International Boundaries Research Unit

BOUNDARY & TERRITORY BRIEFING

Volume 1 Number 1

Who Owns Antarctica? Governing and Managing the Last Continent

Peter J. Beck

Boundary and Territory Briefing

Volume 1 Number1 ISBN 1-897643-05-5 1994

Who Owns Antarctica?: Governing and Managing the Last Continent

by

Peter J. Beck

Edited by

Clive Schofield

International Boundaries Research Unit Department of Geography University of Durham South Road Durham DH1 3LE UK

Tel: UK + 44 (0) 191 334 1961 Fax: UK +44 (0) 191 334 1962 E-mail: <u>ibru@durham.ac.uk</u> www: <u>http://www-ibru.dur.ac.uk</u>

The Author

Professor Peter J. Beck is Professor of International History in the Faculty of Human Sciences at Kingston University, Kingston upon Thames, England. Educated at the London School of Economics, University of London, he has lectured at Kingston since 1968. His publications include *The International Politics of Antarctica* (London: Croom Helm, 1986), *The Falkland Islands as an International Problem* (London: Routledge, 1988), and *British Documents on Foreign Affairs. Reports and Papers From the Foreign Office Confidential Prints: The League of Nations, vols.1-6* (Maryland: University Publications of America, 1992). He has written over 120 articles/chapters in journals and books published in both Britain and overseas, and is a regular contributor to both *Polar Record* and the Scott Polar Research Institute's M.Phil. Polar Studies course at the University of Cambridge. Professor Beck was a member of the Royal Institute of International Affairs' Latin America during the *1990s*, while he has given expert evidence to the British House of Commons Foreign Affairs and Education and Science Committees.

The opinions and comments contained herein are those of the author and are not necessarily to be construed as those of the International Boundaries Research Unit.

Contents

		Contents	ъ
1.	Introd	luction	Page 1
2.	Managing Tourism's Last Frontier		
3.	The Centrality of Sovereignty		
4.	The Antarctic Sovereignty Problem		
5.	The Last Great Land Rush on Earth		
6.	Legal Support for Claims		
7.	The Antarctic Treaty		
8.	Article IV of the Antarctic Treaty		
9.	The Changing Position of Claimants within the Antarctic Treaty System		
10.	Accommodating the Sovereignty Issue		
11.	Antarctic Sovereignty Today: An Evaluation		
	11.1	Sovereignty has often proved a constructive force in the evolution of the Antarctic Treaty System	17
	11.2	The absence of a general legal formula to accommodate sovereignty differences	19
	11.3	The alleged emergence of a joint jurisdiction in place of sovereignty?	19
	11.4	Sovereignty claims have not been surrendered	20
	11.5	The difficulty of settling the sovereignty issue	22
	11.6	The need for forbearance	23
	11.7	The Antarctic Treaty System as a policy factor	23
	11.8	Legal uncertainties about Antarctic seas and ice	24
12.	Conclusion: Looking Forward		
Abbreviations			
References and Selective Bibliography			

List of Figures

Figure 1:	Alternative Cartographical Perspectives on Antarctica	30
Figure 2:	Map of Territorial Claims in Antarctica	31
Figure 3:	Sovereignty Claims to Antarctica	32
Figure 4:	Membership of the Antarctic Treaty System	33
Figure 5:	The Antarctic Treaty	34
Figure 6:	Protocol on Environmental Protection to the Antarctic Treaty	35
Figure 7:	Annexes to the Protocol on Environmental Protection to the Antarctic Treaty	38
Figure 8:	Stages in the Unveiling and Development of Antarctica	39
Figure 9:	Overlapping Claims in the Antarctic Sector between 20°W-90°W south of 60°S	40
Figure 10:	The Frontage Concept and Antarctica	41
Figure 11:	Non-Claimants: the Perspectives of Russia/USSR and the USA	42
Figure 12:	The Basis of Antarctic Territorial Claims	43
Figure 13:	Sovereignty and the Development of the Antarctic Treaty Regime	45
Figure 14:	Areas of Debate on Antarctica at the UN	48
Figure 15:	UN Resolutions on the 'Question of Antarctica'	50
Figure 16:	Some Legal Uncertainties	51

Who Owns Antarctica? Governing and Managing the Last Continent

Peter J. Beck

1. Introduction

International relations specialists and political geographers are not alone in interpreting Antarctica as a relatively inhospitable, uninhabited and 'out of the way' region isolated from the mainstream of international affairs. In general, Antarctica is presented as 'a pole apart' because of its peripheral location, geographical isolation, tardy discovery, unknown nature, and pristine features. It is a cold, windswept continent, which is almost totally covered in ice averaging over one mile in thickness. Climatic conditions tend to extremes, as evidenced by minimal precipitation in the interior, a record low temperature of -89.6°C, and high velocity winds. Man is essentially alien to such conditions, and it might be argued that the combination of blizzards, low temperatures and seasonal light regime exerts a major constraint upon human activity in Antarctica. Writing in *Alone* in 1938 Admiral Richard E. Byrd, an experienced polar explorer, commented: *"I felt as though I had been plumped upon another planet or into another geologic horizon of which man had no knowledge or memory"*.

A 'pole apart' image has been fostered by the way in which most world maps ignore this southern continent (Figure 1; Snowman, 1993: 143-147), despite its coverage of some 10% of the world's land surface and area amounting to 5.5 million sq. miles (14 m. sq.kms). However, the contemporary vogue for green issues, in conjunction with a growing acknowledgement of Antarctica's integral role in global environmental systems, has fostered an alternative view. This transformation was prompted mainly by the fact that the ozone hole was first identified and subsequently monitored by Antarctic scientists (Farman, 1985), whose research has yielded invaluable information on a wide range of subjects, including climatic change, world sea levels, and the formation of continents (Drewry, 1993: 37-44). At the close of 1992 it was reported that the ozone hole above the south polar region was the worst on record (*Daily Telegraph*, 1992). Antarctica still falls short of mainstream status, but it has moved towards centre stage to become a topic worthy of wider attention, as recognised by a study group chaired by Sir Anthony Parsons, formerly Margaret Thatcher's diplomatic adviser:

"As a factor in international relations, it [Antarctica] can no longer be ignored, and as a possible source of friction between States, its future calls for the most careful and responsible consideration" (Parsons, 1987: 3; Beck, 1992a: 1-4).

2. Managing Tourism's Last Frontier

Throughout the 1980s the management of living marine and mineral resources proved the key Antarctic preoccupation. By contrast, the early 1990s have been characterised by a focus on environmental protection and tourism, even if the media have often exhibited more interest in events conforming to popular images of heroic exploration and adventure. Even today the epic story of Scott and Oates renders it difficult to override the image of Antarctica as a hostile and inaccessible region capable of testing humankind to its limits. Press reporting about the 1992-93 trans-Antarctic walk undertaken by Sir Ranulph Fiennes and Dr. Michael Stroud was merely one of the more recent manifestations of this trend.

However, by 1992-93 about 8,460 people *per annum* were visiting the continent as tourists (Enzenbacher, 1992: 17). Their totals, multiplying more than six-fold between 1981-93 (Enzenbacher, 1992: 17), now exceed the number of scientists, even if the latter's research data illuminating phenomena of global value remains the continent's prime export. In fact, Antarctic tourism, albeit reflecting in part a new environmental consciousness, has often been promoted by means of traditional images. Tour brochures, adopting a 'scissors and paste' approach to quotes by polar explorers, promise 'the ultimate travel experience' to those seeking to turn 'dreams of adventure into reality'. 'The spirit of discovery' is pushed hard:

"Antarctica remains a world apart, a breathtakingly wild realm balancing those increasingly tamed regions northward. It is as true today as it was in the time of the first explorers - each moment in Antarctica promises opportunities for adventure and discovery" (Beck, 1992a: 39-40).

Most visitors to Antarctica are - to quote Ron Naveen, an experienced US tour leader - *"genuinely curious about this special, captivating uninhabited place at the bottom of the world"*, but inevitably there are other reasons for venturing south, most notably, a *"passionate interest"* in polar wildlife (Naveen, 1991: 2). Only a small minority of shipborne tourists seemed more impassioned about their cruise ship's bar, food or gambling facilities!

Hitherto, Antarctic tourism has been conducted in a responsible manner, especially as tour operators have implemented self-regulatory measures in the interests of what has been described as 'ecotourism' (Naveen, 1991). But the further expansion of tourism, though liable to undermine Antarctica's novelty value as a vacation destination, is perceived to pose a serious environmental threat to the so-called 'last continent'. Antarctica was the last continent to be discovered; it proved the site of 'the last great land rush on earth'; it is presented as 'the last great wilderness on earth'; and it was the last continent opened up for tourists. Tourism is not completely unregulated, but already rapid growth has revealed managerial shortcomings at a time of greater concern for conservation in general and the protection of the allegedly fragile and pristine polar environment in particular.

As a result, tourism occupies a prime place on the agenda of the Antarctic Treaty System (ATS), the term used to describe the inter-governmental mechanism responsible for managing Antarctica since 1961. Dietrich Granow, speaking as chairman at the opening session of the 16th Antarctic Treaty Consultative Meeting (ATCM, 1991) held at Bonn between 7-18 October 1991, warned delegates that *"there are still some sensitive and tricky problems like ... how to tackle tourism in Antarctica"* (ATCM, 1991). Their resulting adoption of recommendation XVI-13 - convening an informal working group for November 1992 to make proposals for the *"comprehensive regulation of tourist and non-governmental activities in Antarctica"* - prepared the way for action.

As a result, the 17th ATCM held at Venice between 11-20 November 1992 considered a report from the preceding two-day informal meeting (9-10 November) provided for by recommendation XVI-13 (ATCM, 1992). The well attended session - Antarctic Treaty Parties (ATPs) and non-governmental organizations (NGOs), among others, were represented

2

- examined tourism's likely impacts, the existing regulatory framework, managerial inadequacies, future needs, and possible strategies (Beck,1994: 1-10). Interested NGOs, including the Scientific Committee of Antarctic Research (SCAR), the Antarctic and Southern Ocean Coalition (ASOC), the World Tourism Organization (WTO), the International Association of Antarctic Tour Operators (IAATO), and the Pacific Asia Travel Association (PATA), were able to make meaningful inputs to discussions. In practice, the meeting, though highlighting the perceived priority of tourism, did little more than to establish the divergent views existing about the most appropriate strategy. Nevertheless, ATPs were able to state their respective positions as well as to suggest alternative ways forward when the topic is taken up at the 18th ATCM scheduled to be held at Kyoto in April 1994.

Judging from their past record, ATPs should be capable *eventually* of securing an agreed approach for the management of tourism within the parameters of the ATS, although the scale of the problem should not be under-estimated. A major difficulty relates to juridical matters, whose complexities prove a function of Antarctica's uncertain legal status and compel each stage of regime development to reconcile divergent, even conflicting, points of view. Despite being overlooked or only partially covered by most world maps, Antarctica is frequently depicted by cartographers as being divided into a series of pie-shaped sectors controlled by specific states (Figures 2-3). However, this practice conveys a misleading impression about a continent whose ownership is both disputed and uncertain. Individual ATPs, like non-ATPs, provide contrasting answers to the question of *"Who owns Antarctica?"*. These answers will be explored in greater depth in this publication, but a brief outline pointed to tourism and involving two ATPs and one non-ATP can be employed to introduce the problem.

In 1989 an Australian parliamentary report on Antarctic tourism reinforced the image of a continent placed under the jurisdiction of certain states, like Australia, which possessed a long-standing claim to almost 2.4 million sq.miles of the continent in the form of Australian Antarctic Territory (AAT):

"Australia is one of seven states which claim territorial sovereignty over parts of the Antarctic continent ... In Australian law the position is quite clear - the AAT is an Australian territory in every way and is of the same status, for instance, as Norfolk Island or Christmas Island. Therefore, Australian law applies subject to relatively few qualifications ... The regulation of tourism under Australian law and governmental policy would be an exercise of our sovereignty over the AAT" (Australian House of Representatives, 1989: 37).

In November 1992 a report entitled *Australian Law in Antarctica* was tabled in the Australian Parliament (Kaye and Rothwell, 1993: 215 - 218). Its main thrust was to stress the preservation and enforcement of Australian over AAT.

By contrast, Naveen, when pointing to the way in which Antarctica 'opens hearts and minds' for tourists, asserted that:

"It is Antarctica as a metaphor that really counts. It is the only unowned place on the planet and the only place where representatives of 75% of the world's population work together harmoniously. Bringing back a horde of ambassadors preaching the gospel of a global community seems worth the difficulties" (Naveen, 1991: 3).

Of course, one might quibble with his figures - 70%, not 75%, seems more reasonable for the combined population of ATPs - as well as with his flowery language. But the interesting point here concerns his employment of the phrase *"unowned place"*. Naveen, having observed that most tourists and tour operators were based in the USA, moved on to consider the prospects for an unilateral approach regulating tourism on the part of the United States government.

"Because of the international nature of Antarctica, which no one owns, and the Antarctic Treaty system, which guarantees free access to all, it would be difficult for any one country to act unilaterally" (Naveen, 1991: 3).

This divide within the ranks of the 42 ATPs (Figure 4) between claimants, like Australia, and non-claimants, as represented by the USA, is complicated by the fact that most non-ATPs, treating the region as a global common, refuse to recognise either existing claims or the rights of ATPs to manage Antarctica. Non-ATPs, accounting for the large majority of members of the international community, have continually stressed the view that - to quote Pakistan:

"Antarctica is the common heritage of mankind. Its protection and conservation are the common responsibility of the entire international community" (Pakistan government, 1991: 17).

As a result, "the legitimate presence of a sovereign on the continent is arguable at best" (Joyner, 1991: 222), even if such uncertainties have failed to prevent the region being managed for over three decades by ATPs acting through the international legal regime described as the ATS.

The above-mentioned snapshots account for most ATPs and non-ATPs, but there exists another perspective worthy of attention. Non-governmental environmental organisations, like ASOC and Greenpeace International, have adopted an active and visible role in the affairs of the region, as symbolised by their 'world park' campaign and claims to have performed an instrumental role in shelving the Convention for the Regulation of Antarctic Mineral Resource Activities (CRAMRA) and inspiring the Protocol for Environmental Protection in the Antarctic Treaty (PREP). For NGOs, wilderness, not legal, values should be paramount. As regards Antarctic tourism, the prime need was to "prevent adverse environmental impacts" (ASOC, 1991: 2) and "safeguard the Antarctic environment in the face of increasing economic interest" (ASOC, 1989: 1-4). The sovereignty issue was a secondary consideration. Although ATPs have often linked the 'world park' campaign with the anti-ATS UN-based lobby, NGOs have increasingly acknowledged Antarctic realities, most notably, the merits of regulating activities within the parameters of the ATS (ASOC, 1989; ASOC, 1991), particularly as ASOC has participated in recent ATCMs as either an expert or observer. Thus, their regulatory requirements - for tourism, this includes opposition to a PREP Annex on the topic - have been pressed with a view to action by the ATPs within a more environmentally conscious ATS.

3. The Centrality of Sovereignty

In essence, these three examples epitomise the nature of the contemporary debate about sovereignty over the 'last great wilderness left on earth'. Sovereignty, as defined to mean the

4

right of jurisdiction in a territory to the exclusion of any other state, determines the ground rules for international relations and international law in general and for the delimitation of boundaries in particular (James, 1984: 1). For Alan James, sovereignty's influence, though dating back to the middle ages and challenged by recent integrative tendencies, shows few signs of abating:

"An increasing proportion of the land surface of the globe has been divided up into sovereign states ... Over the last hundred years the advance of technology together with the increased formalization of international relations has resulted in almost every square kilometre of the earth's land surface being allocated to one sovereign state or another, with virtually all frontiers being tidily delineated and clearly demarcated. It is possible to say that, jurisdictionally speaking, there is never any doubt about where one stands, and that one always stands on the domain of a single sovereign state. The exceptions are so small or so literally out of the way as to prove this rule ... There is no agreed division of the Antarctic continent, and the various competing claims to parts of it have, in effect, been put on one side under a treaty of 1959 ... The allocation of the world's land surface to sovereign states has reached virtually the ultimate point" (James, 1984: 16-17).

Varying answers provided in response to the question of "Who owns Antarctica?" undermine the validity of the familiar cartographical portrayals of a continent controlled by a few states, but these maps do highlight the fact that, following James' "ultimate point" observation, one sector of Antarctica located between 90°W-150°W constitutes one of the few unappropriated areas left on earth (Figure 2). Indeed, "the so-called 'Unclaimed Sector', located within 90° to 150° West Latitude, remains the largest unclaimed piece of territory on earth" (Joyner, 1991: 221 note 31).

4. The Antarctic Sovereignty Problem

The central feature of the politics, law, science, economics and environment of Antarctica is the 1959 Antarctic Treaty (Figure 5). This treaty provides the basis for the ATS, a multilateral cooperative framework safeguarding Antarctica's status as a zone of peace, a continent for science, and a special conservation area. More recently, in 1991 the adoption of the Protocol on Environmental Protection to the Antarctic Treaty (PREP, Figures 6-7) consolidated these features by designating Antarctica "*a natural reserve, devoted to peace and science*" (PREP, Article 2).

The Antarctic Treaty, having been signed by twelve governments at Washington DC in December 1959 (Figure 4), came into effect in June 1961. For more than three decades, the relatively successful operation of the ATS has rendered it easy to forget the pre-1959 scenario characterised by conflicting claims, the serious over-exploitation of living marine resources, and politico-legal and other obstacles to international scientific collaboration. Turning back the pages of history, there was indeed a period between the 1920s and 1950s when there existed - to quote Christopher Beeby, a New Zealand diplomat - "a massive dispute about sovereignty in Antarctica" possessing "ample potential for tensions, disputes and, in the worst case, armed conflict" (Beeby, 1991: 5).

The Argentine, British and Chilean relationship proved the point, as evidenced by frequent diplomatic difficulties between Buenos Aires, London and Santiago and fears of a naval confrontation during the late 1940s. Occasional incidents culminated in the Hope Bay affair of February 1952, when Argentine military personnel fired shots over the heads of British scientists and support staff to prevent the re-construction of a British base station (Beck, 1987: 16-17). This incident, though soon resolved through an exchange of notes, typified the conflict potential of the sovereignty issue; indeed, the Argentine action was described privately by British diplomats as an "act of war" caused by "trigger happy South Americans" (Beck, 1987: 16-17). Further complications arose after 1945 from the positions assumed by the USA and Soviet Union. Neither superpower made any claim to sovereignty and recognised none, but the two governments asserted that their activities constituted a basis of a claim to sovereignty in Antarctica. More seriously, during the late 1940s the escalation in the scale of their involvement prompted speculation that Antarctica might be drawn into the wider East-West conflict known as the Cold War (Beck, 1990a: 198-204).

5. The Last Great Land Rush on Earth

The late 19th and early 20th centuries have frequently been described as the 'Age of Imperialism', that is, the period when the major powers partitioned most of Africa, the Pacific and the Far East in a *"final surge of land hunger"* (Landes, 1969: 241). Antarctica, having been identified by the 1895 *International Geographical Congress* as one of the outstanding geographical problems in urgent need of action, attracted explorers and 'pole-hunters', but remained relatively untouched by the imperial process (Figure 8). It was not until the early 1900s that any serious political interest was taken in the southern continent, particularly by Britain, whose large share of the imperial scramble explained the predominance of red-coloured territory on pre-1914 maps.

The first formal sovereignty claim to Antarctica was advanced over 85 years ago, when Graham Land, the South Shetlands and South Orkneys were included in the 1908 and 1917 *Letters Patent* announcing British sovereignty over the so-called Falkland Islands Dependencies (FID). Initially, the British government, undeterred by geographical uncertainties about the size and nature of the largely unknown continent, decided to aim for control over the whole continent through the pursuit of a gradualist acquisitive strategy (Beck, 1983-84: 448, 454-458). But this objective was eventually scaled down during the 1930s in the face of diplomatic, logistical and other obstacles, especially as the period between 1918-39 witnessed emerging interest on the part of a few other governments to acquire Antarctic territory for a range of strategic, resource, prestige and imperial motives. By the time of the Second World War, seven governments - Argentina, Australia, Chile, France, New Zealand, Norway, and the United Kingdom - claimed between 80-90% of the continent and adjacent islands (Figures 2-3).

One consequence of this process was friction and controversy between rival claimants. Initial difficulties between France and Australia/United Kingdom (UK) as well as between the UK and Norway were resolved by the late 1930s. More seriously, three governments, Argentina, Chile and the UK, advanced overlapping claims within the sector between 20°W and 90°W (Figures 2, 9). The whole of *Antártida Argentina* was/is in dispute, while only small sections (20°W-25°W) of British Antarctic Territory (BAT) - the portion of the FID south of 60°S was

6

renamed BAT in 1962 - and *Territorio Chileno Antártico* (80°W-90°W) remain undisputed. No claim has been recognised by a non-claimant.

These claims, dating back for between 50 and 85 years, remain in force today. The current position is complicated by *speculation* concerning the announcement of further claims on the part of ATPs, like Brazil, Peru or Uruguay, which have recorded their territorial 'rights' within the sector already disputed by Argentina, Britain and Chile. Some refer to a possible Brazilian claim to *circa* 28°W-53°W south of 60°S, while the frontage concept - this relates Antarctic rights to Latin American mainland boundaries - has prompted discussion *outside of official circles* about the rights of various Latin American states to Antarctica (Figure 10). Several other ATPs, most notably, the USA and USSR/Russia, have emphasised their 'rights' to Antarctic territory alongside non-recognition of existing claims (Figure 11). Hitherto, these governments, acting in accordance with the provisions of the Antarctic Treaty, have refrained from giving substance to their alleged 'rights'. However, the USA's Amundsen-Scott station located at the South Pole conveniently straddles every sector claim, just as the USSR tended to establish stations deliberately dotted around the continent. Any Japanese claim arising from its nationals' activities in Antarctica was effectively renounced in the Peace Treaty concluded at San Francisco in 1951.

6. Legal Support for Claims

Territorial rivalries were, and still are, complicated by legal controversies arising out of disagreements over the most appropriate method of supporting claims in territory not previously subject to an internationally-recognised sovereignty. The seven governments, which announced claims between 1908 and the early 1940s, have employed various legal concepts and principles to support their respective claims (Figure 12). Naturally, the emphasis was placed upon the traditional criteria employed to establish sovereignty, that is, first discovery, taking possession, and the perfection of an inchoate title through effective occupation (Brownlie, 1979; Watts, 1992: 121-124). However, Argentina and Chile ranged more widely to employ historical rights dating back to papal awards in the 1490s, inheritance through the *uti possidetis* doctrine of rights previously accruing to Spain, and geographical/geological arguments (Figure 12).

Controversy has been encouraged by specific problems appertaining to the nature and validity of acts of 'discovery' and 'occupation'. Who was actually responsible for the prior discovery of either Antarctica proper or specific locations therein? Given the possibility of confusing icebergs for the continent proper, which alleged 'discoveries' can be authenticated? Can a claim be extended to cover areas not actually visited by a government's nationals? How valid are claim forms dropped from planes? There are, of course, other uncertainties, although it is debatable whether these matters merit much effort, since discovery confers no more than an inchoate title requiring to be perfected within a *reasonable* period by *occupation*. In any case, the vague and incomplete nature of the evidence renders it unlikely that matters of fact (eg. the prior discovery of Antarctica) will ever be resolved in a conclusive manner.

By contrast, 'effective occupation' has occasioned more interest, with particular reference to the qualifications demanded by Antarctica's harsh climate, remoteness, and lack of an indigenous population. For *terra nullius*, no-man's land, international law stressed effective occupation as a key criterion of sovereignty. What is 'effective occupation' in the Antarctic

context? How far could this doctrine, as applied to Africa by the 1885 Treaty of Berlin, be employed in polar regions, where climatic and other factors rendered long-term occupation difficult, if not impossible? For example, in 1924 was France entitled to claim Adélie Land, an area discovered by Dumont d'Urville in 1840, but one upon which no Frenchman had yet set foot? The absence of either judicial precedent or established international legal principles resulted in a partial resort to prior discovery and the formal taking of possession, as well as in reliance upon a diluted version of 'occupation' based upon occasional visits and the issue of whaling regulations and licenses. But there was an alternative view. In particular, the United States government, having assumed its position in 1924, refused recognition of any territorial claims on the grounds of the impossibility of perfecting legal title under Antarctic conditions. Despite policy ambiguities during subsequent decades, non-recognition became a key theme for US governments, and during the late 1950s explained the US Commission to Study the Organization of Peace's assertion that Antarctica was still "in search of a sovereign" (Commission to Study the Organization of Peace, 1957: 212-216). Walter Sullivan, an American journalist actively involved in polar matters, sought to highlight the "absurd" character of claims:

"There are postmasters with no mails to handle, Royal Magistrates with no cases to try, brass plaques that look out over windswept mountains where men have visited but once. The flags, claim sheets, and other emblems dropped from the planes of various nations lie congealed into the crust over the continent. To those who have seen the vastness of the Antarctic ice sheet, the stark splendor of its mountains, the incredible fury of its winds, these displays of national rivalry around its fringes seem strangely absurd" (Sullivan, 1957: 357).

This view has proved a consistent theme in subsequent American thinking, as shown in 1967 by Rear Admiral Abbott, who asserted that, "..after all we don't own the continent. Nobody does!" (Ballantyne, 1967).

Undeterred, claimants cited 'relevant' legal judgements - cases included Palmas Island (1928), Clipperton Island (1931), East Greenland (1933), Minquiers and Ecrehos (1957), and Rann of Kutch (1968) - favouring a less demanding version of occupation in the way suggested by the following extract from the Palmas arbitral award:

"Sovereignty cannot be exercised in fact at every moment on every point of a territory. The intermittence and discontinuity compatible with the maintenance of the right necessarily differ according as inhabited or uninhabited regions are involved" (Brownlie, 1979: 144-146; Watts, 1992: 121-122).

By implication, less control was required to sustain a territorial claim in the polar regions than elsewhere; thus, administrative regulations, appointments (eg. magistrates and postmasters), symbolic acts, and occasional visits were adjudged by claimants as a sufficient basis for title *at that particular moment of time*. But others, arguing that they dealt with unique sets of facts, disagreed and concluded that the above-mentioned cases offered only 'weak' precedents for Antarctica (Triggs, 1981: 129-139).

Nor does international law remain static. By the late 1930s and early 1940s polar technological, logistical and other developments, in conjunction with escalating territorial rivalries, prompted a re-evaluation of 'effective occupation' (Beck, 1986: 28-31). As a result,

8

a *permanent* presence in the form of a year-round scientific base and associated administrative arrangements came to be interpreted as essential for satisfying the 'effectiveness' criterion. The British government, confronted by on-the-spot Argentine, Chilean and US challenges to its sovereignty, decided that:

"there seemed urgent need to increase the effectiveness of our possession and control ... it was deemed necessary to establish at selected points permanent stations which should be there in actual possession" (Beck, 1986: 32).

Against this background, Britain's wartime *Operation Tabarin* (1943-45) and its peacetime variants, the Falkland Islands Dependencies Survey (FIDS) and then the British Antarctic Survey (BAS), preserved and consolidated Britain's claim through a permanent scientific presence at specific locations.

During the late 1940s and 1950s other claimants followed suit in a way highlighting science's role as the currency of Antarctic law and politics, and Waldock, writing in 1948, argued that "the view that polar lands are not susceptible of sovereignty is considered to be quite untenable today" (Waldock, 1948: 315). But advocates of Antarctica's uninhabitable nature were not necessarily impressed, and in 1957 the US-based Commission to Study the Organization of Peace argued that in Antarctica "effective occupation in terms of international law has not yet taken place" (Commission to Study the Organization of Peace, 1957: 216). More recently, Christopher Joyner, whose polar expertise spans both political and legal dimensions, asserted that:

"The massive ice sheet bears responsibility for this legal dilemma ... The legal upshot is that Antarctica remains desolate, isolated and uninhabited - save for the multinational population of approximately 4,000 scientists that visit the continent annually. The plain fact is that incredibly harsh conditions caused by the thick ice mantle have rendered effective occupation of Antarctica through permanent settlement thus far impossible" (Joyner, 1991: 222).

Subscribers to the common heritage principle are also unimpressed by claimants' arguments that their sovereignty, having satisfied the relevant rules of international law acceptable at the time, was in effect immune to subsequently developed legal concepts like common heritage (Watts, 1992: 123-124). These matters can be debated *ad nauseam*, but the issue reminds us that the prime focus should be directed towards the question of whether sovereignty was actually acquired at some time past - this aspect touches on the 'critical date' doctrine and intertemporal law - rather than whether the various sovereignty claims are consistent with contemporary standards and principles (Brownlie, 1979: 130-134; Watts, 1992: 123).

Governments, following Arctic sector practice, defined claims by meridians drawn to the South Pole and based upon either their mainland boundaries (*i.e.* Argentina and Chile) or the coastal limits of their Antarctic claims (*i.e.* Australia, France, New Zealand and the United Kingdom). However, in 1939 Norway, anxious to safeguard its Arctic interests, decided to leave undefined the northern and southern limits of its Antarctic claim for fear of underwriting the validity of the sector principle *in the Arctic*. Similarly, the British government, though in effect using this principle to define the FID/BAT, consciously avoided any mention of sector theory, since - to quote Auburn's perceptive argument:

"a sector is itself an admission of the failure to comply with the general standards of the law of nations" (Auburn, 1982: 23-31; Triggs, 1981: 139-142).

Reliance upon the sector principle was adjudged liable to provoke criticisms about laying claim to territory within a sector neither discovered nor seen by British nationals. In any case, in London it was felt that the concept would unduly favour the Argentine and Chilean governments, which exploited geographical contiguity to justify the concept of a 'South American Antarctic' covering the Antarctic quadrant below South America. This concept, as embodied in the Rio Treaty of 1947 and reaffirmed by the Donoso-La Rosa Declaration (1948) and Act of Puerto Montt (1978), argued that *"the countries neighbouring the sectors* [of Antarctica] ... have preferential rights of sovereignty over them" (Gomez, 21 January 1947, quoted in Bush, 1982: 357). More recently, the frontage concept, albeit reaffirming the idea of a 'South American Antarctic', complicated the matter by posing the possibility of further Latin American claimants within this quadrant (Figure 10).

Although Reeves argued in 1939 that "the sector principle as applied at least to Antarctica is now part of the accepted international legal order" (Reeves, 1939: 519-521), the American, British, and Norwegian governments still rejected the theory as not providing "a sufficient legal root of title", particularly as compared to discovery and occupation (Waldock, 1948: 346). Nevertheless, the sector principle, though generally viewed as insufficient on its own to validate legal title, influenced the mode of boundary delimitation, as recognised by Sir Arthur Watts, formerly the British Foreign and Commonwealth Office's Legal Advisor active on polar topics:

"The sector principle, however limited its value may be as, on its own, a basis for a claim to sovereignty, may legitimately be resorted to as a matter of territorial definition - just as many meridians of longitude or parallels of latitude are used throughout the world for the purposes of boundary delimitation" (Watts, 1992: 113-114).

During the mid-1950s the British government sought to submit its Antarctic sovereignty dispute to the International Court of Justice. In the event, neither Argentina nor Chile supported the application, thereby not only foiling moves towards an agreed settlement of the dispute but also depriving us of the opportunity for authoritative legal guidance on the Antarctic sovereignty issue. In practice the primary rationale for asserting sovereignty in Antarctica has been taking possession and effective occupation through the performance of administrative and scientific activities. Debate continues because legal uncertainties are compounded by the fact that international law is influenced as much by political as juridical considerations. Both the common heritage and sector concepts demonstrate the capacity of legal arguments to be distorted or exploited to accommodate policy requirements. For example, political ideas, like anti-colonialism and equitable sharing, underpinned the arguments employed by Dr. Mahathir, the Prime Minister of Malaysia, in support of declaring Antarctica the common heritage of mankind:

"Uninhabited lands ... the largest of which is the continent of Antarctica ... do not legally belong to the discoverers as much as the colonial territories do not belong to the colonial powers" (Mahathir, 1982: 17-20).

7. The Antarctic Treaty

Historically, Antarctica's role in international politics and law has proved mainly a function of the ownership controversy, as demonstrated by disagreements between either rival claimants for the same portion of territory or claimants and non-claimants over the right to sovereignty and effective occupation. Whereas claimants enacted laws, established 'post offices', issued stamps, undertook occasional presidential and ministerial visits, and protested against infringements of their sovereignty, non-claimants ensured that their actions involved neither a recognition of any government's sovereignty (eg. refusal to seek permission to enter and/or establish postal and wireless offices within a claimant's territory) nor a diminution of their 'rights'.

This "*diplomatic Monopoly game for Antarctic real estate*" (Fox, 1985: 79) offered the major stimulus and challenge for the negotiators of the Antarctic Treaty. John Heap, writing as head of the British Foreign and Commonwealth Office's Polar Regions section, has stressed the primacy of sovereignty considerations for the twelve governments represented at the treaty negotiations during 1958-59:

"My own view is that few, if any, of the governments invited were attracted by the positive aspects of the Treaty. The crucial stimulus ... was fear. Each government had its own scenario of the chaos it foresaw if the Treaty was not successfully concluded" (Heap, 1983a: 105-106).

Sovereignty, having proved a divisive factor in previous decades, performed a constructive role during the late 1950s, when the Antarctic Treaty resulted from a search for the resolution of the ownership dispute or, failing that, a conflict avoidance mechanism. Basically, the Antarctic Treaty created a framework to preserve regional peace and stability, contain politico-legal disputes, and promote the cause of scientific collaboration along the lines of the International Geophysical Year (IGY) held during 1957-58. The treaty, enabling the ongoing sovereignty problem to be contained and managed, keeps the lid closed upon a veritable Pandora's box of difficulties. Its collapse might re-activate the sovereignty problem in an acute and more complex form.

8. Article IV of the Antarctic Treaty

Negotiators soon moved on to legal issues, even if they failed to agree upon anything more than a *modus vivendi* according to which claims and other legal rights, being neither renounced, diminished, nor prejudiced, were merely set aside for the duration of the treaty. This state of affairs might last indefinitely - the Antarctic Treaty lacks any time limit - although certain claimants, most notably, Argentina and Chile, refused to write this point into the treaty itself for fear of qualifying their respective rights.

Semantic ingenuity brought ATPs to a single point of agreement in Article IV on an issue adjudged capable of causing the breakdown of the negotiations. They agreed to differ, respect each other's legal positions, and avoid pressing their particular view to a logical conclusion.

"Article IV avoids endorsing either of the determinative principles advanced during negotiations. It adopts neither the claimants' notion that territorial claims and national sovereignty apply in the Antarctic as elsewhere, nor the non-claimants' notions that claims and sovereignty do not or cannot apply there. Instead, it creates a 'suggestive norm' that the parties should avoid conflict on territorial sovereignty by leaving the issue alone while they cooperate on matters where they can agree" (Peterson, 1988: 42).

According to Article IV₁:

"Nothing contained in the present Treaty shall be interpreted as:

- a) a renunciation by any Contracting Party of previously asserted rights or claims to territorial sovereignty in Antarctica;
- b) a renunciation or diminution by any Contracting Party of any basis of claim to territorial sovereignty in Antarctica which it may have whether as a result of its activities or those of its nationals in Antarctica, or otherwise;
- c) prejudicing the position of any Contracting Party as regards its recognition or non-recognition of any other State's right of or claim or basis of claim to territorial sovereignty in Antarctica."

This formula enabled ATPs, whether claimants, non-claimants, and/or advocates of non-recognition, to uphold their respective legal positions in a state of peaceful coexistence (Watts, 1992: 126-129). Article IV's impact has been described in various ways, but 'freeze', the most common term used today, was employed frequently by treaty negotiators. Other descriptive words and phrases include 'suspension', 'on ice' and 'moratorium'. For legal purposes, the clock was effectively stopped at June 1961, a situation reinforced by Article IV₂:

"No acts or activities taking place while the present Treaty is in force shall constitute a basis for asserting, supporting or denying a claim to territorial sovereignty in Antarctica or create any rights of sovereignty in Antarctica. No new claim, or enlargement of an existing claim, to territorial sovereignty in Antarctica shall be asserted while the present Treaty is in force."

By implication, claims and rights would be neither improved nor weakened (Watts, 1992: 129-132). For example, the establishment of a base station in a new location or the enhancement of research activities would prove incapable of strengthening and extending an existing claim at the expense of other ATPs. Conversely, inaction or neglect would not worsen any ATP's position. In addition, this provision effectively prevents any ATP laying claim to the unclaimed sector.

This imaginative politico-legal accommodation has often been portrayed as "the cornerstone of the Treaty" (Auburn, 1982: 104), but some have proved more critical of Article IV's so-called "purgatory of ambiguity" (Triggs, 1986: 137). For example, van der Essen, one of the Belgian treaty negotiators, described the outcome as "an example of legal acrobatics which poorly conceal an internal contradiction" (Van der Essen, 1983: 232). Certainly, the sovereignty issue, though defused by Article IV, has never completely disappeared; indeed,

perhaps it has become more complicated with the advent of the common heritage and other concepts. *Article IV represents a non-solution of an issue, which might have to be faced, if not resolved, at some future date.* In the meantime, it is acknowledged that the problem remains either upon or just below - it has never been beyond - the horizon as long as the treaty survives. In fact, an appreciation of the seemingly insoluble nature of the problem has encouraged ATPs to advocate the treaty's indefinite duration (Rothwell, 1992: 69).

9. The Changing Position of Claimants within the Antarctic Treaty System

During its lifetime, the ATS has been characterised by three main trends: the growth of participation, the continuing evolution of the regime, and the emerging interest of the wider international community in the affairs of Antarctica. These developments, whose nature, scale and pace have been conditioned by legal considerations, have also exerted important consequences for the sovereignty question. This two-way process continues to represent a prime force in Antarctic affairs (Rothwell, 1992: 83-84).

Firstly, the marked increase in the numbers of ATPs, whether Antarctic Treaty Consultative (ATCPs) or non-ATCPs (Figure 4), has resulted in a significant change in the position of claimants, whose initial numerical dominance within the ATS has been diluted by the accession of other governments neither asserting nor recognising claims as well as by the promotion to ATCP status of parties adjudged to meet the 'substantial research activity' criterion. New ATPs have often been associated (at least unofficially) with alternative legal approaches towards Antarctica, most notably, those rooted in the frontage (e.g. Brazil, Peru) and common heritage (e.g. India) concepts (Child, 1990; Triggs, 1987: 98-104). Claimants, having accounted for seven of twelve ATCPs in 1959, constitute now either seven out of 26 ATCPs or seven out of 42 ATPs. Naturally, these changes possess implications for negotiating positions and strengths in discussions affecting regime development and resource management, even if claimants appear to have retained a special status in the affairs of Antarctica (Figure 13).

Secondly, the ATS has evolved in a flexible manner through recommendations adopted by consensus at ATCMs and the negotiation of additional agreements on specific topics (Figures 8 and 13). The ATS regulates the affairs of Antarctica, although certain responsibilities are either performed by a separate organisation (eg. whaling in the Southern Ocean is regulated by the International Whaling Commission) or exercised in collaboration with specialised agencies, like the World Meteorological Organisation (for the collection of meteorological data). In certain instances, the respective areas of responsibility remain unclear or the subject of continuing debate, most notably, regarding the UN Convention on the Law of the Sea (UNCLOS).

Inevitably, Article IV, having facilitated the negotiation of the Antarctic Treaty, proved a major influence upon regime development. Thus, rival sovereignty positions, complicated by policy factors, have continued to affect, even occasionally to threaten, the unity of the ATS as it has moved forward towards new responsibilities. For instance, during the early 1980s the regulation of mining activities was perceived to raise regime-threatening problems, as identified by Barbara Mitchell:

"It has long been conventional wisdom to suggest that, when a minerals regime is eventually developed, a solution will have to be found to the territorial question. Minerals go even closer to the heart of sovereignty than fish because they are fixed in place and non-renewable. Indeed, until quite recently most commentators outside the system indicated that ownership would have to be settled before minerals could be developed" (Mitchell, 1984: 17).

Soon afterwards, Gillian Triggs expressed similar fears:

"Because mining is so closely associated with sovereign rights, the negotiation of a minerals regime may constitute the final play in bringing down the fragile house of cards that is the Antarctic regime" (Triggs, 1985: 227).

The situation was exacerbated by the seemingly remote possibility of either settling the sovereignty problem or securing agreement if claimants and/or non-claimants pushed their respective positions to the limit. In the event, these fears proved academic, but the eventual adoption of the Convention for the Regulation of Antarctic Mineral Resource Activities (CRAMRA) in 1988 should not obscure the *perceived scale of the problem*, particularly as the divide between claimant and non-claimant states was acknowledged as the principal cause of difficulty and delay in the negotiations held between 1982-88.

The actual text of the Protocol on Environmental Protection (PREP)- for example, it lacks the usual reaffirmation of Article IV - suggests the marginal impact of sovereignty and the continued reliance upon flag-state jurisdiction. In reality, throughout the negotiations held during 1989-91 legal considerations proved a constant policy factor for ATPs, which were spurred into action after two claimants effectively vetoed CRAMRA. PREP's designation of Antarctica as a "natural reserve, devoted to peace and science" (Article 2) failed to convey the care with which ATPs considered a range of alternatives - these included 'wilderness park', 'wilderness reserve' and 'nature reserve, land of science' - consciously avoiding the term 'world park'. ATPs, recalling earlier anxieties about the world park concept (Rothwell, 1992: 84) and seeking to secure the ATS, attempted to avoid a slogan associated with not only NGOs but also advocates of the common heritage notion. A close reading of PREP's text suggests various inputs influenced by the legal problem (Figure 13), most notably, the stipulation that any replacement regime for the mining ban should take account of the positions of both claimants and non-claimants (Article 25₅). Despite PREP's direct linkage to the Antarctic Treaty and hence the protective effects of Article IV, ATPs still felt the need to use the Final Act of the Madrid ATCM to reaffirm the force of Article IV (Figure 13).

The third trend relates to Antarctica's emergence as an international question as well as to the changing context of political and legal attitudes. Greater emphasis has been placed upon the ATP's search for an external accommodation with the wider international community comprising international organisations, non-ATPs, and non-governmental scientific, environmental and other organisations. This development owed much to two events in 1982. Whereas the formal initiation of the minerals regime negotiations in June 1982 encouraged many treaty outsiders to seek a share in the management and benefits of resource exploitation, the conclusion of UNCLOS (December 1982) led Antarctica to be interpreted as another global common, a linkage inspired in part by the questions raised by UNCLOS about the extent to which the continent can be interpreted as *"beyond the limits of national jurisdiction"* (Article $1_{1,1}$).

The prime forum for debate is the UN, where annual discussions on Antarctica have been conducted since 1983 (Beck, 1986: 289-299; Beck, 1992b; Beck, 1993). The initial consensus approach soon broke down, and since 1985 the international community has been divided by the 'Question of Antarctica' (Figures 14-15). On the one hand, ATPs oppose UN interference in the affairs of a region allegedly subject to pre-existing sovereignty rights and claims as well as managed for over thirty years by a 'valid' regime embedded in the framework of international politics and law. Moreover, the Antarctic Treaty is open to accession by any UN member and, it is argued, benefits the wider international community through the preservation of regional peace and stability and the protection of its fragile environment. On the other hand, critics, treating Antarctica as the common heritage of mankind, have pressed for collective action expressed through an allegedly more open, accountable and democratic UN-based regime (Joyner, 1991: 235-237). Most non-ATPs, denying the validity of existing claims to terra communis, urge the ATS's replacement by a more representative UN-based international regime, perhaps modelled upon the UN Convention on the Law of the Sea (UNCLOS) precedent. The divide continues, as evidenced by the UN session held during November-December 1993 (Figure 15; Beck, 1992b; Beck, 1993: 318 - 320).

10. Accommodating the Sovereignty Issue

Hitherto, ATCMs have concentrated primarily on conservation, but the inter-related topic of resource management has proved an emerging concern. Any attempt to manage and regulate activities in Antarctica soon encounters the fundamental problem of ownership. As a result, the sovereignty issue has proved one of the major accommodations to be secured at each stage of the ATS's evolution alongside the reconciliation of differing national positions, such as between mining and conservation interests, developed and developing states, and Eastern and Western bloc perceptions (Triggs, 1986: 161; Rothwell, 1992: 83-84).

The prime focus is normally placed upon claimants, but *non-claimants represent an equally self-interested grouping anxious to deny the validity of claims as well as to protect their respective 'rights'*. For some non-claimants, like the USA, these included 'rights' to sovereignty. During the regime's early years it was perhaps natural that ATPs, concentrating on conservation matters, should adopt a cautious approach towards resource questions because of economic uncertainties and perceived legal complications. But ATPs, having established a living marine resources regime during the early 1980s, could not ignore minerals indefinitely, even if Antarctic minerals remained a *hypothetical resource*, given the failure of geological research to justify over-optimistic notions of tremendous riches in an Antarctic 'treasure island' (Beck, 1992a: 31-33).

The regulation of resource activities assumes the clear identification of ownership for the purposes of control over exploration, conservation, management, taxation, liability, and economic benefit. Within the ranks of the ATPs, there existed two diametrically opposed negotiating positions:

"On the one hand, those States asserting sovereignty in Antarctica start from the position that there can be no exploitation of minerals in their area which is not wholly regulated by them. On the other hand, those States that do not recognize such assertions of sovereignty start from the position that their nationals are free to go to

Antarctica to search for and exploit minerals and that no other State has the right to regulate, in any sense, the activities of their nationals ... For all practical purposes, there could be virtually no mineral activity, even prospecting, which would not give rise to the high probability of a dispute" (Heap, 1983b: 21).

Claimants assert that activities within their respective 'territories' and associated coastal areas, excepting those conducted by individuals (ie. exchange scientists and observers) specifically exempted under Article VIII of the Antarctic Treaty and Article 24 of the Convention for the Conservation of Antarctic Marine Living Resources (CCAMLR), are subject to their jurisdiction. Non-claimants claim competence over their own nationals (including those present as exchange scientists and observers), ships, aircraft, scientific stations and expeditions in Antarctica. If either faction attempted to press its legal stance to the utmost, there could be no basis for an agreed regime.

A related problem concerns the ATS' position vis à vis third states. Is Antarctica a legal vacuum, as asserted by advocates of common heritage? Is the ATS an objective legal regime enforceable against other members of the international community, as argued by some ATPs, or do international legal principles establish that a treaty cannot create obligations for any third party without its consent (Simma, 1986: 189-209; Birnie, 1986: 239-262)? Article X of the Antarctic Treaty, as effectively replicated in CCAMLR (Article 22), CRAMRA (Article 7 paragraphs 5-8) and PREP (Article 13_{1-2}), merely states that each ATCP "undertakes to exert appropriate efforts, consistent with the Charter of the United Nations, to the end that no one engages in any activity contrary to the principles or purpose of the present Treaty". This exhortatory rather than mandatory tone suggests the difficulties experienced by the treaty negotiators over Article X of the Antarctic Treaty, which might mean "all or nothing" (Birnie, 1986: 251-262).

Antarctica, having been subject to claims for some 50-85 years and managed by an international legal regime for over 30 years, should not be dismissed as a legal vacuum, but it seems to be going too far to interpret the ATS as an objective regime binding on third parties (Watts, 1992: 295-298). A related question concerns the attitude of ATPs should a treaty outsider advance a territorial claim to any part of Antarctica, most notably the unclaimed sector. According to ATCM recommendation VIII-8, as adopted in 1972:

"In such circumstances, it would be advisable for Governments to consult together as provided by the Treaty, and to be ready to urge or invite as appropriate the State or States concerned to accede to the Treaty, pointing out the rights and benefits they would receive and also the responsibilities and obligations of Contracting Parties."

This might be dismissed as rather vague, but the impact of any pressure emanating from the ATPs would be accentuated by their inclusion of the major players in the international community. Current problems focus on the regulation of tourism, given the tendency of tour ships to be registered by non-ATPs like Liberia, as well as on the 'research activities' of Pakistan (*The Muslim*, 1991), whose recent Antarctic expeditions have excited the interest of ATPs and prompted efforts to persuade the Pakistan government to accede to the Antarctic Treaty.

16

11. Antarctic Sovereignty Today: An Evaluation

What observations can be made about the process of regime development, particularly as viewed from the perspective of sovereignty?

11.1 Sovereignty has often proved a constructive force in the evolution of the Antarctic Treaty System

Normally, Antarctic sovereignty is depicted as a divisive and destructive force responsible for pre-1959 tensions and occasional post-1959 controversies and negotiating difficulties. It has proved difficult for ATPs to shake off the Hope Bay image. However, sovereignty's role can be interpreted as being of a more constructive nature, a view influenced by the fact that the Antarctic Treaty was largely motivated by fears of instability caused by rival claims. Subsequently:

"The single most important stimulus towards agreed rules was the common judgement that their absence might one day lead to a revival, in a very acute and unmanageable form, of the dispute about sovereignty put aside by Article IV and that this could, in turn, severely undermine the Treaty and even lead to its collapse. That judgement - that rules are needed, that the gap in the Treaty system should be filled - still represents common ground" (Beeby, 1991: 18-19).

Significantly, Christopher Beeby, a New Zealand diplomat, chaired the minerals regime negotiations held between 1982-88. A desire to preempt sovereignty-related problems before they became acute has proved an enduring theme since the late 1950s, thereby allowing this allegedly divisive issue to perform a positive role by pushing the ATS in new directions through successive ATCM recommendations and the conclusion of the Convention for the Conservation of Antarctic Seals (CCAS), CCAMLR, CRAMRA and PREP (Watts, 1992: 137-140).

CRAMRA's adoption in 1988 established that even the sensitive and difficult topic of mining could be resolved without a consensus about the ownership of Antarctica (Wolfrum, 1991). In 1989 Anglo-Argentine-Chilean 'interpretative declarations' accompanying their respective signatures of CRAMRA *illuminated the ability of the claimants to work together within the ATS even in regard to mining activities conducted within an area subject to three rival claims*. Despite its tortuous prose, the Argentine interpretative declaration, dated 17 March 1989, is worth quoting:

"In signing this Convention, the Argentine Republic reaffirms its sovereignty over the Argentine Antarctic Sector and its related sovereign rights and coastal state jurisdiction, which sovereignty, rights and jurisdiction are safeguarded by Article IV of the Antarctic Treaty and Article 9 of this Convention.

For the purpose of facilitating the operation of the Convention in those areas of Antarctica where the Argentine Republic asserts the above-mentioned sovereignty, rights and jurisdiction and in respect of which other States, namely Chile and the United Kingdom, or either one of them, asserts claims, the Argentine Republic, acting within Article IV of the Antarctic Treaty and Article 9 of this Convention, intends to consult, as necessary, with one or both of the other two States as the case may be. Such consultations, and any results thereof, shall not be interpreted as a renunciation or a diminution of or as in any other way prejudicing the above-mentioned sovereignty, rights and jurisdiction of the Argentine Republic in Antarctica, or as a recognition of or support for the position of either or both of the other two States with regard to territorial sovereignty or coastal state rights and jurisdiction in Antarctica. Neither shall they have any bearing upon other aspects of the relationship between the three States or any two of them."

The Chilean and UK declarations, dated 17 March and 22 March 1989 respectively, were similarly worded, except of course where their names were substituted for that of the Argentine Republic.

Given an appreciation of the three governments' sensitivities about Antarctic claims and memories of Hope Bay-type incidents, these declarations reaffirmed the ATPs' ability to qualify the force of sovereignty in the interests of regime development, as conceded by one British Foreign Office minister:

"For the minerals regime to work properly in that region it will be necessary for the three countries to work together, or at least to coordinate their individual actions" (Glenarthur, 1989).

CRAMRA's demise - this occurred for reasons largely unconnected with the sovereignty question - has removed the opportunity of testing the practical implications of these interpretative declarations, but the history of the Anglo-Argentine-Chilean relationship means that their significance should not be under-estimated as an example of constructive cooperation. Nor should one overlook the manner in which CRAMRA's ratification procedures enabled two claimants, Australia and France, to use non-signature to veto CRAMRA and campaign in support of a comprehensive environmental regime including a mining ban. For many commentators, PREP was welcomed as a constructive approach to the conservation problem.

Therefore, Article IV, fostering a kind of dialectical process of conflict and cooperation, has helped ATPs to develop the regime as a forum for multilateral collaboration, and particularly to treat apparent problems as enabling factors. Some, like Vicuna, have gone much further in identifying the continuing value of sovereignty:

"Sovereignty has become inseparable from cooperation in the Antarctic since it would be difficult to maintain sovereignty unless it were closely linked with the factor of cooperation. Conversely, it can also be said that cooperation on its own, if it does not rely on the support provided by national interest in the Antarctic, including those related to claims in sovereignty, would probably lack the necessary vitality" (Vicuna, 1988: 76).

Of course, advocates of common heritage, among others, remain unconvinced by such arguments.

11.2 The absence of a general legal formula to accommodate sovereignty differences

Although Article IV of the Antarctic Treaty provided the basis for an enduring regime covering the activities of ATPs in Antarctica, each stage of regime development has required a pragmatic approach determined by the special characteristics, needs and problems of each topic (Figure 13), like living marine and mineral resources. Specific legal solutions, like CCAMLR's bi-focalism (Watts, 1992: 137-138) and CRAMRA's institutional checks and balances, reflected the impossibility of devising a general formula securing an internal accommodation on sovereignty for all topics.

11.3 The alleged emergence of a joint jurisdiction in place of sovereignty?

In 1960 Herman Phleger, head of the US delegation at the 1959 Washington Conference, testified to the Senate Foreign Relations Committee that:

"By virtue of recognizing that there is no sovereignty over Antarctica we retain jurisdiction over our citizens who go down there and we would deny the right of the other claimants to try that citizen" (US Senate Committee on Foreign Relations, 1960: 62).

Any infringement of this position, he argued, would create "an international controversy", whose impact might be alleviated through resort to $Article VIII_2$:

"The Contracting Parties concerned in any case of dispute with regard to the exercise of jurisdiction in Antarctica shall immediately consult together with a view to reaching a mutually acceptable solution."

Basically, this article, fostering a pragmatic approach towards problems, was designed to take advantage of the desire of ATPs to reinforce their special Antarctic relationship by working the treaty.

Certainly, regime development has consolidated the role of flag-state jurisdiction, as embodied in Article VIII of the Antarctic Treaty, while modifying the force of Antarctic sovereignty so as to emphasise the exercise and control of jurisdiction rather than of sovereignty. In practice, claimants, albeit exercising a territorial approach on paper, have increasingly regulated activities in flag-state terms, while also participating through ATCMs and the CCAMLR Commission in a shared jurisdiction treating the Antarctic treaty area as a whole in a manner determined by the distribution of competencies, institutional voting procedures, and composition arrangements. The unclaimed sector might be *terra nullius*, but has nonetheless been treated by ATPs as subject to ATCM recommendations and other agreements.

Whether or not one should follow Vicuna in describing this management zone as an 'Antarctic territory' is uncertain, for claimants, upholding a role for sovereignty, continue to enjoy a special, even privileged, status in the operations of the ATS. In any case, claimants, noting the safeguards contained in Article IV of the Antarctic Treaty and reaffirmed in subsequent agreements (Figure 13), claim to exercise sovereignty when agreeing to the participation of their respective Antarctic territories in any new measures (Nicholson, 1984: 300). As a result, the CCAMLR management regime can be perceived variously as either fostering a joint

jurisdiction linking sovereignty "*in a different and complementary way with the international order prevailing in the Antarctic*" or diluting, even threatening, the force of sovereignty (Auburn, 1984: 83; Vicuna, 1988: 83). During the late 1980s the CCAMLR regime increasingly moderated the impact of sovereignty considerations to introduce strict regulatory measures and compulsory observation and inspection in the interests of fish conservation. The inspection scheme, which became effective during 1989-90, followed the usual practice of making observers and inspectors 'subject solely to the jurisdiction' of their own governments. For Vicuna:

"CCAMLR seems to have completed this difficult initial stage and is now entering the phase where productive policies can be pursued with greater ease ... As the concern about the effects of CCAMLR on Antarctic claims and related issues has diminished with the passage of time, the conservation policies have become prominent and consensus has taken on a more technical role unlike its initial political meaning" (Vicuna, 1991: 28-29; Vicuna, 1990: 10).

However, NGOs, advocating stricter measures, remain sceptical about the efficacy of the CCAMLR regime.

11.4 Sovereignty claims have not been surrendered

Sovereignty remains a prominent fact of Antarctic law and politics. None take their claims lightly. Some claimants, most notably, Argentina and Chile, interpret their polar claims as integral parts of national territory. In theory, claimant states are entitled by Article IV_2 to maintain their respective claims, along with any prestige appertaining thereto, without either performing the usual responsibilities or incurring the costs of a sovereign power. However, in practice, certain governments have continued to act in a hawkish manner implying a belief in the continuing existence of a close link between sovereignty and the nature, extent and location of their Antarctic presences; thus, it appears that any activities, albeit of an ostensibly scientific orientation, have been interpreted by such governments as the method of recording, maintaining and strengthening their territorial claims.

Neither Argentina nor Chile have fully moderated their respective stances on sovereignty, and their assertive, overt and, at times, flamboyant attitudes have been directed at both domestic and international audiences. Symbolic acts have proved significant, as demonstrated by the erection of name plates announcing the existence of "*Antártida Argentina*", the issue of postage stamps depicting the nature and extent of the claim, the anxiety to stamp the passports of tourists and other visitors, and presidential visits. The Argentine media have highlighted the country's research, aviation, tourist and other activities in Antarctica, including the establishment of a school, settlement of family groups at bases, the conduct of weddings, and the birth of babies described as "*citizens of Argentina and the Antarctic*". The first of these Argentine Antarctic citizens, Emilio de Palma, was born at Esperanza base in January 1978.

"All this contributes to Argentina's legitimate aspirations to sovereignty. Although all Antarctic claims have been temporarily suspended by virtue of the treaty, they are still pending and are a part of the genuine prestige of Argentina among the Antarctic countries" (Argentina, 1981: 13).

20

Chilean activities have often paralleled those of its South American neighbour, as highlighted in 1984 by the establishment of a Chilean "family settlement" in Antarctica.

According to the Antarctic Treaty, these post-1961 activities cannot affect the relative strength of title - sovereignty can be neither improved by activity nor weakened by inactivity and omission - but it has been suggested that, in the event of the treaty's demise, Argentina and Chile would demand some return for such 'investments' in their national interests. British governments, when confronted by concern about Argentine and Chilean activities within BAT, have stressed "the protection given by the Treaty to the United Kingdom's position in the British Antarctic Territory" (Beck, 1986: 133). However, these reassurances failed to prevent the expression of anxieties about BAT's security at the time of the 1982 Falklands/Malvinas War, which represented perhaps the chief perceived threat to Antarctica's status as a zone of peace during in the recent period (Beck, 1990a). Although the Falklands and Antarctic questions are separate historically, politically and legally, Argentina interprets the Falklands, South Georgia, the South Sandwich Islands and Antártida Argentina as part of a single territorial claim (Child, 1985: 71-74; Child, 1988a). As a result, certain British parliamentary and media commentators speculated about the Antarctic conflict potential of the Falklands Early in April 1982 Lord Shackleton asserted that: "What is at stake and what War. understandably is in the minds of the Argentinians is not just the Falkland Islands but their claim to Antarctic territory" (Shackleton, 1982).

Naturally, President Galtieri's statement that the *Malvinas*' recapture proved "merely the beginning of the reaffirmation of Argentina's right to assert territories" fuelled such speculation (Child, 1985: 81). In the event, fears about the southwards extension of the conflict proved groundless, partly because of a possible mis-reading of Argentine statements made in the heat of the moment and partly because of a general tendency to under-estimate, even to ignore, the Antarctic Treaty's protective and peaceful qualities. During the 1982 War Antarctica retained its neutral character, and consequently its relative insulation from sovereignty and other disputes arising between ATPs in other parts of the world, even if these clashes occurred in a geographically-proximate area like the Falklands, South Georgia, or the South Sandwich Islands.

After the War the British government indicated that:

"In the course of the Falklands conflict Her Majesty's Government observed the provisions of the Antarctic Treaty prohibiting any measures of a military nature, and we have no evidence that Argentina did not do likewise. It is therefore fair to say that ... none of the islands and territories comprising the British Antarctic Territory were or is involved in the [Falklands] dispute" (British FCO, 1982: 4).

Significantly, during the war itself Argentine and British representatives sat down together in three separate rounds of ATS discussions held at Hobart (May), Canberra (May) and Wellington (June) on marine and mineral questions. The Antarctic Treaty area remained a zone of peace. Subsequently ATS matters and Antarctic research offered an invaluable point of Anglo-Argentine contact unaffected by the Falklands problem and the break in diplomatic relations experienced between 1982-90 (Beck, 1989: 181-183). For example, the two governments cooperated in the development of the Antarctic Treaty regime, as evidenced by the formation of an agreed claimant position on CRAMRA and the interpretative declarations issued in 1989. In addition, Argentine and British scientists continued to participate in

multilateral research programmes (eg. the *BIOMASS* project on krill, NASA's 1987 Airborne Antarctic Ozone Experiment).

Traditionally, the principal method of recording an Antarctic interest and presence has been through science. In reality, research programmes are often viewed through political spectacles, particularly on the part of claimants, which interpret a scientific base as recording on-the-spot claims and upholding national interests as against other governments. During 1982-83 official British funding for BAS increased by over 60% as part of the post-Falklands War enhancement of Britain's role and visibility in the South West Atlantic. After some 15 years of level funding and declining Antarctic research activities, the British government allocated extra money to BAS, which offered the only meaningful way in which a post-war reorientation of British Antarctic policy could be expressed. For non-claimants, including those with alleged 'rights', science provides an instrument to consolidate these rights, to press their claim to a say in the continent's affairs, and to justify elevation to ATCP status.

Sovereignty considerations, being 'deeply rooted', have never disappeared from the perceptions of policy-makers. Their demise does not seem imminent. According to John Heap, a former British diplomat experienced in Antarctic affairs, "where sovereignty has been claimed, it is unlikely that any State, having claimed it, will give it up" (Heap, 1984: 58). Claims can be surrendered, but hitherto no claimant has followed this course, even if during the late 1950s and again in the mid-1970s New Zealand displayed an occasional preparedness to contemplate an alternative position (Beck, 1986: 131-132). This reluctance to cede sovereignty, though reflecting the usual policy inertia, establishes the difficulty of generating the requisite political will on a sensitive issue. In any case, significant practical benefits accrue to claimant status. Sessions responsible for drafting CCAMLR and CRAMRA demonstrated that a territorial claim represented an invaluable negotiating lever, a kind of 'ace card', giving claimant ATCPs - to quote Gillian Triggs - "a preferred negotiating position" for the pursuit of their respective national interests in Antarctica (Australian House of Representatives, 1989: 38). Between 1982-88 claimant ATPs convened secretly as a group prior to each CRAMRA negotiating session to arrive at an agreed position on specific aspects. Territorial sovereignty also renders it easier for governments to justify and finance scientific research and other activities in Antarctica.

11.5 The difficulty of settling the sovereignty issue

William Mansfield, speaking about the sovereignty problem as New Zealand's deputy permanent representative to the UN, asserted that: "There is no prospect of its being settled ... There is also no prospect of the necessary consensus on the legal status of the area" (Mansfield, 1985: 61). Just as overlapping Argentine-British-Chilean claims hamper the prospects for consensus between claimant ATPs, so territorial sovereignty exercised by the seven claimants would never prove acceptable to other ATPs. Nor would alternative legal approaches based upon the common heritage or frontage concepts (UN Study, 1986: 36). For example, the British government, a claimant, asserted that: "We firmly believe that an attempt to apply a common heritage regime would upset this proven system, [and] risk destabilising the region" (Howe, 1985: 62). Of course, a claimant would say this, but even non-claimant ATPs, pointing to existing (disputed) claims and the ATS as a 'valid' international regime predating the common heritage notion, have seconded this view. During the late 1970s one

American official, responding to recent analogies drawn with proposals to declare the moon and deep sea bed as the common heritage, articulated a sceptical view:

"The difference between the deep sea bed and Antarctica and between the moon and Antarctica is stated quite simply - territorial sovereignty; and a sovereign claim, be it valid or dubious under international law, is nonetheless the grist of the international law mill" (Ratiner, 1977).

The Polish government, another non-claimant ATP, informed the UN that:

"we do not believe that the concept of common heritage can be considered as relevant to Antarctica. That continent is no longer a legal vacuum" (Polish government, 1985: 8).

11.6 The need for forbearance

In theory, the disputed ownership of Antarctica should prove a severe constraint upon the evolution of the ATS. Hitherto, ATPs, having decided in the interests of regime development against pushing their positions too far, have displayed in practice a judicious mixture of cooperation and restraint. This forbearance owed much to the manner in which the ATS itself emerged as a policy interest.

11.7 The Antarctic Treaty System as a policy factor

At present, the ATS is interpreted by ATPs as the most appropriate framework for the pursuit of their respective Antarctic interests. In general, their concern is to pursue political rather than either legal or military solutions - it is acknowledged that Antarctic claims are beyond both legal arbitration and an effective defence effort - to any disputes by interpreting the ATS as a way of avoiding the unmanageable escalation of national policy interests at variance with each other. Article IV remains a crucial part of this balancing process.

Against this background, it has been argued that claimants, like other ATPs, have more to gain from the regime's preservation rather than from the pursuit of allegedly unrealistic and unenforceable sovereignty claims experiencing a constant incremental diminution in strength through the process of regime development. For instance, Paul Dibb, pointing to the practical difficulties of patrolling and unilaterally controlling AAT, argued that Australian national policy interests *"are safeguarded by the continuation of the Antarctic Treaty, not by claims to sovereignty"* (Dibb, 1984: 132; Dibb, 1986: 37).

Hitherto, the Australian government itself, like other claimants, has not seen things in this light. The objective to "preserve its sovereignty over the Australian Antarctic Territory (AAT), including rights over the adjacent offshore areas" is normally listed first in any statement of Australian interests - these comprise "sovereignty, neutrality, environment, science, involvement and benefit" (Brook, 1984: 256-259; Beck, 1990b: 108-109) - even if environmental factors have acquired greater priority through Australia's prominent role in pushing for PREP and a mining ban (Beck, 1990b; Bergin 1991: 216-239). At the same time, the ATS is interpreted as an important enabling instrument for Australian policy-makers:

"Successive governments have recognised that the maintenance of the Antarctic Treaty system is the best means of preserving Australia's claim to sovereignty, and of protecting its other interests and furthering the effectiveness of Australia's influential position and long-term obligations within that system. Governments have also recognised that maintenance of Australia's claim requires continuous and effective occupation of the AAT, and in support of this and Australia's other interests, maintained an effective physical presence, a credible scientific effort and an operating infrastructure, including sea and air transport and communications systems" (Australian Department of the Arts, 1988: 32).

Jack Child has detected a more moderate approach, even upon the part of Argentina, which has been long associated with a hawkish position on sovereignty:

"There seems to be a growing realization that making good an Antarctic sovereignty claim is not very realistic ... Thus, there is cautious but intriguing discussion regarding the sharing of Antarctic sovereignty with other Latin American nations under Argentine leadership" (Child, 1988b: 9; Child, 1990).

Even so, sovereignty considerations have not fully disappeared, and Argentine foot-dragging in the ATCM's ongoing discussions about creating a Secretariat reflect fears that such institutional developments will further undermine its sovereignty (ATCM, 1991; ATCM, 1992).

11.8 Legal uncertainties about Antarctic seas and ice

Considerable debate has occurred regarding the legal status of the ice and ocean spaces surrounding Antarctica, with specific reference to what an UN Study described as the 'unclear' relationship between the ATS and the 1982 UNCLOS (UN Study, 1986: 36; Birnie, 1988: 111-117; Joyner, 1991). UNCLOS, albeit not yet in force, has proved an influential force in discussions about the status of the Southern Ocean (Watts, 1992: 156). The state of international law on ice is even less advanced:

"The international law concerning ice remains incomplete and unclear. No international legal regime is yet in place which comprehensively sets out the legal status of ice in its various forms or specifically assigns jurisdictional competence over its use" (Joyner, 1991: 214).

Snow and ice dominate the southern polar scene, thereby explaining why Antarctica - about 98% is covered by ice normally ranging between one and three miles in thickness - is often described as 'the white continent'. In turn, some have questioned how far the continent can be interpreted as having a territorial quality amenable to sovereignty (Watts, 1992: 112). However, unlike the Arctic, Antarctica comprises fundamentally a land mass, which is occasionally exposed in some coastal locations or mountain ranges. It seems difficult to deny the continent's territorial quality for legal purposes. But there are other imponderables, including the difficulty of delimiting a coastline for a continent surrounded by a varying expanse of sea ice and described as a 'pulsating continent' capable of more than doubling in size during the southern winter. Is sea-ice, which is essentially frozen sea lacking any

permanent connection with land, incapable of becoming the object of territorial sovereignty (Watts, 1992: 114; Joyner, 1991: 222-224)? Should ice shelves - these occur where the polar ice sheet flowing out from the interior reaches the sea - be treated as a permanent feature attached to the land from which they originate in spite of the fact that they are not only in motion but also destined to break off to form ice bergs (Joyner, 1991: 225-228)? What is the legal significance of the apparent distinction drawn by the Antarctic Treaty (Article VI) and CRAMRA [Article 5_2] between the ice shelves and the high seas (Joyner, 1991: 225-228; Watts, 1992: 118)?

Given CRAMRA's exclusion of ice from its definition of mineral resources, how should the harvesting of ice bergs - some bergs may occasionally exceed the size of some countries - be regulated in the light of speculation about Antarctic ice as a global water resource (Vicuna, 1988: 159-160; Mangone, 1988: 371-388; Joyner, 1991: 231-237)? At present, it seems easier to pose legal questions rather than to provide agreed answers, but clearly developments affecting Antarctica, which accounts for over 90% of the world's ice, will perform an influential role in the emergence of any international legal regime for ice.

It is scarcely surprising that an area of uncertain territorial jurisdiction should be characterised by similar doubts about maritime zones, especially as rights over territorial seas, continental shelves and exclusive economic zones derive primarily from the concept of a 'coastal state' (Joyner, 1990: 318-322; Watts, 1992: 132-134, Joyner, 1992). ATPs and non-ATPs offer varying perspectives on this point, and currently there exist no universally recognised maritime jurisdictional zones seaward of the Antarctic continent (Joyner, 1990: 320). "No clear and general answer is possible" (Watts, 1992: 150), but the Antarctic Treaty area, by excluding the high seas [Article VI], provides scope for coexistence, or at least restricts the likely area of conflict, between the Antarctic Treaty and UNCLOS regimes. Nevertheless, Joyner, having acknowledged that "the murky, controversial legal situation" suggested that maritime jurisdiction around Antarctica "is likely to remain both legally suspect and a polemical matter" (Joyner, 1990: 321-323), has articulated the need to move beyond contemporary political and legal preoccupations:

"Hitherto, the process of defining legal maritime zones in the Southern Ocean has proved somewhat artificial in terms of paying insufficient attention to geographical considerations ... This highlights the need for new policies in relation to the development of further international law to supplement and enhance the existing system so that activities in southern circumpolar waters can be administered in a more equitable and effective manner in the light of changing needs and developments"

12. Conclusion: Looking Forward

"New questions about equitable management are presenting challenges that may reshape the political context of the continent in the next decade. During the forthcoming period of change, **the challenge is to ensure that Antarctica is managed in the interests of all humankind**, in a manner that conserves its unique environment, preserves its value for scientific research, and retains its character as a demilitarised, non-nuclear zone of peace" (Brundtland Report, 1987: 275). In this manner the 1987 *Brundtland Report* identified the fundamental management issues affecting the future of Antarctica, while raising the question of how far territorial sovereignty remains relevant to the affairs of a region needing to be managed from a global perspective "in the interests of all humankind".

Territorial sovereignty, though treated with great reverence in most parts of the world, is often viewed differently in Antarctica. In particular, the advent of new international principles like decolonisation, equitable sharing, and common heritage, encouraged a questioning of the allegedly anachronistic and neo-colonialist nature of claims, whose logic ranges from *"the eccentric to the surreal"* (Fox, 1985: 76; Redgwell, 1990: 90-91). According to Honnold, exclusive sovereign rights to Antarctic territory and resources:

"are barred by contemporary principles of international law ... Antarctica must be governed by an international 'law of common spaces' ... a fully international regime must be established" (Honnold, 1978: 806-807).

Honnold typifies the attack launched by critics against the traditional criteria employed to support sovereignty in Antarctica by claimants, whose arguments are "arcane ... an unclear and unconvincing foundation for national claims":

"Exclusive claims in Antarctica are not only founded on outmoded legal doctrines, but also are ill-advised in the light of the world's changing political and economic realities ... The several territorial theories still invoked in support of exclusive claims in Antarctica have never been validly applied and spring from a colonial era long since passed" (Honnold, 1978: 807-808, 827-828).

Benedetto Conforti, observing that the Antarctic Treaty awards ATCP status only to those conducting 'substantial research activity' in the region, has proposed that "this is the only special position that modern legal theories can justify regarding Antarctica" (Conforti, 1986: 258).

"The territorial claims in Antarctica lack a strong legal basis ... New principles exist that can and must be applied. Under these contemporary principles, the territorial claims in Antarctica appear even more anachronistic and legally unsound ... These contemporary theories suggest that the claimant states do not enjoy any rights superior to those enjoyed by the other states carrying out activities in Antarctica" (Conforti, 1986: 256-258).

But in practice claims are deeply entrenched, and seem unlikely to go away, at least in the near future; thus, *sovereignty should be interpreted as a continuing feature of the international politics and law of Antarctica* (Kaye and Rothwell, 1993: 218).

Law has been employed in an ingenious and innovative fashion by ATPs in order to develop the treaty regime as well as to side-step sovereignty and other complications. Hitherto, international lawyers have devised a series of clever legal devices - these include Article IV of the Antarctic Treaty, CCAMLR's bi-focalism, and CRAMRA's system of checks and balances - and Hazel Fox has argued that future needs might take lawyers into a new stage of legal thinking through: "an abandonment of old legal methods based narrowly on state sovereignty and territorial jurisdiction in favour of new concepts to accommodate the conflicting demands" (Fox, 1987: 78).

Gillian Triggs went further to suggest that:

"if the Antarctic Treaty System is to survive, then claims must be allowed to decline in importance and ultimately to wither away" (Triggs, 1987: 105).

Whether or not these 'new concepts' will ever make territorial sovereignty an irrelevance remains uncertain. Certainly, new and important challenges await lawyers working on Antarctic questions, most notably, in the sphere of maritime zones and ice. The complex problem of liability under PREP is currently under discussion. In November 1993 an initial meeting of Legal Experts at Heidelberg surveyed the issues for discussion, but made little progress. A report on this session will be given at the 18th ATCM at Kyoto in April 1994.

But legal questions cannot be viewed in isolation (Figure 16), especially as concepts like sovereignty and common heritage spill over into both politics and law. The future course of the ATS will prove ultimately a matter of political will rather than of law, and will be determined by the national interests of ATPs, albeit supplemented to varying degrees by their mutual appreciation of global interests in the environmental and other spheres. Past achievements do not guarantee a trouble-free future, and ATPs might be confronted by management problems of growing complexity.

Perhaps the most pressing matter is PREP, whose implementation will provide a comprehensive environmental protective framework within which future issues might be considered. In the short term, tourism is to the fore as an agenda topic, but at present it proves difficult to say whether this will be regulated through an Annex to PREP, the reinforcement of existing ATCM measures, or some other mechanism (Beck, 1994: 9-10). The only certainty concerns the fact that tourism will be regulated within the parameters of the ATS. Further regime developments need to protect and bridge rival positions on sovereignty, while simultaneously promoting multilateral cooperation between an ever-increasing number of states on a widening range of responsibilities. The UN-based threat to the ATS remains, but has been increasingly marginalised in recent years (Figures 14-15).

For over three decades, ATPs have felt able to co-exist and develop the ATS in a pragmatic, cooperative manner. The regime's survival and relative success has proved a function of the ATPs' support for shared norms and values concerning the avoidance of points of friction and A freeze on sovereignty, though messy and the promotion of common interests. unsatisfactory on several counts, was perceived as preferable to any alternative possibility. There existed merely a consensus to freeze the legal problem, for it proved impossible to secure an agreed answer to the question of "Who owns Antarctica?". Neither governments nor academics have been able to agree about the precise location of sovereign authority in Antarctica. There exists little prospect of securing an agreed view from ATPs about the Nor is there much chance of ATPs and non-ATPs reaching a continent's ownership. consensus, despite claims that common heritage and the ATS are not necessarily irreconcilable Already the treaty regime embodies various common heritage elements, like concepts. peaceful use and conservation (Triggs, 1987: 103-104), but territorial sovereignty, though an

acknowledged factor in the region's affairs, confronts common heritage head-on and remains a prominent exception to this trend.

Hitherto, sovereignty has often performed an ambivalent role in the region's affairs. For Antarctica, it has proved not only a constructive and divisive force but also as much the master as the servant of developments. A few years ago Sir Geoffrey Howe offered a thoughtful reappraisal of sovereignty in general:

"Sovereignty is not some pre-defined absolute, but a flexible, adaptable organic notion that evolves and adjusts with circumstances ... [and] constitutes a resource to be used, rather than a constraint that inhibits or limits our capacity for action" (Howe, 1990: 676, 691).

The Antarctic past and present provide mixed messages about the ability of the Antarctic future to conform to this vision, particularly upon aspects regarding jurisdiction over maritime areas and ice. Much will depend upon the fate of static principles in a dynamic world:

"Traditional principles of international law may no longer be accurate guides for future government action ... in changing times ... the challenge is to promote policies which accord more with the reasonable expectations of the international community than with traditional and often inappropriate principles of international law" (Triggs, 1984: 62-63).

Although the 'pole apart' theme still influences many perceptions of Antarctica, this viewpoint should not be allowed to obscure either the manner in which the southern polar scene both reflects and influences international relations in general or the fact that Antarctic developments concerning ownership, resource management and conservation are merely south polar manifestations of global problems.

Abbreviations

AAT	Australian Antarctic Territory
ASOC	Antarctic and Southern Ocean Coalition
ATCM	Antarctic Treaty Consultative Meeting
ATCP	Antarctic Treaty Consultative Party
ATP	Antarctic Treaty Party
ATS	Antarctic Treaty System
BAT	British Antarctic Territory
CCAMLR	Convention for the Conservation of Antarctic Marine Living Resources
CCAS	Convention for the Conservation of Antarctic Seals
CRAMRA	Convention for the Regulation of Antarctic Mineral Resource Activities
EIA	Environmental Impact Assessment
FID	Falkland Island Dependencies
FIDS	Falkland Island Dependencies Survey
ΙΑΑΤΟ	International Association of Antarctic Tour Operators
IGY	International Geophysical Year
NGO	Non-Governmental Organisation
РАТА	Pacific Asia Travel Association
PREP	Protocol for Environmental Protection
SCAR	Scientific Committee for Antarctic Research
UNCLOS	United Nations Convention on the Law of the Sea
UNSG	United Nations Secretary General
WTO	World Tourism Organisation



Figure 1: Alternative Cartographical Perspectives on Antarctica




Figure 2: Map of Territorial Claims in Antarctica

Claimant	Claim	Definition	Date Announced	Extent	
ARGENTINA	Antártida Argentina	25°W-74°W south of 60°S	1943-1947, but allegedly preceding this date	550,000 sq.miles	
AUSTRALIA	Australian Antarctic Territory (AAT)	45°E-160°E south of 60°S, excluding 136°E- 142°E	1933-1936	2.4 m. sq.miles	
CHILE	Territorio Chileno Antártico	53°W-90°W to the South Pole (no northern boundary announced)	1940 (in 1906 announced that territory to be defined)	500,000 sq.miles	
FRANCE	Terre Adélie	136°E-142°E south of 60°S	1924, but only defined 1933- 1938	150,000 sq.miles	
NEW ZEALAND	Ross Dependency	160°E-150°W south of 60°S	1923	175,000 sq.miles	
NORWAY	Dronning Maud Land	20°W-45°E "with the land lying within this coast and the environing sea" (no northern /southern boundary defined)	e land lying ithin this coast id the environing a" (no northern outhern		
UNITED KINGDOM	British Antarctic Territory	20°W-80°W south of 60°S (includes South Orkneys and South Shetlands)	1908, 1917	700,000 sq.miles	

Figure 3: Sovereignty Claims to Antarctica

Figure 4: Membership of the Antarctic Treaty System

There are two categories of membership:

Consultative Parties (ATCPs) - original signatories and states adjudged to perform "substantial research activity" in Antarctica entitled to a decision-making role at Antarctic Treaty Consultative Meetings.

Founder Consultative Parties/Original Signatories (12)

Argentina; Australia; Belgium; Chile; France; Japan; New Zealand; Norway; South Africa; United Kingdom; USA; USSR (signed December 1959; ratified 1960-61).

Additional Consultative Parties (14) (date of securing ATCP status; date of accession)

Brazil (1983/1975); China (1985/1983); Ecuador (1990/1987); Finland (1989/1984); Germany (1990*); India (1983/1983); Italy (1987/1981); Republic of Korea (1989/1986); Netherlands (1990/1967); Peru (1989/1981); Poland (1977/1961); Spain (1988/1982); Sweden (1988/1984); Uruguay (1985/1980).

Non-Consultative Parties (16) - recognise the validity of the Antarctic Treaty and have observer status at meetings. It is often a stepping-stone towards ATCP status.

Austria (1987); Bulgaria (1978); Canada (1988); Colombia (1989); Cuba (1984); Denmark (1965); Greece (1987); Guatemala (1991); Hungary (1984); Democratic People's Republic of Korea (1987); Papua New Guinea (1981); Romania (1971); Switzerland (1990); Ukraine (1992); Czech Republic (1993**); Slovak Republic (1993^{**}).

TOTAL NUMBER OF ANTARCTIC TREATY PARTIES: 42.

- * In 1990 the unification of Germany involved a merger between two ATCPs (Federal Republic of Germany (1981/1979) and the German Democratic Republic (1987/1974).
- ** In 1993 the succession to Czechoslovakia (1962) by the Czech and Slovak Republics led both republics to accede to the treaty.

Figure 5: The Antarctic Treaty

The 14 article treaty, signed at Washington DC. in December 1959, became effective in June 1961.

Key Points:

i) Peaceful use of Antarctica

It is in the interests of mankind for Antarctica to be used *"forever"* (preamble) for peaceful purposes and not to become the scene of international discord:

- non-militarisation no military activities, bases or weapons testing (Article I).
- non-nuclearisation no nuclear explosions or radioactive waste disposal (Article V).
- inspection parties have right of inspection to check observance of treaty (Article VII).
- peaceful settlement of disputes between parties (eg. negotiation, arbitration or International Court) (Article XI).
- third parties parties to exert "*appropriate efforts*" to ensure non-signatories do not infringe principles or purpose of treaty (Article X).

ii) Promotion of scientific research to continue the International Geophysical Year (IGY) experience:

- freedom of scientific investigation (Article II).
- promotion of international scientific cooperation through exchange of information, data and personnel as well as links with appropriate specialised agencies of the UN (Article III).

iii) Legal accommodation

- freezing of legal positions providing for a *modus vivendi* between claimants and nonclaimants (Article IV).
- personnel (eg. observers, scientists) subject to national jurisdiction (Article VIII).

iv) Managing Antarctica

Meetings to be held at suitable intervals and places (ie. no permanent mechanism) to implement principles and purposes of the treaty; measures become effective when received approval of all parties; meetings composed of original signatories and other parties performing *"substantial research activity"* in Antarctica(Article IX).

v) Conservation

There is only a brief reference to the "*preservation and conservation of living resources*" in the list of responsibilities of treaty meetings (rticle IX, para 1f). Special conservation arrangements were secured through subsequent measures (eg. 1964 *Agreed Measures*).

vi) Open to accession

Treaty open to accession by any state (Article XIII), but acceding states only participated in treaty meetings if conducting *"substantial research activity"* in Antarctica (Article IX).

vii) No time limit

No time limit mentioned in the treaty (ie. may last indefinitely) though "forever" is mentioned in the preamble; provision for a treaty review in or after 1991 (Article XII).

viii) Area of coverage

The area south of 60°S, including ice shelves but excluding the high seas (Article VI).

Figure 6: Protocol on Environmental Protection to the Antarctic Treaty

The Protocol, adopted at Madrid on 4 October 1991, has yet to become effective. It has been signed by most Antarctic Treaty parties, which are now engaged in the requisite ratification procedures.

A) ESTABLISHMENT OF A COMPREHENSIVE ENVIRONMENTAL PROTECTION REGIME FOR ANTARCTICA

• Parties, designating Antarctica as a *"natural reserve, devoted to peace and science"*, are committed to the comprehensive protection of the Antarctic environment (Article 2).

i) Environmental protection as the fundamental consideration governing activities

- The protection of the Antarctic environment, including its wilderness and aesthetic values, shall be *"fundamental considerations"* in planning and conducting activities in the Antarctic Treaty area (Article 3₁).
- Parties should limit or avoid "adverse impacts", "significant changes", and "substantial risk" to the Antarctic environment, most notably, climate or weather patterns; air or water quality; atmospheric, terrestrial, glacial or marine environments; distribution, abundance or productivity of species of fauna and flora; and areas of biological, scientific, historic, aesthetic or wilderness significance (Article 3_{2a-b}).
- The Antarctic environment is defined to include "dependent and associated ecosystems".
- Parties should cooperate in the planning and conduct of activities, including environmental protection; environmental impact assessments; information sharing; base location; joint expeditions and stations (Article 6_{1-2}); and emergency response (Article 15).
- Annexes, dealing with specific aspects, form an integral part of the Protocol (Article 9).

ii) Qualified Priority of scientific research

• Although research is prioritised, scientific activities should be modified, suspended or cancelled unless conducted in conformity with the Protocol.

iii) Informed Environmental Management

- Decisions should be made on the basis of informed judgements about impacts taking account of the area, duration and intensity of activities; cumulative impacts; compatibility with other activities; availability of technology and procedures for monitoring impacts and ensuring safe operations; and accident response (Article 3_{2c}).
- Judgements should be preceded by environmental impact assessments (Annex I, Article 8_{1-4}).
- Regular and effective monitoring should be undertaken to assess impacts and unforeseen effects (Article 3_{2d-e}). Parties should provide annual reports on the Protocol's implementation (Article 17) for circulation to parties and the Committee of Environmental Protection and consideration at the next Antarctic Treaty Consultative Meeting (ATCM).

B) INDEFINITE BAN ON MINING ACTIVITIES

- Mineral resources activities, other than scientific research, are prohibited (Article 7).
- The ban may be reviewed after 50 years from the Protocol's entry into force.
- The prohibition can only be amended by a 3/4 majority of the 26 ATCPs, as of 4 October 1991, and if replaced by a binding legal regime with agreed means for determining environmental impacts and safeguards covering parties' legal positions (Article $25_{2,5}$).

C) STRENGTHENING THE ANTARCTIC TREATY SYSTEM

i) Supplementing the Antarctic Treaty

• The Protocol, supplementing the Antarctic Treaty (Article 4_1), is compatible with other components of the Antarctic Treaty system (preamble, Article 4_2).

ii) Role of Antarctic Treaty Consultative Meetings (ATCMs)

- ATCMs, drawing upon expert advice (eg. from the Committee for Environmental Protection, SCAR), define comprehensive protection policy and adopt appropriate measures under Article IX of the Antarctic Treaty (Article 10).
- ATCMs review the work of the Committee for Environmental Protection and consider inspection reports and annual reports from individual parties.

iii) Committee for Environmental Protection

- Creation of a Committee for Environmental Protection comprising representatives from parties and observers (eg. President of SCAR).
- It offers advice and formulates recommendations to parties for the Protocol's implementation, including the effectiveness, modification and updating of environmental measures; problem areas; EIA and inspection procedures; means of minimising or mitigating impacts; and research priorities (Article 11, 12_{1-2}).
- The Committee, whose reports are circulated to parties and made publicly available, reports to ATCMs (Article 11₅).

D) COMPLIANCE

- Parties must adopt measures (eg. laws and regulations) and exert *"appropriate efforts"* to ensure compliance (Article 13₁₋₂).
- Parties and ATCMs should draw attention to any activity affecting the Protocol's implementation (Article 13₄₋₅).
- Inspections, undertaken individually or collectively in accordance with Article VII of the Antarctic Treaty, check compliance (Article 14₁₋₂).
- Parties are required to cooperate fully with observers undertaking inspections (Article 14₃)
- Inspection reports, circulated to all parties and the Committee, are considered at the next ATCM and become publicly available.

E) LIABILITY AND DISPUTES

- Rules and procedures covering liability for damage arising from activities will be covered in a future Annex (Article 16).
- Disputes about interpretation or application are resolved by peaceful means (eg. mediation, conciliation, arbitration, judicial settlement) (Articles 18-20).

F) ENTRY INTO FORCE AND DURATION

- The Protocol, open for signature between 4 October 1991 and 3 October 1992, is now open to accession by any Antarctic Treaty party (Articles 21-22).
- If any modifications/amendments fail to enter into force within 3 years of adoption, a Party may notify its withdrawal to take effect 2 years later (Article 25_{5b}).
- Protocol enters into force on the 30th day following the deposit of instruments of ratification, acceptance, approval or accession by all 26 ATCPs, as of 4 October 1991 (Article 23).
- After the expiration of 50 years from its entry into force, any ATCP may request a conference to review the operation of the Protocol (ie. no time limit) (Article 25_2).

Figure 7: Annexes To The Protocol On Environmental Protection To The Antarctic Treaty

Annex I:	Environmental Impact Assessment (EIA)
Annex II:	Conservation of Antarctic Fauna and Flora
Annex III:	Waste Disposal and Waste Management
Annex IV:	Prevention of Marine Pollution
Annex V:	Area Protection and Management

Annexes I-IV: Adopted at Madrid, 4 October 1991 Annex V: Adopted at Bonn, 18 October 1991

The Bonn Antarctic Treaty Consultative Meeting (7-18 October 1991) asserted the absolute priority of the earliest possible ratification and entry into force of the Protocol and the annexes, whose provisions should be applied in the meantime as appropriate by parties. The resulting need to process any resulting EIA submissions accelerated ongoing moves towards annual ATCMs. At Bonn ATPs adopted a fifth annex (on *Area Protection and Management*), and prepared the ground for future discussions on liability (commenced November 1993) and tourism.

Figure 8: Stages in the Unveiling and Development of Antarctica

1. *Terra Australis* - prior to the early 19th century:

Hypothesising about and seeking to discover a southern land and its resources; discovery of certain sub-Antarctic islands

2. Discovery of Antarctica - 1820s-early 1890s:

First alleged sighting of Antarctica (1819-21); occasional explorations of certain coastal areas; sealing in late 18th and 19th centuries

3. Heroic age of Exploration - the 1890s and early 20th century:

Acceleration in the pace of exploration, over-wintering in Antarctica, discovery of the South Pole (1911); the start of Antarctic whaling (1904); continued exploration by expeditions from several countries; the enhanced technology of polar exploration, including the use of aircraft and the first flights over the pole and across the continent

4. Permanent Occupation of Antarctica - 1940s and 1950s:

The establishment of permanent research bases after 1943-44; the national focus of research expeditions; fears of international conflict as a by-product of the Cold War or the claims issue

5. Establishment of the Antarctic Treaty System: Antarctica as a zone of peace, a continent for science and a special conservation area - the late 1950s and after:

International Geophysical Year (1957-8) and the 1959 Antarctic Treaty; Antarctica becomes a zone of peace, a continent for science, and a conservation area managed cooperatively by the Antarctic Treaty System (ATS); the development of the ATS through additional responsibilities and members; the establishment of a comprehensive environmental protection regime - "a natural reserve, devoted to peace and science".

Antarctic Treaty - signed 1959; in effect 1961.

Antarctic Treaty Consultative Meetings - held annually (biennially until 1991) and adopting recommendations by consensus.

Agreed Measures - adopted 1964; in effect 1983 (treated as guidelines in the meantime).

CCAS - signed 1972; in effect 1978.

CCAMLR - signed 1980; in effect 1982.

CRAMRA - adopted 1988; signed by certain ATPs, but adjudged unlikely to become effective.

PREP - adopted 1991, but not yet in effect.

Figure 9: Overlapping Claims In The Antarctic Sector Between 20°W-90°W South Of 60°S

	20°W I		40°W I	50°W I		70°W I	80°W I	90°W I	
ARGENTINA	••••					•••••			
BRITAIN	•••••	•••••				•••••	••••		
CHILE				•••••	•••••	•••••	•••••	••••	



Figure 10: The Frontage Concept and Antarctica

Figure 11: Non-Claimants: The Perspectives Of Russia/USSR and the USA

RUSSIA/USSR:

"The Soviet Union reserves for itself all of the rights based on the discoveries and explorations of Russian navigators and scientists, including the right to make corresponding territorial claims in Antarctica" (Soviet government to the US government, 2 June 1958).

"It was Russian navigators who succeeded in discovering Antarctica and ushering in the era of scientific investigation and exploration of the new continent ... The first Russian Antarctic expedition [was] from 1819 to 1821" (Soviet government to UN, 5 July 1984).

USA:

"The United States for many years has had, and at the present time continues to have, direct and substantial rights and interests in Antarctica. Throughout a period of many years, commencing in the early eighteen-hundreds, many areas of the Antarctic region have been discovered, sighted, explored and claimed on behalf of the United States by nationals of the United States. During this period, the Government of the United States and its nationals have engaged in well-known and extensive activities in Antarctica. In view of the activities of the United States and its nationals referred to above, my Government reserves all of the rights of the United States with respect to the Antarctic region, including the right to assert a territorial claim or claims" (US government note, 2 May 1958).

"The basic United States policy towards Antarctica has remained constant for the past 60 years - the United States does not recognize any claims to territorial sovereignty in Antarctica and does not assert any claims of its own, although it reserves its basis of claim" (US government to UN, 29 May 1984).

Figure 12: The Basis of the Antarctic Territorial Claims

ARGENTINA - ANTÁRTIDA ARGENTINA

"The unselfish sacrifice and undaunted efforts of Argentines [have] made it possible effectively to establish Argentine Antarctica as an inseparable part of the national territory Fifteenth century Spain considered the Antarctic territories as its own ... By virtue of the general principles governing the succession of states, the polar regions became part of the territory of the United Provinces of Río de la Plata, now Argentina, which throughout its independent existence as a nation has enjoyed and improved on the rightful inheritance of its forebears ... The Argentine Republic has (by 1984) for more than 80 years continuously and effectively occupied its Antarctic territory ... Geographical proximity is one more element which contributes to the exercise of Antarctic sovereignty by the Republic ... Geological continuity can be mentioned as an additional basis for the link between the South American part of Argentina and Antarctica" (Argentine government to UN, 12 July 1984).

AUSTRALIA - AUSTRALIAN ANTARCTIC TERRITORY

"Australia's claim to sovereignty over the Australian Antarctic Territory (AAT) is based on acts of discovery and exploration by British and Australian navigators going back to the time of Captain Cook, and subsequent continuous occupation, administration and control" (Australian government to UN, 31 July 1984).

CHILE - TERRITORIO CHILENO ANTÁRTICO

"Our country's historical involvement in the Antarctic originated with the papal bulls of Pope Alexander VI (1493) and the Treaty of Tordesillas ... Upon gaining independence from the Spanish throne, the new republics acquired absolute ownership of all lands assigned to them by Spain ... In the case of Chile, its borders, by virtue of uti possidetis, include the Antarctic region adjacent to South America ... By 1906, Chile's titles to Antarctica had been effectively established by effective occupation, administration, regulation, and political and diplomatic activity ... Geographically, the South American Antarctic is a continuation of Chilean territory" (Chilean government to UN, 27 June 1984).

FRANCE - TERRE ADÉLIE

"Sovereignty over Adélie Land, discovered in 1840 by Dumont d'Urville ... explored by Charcot, crossed in recent years by the French polar expeditions, rests on solid foundations. The French government is proud, in addition to having indisputable historical claims, to be able to rely on a permanent occupation" (French government decree, 1 April 1938).

NEW ZEALAND - THE ROSS DEPENDENCY

"New Zealand's claim to the Ross Dependency rests on ... discovery by a British explorer (ie. Ross), certain Government actions connected with territorial rights in the Ross Sea area (eg. issue of postage stamps) ... annexation - Order in Council of 1923, subsequent exploration, certain acts of occupation upon the assumption of sovereignty" (Memorandum by New Zealand Dept. of External Affairs, 21 February 1947).

"Since 1957 ... Scott Base has been continuously occupied" (New Zealand government to UN, 6 July 1984).

NORWAY - DRONNING MAUD LAND

"Norway's right to bring the said unclaimed land under her dominion is founded on the geographical exploration work done by Norwegians in this region, in which work they have been alone" (Norwegian government decree, 14 January 1939).

UNITED KINGDOM - BRITISH ANTARCTIC TERRITORY

"The root of the United Kingdom's title to the islands and territories comprising the British Antarctic Territory lies in British acts of discovery between 1819 and 1843, accompanied by formal claims in the name of the British Crown. British sovereignty over these islands and territories was formally confirmed and defined by the Crown in Letters Patent in 1908 (as amended by further Letters Patent in 1917). Since then there has been in regard to the islands and territories now comprising the British Antarctic Territory a continuous display of British sovereignty and activity appropriate to the circumstances" (Memorandum by British Foreign and Commonwealth Office, 10 November 1982).

Figure 13: Sovereignty and the Development of the Antarctic Treaty Regime

ANTARCTIC TREATY

Signed: In force:	1959 1961	(1 December, Washington DC) (23 June)	
Objective:	"Antarctica shall continue for ever to be used exclusively for peaceful purposes and shall not become the scene or object of international discord" (preamble).		
Legal:	 Respect for existing legal positions of ATPs, whether or not claimants; freezing the legal <i>status quo</i> (Article IV). Persons in Antarctica subject to flag state jurisdiction (Article VIII). 		
Area:	Area sou VI).	th of 60°S Latitude, including ice shelves but excluding high seas (Article	

AGREED MEASURES FOR THE CONSERVATION OF ANTARCTIC FAUNA AND FLORA

Adopted: In force:	1964 1983	(June, Brussels ATCM recommendation III-VIII] (Treated as guidelines during intervening period)	
Objective:	Consolidation of Antarctica's status as "a Special Conservation Area" (preamble) by regulating the impact of human activities on native birds, mammals and plants (eg. identification of Specially Protected Areas/Species).		
Legal:	 Bi-focal approach, enabling ATPs to interpret jurisdictional provisions (eg. the phrase <i>"appropriate authority"</i>) to suit their respective viewpoints: claimants as exercising jurisdiction over activities within 'their' respective territories non-claimants as exercising jurisdiction over their nationals' activities. 		
Area:	Antarctic	Treaty area, excluding the high seas (Article 1).	

CONVENTION FOR THE CONSERVATION OF ANTARCTIC SEALS (CCAS)

Adopted:	1972	(11 February, London)
In force:	1978	11 March

Objective: Ensure that, in the event of commercial sealing, "an important living resource in the marine environment should not be depleted by over-exploitation, and hence that any harvesting should be regulated so as not to exceed the levels of the optimum sustainable yield" (preamble) (eg. prohibitions on catching certain seal species).

• Use of convention negotiated at a special conference convened outside the ATCM mechanism to facilitate the participation of non-ATPs interested in Antarctic sealing

- Jurisdiction based on flag-state principle to safeguard high seas rights and gloss over legal differentiation of maritime areas within Antarctica (Article 2₂).
- Reaffirmation of Article IV of the Antarctic Treaty (Article 1).

Area: *"Applies to the seas south of 60°S Latitude"* (ie. the high seas, though lying outside the Antarctic Treaty area, were not specifically excluded).

CONVENTION FOR THE CONSERVATION OF ANTARCTIC MARINE LIVING RESOURCES (CCAMLR)

- Adopted: 1980 (20 May, Canberra)
- In force: 1982 (7 April)
- Objective: "The conservation of Antarctic marine living resources" (Article II) through adoption of ecosystem approach to harvesting of marine living resources.
- Bi-focal approach Article 4 of CCAMLR, by adding a phrase the right/claim to "exercise coastal state jurisdiction under international law within the area to which the convention applies" to the text of Article IV of Antarctic Treaty, enabled claimants and non-claimants to interpret the same language differently.
 - Institutional and voting procedures (eg. the Commission's decisions on matters of substance, like catches, require consensus (Article 12)) protect interests of claimants and non-claimants.
 - Parties to take "appropriate measures" to ensure compliance (Article 21).
 - France reserved its special rights of jurisdiction over the Kerguelen and Crozet Islands.
- Area: Applies to Antarctic marine living resources south of 60°S and between 60°S and Antarctic Convergence (area covers the Antarctic marine ecosystem).

CONVENTION ON THE REGULATION OF ANTARCTIC MINERAL RESOURCE ACTIVITIES (CRAMRA)

- Adopted: 1988 (2 June, Wellington) In force: Not yet in force (CRAMRA, though not yet dead, seems unlikely to become effective)
- Objective: The effective regulation of Antarctic mineral resource activities, with conservation being treated as a *"basic consideration"* (preamble).
- Balancing interests through composition, powers and procedures of institutions to ensure that significant decisions are not taken against the wishes of either claimants or non-claimants.

46

- Vague regarding the fiscal return accruing to claimants for minerals exploited within their *"territories"* (Articles 35, 47), even if some claimants indicated an expectation of a special share of revenue from mining in their territory.
- Reaffirmation of Article IV of Antarctic Treaty (Article 9).

PROTOCOL ON ENVIRONMENTAL PROTECTION TO THE ANTARCTIC TREATY

- Adopted: 1991 (4 October, Madrid)
- In force: Not yet in force (ATPs are encouraged to treat the Protocol as being in force, and are undertaking ratification procedures).
- Objective: Comprehensive protection of the Antarctic environment designating Antarctica "*a natural reserve, devoted to peace and science*" (Article 2), treating environmental protection as the "*fundamental consideration*" governing activities (Article 3), and introducing an indefinite mining ban subject to review after 50 years (Article 7).
- Legal: Parties to take "*appropriate measures*" and efforts to ensure compliance (Article 13_{1-2})
 - Protocol treated as being consistent with other instruments of treaty regime not derogating from the rights and obligations of parties.
 - Mining ban review to safeguard rights under Article IV of Antarctic Treaty (Article 25₅)
 - "*Natural reserve*" designation avoids common heritage implications of 'world park' concept.
 - Being a Protocol, it is closely connected to the Antarctic Treaty. However, the Madrid Special ATCM agreed that *"the contents of this Final Act are without prejudice to the legal position of any Party under Article I V of the Antarctic Treaty"* (Final Act).
- Area: Antarctic Treaty area, as defined by Article VI of Antarctic Treaty.

Area: Antarctic Treaty area - regulates mineral activities in Antarctica, including ice shelves and seabed *"up to deep seabed"* (Article 5), as defined by international law.

Figure 14: Areas of Debate on Antarctica at the UN

Requests/demands made at UN

a) The international community and managing mining in Antarctica

Demand (since 1985) for moratorium on mineral regime negotiations until wider international community involved in discussions (repeated in 1987).

Expressed "deep regret" (1988) that CRAMRA was adopted in disregard of UN resolutions. "The actions taken by the ATCPs at Wellington are contrary to the expressed will of the General Assembly".

Welcomed the Protocol on Environmental Protection's ban on prospecting and mining, but **reiterated** the need to take account of the international community's call for a permanent mining ban.

b) The UN's role in Antarctica

Need for the UN to remain seized of the question of Antarctica and for all aspects to be addressed within the framework of UN.

Requested that ATCPs keep UN Secretary-General (UNSG) informed of all aspects relating to the ATS.

Requested (1987) that UNSG be invited to ATS meetings, and then (1990 and after) **regretted** that he was not invited.

c) Protecting the Antarctic environment

Demanded that a comprehensive environmental protection convention, including a world park/nature reserve and mining ban, should be negotiated with the full participation of the international community in the context of the UN system.

Regretted (1991) that the environmental protection convention was not negotiated with the full participation of the international community, and **urged** (1992) establishment of monitoring and implementation mechanisms.

Requested (1990 & after) the UNSG to monitor and report annually on the state of the Antarctic environment.

Welcomed commitment of ATPs made at 1992 UNCED to provide relevant scientific data, and **urged** ATPs to build on these cooperative agreements.

The position of the ATPs

ATPs continued to negotiate on minerals without involving the wider international community, and in 1988 adopted the Convention for the Regulation of Antarctic Mineral Resource Activities (CRAMRA).

19 ATPs signed CRAMRA between 1988-89, although opposition from certain ATCPs (mainly Australia and France) means that CRAMRA now seems to be a dead letter.

Protocol on Environmental Protection, as adopted in 1991, included a mining ban, subject to review after 50 years.

ATPs envisaged no role for the UN, since Antarctica is already subject to a valid international legal regime. Most ATPs, believing that Antarctica should be dealt with by consensus, have recorded "*non-participation*" in UN debates/votes on topic.

ATPs, though willing to pass on information (eg. ATCM reports) to the UN, refused to make a specific response to UN resolutions.

ATPs have failed to invite the UNSG to ATCMs.

ATPs did not involve outsiders in the negotiations (1990-91) for the Protocol on Environmental Protection designed to make Antarctica *"a natural reserve, devoted to peace and science"* (adopted October 1991).

ATPs have argued that the Antarctic Treaty System is a valid legal regime managing Antarctica "in the interests of all mankind".

ATPs viewed this as superfluous - managed already by ATS and now covered by the Environmental Protocol.

ATPs agreed at UNCED ("Earth Summit", June 1992) under chapter 17 of Agenda 21 to make research data freely available

d) The conduct of Antarctic science

Reviewing possibility of setting up an international research station in Antarctica (1990), and **called** on ATPs to reduce number of scientific stations.

e) The exclusion of South Africa from Antarctic affairs

Demanded (since 1985) the exclusion of the apartheid regime of South Africa from Antarctic meetings at the earliest opportunity and expressed *"deep concern"* that no action had been taken on previous resolutions.

Called upon (1992) ATPs to prevent South Africa participating in ATCMs pending the attainment of a non-racial democratic government therein.

ATPs treated this proposal as not only unnecessary - the matter was now covered by the Environmental Protocol - but also motivated by political, not scientific, considerations.

South Africa has continued to participate in ATCMs/ATSCMs. The ATPs have argued that no valid basis exists to deprive a party of rights under the treaty. In any case, it is advantageous for all countries active in Antarctica to be bound by Antarctic Treaty.

Figure 15: UN Resolutions on the "Question of Antarctica"

Resolutions adopted by the General Assembly since 1983

- **1983** Resolution A38/77 adopted by consensus without a vote 15 December.
- **1984** Resolution A39/152 adopted by consensus without a vote 17 December.
- **1985** Three resolutions, A40/156A-C, adopted by majorities 16 December.
- **1986** Three resolutions, A41/88A-C, adopted by majorities 4 December.
- **1987** Two resolutions, A42/46A-B, adopted by majorities 30 November.
- **1988** Two resolutions, A43/83A-B, adopted by majorities 7 December.
- **1989** Two resolutions, A44/124A-B, adopted by majorities 15 December.
- **1990** Two resolutions, A45/78A-B, adopted by majorities 12 December.
- **1991** Two resolutions, A46/41A-B, adopted by majorities 6 December.
- **1992** One resolution, A47/58, adopted by majority 9 December.
- **1993** One resolution, A48/80, adopted by majority 16 December.
- **1994** 'Question of Antarctica' is on the agenda for the 49th session of the UN General Assembly likely to be discussed by the UN First Committee during October-November 1994.
- **Note:** 1985-93 Most Antarctic Treaty Parties recorded their non-participation in the roll-call vote in order to reflect their view that Antarctica, though requiring a consensus approach, was not really a matter for the UN

Figure 16: Some Legal Uncertainties

- Who owns Antarctica? Does it belong to the claimants? Is it unowned? Or does it represent the common heritage of mankind?
- What is the most appropriate basis for sovereignty over Antarctica? Is "*effective*" occupation possible?
- Are territorial claims in Antarctica politically acceptable and realistic in the world of the 1990s?
- Are the interests of the claimants best secured by the support of the Antarctic Treaty System rather than the maintenance of allegedly unrealistic, unenforceable and legally unjustifiable claims?
- Has there been a tendency to stress the symbols of sovereignty rather than the reality of national interests?
- Does a study of the Antarctic Treaty System provide evidence of mis-management and the selfish pursuit of the interests of Antarctic Treaty Parties, particularly of claimants, at the expense of those of the wider international community? Or have sovereignty and international cooperation been linked in a new and complementary manner?
- Has the need to accommodate the sovereignty issue produced resource regimes more capable of protecting legal interests than of ensuring the sensible and equitable management of the region?
- Is the Antarctic Treaty System an objective legal regime enforceable agains t third parties?
- What is the legal status of the ocean spaces surrounding Antarctica, with particular reference to the respective spheres of jurisdiction of the Antarctic Treaty System and UNCLOS?
- Should ice be assimilated to land or sea for legal purposes?
- Do the common heritage and world park proposals offer a realistic alternative to the Antarctic Treaty System or merely convenient reference points against which to judge the performance of the Antarctic Treaty System?

References

Argentina (1981, Anon) Tres Generaciones Argentinas en la Antartida, Argentina.

- ASOC (Antarctic and Southern Ocean Coalition) (1989) *Tourism in the Antarctic*, ASOC Information Paper, no.3, 12 May.
- ASOC (1991) *The Regulation of Tourism in Antarctica*, ASOC Information Paper, no.6, 11 October.
- ATCM (Antarctic Treaty Consultative Meeting) (1991) Final Report of the 16th Antarctic Treaty Consultative Meeting, Bonn: 7-20 October.
- ATCM (1992) Final Report of the 17th Antarctic Treaty Consultative Meeting, Venice: 11-20 November.

Auburn, F.M. (1982) Antarctic Law and Politics, London: Hurst.

- Auburn, F.M. (1984) 'The Antarctic minerals regime: sovereignty, exploration, institutions and environment', in S. Harris (ed) *Australia's Antarctic policy options*, Canberra: CRES.
- Australian Department of the Arts, Sport, the Environment, Tourism and Territories (1988) *Submission on Tourism in the Antarctic*, Canberra: Department of the Arts, Sport, the Environment, Tourism and Territories, 25 August.
- Australian House of Representatives Standing Committee on Environment, Recreation and the Arts (1989) *Tourism in Antarctica*, Canberra: Australian Government Publishing Service.

Ballantyne, D. (1967) 'When Hardy Souls Go South', Auckland Star, 18 December.

- Beck, P.J. (1983-84) 'Securing the dominant place in the wan Antarctic sun for the British Empire: the policy of extending British control over Antarctica', *Australian Journal of Politics and History*, 29: 3.
- Beck, P.J. (1986) The International Politics of Antarctica, London: Croom Helm.
- Beck, P.J. (1987) 'A Cold War: Britain, Argentina and Antarctica', History Today, 37: 6.
- Beck, P.J. (1989) 'British Relations with Latin America: the Antarctic dimension', in V.Bulmer-Thomas (ed) *Britain and Latin America: a changing relationship*, Cambridge: Cambridge University Press.
- Beck, P.J. (1990a) 'Antarctica as a Zone of Peace: A strategic irrelevance?', in R.A. Herr, H.R. Hall, and M.G. Haward (eds) *Antarctica's Future: Continuity or Change?*, Hobart: IIA/Tasmanian Government Printing Office.

- Beck, P.J. (1990) 'Australia's new course in Antarctica', in W.S. Bateman and M.W. Ward (eds) *Australia's Maritime Interests Views from Overseas*, Canberra: Australian Center for Maritime Studies.
- Beck, P.J. (1992a) Why Study Antarctica?, Kingston upon Thames: Apex Centre, Kingston University.
- Beck, P.J. (1992b) 'The 1991 UN session: the environmental protocol fails to satisfy the Antarctic Treaty System's critics', *Polar Record*, 28: 167.
- Beck, P. J. (1993) 'The United Nations and Antarctica, 1992: still searching for that elusive convergence of view', *Polar Record*, 29:171.
- Beck, P.J. (1994) "Managing Antarctic Tourism: A Front-Burner Issue', Annals of Tourism Research, 21: 2.
- Beeby, C. (1991) 'The Antarctic Treaty System: goals, performance and impact', in A. Jorgensen-Dahl and W. Ostreng (eds) *The Antarctic Treaty System in World Politics*, London: Macmillan.
- Bergin, A. (1991) 'The politics of Antarctic minerals: the greening of white Australia', *Australian Journal of Political Science*, 26: 2.
- Birnie, P. (1986) 'The Antarctic regime and third states', in R. Wolfrum (ed) Antarctic Challenge II: Conflicting Interests, Cooperation, Environmental Protection, Economic Development, Berlin: Duncker & Humblot.
- Birnie, P. (1988) 'Effect of Article VI of the Antarctic Treaty on Scientific Research', in R.
 Wolfrum (ed) Antarctic Challenge III: Conflicting Interests, Cooperation, Environmental Protection, Economic Developmen, Berlin: Duncker & Humblot.
- British Foreign and Commonwealth Office (1982) 'Memorandum', 13 October 1982, in *House of Commons Foreign Affairs Committee 1982-83 Minutes of Evidence*, 10 November.
- Brook, J. (1984) 'Australia's policies towards Antarctica', in S. Harris (ed) Australia's Antarctic Policy Options, Canberra: CRES.
- Brownlie, I. (1979) *Principles of Public International Law*, Third Edition. Cambridge: Cambridge University Press.
- Brundtland Report (1987) 'Our Common Future', United Nations General Assembly Records (UNGA) A42/427.
- Bush, W.M. (1982) Antarctica and International Law, Vol.II, New York: Oceana.
- Child, J. (1985) Geopolitics and Conflict in South America: Quarrels among Neighbours, New York: Praeger.

- Child, J. (1988a) Frozen Lebensraum: Antarctica and South American Geopolitics, New York: Praeger.
- Child, J. (1988b) 'Antarctica: Arena for South American Cooperation or Conflict', paper at *International Congress of Latin American Studies Association*, New Orleans, March.
- Child, J. (1990) 'Latin Lebensraum: The Geopolitics of Ibero-American Antarctica', *Applied Geography*, 10: 4.
- Commission to Study the Organization of Peace (1957) *Strengthening the United Nations*, New York: Harper.
- Conforti, B. (1986) 'Territorial claims in Antarctica: a modern way to deal with an old problem', *Cornell International Law Journal*, 19: 2.
- Daily Telegraph (1992) 14 November.
- Dibb, P. (1984) 'Australia's Strategic Interest in Antarctica', in S. Harris (ed) Australia's Antarctic Policy Options, Canberra: CRES.
- Dibb, P. (1986) Review of Australia's Defence Capabilities, Canberra: AGPS.
- Drewry, D. (1993) 'The future of Antarctic scientific research', Polar Record, 29: 168.
- Enzenbacher, D. (1992) 'Tourists in Antarctica: numbers and trends', Polar Record 28: 164.
- Van der Essen, A. (1983) 'Application of the Law of the Sea to the Antarctic', in F.O. Vicuna (ed) *Antarctic Resources Policy: scientific, legal and political issues,* Cambridge: Cambridge University Press.
- Farman, J.C., Gardiner, B.G. and Shanklin, J.D. (1985) 'Large losses of total ozone in Antarctica reveal seasonal ClOx/NOx interactions', *Nature*, 16 May.
- Fox, H. (1987) 'The relevance of Antarctica to the lawyer', in G. Triggs (ed) *Antarctic Treaty Regime*, Cambridge: Cambridge University Press.
- Fox, R. (1985) Antarctica and the South Atlantic, London: BBC.
- Glenarthur, Lord (1989) Hansard British Parliamentary Debates: House of Lords, vol.506, col.930, 20 April.
- Heap, J. (1983a) 'Antarctic cooperation: a quarter of a century's experience', in F.O. Vicuna (ed) Antarctic Resources Policy: scientific, legal and political issues, Cambridge: Cambridge University Press.
- Heap, J. (1983b) UN First Committee, 29 November, UNGA, A 38/C 1/PV44.

- Heap, J. (1984) 'Comment', in R. Wolfrum (ed.) Antarctic Challenge I: Conflicting Interests, Cooperation, Environmental Protection, Economic Development, Berlin: Duncker & Humblot.
- Honnold, E. (1978) Thaw in International Law? Rights in Antarctica under the Law of Common Spaces, Yale Law Journal, 87.
- Howe, Sir G. (1985) UN General Assembly, 25 September, UNGA, A40/PV9.
- Howe, Sir G. (1990) 'Sovereignty and Independence: Britain's place in the world', *International Affairs*, 66: 34.
- James, A. (1984) 'Sovereignty: ground rule or gibberish?', *Review of International Studies*, 10:1.
- Joyner, C.C. (1990) 'Maritime zones in the Southern ocean: problems concerning the correspondence of natural and legal maritime zones', *Applied Geography*, 10: 4.
- Joyner, C.C. (1991) 'Ice-covered regions in international law', Natural Resources Journal, 31.

Joyner, C. (1992) Antarctica and the Law of the Sea, Dordrecht: Martinus Nijhoff.

Kaye, S. and Rothwell, D. (1993) 'Australian Law in Antarctica', Polar Record, 29: 170.

Landes, D.S. (1969) The Unbound Prometheus, Cambridge: Cambridge University Press.

Mahathir, Dr. (1982) UN General Assembly, 29 September, UNGA, A37/PV 10.

- Mangone, G. (1988) 'The Legal Status of Ice in International Law', in R. Wolfrum (ed) Antarctic Challenge III: Conflicting Interests, Cooperation, Environmental Protection, Economic Development, Berlin: Duncker & Humblot.
- Mansfield, W. (1985) 'Who has the right of exploitation, and the right to prevent exploitation, of the minerals of Antarctica?', *Proceedings of the 79th. Meeting of the American Society of International Law*, New York, 25-27 April.
- Mitchell, B. (1984) 'The Antarctic Treaty: victim of its own success?', in L.M. Alexander and L.C. Hanson (eds) *Antarctic Politics and Marine Resources: Critical Choices for the 1980's*, Rhode Island: Center for Ocean Management Studies.
- The Muslim (1991) Islamabad: 11 January; 1 March.
- Naveen, R. (1991) 'The Promise of Antarctic Tourism: On the Cutting Edge of Ecotourism, or a Blight on Earth's Last Pristine Wilderness?', *Antarctic Century*, 7.
- Nicholson, I. (1984) 'Comment', in S. Harris (ed) Australia's Antarctic Policy Options, Canberra: CRES.

Pakistan government (1991) UN First Committee, 20 November, UNGA, A46/C1/PV39.

- Parsons, Sir A. (1987) Antarctica: the next decade, Cambridge: Cambridge University Press.
- Peterson, M.J. (1988) Managing the Frozen South: the creation and evolution of the Antarctic Treaty System, Berkeley: University of California Press.
- Polish government (1985) UN First Committee, 27 November, UNGA, A40/C 1/PV52.
- Ratiner, L. (1977) *Earthscan* press briefing, 27 July.
- Redgwell, C. (1990) 'Antarctica: The Legal Regime', in Grahame Cook (ed) *The future of Antarctica: exploitation versus preservation*, Manchester: Manchester University Press.
- Reeves, J.S. (1939) 'Antarctic Sectors', American Journal of International Law, 33.
- Rothwell, D.R. (1992) 'The Antarctic Treaty: 1961-1991 and beyond', *The Sydney Law Review*, 14: 1.
- Shackleton, Lord (1982) Hansard British Parliamentary Debates: House of Lords, vol.428, col.1585, 3 April.
- Simma, B. (1986) 'The Antarctic Treaty as a Treaty providing for an objective regime', *Cornell International Law Journal*, 19: 2.
- Snowman, D. (1993) *Pole Positions: The Polar Regions and the Future of the Planet,* London: Hodder and Stoughton.
- Sullivan, W. (1957) Quest for a Continent, London: Secker and Warburg.
- Triggs, G. (1981) 'Australian Sovereignty in Antarctica: Part I', *Melbourne University Law Review*, 13.
- Triggs, G. (1984) 'Australian Sovereignty in Antarctica', in S. Harris (ed) *Australia's Antarctic Policy Options*, Canberra: CRES.
- Triggs, G. (1985) 'The Antarctic Treaty Regime: a workable compromise or a purgatory of ambiguity?', *Case Western Reserve Journal of International Law*, 17: 2.
- Triggs, G. (1986) International Law and Australian Sovereignty in Antarctica, Sydney: Legal Books Pty.
- Triggs, G. (1987) 'The Antarctic Treaty System: some jurisdictional problems', in G. Triggs (ed) *The Antarctic Treaty regime: law, environment and resources,* Cambridge: Cambridge University Press.
- UN Study on the Question of Antarctica (1986) UNGA, A41/722.
- US Senate Committee on Foreign Relations (1960) Antarctic Treaty Hearings before the Senate Committee on Foreign Relations.

- Vicuna, F.O. (1988) Antarctic mineral exploitation; the emerging legal framework, Cambridge: Cambridge University Press.
- Vicuna, F.O. (1990) 'The Implementation of CCAMLR: Is the decision-making machinery conducive to good management?', *International Challenges*, 10: 1.
- Vicuna, F.O. (1991) 'Decision-making for the implementation of CCAMLR', in A. Jorgensen-Dahl and W. Ostreng (eds) *The Antarctic Treaty System in World Politics*, London: Macmillan.
- Waldock, C.H.M. (1948) 'Disputed Sovereignty in the Falkland Islands Dependencies', *British Yearbook of International Law*, 25.
- Watts, Sir A. (1992) International Law and the Antarctic Treaty System, Cambridge: Grotius Publications.
- Wolfrum, R. (1991) The Convention on the Regulation of Antarctic Mineral Resource Activities, Berlin: Springer Verlag.

Selective Bibliography

For general information:

- Bush, W.M. (ed) *Antarctica and International Law: a Collection of Inter-State and National Documents*, vols.1-3, New York: Oceana, 1982-88 continued in loose-leaf format.
- Central Intelligence Agency (1978) Polar Regions Atlas, Washington DC: CIA.
- Headland, R.K. (1990) Chronological List of Antarctic Expeditions and related historical events, Cambridge: Cambridge University Press.
- Heap, J. (1990) (ed), *The Antarctic Treaty Handbook* 7th ed, Parts 1-4 Cambridge: Scott Polar Research Institute, University of Cambridge.

Bibliographical aids:

- *Antarctic Bibliography* (Washington DC: US Government Printing Office). Volumes 17, 18 and 19 appeared in 1990, 1991 and 1992 respectively. Citations cover every aspect of Antarctic literature and include brief abstracts.
- *Current Antarctic Literature* (Washington DC: Cold Regions Bibliography Project, Library of Congress). This appears monthly, and contents are cumulated in the Antarctic Bibliography.
- *Polar and Glaciological Abstracts* (Cambridge: Cambridge University Press/Scott Polar Research Institute, University of Cambridge). Specific listings are available by topic.

Specialist polar/Antarctic journals:

Polar Record (Cambridge: Cambridge University Press/Scott Polar Research Institute, University of Cambridge)

Antarctic (New Zealand Antarctic Society)

Antarctic Journal of the United States (Washington DC: National Science Foundation)

Antarctic Science (Blackwell Scientific Publications, Oxford)

Aurora (Australia: ANARE Club)

International Challenges (Oslo: Nansen Institute)

Polar Biology (Berlin: Springer Verlag)

Polar Geography and Geology (Silver Spring, Maryland: Winston)

The press covers Antarctic developments somewhat inconsistently and inadequately. However, news and feature items are often included in the weekly publications, Nature and New Scientist. Non-governmental environmental organisations publish a range of useful publications, most notably, the Ecos coinciding with Antarctic Treaty meetings

59