Plans for an Italian Antarctic expedition, 1881

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ABSTRACT. Giacomo Bove, an Italian participant in Adolf Erik Nordenskiöld's 1878–1880 Northeast Passage expedition, and Cristoforo Negri, director of the Italian Geographical Society, drew up plans for an Italian Antarctic expedition to depart from Genoa in 1881. The plans were for a three-year, single-vessel expedition with two winterings, one in the Ross Sea and the second in Enderby Land. They were drawn up in considerable detail and proposed a lavish budget. The expedition never took place because of failure to secure sufficient funds from public subscription and because of the unwillingness of the Italian government to provide support. However, Bove was employed by the Argentine government to put into effect expeditions that had some elements of his plans.

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Introduction

In 1880, an Italian expedition to the Antarctic was proposed by Giacomo Bove (Fig. 1), an Italian naval officer who had participated in Adolf Erik Nordenskiöld's 1878–1880 *Vega* expedition through the Northeast Passage, and Cristoforo Negri, director of the Italian Geographical Society (Bosco 2006). This expedition, had it taken place, would have been the first of what became known as the 'Heroic Era' and it is, perhaps, the least known of all the possible or actual expeditions to the Antarctic in that period. The planned expedition is noteworthy for many reasons and not simply because of its early date, more than a decade before de Gerlache's *Belgica* expedition.

There are several sources for the study of the planning for the expedition. Three important printed documents exist that were written by the authors of the plans and set out the proposals in detail (Bove and Negri 1880; Negri 1880a, 1880b). The last two papers are very similar and were articles published to promote the expedition in the Rivista Marittima and the Bollettino della Societa' Geografica, respectively. Both were subsequently reprinted in order to attract a wider readership. Also, in the only biography of Bove to be prepared to date, there is a section on the expedition that largely relies on the previously mentioned papers but that also includes some other detail that is, unfortunately, not referenced (Cozzani 1941). In the more general literature on Antarctic exploration, the expedition is almost totally ignored apparently only receiving mention in the book The siege of the South Pole ..., by H.R. Mill published in 1905 (Mill 1905: 365-366).

Bove, himself, was inspired by the success of the Nordenskiöld expedition and of his own part in it, and wished to continue his polar work in command of his own expedition. This desire coincided with developments within Italy that made it a propitious time for such a suggestion. That country, once it had completed its unification process in September 1870 with the annexation of Rome, wished to imprint itself on the world and one of the methods it adopted was the mounting of overseas expeditions with the triple aims of raising international awareness of the existence of the new state, the promotion of trade, and the acquisition of colonies. Several such expeditions were mounted by the new Royal Italian Navy, and Bove, as a young officer, participated in one of them, that of the corvette Governolo, to the far east. A main promoter of these overseas efforts was the Italian Geographical Society. This body had been formed in 1867 by Negri, in collaboration with Cesare Correnti and Giacomo Doria (Assorgia 2001 I: 19).

An Antarctic expedition

It seems certain that it was Bove who promoted the suggestion of an *Antarctic* expedition as he had started considering the possibility while on board *Vega*. In his diary entry for 19 January 1879, he wrote:

What instability of projects! Until yesterday I was thinking of pushing Italy into mounting an expedition in Wrangel Island; now goodbye Arctic expedition, I am flying to the opposite pole and I am dreaming about a voyage around the Antarctic land. It will be a great thing... Where to find the money? We are talking about one million, and one million it is not a trifle. It is true that in Italy we have Arnaboldi, Cazzaniga and Telfener and many other rich patriots, but would they put trust in me and risk money in a very dubious enterprise? But we don't have to lose hope. The proverb says: nothing ventured nothing gained..... the one that will gain is not me, but my country, my Italy: that God make it great and



Fig. 1. Giacomo Bove (1852-1887).

powerful and save it from any misfortune. (Bumma and Scarrone 2006: 217–218)

During their consultations, Bove and Negri investigated the history of Antarctic exploration in detail and, in order to produce a sound plan, they made great efforts to understand how such explorers as Cook, Bellingshausen, Palmer, Ross, Wilkes, Morrell, Biscoe, Dumont d'Urville, and Weddell had achieved their successes. Indeed, so determined were they in reference to the great figures of the past that several are mentioned on virtually every page of the documents in which they set out their proposals (Bove and Negri 1880; Negri 1880a, 1880b).

The scheme for the project was ambitious. The plan was for a three-year expedition using one vessel that would winter twice at two different sites, one in the Ross Sea and one in Enderby Land, thereby completing a circumnavigation of Antarctica counter-clockwise. This, in itself, sets it apart from the other expeditions of the late nineteenth and early twentieth centuries. The departure was planned for not later than May 1881 because one of the aims of the expedition was to observe, from Antarctica, the transit of Venus that was to take place on 6 December 1882. No fewer than 45 overseas expeditions observed this transit at sites mostly in the Southern Hemisphere where it was best seen (Sheehan and Westfall 2004: 277–278). Had the Italian expedition taken place, their station would, obviously, have been the most southerly.

The head office of the expedition was to be in Genoa. The budget was for some 600,000 lire (some € 2.3 million at present costs), of which 250,000 lire was set aside for

the ship, which was to be newly constructed to Bove's specification, 100,000 lire for special provisions, and 150,000 lire for salaries and voyage expenses. There were to be subscriptions in every Italian city and the intention was that once half of the required sum had been raised, then negotiations for the purchase of a ship would start. It was envisaged that there would be some 40 participants in the expedition of whom half would be naval personnel with the others being Italians who had had experience in whaling in the southern seas. A special effort would be made to establish a scientific staff by selecting naval officers with scientific credentials. These would cover astronomy, magnetism, meteorology, geophysics, and hydrography while the medical staff would cover geology, botany, zoology, and photography.

There was to be an experienced ice master and, no doubt, Bove intended to recruit him from among his extensive contacts in Scandinavia, since he would be unlikely to find a suitably experienced Italian. The rigging and supplying of the vessel was to follow the most up to date British, Swedish, and Austrian practices (Bove and Negri 1880: 4). The reference to Austria presumably related to the ship *Tegetthof*, of the 1872–1874 Weyprecht and Payer expedition to Franz Joseph Land. Bove considered using two vessels for his expedition but rejected the idea on the grounds of cost and also because of the difficulties experienced by those previous expeditions that had had two ships (Negri 1880a: 9-10, 1880b: 14-15). In this context, he presumably had in mind Bellingshausen, who, throughout his expedition, was sorely tried by the poor sailing qualities of Mirny, a very slow vessel in comparison with his own ship, Vostok. Bove also insisted on a steam ship on the grounds of speed, flexibility, and power against the ice. He completed detailed calculations concerning the consumption of coal and, herein, as in so many of the problems facing him, he was hampered by the very limited knowledge available at the time concerning the geography of Antarctica. Although Wilkes had used the term 'Antarctic Continent' in the published charts resulting from his 1838–1842 expedition (Headland 1989: 149), this was by no means certain and the lands might well have formed an archipelago. Bove was clear that there were two major embayments, the Weddell and Ross Seas, but did not know if there were more. He appreciated that the higher the latitude he could maintain, the smaller the distance to be covered, with a reduction in the consumption of coal. But he seems to have been very optimistic concerning the speed, 8 knots, that he would be able to achieve, noting that at 60°S, coal would be required for 56 days, at 70°S for 38 days and at 80°S for only 16. His overall conclusion was that coal for 120 days of steaming would be required (Negri 1880a: 24, 1880b: 15). It is, however, certain that Bove was keenly aware of the need for exercising maximum economy in fuel and that the ship would use sails wherever possible.

The plan envisaged proceeding from Genoa to Montevideo and then to Buenos Aires, where support could

reasonably be expected from the large and thriving Italian communities in each city. A sailing ship would be hired to carry stores to Tierra del Fuego, where they would be trans-shipped to the main expedition vessel, which would then continue. There is a slight discrepancy regarding the precise course to be pursued thereafter in that it appears possible that Bove was intending to visit the Falklands after leaving Tierra del Fuego (Negri 1880a: 23, 1880b: 14), perhaps because of the ship-bunkering and repair facilities available there, and then to proceed to the South Shetland Islands. However, he also considered omitting this stop to sail directly across the Drake Passage to the South Shetlands (Bove and Negri 1880: 5, 9). Bove considered that, in order to reach the highest possible latitude, the best course to follow would be southwards between either 10°W and 30°W or between 160°W and 170°E. He noted that Cook, Bellingshausen, and Wilkes had achieved 70°S between 85°W and 105°W and conjectured that there might be another embayment in that region. But in the light of Ross's experience and noting the presence of the South Magnetic Pole nearby, he determined on the Ross Sea for the first wintering. A second reason for the selection was that Bove was interested in conducting volcanic observations on Mount Erebus. This necessitated a southwesterly course from the South Shetlands, but this did not daunt Bove because he was aware of Biscoe's discovery that close to the continent the prevailing winds were from south to east-northeast (Jones 1971: 60). This would assist in the execution of the second part of the plan which envisaged a wintering in Enderby Land followed by a return not to Genoa but, possibly having in mind the need to demonstrate that it was a national and not merely a regional expedition, to Naples (Bove and Negri 1880: 3). There was no suggestion that the expedition might attempt to reach the South Pole unless this became possible by sea.

Bove and Negri set out in detail the scientific programme to be undertaken. A first aim was to map as much of Antarctica as possible, and this naturally raises the question of the modes of transport that were to be employed. Bove envisaged a series of sledge journeys and, presumably, these were to be by man hauling as there is no reference to dogs or ponies. He clearly intended to visit the South Magnetic Pole and 'the flaming volcano' (presumably Mount Erebus) 'either by ship or walking on land' (Negri 1880a: 19, 1880b: 12). Bove himself wrote that 'The Italian expedition will have . . . the advantage of winter work, even if limited sledge excursions are not a big advantage on the geographic side, they will be great and unique for the scientific observations' and '... we will send expeditions with food on the sledges, both for mapping the land and the sea and for getting material for our museums . . . ' (Bove 1880: 9–10).

A second aim was to conduct a detailed study of the ocean currents in the area and the distribution of ice. The prevailing view was that more open water was found where currents from the tropics met polar water and less open water was present where the currents were predominantly from the south. Bove and Negri were aiming for an understanding of this phenomenon if, indeed, it was true. During each wintering, tidal measurements would be made for many months, with comprehensive meteorological and astronomical observations. Magnetism and gravity were also to be measured. There was to be a geological programme with special reference to the volcanic phenomena that Bove considered to be common in the Antarctic. He was also aware that previous expeditions had noted that rapid changes in sea level appeared to be occurring and he appreciated that the length of the Italian expedition afforded good opportunities for marking sea level at several different places, presumably by etching on rocks, for the benefit of comparative studies to be made by future expeditions. (Bove and Negri 1880; 11-12)

Bearing in mind the promotion of trade, which was one of the main aims for all of the Italian expeditions of the period, Bove and Negri considered that there were possibilities for the export of guano from penguin rookeries and for the development of a specifically Italian whaling industry. The markets for the products arising from these activities were identified as South America, South Africa, and Australia.

Plans were also drawn up for the report of the voyage. Bove was determined that there should be photographic facilities on board and noted that the lack of these was a deficiency of the *Vega* expedition. He suggested that there be an initial brief report, in English and Italian, which might attract general readers, together with a series of lengthy scientific reports published later.

A main area of Bove's concern was the maintenance of morale and here the detailed studies that were made of his precursors in the polar regions resulted in positive plans:

In every navigation and even more in long and difficult ones...[one] must, for human relations and for the direct interests of the expedition, have great care of the health of the people. The precautions used on board Vega were successful, and we will follow the same... Vega was well supplied with provisions of good quality, and we shall have the same quality, [a further] reason...is that we have to pass through the torrid zone, Vega instead sailed in a cold climate...until Japan. The airing of the ship, the occupation and the activity [of the crew], also when we cannot have a long excursion...at least fencing, gymnastics, work and games, clothes, shoes, especially, that experience indicates more suitable, every expedient of Cook for hygiene, every expedient of Parry for distraction and moral relief, also education for spiritual relief, introduced by the English, the Swedes... everything must be used and everything will be of use for the health of the people. And more useful will be the paragon of a leader, inclined to...daring but able to control it, alert, without rest and more active...passionate, able to

infuse the energy of his soul, the feeling of national honour, intrepidity, constancy...' (Negri 1880a: 31–32, 1880b: 19–20)

Outcome

In the event, the projected expedition never took place and the fundamental reason for this was that the subscriptions failed to produce sufficient funds to enable Bove and Negri to seek further cash support from the government. Here, a contrast is afforded with von Drygalski's German expedition of 1901-1904 in which case the subscriptions were equally small (Oberhummer 1900: 94-95). But Germany was, by that time, pursuing a more aggressive imperial policy, as witnessed by several expeditions in different parts of the globe, and its government was keenly interested in the possibilities that might arise from a successful Antarctic expedition. German ambitions in the south had a powerful advocate, Georg von Neumayer, who was more influential in policy-making circles than was any equivalent figure in Italy. The German government was, therefore, willing to invest in the undertaking despite public apathy. However, Italy was, barely a decade after unification, still divided with a western part culturally and spiritually identified with France. Also the international scene had deteriorated for those seeking serious financial support from the Italian government. Trento and Trieste, both regarded by Italian patriots as part of the homeland, were still occupied by Austria and there was a conflict of interests with France concerning Tunisia, which had been offered to Italy by Bismarck but had been occupied by France soon after the presentation of Bove's project to the public. The Italian government was looking towards territorial expansion in North Africa for strategic and economic reasons and it is not surprising that, with all these preoccupations, Bove's project failed to secure official support.

Bove did, however, receive help from an unexpected quarter. The Argentine government became aware of the project and offered substantial assistance towards the expedition, which was to be the first mounted by that country. The Geographical Society of Argentina was instrumental in securing this governmental support (Cozzani 1941: 126; Assorgia 2001 I: 126; Comerci 2002: 83). The immediate plans were changed to concentrate on Patagonia and Tierra del Fuego and the ostensible aim of the expedition was extremely modest. This was to fulfil an old Act of the Argentine government with regard to the construction of a lighthouse system in the southern part of the country. But there were also the implicit aims of consolidating Argentine sovereignty, the precise determination of the border with Chile, assisting commercial expansion, and acquiring experience that might lead to further expeditions in the future.

Bove was eventually involved in two voyages in that area, in 1881 and 1884, although command of the vessels was in other hands. Bove was in charge of the scientific leadership (Cozzani 1941: 127–128). The 1881 expedition ended prematurely. Unfortunately, after

some significant exploration and surveying had been accomplished, including the fixing of the meridian that was the agreed border between Argentina and Chile, the vessel San José, with Bove on board, was wrecked on 31 May 1882 requiring the crew to be rescued by the Anglican Patagonian Mission Society vessel Allen Gardiner from Ushuaia. It appears that, had this accident not happened, and had the original aims been accomplished, the expedition might have continued to Graham Land, probably in the next year. Bove referred to this in a letter to his wife written on 23 January 1882: 'The programme we had, to reach Graham Land, we can't realise it because of our very late departure from Buenos Aires. I am very sorry for it; but I don't worry, because it will be our goal for the next voyage' (Fresa 1940: 26). Comerci also referred to the disruption caused by the wreck in completing the plans for the expedition (Comerci 2002: 83). Assorgia noted that the Argentine government was more interested in the exploration of the Tierra del Fuego area and in settling matters with Chile, than 'in knowing the extent of the hypothetical Antarctic continent that was not the property of Argentina' (Assorgia 2001 I: 39). This clearly is a topic for further research and for fascinating, and almost endless, speculation concerning the fate of Antarctica had the expedition been able to continue.

The 1884 expedition merely requires notice. It was confined to the Tierra del Fuego area and one of the aims was to construct a lighthouse on Staten Island that is still standing. It had some prominent participants, including Domingo Sarmiento, President of Argentina from 1868 to 1874, and the famous Italian writer Edmondo de Amicis.

Conclusions

There are a number of points that demonstrate the originality and ambition of the thinking of Bove and Negri. The concept of two winterings in two different places, and the circumnavigation, reflect their desire to solve the problem of whether Antarctica was a continent or was divided into islands. With regard to the Ross Sea, they knew from Ross's descriptions that approaching the coast was difficult and that anchorages were scarce, but they believed that navigation would be much easier with a steam vessel, as would the chances of finding a wintering site. But the prospect of securing an equivalent site in Enderby Land, then almost totally unknown, was surely remote. Bove clearly appreciated that only by wintering could satisfactory long-term studies be made of a series of scientific phenomena, and he had clear plans for coping with the concomitant stresses on the crew of the ship and the staff of the expedition. For these, he drew on his reading and on his own experiences on the Nordenskiöld expedition.

This naturally begs the question of whether the expedition would have been a success. A major point in its favour would have been that Bove, unlike Robert Falcon

Scott, for example, had substantial polar experience. A second point is that the expedition would have been very well equipped and would have had a new ship. Furthermore, one can be sure that Bove would not have lacked enthusiastic volunteers from among the ranks of the Italian navy. The most rational speculation might be that the expedition would have entered the Ross Sea and might well have been able to winter there. But the chances of achieving a second wintering were very small. However, had they achieved even the first, Antarctic history would be very different.

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