Commercial and Economic Aspects of Antarctic Exploration - From the Earliest Discoveries into the 19th Century.

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Abstract

Antarctic exploration always had strong scientific as well as political motives. This paper argues that commercial motivations more often than not, also were an interwoven part of the rationale of the expeditions. The paper analyses the commercial and economic motivation in early Antarctic exploration, by the explorers themselves as well as their sponsors (governments, private businessmen, scientific communities). It reviews the earliest expeditions that searched for the still unknown continent that was hoped to advance commerce and trade. The eventual discoveries did not reveal a prosperous continent in a traditional sense. The exploitable resources – seals and whales - were instead found in the ocean, at the islands and around the continent. The paper reviews the earliest discoveries and plans to exploit those resources, and the origins of what was to become the first industries of the Antarctic region. The paper deals primarily with the period before the ‘Heroic Age’ when the focus of the explorers became the penetration of the Antarctic continent itself.

Keywords

Antarctica, Terra Australis, exploration, whaling, sealing, history

JEL-classification

N40, N50, N70, N90


‘...we may still inquire whether any human purpose is likely to be served by a Polar continent. And we cannot fail to notice that the purpose of other continents is never questioned. *There is money in them*’ (J.G. Hayes, *Antarctica*, 1928, 371).

1. Introduction

Antarctic history and exploration are often thought of in terms of brave adventures into the continent itself – traversing endless stretches of snow and ice with the pole as the ultimate goal. In the entire history of Antarctic discoveries this is, of course, only a small fraction or phase. More than two centuries of exploration preceded the penetration of the continent and the ‘Heroic Age of Exploration’ associated with it. These earlier phases were about finding out whether there was a continent at all and where its boundaries lay. The exploration involved voyages farther and farther into the Southern Ocean and eventually circumnavigating the entire continent. The numerous voyages were never pure adventure – as in many polar travels in modern times. They were all motivated by political, scientific and economic aspects, typically in a mixture, but some with clearer single top priorities.

The aim of this survey is to focus on Antarctic exploration from the earliest times and into the late 19th century when it entered a new distinct phase associated with the ‘Heroic Age’. It will not review the history as such, which is so well known and has been recorded extensively by so many others. Instead it will focus on the motives and, in particular, reflect on how economic and commercial aspects always were present. The paper will focus on the explorers who preceded the exploiters of resources, and – to a lesser extent - on the earliest exploiters themselves; the first sealers and whalers.

The paper relies on the extensive literature on early Antarctic exploration; accounts of various expeditions as well as broad surveys and encyclopedic accounts.1 Scientific and political motivations

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tend to dominate in this literature, but commercial and economic aspects are obviously also dealt with even if it is not the focus. Indeed, as Fogg remarks, it is in the history of Antarctic science difficult to isolate it from ‘the spheres of interest of economics, law and politics’. Such close interrelationships have also been put in the forefront in some recent research that very much are in line with the perspectives of this essay. Clancey and colleagues study commerce together with science as the prime driving forces already from the earliest exploration and discovery. Maddison analyses Antarctic exploration from the mid 18th century until the 1920s in the context of colonialism, imperialism and the emerging capitalism where also commercial prospects were fundamental motivations.

How should the Antarctic be defined or conceptualized in an analysis where the attention is on the economic history of the region? From the earliest times when the region and the continent had not been found or defined, a definition would obviously relate to the areas still unknown. When the oceans, islands and the continent eventually were discovered, we will argue for a widest possible definition; including the Southern Ocean and its sub (or peri) Antarctic islands. The main reason for such a wide approach, is that the economic activities that were associated with the area, were concentrated to the ocean and the islands rather than the continent itself, and that the people exploring and exploiting the resources (the sealer and whalers) never made any precise distinction between the Antarctic and the Southern Ocean that enclosed it.

2. A new prosperous continent?

‘Terra Australis Incognita’ – the unknown continent in the south - was a crucial element in the earliest exploration of the world oceans of the southern Hemisphere. The concept, that had been used already in ancient Greece, was also used by the first European explorers (Diaz, Magellan, Drake) as they navigated south of Africa and America and into the Indian and Pacific oceans. These earliest explorers had in common that they didn’t actually find a continent, but they postulated that there was one further to the south from where they sailed. One example is the French expedition lead by

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3 Clancey et.al., Mapping Antarctica, 31ff., Maddison, Class and Colonialism, especially Part I, 9ff.
4 Basberg, “Perspectives on the Economic History of the Antarctic Region”.
5 Recent analysis of the concept and its history; see Simpson-Housley, Antarctica, 1ff and Scott et.al. (eds.), European Perceptions of Terra Australis.
Binot F. de Gonneville (1503-05). It got as far south as The Cape of Good Hope on its way to the East Indies, but were then taken by a storm. De Gonneville returned to France in 1505 and claimed that he had reached an inhabited and rich ‘Great Southern Land’. He certainly did not reached the ‘Terra Australia’ (or Madagaskar as it was later believed), but probably the coast of Brazil. But after having been forgotten for many years, his theories of a southern continent were revitalized and regained influence on expeditions for many years.

They were typically national expeditions, French, British, Dutch and Spanish, that again initiated further expeditions and voyages for almost two centuries. They all brought back major questions to be answered: Did any continent exist? What was the extent? What did it contain?

The anticipated continent was obviously much larger than what later was defined as Antarctica. When the western and northern coast of Australia was reached by the Europeans, this continent remained a part of ‘Terra Australis’ for many years. De Quirós Spanish voyage (1605-07), for example, reached New Guinea, and believed to have found the ‘Terra Australis’ to the south.

It was not until Abel Tasman in 1642 navigated south of the Australian continent and found his way to New Zealand that this large continent could be excluded from the ‘Terra Australis’. Australia was obviously a continent rich on resources that would become valuable in a commercial sense, so the ‘Terra Australis’ myth had not proved entirely wrong.

When New Zealand had been discovered by the European explorers, those large islands were for some time believed to be part of the southern continent. The vast area between New Zealand and South America was also still very much unexplored, and made the myth persistent of a large southern continent with a temperate climate.

One of several motivations or driving forces of this early exploration had to do with potential economic prospects. There were theories about inhabitants, resources and consequently the possibilities for commercial operations. William Dampier was one of the British explorers at the time who advocated such thoughts. He had circumnavigated the globe during a series of journeys in the 1680s. Then, between 1699 and 1701 he was in charge of an English naval voyage with HMS Roebuck where he should look for possible resources and trade with this ‘vast space surrounding the South

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6 Headland, Gurney, 15ff.

7 The important period of exploration when Australia and New Zealand were gradually discovered by the Europeans and ‘excluded’ from Terra Australis, is reviewed and analyzed in detail by Williams, The Great South Sea.
Pole, and extending so far into the warmer climate'.\(^8\) Dampier did know about Tasman’s voyage. However, the discoveries were probably not well understood, and Dampier and his colleagues at the time still believed that Australia (or New Holland as it was called) was part of a larger southern continent. Eventually Dampier reached only the west and north coast of Australia and New Guinea, so he did not bring back much useful knowledge on ‘Terra Australis’.

The Dutch exploration in these territories in the late 17th century led mainly by the Dutch East India Company was obviously also about exploitation, but those activities did not contribute much to the further exploration of ‘Terra Australis’. The Dutch expedition led by Jacob Roggeveen some years later (1720-22) came back with more useful knowledge. He had been sent out to search for ‘Terra Australis’ and had both exploration and commercial prospects among his objectives. The expedition crossed the Pacific from South America, and were able to proof at least that many Pacific islands were separated from the Australian – and a southern – continent.\(^9\)

The first one who may actually have encountered the Antarctic, although still only an island, was French Bouvet de Lozier on 1 January 1739; the island south of the Atlantic Ocean that later was given his name. His discovery exemplifies the challenges and difficulties of the early Antarctic explorers. Inspired by earlier expeditions (especially his countryman de Gonneville) he was searching a southern continent. At least to some extent, the motivation was a commercial one. The expedition was financed by the French East India Company that believed that an establishment on a possible new discovered land could be used for the ‘refreshment of their ships bound to or from India, that thence they might hold commerce with Brasils, or the South Sea, and that in times of war, it would give them general control over the Southern navigation.’\(^10\) Unfortunately, what Bouvet discovered was not suitable as an harbour. Indeed, he was not able to land, and due to the adverse conditions, he was not able to explore in detail the land he encountered and assumed that it was an extension from a continent. Numerous expeditions followed (or tried to follow) in the wake of Bouvet for more than a century without being able to find the island he had encountered and make sense of Bouvet’s observations. Even James Cook, who we will soon turn to, although making other decisive

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\(^8\) Spenser (ed.), William Dampier, A Voyage to New Holland, 23. See also C.A. Wilkinson, William Dampier, 154ff, Preston, A Pirate of Exquisite Mind and Williams, The Great South Sea, 107ff. Dampier’s accounts are also printed, among many other similar accounts in Major (ed.), Early Voyages.

\(^9\) Roggeveen had been sent out by the Dutch West India Company, having its monopoly trading area in the Pacific and as far west as New Guinea. The Dutch East India Company operated from there and into the Indian Ocean; Sharpe (ed.), The Journal of Jacob Roggeveen; 5ff.

contributions to the discoveries of the southern continent, made several unsuccessful attempts to find the island. He doubted that Bouvet had seen anything but ice.\footnote{Aagaard, \textit{Fangst og forskning}, II, 449ff. An interesting analysis about the uncertainties of its existence and of the search for the island; Simpson-Housley, \textit{Antarctica}, 69ff.}

Bouvet penetrated the Antarctic waters south of the Atlantic Ocean. The search for the Southern Continent or ‘Terra Australis’ in the southern Pacific Ocean on the other hand, continued. As of the mid 18\textsuperscript{th} century, the vast area of the South Pacific between South America and New Zealand and even the east coast of Australia, was unexplored by the Europeans. Scholars tried to make sense of the observations from numerous voyages over many years. The French scientist Charles des Brosses in 1756 predicted about this region:

‘How can we doubt that after its discovery such a vast expanse of land will supply objects of curiosity, opportunities for profit, perhaps as many as America furnished in its novelty.’\footnote{C. des Brosses, \textit{Histoire des Navigations aux Terres Australes} (1756), quoted from Williams, \textit{The Great South Sea}, 264.}

Expeditions continued to be dispatched. A British one led by John Byron with \textit{Dophin} made a circumnavigation between 1764 and 1766 (the fastest so far!). They were not farther south than Cape Horn, but sailing through the Polynesian and observing birds flying southwards, Byron concluded that there must be a Southern Continent.

The \textit{Dolphin} was dispatched for a second circumnavigation from 1766 to 68 under the command of Samuel Wallis, among others to try to verify these assumptions. His instructions from the Admiralty indicated a hope for commercial opportunities:

‘There is reason to believe that Land or islands of Great extent, hitherto unvisited by any European Power may be found in the Southern Hemisphere between Cape Horn and New Zealand, in latitudes convenient for Navigation, and in Climates adapted to the produce of Commodities useful in Commerce’ … and that ‘an attempt should forthwith be made to discover and obtain a complete knowledge of the Land or Islands supposed to be situated in the Southern Hemisphere’\footnote{Quoted from Cock, “Precursors of Cook”, 35. See also Williams, \textit{The Great South Sea}, 272.}

However, Wallis also headed north after the rounding of Cape Horn and was not able to contribute further.

Another indication of a common held view in this period is several well-known, influential publications from the 1760s and 70s of British hydrographer Alexander Dalrymple. He still envisioned a prosperous and inhabited continent:
'It appears from the following sheets, that not only many large islands, and small ones without number, swarming with people, are scattered over the South Pacific Ocean, but that it is more than probable another Continent will be there found, extending from 30 deg. S. towards the Pole. There can be no doubt that countries so well situated, so extensive, and so full of civilized inhabitants, must afford a very beneficial commerce (...) The number of inhabitants in the Southern Continent is probably more than 50 millions, ...'  

Dalrymple believed trade could be developed, and even replace that with the American colonies – with which the atmosphere at the time was not very friendly. 

Yet another overly optimistic explorer of this era was the Frenchman Yves-Joseph de Kerguelen-Trémarec. Inspired, among others by de Gonneville, he led an expedition into the southern oceans in 1771-72 and not only speculated in, but claimed that he had found a continent suitable for colonization. When he returned from his second expedition (1773-74) in an unsuccessful attempt to establish a colony in ‘La France Australe’, he was dismissed and imprisoned. But Kerguelen-Trémarec did discover the group of islands that became known as Iles Kerguelen and in that way made one of numerous small discoveries that contributed to define the extent of the continent and the surrounding oceans. That was in fact what the early discoveries were all about; a gradual process that ‘shrank’ the unknown landmass and eventually made it possible to define it accurately. But that should still take another century. 

Throughout the first part of the 18th century no serious progress was really made in revealing the assumed Southern Continent – how it was conceptualized and understood. Although Bouvet’s descriptions of the cold and icy land he had encountered were widely published, the idea of a fertile continent was persistent. 

The search for commercial opportunities were obviously an explicit aim of the European explorations into the Southern Hemisphere in the 18th century – of which the search for Terra Australis was just one aspect. Scientific discoveries were important motivations, but the two were linked. As Hegarty shows in his analysis of the discourse of the narratives of 18th century Pacific exploration, it was an explicit focus on ‘improvement’, values and speculation. He notes that

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14 Dalrymple, An Historical Collection, vol. 1, xxv and xxviii.
15 Gurney, Below the Convergence, 16.
16 Headland, A Chronology, Fogg and Smith, The Explorations of Antarctica, 17.
'On a scientific level, however, this discourse is linked directly to that of commerce, in the sense that the explorers’ descriptions of the land and peoples they encountered is much more than a rarefied imaginative interest. It is very much part of an economic rather than a cultural fascination.'

This economic fascination continued.

3. Cook and the early sealers

James Cook’s first expedition (1768-1771) had two objectives, and his instructions from ‘The Commissioners of Executing the Office of Lord High Admiral of Great Britain’ contained two documents. The first one was about science, ordering him to observe the Transit of Venus from King George Island (close to Cape Horn). Then there were ‘Additional Instructions contained in the enclosed Sealed Packet’. That was all about the search for the southern continent and its importance for ‘the advancement of Trade and Navigation.’ The state of knowledge was still that ‘there is reason to imagine that a Continent of Land of great extent, may be found to the Southward of the Tract lately made by Captn Wallis.’ So, as soon as the observation of the Transit of Venus had been completed, Cook was instructed to set sail and travel south until he had discovered land, and then west until he reached New Zealand. He was further instructed to make detailed observation of his discoveries:

‘You are also carefully to observe the Nature of the Soil, and the Products thereof; the Beasts and the Fowls that inhabit or frequent it, the fishes that are to be found in the Rivers or upon the Coast and in what Plenty; and in case you find any Mines, Minerals or valuable stones you are to bring home specimens of each, and also such Specimens of the Seeds of the Trees, Fruits and Grains as you may be able to collect.’

The *Endeavour* did sail south from Cape Horn until about the 60° parallel, but then turned north into the Pacific. They did make new discoveries, but the expedition returned to London with not much new knowledge on the southern continent.

Despite the lack of success in finding the southern continent, Cook was placed in charge to lead a second expedition (1772-75). This time the instructions gave no priority to scientific investigations.

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18 Beaglehole, *The Voyage of the Endeavour*, ccxxix. In addition to the instructions and Cook’s journal, the book has an extensive introduction by Beaglehole on the expedition as well as on the state of knowledge on the Southern Hemisphere discoveries at the time.

19 Beaglehole, *The Voyage of the Endeavour*, cclxxii.
The expedition was ‘to proceed upon farther discoveries towards the South Pole’. From the Cape of Good Hope the two sloops Resolution and Adventure were to sail south in search of Cape Circumcision (Bouvet Island) and make observations ‘as may be useful either to Navigation or Commerce’. They were to look for animals, plants, minerals, mines and inhabitants, and proceed with a circumnavigation of the globe ‘as near to the Pole as possible’.

Cook did not encounter inhabitants, and he did not, as we have mentioned earlier, find Bouvet Island. But the expedition was a remarkable achievement in the history of exploration. It circumnavigated farther south than anyone had done before, reaching farthest south and discovering new islands. In the context of our focus on commercial and economic aspects, the expedition was important in two very different ways. Having shown that none of the Southern Continent extended into temperate latitudes, the theories of de Gonneville, Dalrymple, Byron, Kerguelen-Trémarec and others of a prosperous (in a traditional sense) continent suitable for colonization were disproven. When at South Georgia, one of Cook’s scientists, George Forster wrote:

‘It has been supposed, that all parts of this globe, including those which are barren and dreary in the highest degree, are fit to become the abode of men. Before we arrived at this Island of Georgia, we had nothing to oppose this opinion…. I apprehend it would be impossible for any race of men to live upon it’.  

Cook himself may have hoped for something more. When reaching the shores of the island in January 1775, he wrote: ‘Not a tree or shrub was to be seen, no not even big enough to make a tooth-pick…’. When reaching the southern cape of the island a few days later realizing that it was not part of the Southern Continent, he wrote: ‘I must Confess the disappointment I now met with did not affect me much, for to judge of the bulk by the sample it would not be worth the discovery.’ He named it the Cape of Disappointment.

Cook may have brought bad news to some adventurous entrepreneurs. However, Cook reported on another possible source of commercial exploitation. At South Georgia he observed that ‘seals or Sea Bears were pretty numerous’, and similar observations were made throughout the sub-Antarctic islands they visited. This soon came to the attention of the United States and British sealing communities who initiated the first extensive phase of resource exploitation in the Antarctic region.

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20 Beaglehole, The Voyage of the Resolution and Adventure, clxvii.


22 Beaglehole, The Voyage of Resolution and Adventure, 622 and 625.
The development of the sealing industry has been extensively researched and we will only highlight some main aspects of its development.23

Sealers had exploited grounds in the Southern Hemisphere – along the coasts of Africa and South America, Australia and the Pacific islands - throughout the latter part of the 18th century. The Falkland Islands were visited by whalers and sealers at least as early as 1774.

We do not know who was the first sealer to follow in the wake of Cook, but South Georgia, that he visited in 1775, had the first recorded visit by sealers in 1786. It developed into a substantial industry already before the turn of the century, and already around 1820 there were few fur seals left. The less profitable elephant seals were not so seriously reduced at this point.

The next major area to be exploited was the South Shetlands, discovered accidentally in 1819 by William Smith - a discovery that had important commercial implications. When Smith reached back to Valparaiso, the news quickly spread. A Royal Navy expedition led by Edward Bransfield was dispatched from Valparaiso in 1820 to go south and investigate further the newly discovered land. His orders (from RN Captain Shirreff) clearly indicate a main objective of the expedition. Bransfield was going to explore harbours, making charts

‘…and you will ascertain the truth of the account brought here of the uncommon abundance of the Sperm Whale, Otter Seals & c upon the Coast and in the Harbours.(…) You will ascertain the natural resources of the Land for supporting a Colony and Maintaining a population, and if it should already be Inhabited you will minutely observe the Character, habits, dress, customs and state of civilization of the Inhabitants to whom you will display every friendly disposition’. 24

Bransfield was also ordered to record the ‘natural production’, ‘depth of Soil’ and collect specimens.

John Miers, a British businessman in Valparaiso, who had employed Smith and his vessel before he had sailed south, was so enthusiastic about what he learnt on Smith’s return that he even published a paper on the discoveries, focusing on the commercial as well as political importance.

‘[S]hould the expedition now sent out bring assurance that the land is capable of supporting population (…) the place may become a colony of considerable importance. (…) Those who are aware of the extent to which the whale-fishery may be carried out in this hemisphere, must be immediately

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24 Campell (ed.), The Discovery of the South Shetland Islands, 71.
struck with the immense benefit which the acquisition of New Shetland might offer for a British Settlement.25

Miers concerns were that British whaling interests at the time were threatened by the Americans, and that the Falkland Islands had been abandoned since 1774. A need for a new British settlement was ‘seriously felt’.

A report from one of the members of Bransfield’s expedition also indicates the possible commercial prospects of the area. The Assistant Surgeon Adam G. Young, wrote:

‘The discovery of this land must be of great interest in a geographical point of view, and its importance to the commercial interests of our country, must be evident from the very great numbers of whales which we were daily surrounded; and the multitudes of the finest fur-seals...’26

Young predicted further a great demand in Europe and elsewhere for furs as well as oil as such resources were becoming scarce elsewhere. It was believed that as soon as the discovery was made public, the operations there would become ‘a favourite speculation amongst our merchants’.

Bransfield’s expedition was not alone that year, so Smith’s discoveries were obviously already spread in the sealing communities. For the next two seasons there was an ‘invasion’, probably reaching close to one hundred vessels, mainly from Britain and the United States. Their discoveries and the mapping of the complex archipelago of the South Shetlands is one telling example of the contributions by the sealers. Edmund Fanning, James Weddell, John Davis, Nathaniel Palmer and many, many others made their way into the exploration history of the Antarctic.27

The South Shetlands seals, which were principally fur seals, soon suffered the same fate as those on South Georgia. The beaches were emptied, and the sealers moved to other peri-Antarctic islands that experienced short peaks and collapses during the following decades.

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25 J. Miers, “Account of the Discovery of New South Shetland, with observations on its importance in a Geographical, Commercial, and Political point of view”, Edinburgh Philosophical Journal, 1820. Quoted here from Campell (ed.), The Discovery of the South Shetland Islands, 60, where the full text of Miers’ paper is reproduced.

26 Chapman, Antarctic Conquest, 45. The quote is from a report by Bransfield’s surgeon Dr. Young, published in 1821. Bransfield himself did not write a report on the expedition.

27 Some of the sealers wrote extensive accounts of their voyages that were instrumental for later discoveries and development, like Fanning, Voyages and Discoveries, and Weddell, A Voyage Towards the South Pole.
The seal population recovered to some extent, and grounds like South Georgia, South Shetlands and Macquarie Island experienced renewed interest from the sealers in the late 19th century. However, the catches were far less than those of the early peak seasons. Fur seals had remained rare, and the industry instead concentrated on elephant seals.

Most sealers came from the United States, and they were active throughout the entire century. In the early years and throughout the South Shetland bonanza of the 1820s British vessels were about equal in number, but after around 1840 Britain was very much out of this business which devolved to colonial ports in South Africa, Australia, and New Zealand.

Between the 1840s and the 1880s Antarctic fur sealing was almost completely dominated by US vessels, mainly supplying the domestic market there, but to some extent also Europe. The Chinese (Canton) market had peaked early century. The elephant seal oil market was more stable. It yielded high quality oil that was used for lighting, lubrication, leather-, rope- and textile-treating.

In numbers and by their focus on resource exploitation the sealers were the prime economic agents of the Southern Ocean of the 19th century. As a ‘by-product’ of their search for sealing grounds, they also discovered new regions and were decisive in the further mapping of the Antarctic coast and the peri-Antarctic islands. They covered vast areas. Indeed, the sealers have been called the “nomads of the sea”.28 In a single voyage, they often visited several islands, moving when the beaches in one place had been cleared. However, gangs were also left ashore for extended periods. Some even wintered, but more typically stayed for the austral summer only.

Some sealers also went south with explicit orders from their owners to explore new regions along the Antarctic coast. The most well known example is probably the British Messrs. Enderby. The company that was founded by brothers Samuel and George in the mid 18th century and developed into one of the major British whaling and sealing companies operating both in the Northern and Southern hemispheres.29

Especially from the 1830s, when the Enderby company was run by the third generation brothers Charles, Henry and George, several of its masters and vessels were dispatched on long voyages where exploration of new sealing grounds and coasts had the priority more than the sealing itself. As Riffenburgh puts it, ‘[r]arely were Antarctic exploration and commercialism more closely tied

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The Enderby-organized expedition lead by John Biscoe (1830-33) eventually circumnavigated Antarctica and contributed decisively to further mapping of islands and coasts. Experiments led by William Lysle and John Balleny a few years later are other examples. Balleny’s report shows that there was still some way to go before the extent and character of the Southern continent was fully understood. It also exemplifies the typical dual aims of the Enderby-expeditions:

‘The results of this voyage must tend to keep alive the supposition of the existence of either a great southern land or a vast mass of islands, whose northern limits would seem to range between 67th and 69th parallels, a part of which we trust, ere long, to be laid down in our charts, and not improbably rendered subservient to the interests of science, if not to the prosperity of our fisheries.’

Only a few expeditions organized by the Enderby Brothers made profits for the owners. The financial position of the company was not improved after a rather bold attempt to establish a colony in the Auckland Islands in 1849. The ambitious, but unsuccessful, venture that was abandoned already in 1852, included introduction of sheep, growing of crops as well as shore whaling. The company never regained its strengths and was liquidated.

4. The whaling advocates

Whaling has a long history involving many nations and catching grounds. In the 18th century this industry was mostly based in European countries and the whaling took place in the Arctic. But there was obviously also a general knowledge about the existence of whales in large numbers in the south. It had been noted by the explorers all along at least as early as by Bouvet and Cook. As a matter of fact, one of Cook’s scientists, George Forster, predicted that the whalers eventually would reach the Southern Ocean, but only after more accessible whaling grounds elsewhere had been emptied. This was, indeed, what eventually was going to happen.


32 Balleny, “Discoveries in the Antarctic Ocean”, 527. Properly left in a footnote might be the expeditions during these years led by American Benjamin Morrell. In four consecutive voyages to the Southern Ocean and into Antarctic water, he combined sealing with exploration and prospect for commercial opportunities in this still very much unknown part of the world. Many of his discoveries are disputed, but his narrative nevertheless shows the attitudes at the time; Morrell, *A Narrative of Four Voyages*.

An increased interest is evident from the late 18th century from the British government in promoting the Southern whale fisheries. An Act of Parliament was passed in 1786 that encouraged British whalers to explore grounds in the South Pacific, and even bounties were offered. Government sponsored expeditions were also sent south to explore the opportunities. One such expedition was the one lead by James Colnett with the ship *Rattle* from 1792-94. His orders were explicitly to look for catching grounds and harbor facilities for the Southern whale fisheries. On visiting Staten Island located just to the North East of Cape Horn, he suggested that it could serve as a whaling base, and that the fisheries could be extended further south:

‘Great advantages might arise from such a settlement, from whence the black whale fisheries might be carried on to the South Pole, in the opinion of all the North Greenland fishermen, with whom, I have conversed on the subject. Besides, it is one of the easiest landfalls a sailor can make. In order to render this place a defensible, and protecting settlement, many experienced men, lieutenants, in his Majesty’s navy, might be found, at very little extra expense to government, to live in a situation, which would be far preferable to many stations in Norway, that I have seen’.35

The 19th century was the American era of whaling with catching grounds throughout the world oceans. But the whalers still kept away from the hostile deep Southern Ocean. They instead searched much more accessible grounds elsewhere, sometimes combined with elephant sealing at the sub-Antarctic islands. Only a small fraction was killed within what we would – even with a wide definition in mind – term the Antarctic. If we are focussing on commercial activities, the 19th century was very much the sealers century in the Antarctic.

The earliest discoverers of the South Shetland Islands predicted, as we have seen, not only the prospects for sealing, but for whaling. Then, throughout the early 19th century several other expeditions had an eye for new commercial opportunities. Typically, they were ‘traditional’ exploratory expeditions with broad scientific programs that gradually added to the knowledge about the coasts and the surrounding seas. Some were national expeditions backed by grand political and imperial ambitions. The Russian naval expedition (1819-1821) led by Fabien Bellingshausen, may be characterized in that way. But rather than searching for territorial possessions or commercial opportunities, it was primarily a scientific expedition. When sealers were encountered both at South

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Georgia and in the South Shetlands, they did not seem to have inspired the Russians to join in. In that way Bellingshausen’s expedition seems to have differed from the other national expeditions at the time.

J. Durmont d’Urville led a French naval expedition (1826-1829) to Australia and Oceania where ‘political and commercial considerations were second to the scientific’. A second voyage (1837-40) was longer and more extensive. The globe was going to be circumnavigated, and d’Urville was going to take his two vessels, *Astrolabe* and *Zélée*, towards Antarctica. The expedition again was primarily going to be a scientific voyage, but as the instructions prior to the departure in 1837 from the Ministry for the Navy tells, prospects for trade and commerce should be noticed. The expedition should

‘explore with special care the various parts of Cook Strait which seem to you to offer the best facilities for our whaling ships... In approving this plan of campaign, the King, Sir, has desired to give you the opportunity to complete the important work you have already done in Oceania. His Majesty has had in mind not only the advancement of hydrography and natural history; his royal solicitude for the interest of French trade and the development of our shipping has caused him to take a much broader perspective of the scope of your mission and the likely advantage to accrue from it (...) You will call at a great number of places which should be closely examined from the point of view of the resources they may be able to offer to our whaling ships. You are to collect all the information appropriate to guide them in making their expeditions more productive (...) You will put in to our ports where our trade is already established and where the passage of a French warship can have a salutary influence, into others where perhaps our manufactured goods could find markets that have been so far ignored, and on which you will be able to provide valuable information on your return (...) You will also probably have the opportunity at several points on your voyage to provide protection, which is the finest prerogative of the ships of the King’s Navy, and which is always to the advantage of our merchantmen when they meet.’

Although these instructions were obviously not meant explicitly for the Antarctic part of d’Urville’s venture (the Cook Strait is, in fact, between the North and South Island in New Zealand), they show that behind the grand banner of science, there were more mixed motivations for the expedition. However, d’Urville’s own accounts do not touch onto the topic of commercial prospects. His vessels ventured twice into the ice to reach as far south as possible; the first time in 1838 into the Weddell

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36 Reports and letters from Bellingshausen and some of his crew have recently been published in Bulkeley, *Bellingshausen*. On encounters with sealers; 80ff. and 116ff. See also Debenham, *The Voyage of Captain Bellingshausen*, 29, Gurney, *Below the Convergence*, 161.

37 Rosenman, *Two voyages to the South Seas*, I, xxxviii.

38 Letter from the Vice Admiral and Minister for the Navy and Colonies to Durmont d’Urville, 26. August 1837; Rosenman, *Two voyages to the South Seas*, II, 320.
Sea and the second time in 1840 discovering the Antarctic coastline south of Australia. There are mentioning of whales and whale ships, but the accounts are primarily about what were probably the main challenges; navigation and health. However, during a brief landing at what was to become the Adélie Land, geological specimens were collected.

The American Charles Wilkes expedition (1838-42) overlapped in time with d’Urville’s expedition. In fact, they knew about each other and even encountered in Antarctic waters. The scientific program was a prime motivation for this so-called United States Exploring Expedition, but the relevance to the whaling industry, important in the United States at the time, was also emphasized. Indeed, the American global whaling era was at its peak, and there was a constant search for new whaling grounds. Wilkes official orders were extensive and detailed, showing clearly the concerns for this important industry:

‘The Congress of the United States, having in view the important interests of our commerce embarked in the whale-fisheries, and other adventures in the great Southern Ocean, by an Act of the 18th of May, 1836, authorized an Expedition to be fitted out for the purpose of exploring and surveying at sea, as well as to determine the existence of all doubtful islands and shoals, as to discover and accurately fix the position of those which lie in or near the track of other vessels in that quarter,...’

James Clark Ross also deserves a special mentioning because of the expedition’s relevance for the future development of whaling. His British naval expedition (1839-43) did not pursue whaling as such, it was also primarily about science and general exploration. Indeed, it was a scientific expedition with its prime task to make magnetic observations and determine the position of the south magnetic pole. The two vessels HMS Erebus and HMS Terror circumnavigated the continent, discovered new land and islands, and most importantly penetrated what became known as the Ross Sea. But during the extensive voyage Ross made numerous observations of whales and reflected on the potential for a revival of a British whaling industry which at the time was in a decline.

39 Rosenman, Two voyages to the South Seas, II, 337ff and 464ff.
40 Duyker, Durmont d’Urville, 437.
41 A detailed account of developments in the United States leading up to the United States Exploring Expedition; Gurney, The Race to the White Continent, 93ff.
42 Quoted from Mill, The Siege of the South Pole, 214.
On visiting the Auckland Islands in 1840, and knowing of the Enderby Brothers plans at this island, Ross observes that ‘Laurie Harbour is well calculated for the location of an establishment for the prosecution of the whale fishery: many black and several sperm whales came into the harbour whilst we were there; and from such a situation the fishery might be pursued with great advantage’. As we have seen, Enderby’s plans came to nothing, but Ross’ later observations proved to be more prophetic. For example, when deep into the Ross Sea (71° 50’), Ross noted on January 14, 1841:

‘In the course of the day a great number of whales were observed; thirty were counted at one time in various directions, and during the whole day, wherever you turned your eyes, their blasts were to be seen. They were chiefly of large size, and the hunch-back kind: only a few sperm whales were distinguished amongst them, by their peculiar manner of “blowing,” or “spouting,” as some of our men who has been engaged in their capture called it. Hitherto, beyond the reach of their persecutors, they have here enjoyed life of tranquillity and security; but will now, no doubt, be made to contribute to the wealth of our country, in exact proportion to the energy and perseverance of our merchants; and these, we know, are by no means inconsiderable. A fresh source of national and individual wealth is thus opened to commercial enterprise, and if pursued with boldness and perseverance, it cannot fail to be abundantly productive.’

Later in the voyage '[W]e saw a great many whales whenever we came near the pack edge, chiefly of very large size; and I have no doubt that before long this place will be the frequent resort of our whaling ships,...’

Next austral summer Ross explored the South Shetlands and again was struck by the whales and the commercial potentials:

‘We observed a very great number of the largest-sized black whales, so tame that they allowed the ship sometimes almost to touch them before they would get out of the way; so that any number of ships might procure a cargo of oil in a short time. Thus within ten days after leaving the Falkland Islands, we had discovered not only new land, but a valuable whale-fishery well worthy the attention of our enterprising merchants, less than six hundred miles from one of our own possessions’.

Immediately after Ross’s return and until the revival of Antarctic exploration in the 1890s, traditional exploratory expeditions disappeared for many years, and Mill has labeled this period as ‘the era of

43 Ross, A Voyage of Discovery, volume 1, 140.
44 Ross, A Voyage of Discovery, volume 1, 161.
45 Ross, A Voyage of Discovery, volume 1, 265.
46 Ross, A Voyage of Discovery, volume 2, 327.
adverted interest.47 This may to some extent be correct relating the large national expeditions. One explanation may be that the prospects for colonization and commerce associated with the Terra Australis era of exploration was now definitely something of the past.48 The sealers, however, were there all along although sealing at the peri-Antarctic sealing grounds gradually declined throughout the last part of the century. But Ross’ observations and reports of whales did influence on the further events. They were widely known. In Australia, for example whaling in Antarctic waters were discussed at least from 1869 when one of Ross scientists (J.E. Davis) had addressed the Melbourne Geographical Society.49

The German Grönland expedition (1873-74) led by Eduard Dallmann went all the way to the South Shetlands in search for whales and seals and was in fact the first steam vessel to reach Antarctic waters. The expedition was organized by the Hamburg based Deutsche Polar Schifahrts Gesellschaft – at least to some extent based on the reports from Ross.50 The expedition explored new waters in the South Shetland archipelago, but was no commercial success. Some seals were caught, but no whales were taken.

In 1874 at about the same time as Dallmann returned, the Gray brothers in Peterhead (Scotland) published their pamphlet Report on New Whaling Grounds in the Southern Seas. While Dallmann’s expedition was not really well known, the Scottish pamphlet was widely circulated and stimulated whaling explorations in the years to come.51 It also quoted Ross. So, in the same way as Cook became important for the emergence of the sealing industry, Ross played at least some role in initiating the whaling industry.

In the 1890s a series of expeditions went south to explore the possibilities for whaling; the Dundee whaling expeditions, C.A. Larsen’s two expeditions and one led by H.J. Bull.52 These expeditions may be considered as the earliest indications of the new era although they were no instant commercial successes. One important reason was that they were equipped only to pursue the Right whales that were not really found in large numbers. Instead they observed abundance of rorquals. Such whales –
the Blue and Fin whales, among others – did only become targets of the whalers after Svend Foyn had successfully introduced a new technological system for whaling in Norway in the 1860s. His small steam whale chasers with harpoon cannons were for many years considered too small to go all the way to the Antarctic. After the explorations of the 1890s, it took still another ten years before the first ‘modern’ whale catcher that could hunt for the rorquals reached the Southern Hemisphere. Adolf Andresen, based in Punta Arenas, employed a catcher boat in the Strait of Magellan in 1903. Then C.A. Larsen in 1904 started commercial shore based whaling at Grytviken at South Georgia. This soon developed into the most extensive exploitative phase in Antarctic economic history. It eventually spread throughout the entire Southern Ocean (pelagic whaling). We will not trace this development here, but only recall that C.A. Larsen in 1923 took a whaling expedition into the Ross Sea – with a factory ship appropriately named Sir James Clark Ross.\textsuperscript{53}

So, despite the observations by Ross and others; the whalers came late to the Antarctic waters. We cannot speak about a distinct Antarctic whaling industry before the 20\textsuperscript{th} century although whaling was an important industry elsewhere in the 18\textsuperscript{th} and the 19\textsuperscript{th} century.

In the context of this essay, it is also worth noting that whaling, as in the earlier sealing industry, the relationship between exploration and exploitation was close and interwoven. The whalers made important discoveries and contributed to the final mapping of the Antarctic coast. They assisted and supported scientific expeditions and even contributed to science on their own.\textsuperscript{54}

\section*{5. Minerals?}

The existence (and abundance) of minerals had been a consistent part of the ‘Terra Australis’ myths, but could obviously not be verified before any land was found. From then on mineralogy was an important element in most exploration. It started at the islands – that were discovered first. Cook collected rocks at South Georgia, but did not find anything of value. In Forster’s words: ‘As far as we were able to examine them, they contained no other minerals of any kind; the whole country being useless, and frightfully barren in every respect’.\textsuperscript{55}

\textsuperscript{53} Tønnessen and Johnsen, \textit{The History of Modern Whaling}, 348, Risting, Kaptein C.A. Larsen, 108ff.

\textsuperscript{54} Basberg, ”Whalers, Explorers and Scientists”, 25ff.

\textsuperscript{55} Forster, \textit{A voyage round the world}, Vol. II, 528.
Geological specimens were reportedly collected in the South Shetlands already in 1820 by the Boston sealer J. Winship. James Clark Ross reported on coal deposits at Kerguelen. An Australian entrepreneur inquired about a mining lease there in 1860. It came to nothing. The Auckland Islands – together with neighbour Campbell Island - were also the venues of another unsuccessful enterprise some years later when in 1863 Thomas Musgrave led a prospecting voyage in search for tin and copper.56

We will not go into detail on the revitalized interest in the Antarctic of the 1890s, but the ‘Heroic Era’ deserves mentioning in the context of mineral exploration. The era includes the series of well-known expeditions that gradually opened up the route all the way to the South Pole. Headland has therefore termed this stage of Antarctic exploration as ‘Continental penetration’.57 In the quest for the pole, the commercial aspects were obviously not the prime driver, and these expeditions were of a different kind than the whaling enterprises of the same period. However, the motives were still complex and mixed, as observed by Mill, who again reminds us about a prime underlying driving force in this period:

‘The renewal of Antarctic research came neither from the zeal of men of science, the fostering care of Government, nor the wealth of millionaires. It was due to plain business men, seafarers willing to undertake a speculative voyage like the merchant adventurers of old’.58

It may be a too strong generalization, and will not fit equally the great explorers of the era.

Amundsen was more of a modern adventurer going for the pole as a skiing competition. Scott obviously had a strong scientific agenda where the search for minerals was a crucial part that also to some extent may explain his failure.59 Shackleton always had a dream to make money from his Antarctic adventures. In Fisher’s words, he had a ‘constant, romantic preoccupation with

56 Headland, A Chronology of Antarctic Exploration.

57 Headland, A Chronology of Antarctic Exploration, 34.


59 It is far beyond the scope of this paper to go into the large literature and research on the Heroic Age explorers, some of which deal explicitly with the mixed motivations of the explorers themselves and their sponsors. The issue of science is recently dealt with by Larson, An Empire on Ice.
“treasure”’. Minerals were at the core of those dreams, from ‘precious stones’ to more prosaic ‘ wolfram, tungsten, guano, coal, oil and nickel’. In the 20th century mineralogical expeditions continued at several islands and at the continent itself. Indeed, mineral samples were collected even when the pole was the prime target. As a matter of fact, the commercial utilization of the continent itself has mainly been associated with the exploitation of minerals. When J. Gordon Hayes in the 1920s reflected on ‘The purpose of Antarctica’ as well as other continents and somewhat simplified stated that There is money in them (see Ingress), he had the minerals in mind. Although deposits were discovered, it is, however, an interesting fact that mining has so far never developed into an Antarctic industry due to a combination of technological, economic and political considerations.

6. Conclusions

What was the motivation of the Antarctic explorers throughout history? Some had no explicit motives at all. They were accidental voyagers blown off course from routes further north. Their discoveries could nevertheless be important.

Those with a more explicit goal could be grouped in three main categories; scientific motives (scientific exploration), political motives (territorial expansion, colonization) and commercial motives (resource exploitation). Some voyages apparently fall easily into one of these categories; the traditional, official sponsored national expeditions at one end – the sealers and whalers at the other end. However, when we take a closer look at the various expeditions – well known and lesser well known – the picture is less clear. Typically, political, scientific as well as commercial motivations were closely associated and interwoven. Many expeditions and explorers bridged the gap between the stereotype categories of expeditions. The scientific explorers looked for exploitable resources. The sealers and whalers contributed decisively to exploration.

60 Fisher & Fisher, Shackleton, 198.

61 Fisher & Fisher, Shackleton, 198 (instructing Mawson in 1909) and 447 (about the program of the Quest-expedition in 1922).

62 De Wit, Minerals and Mining in Antarctica.
Today most people tend to view Antarctica as a continent of pristine wilderness with scientists and tourists representing the only human visitors. Due to political and other factors, it has never become a continent of industry and commerce. Taking a retrospective look, it is interesting to note that the geographical areas where extensive commercial activities have taken place, instead have been in the seas surrounding the Antarctic continent; the Southern Ocean. It was the case with the sealers (although they were shore based on the islands), the whalers, and the more recent fishermen and tourists. Commercial activities on the continent have always been minor in comparison. The history has, indeed, taken a very different course from what the earliest explorers of the ‘Terra Australis’ predicted, that they hoped to find a continent that could be commercially exploited.

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