and the Global South. *The Polar Journal* 4(2), 319-334.
- Ward, P. (Undated). *Antarctic Bases - Stations Currently Occupied*. (Online) Available at: http://www.coolantarctica.com/Community/antarctic_bases.php (last sighted 17/11/16)
- World Trade Organization (2016). China and the WTO. (Online) http://stat.wto.org/CountryProfiles/CN_e.htm (last sighted 29/11/2016)
- Yang, J. (2010). The South Pacific in China's Grand Strategy. In: Brady, A (ed.) *Looking North, Looking South: China, Taiwan, and the South Pacific*. Hackensack, NJ: World Scientific Publishing. 259-281.
- Zou, K. & Liu, X. (2015). New trends in China's practice in Antarctic Expedition management. *The International Journal of Marine and Coastal Law* 30, 533-550.