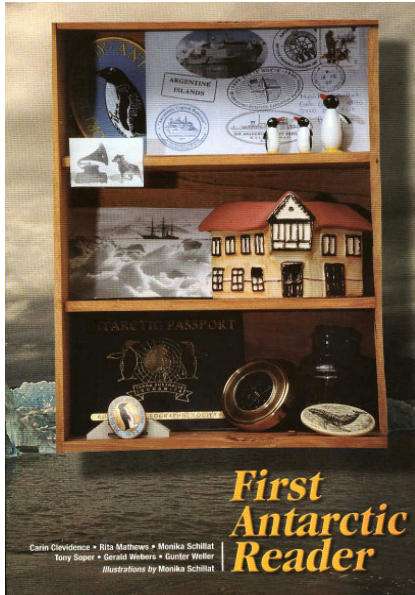


First Antarctic Reader

Publisher's Preface



There are many accounts of polar explorations, but this is the first one written by a team of modern adventurers, scientists, lecturers, and expedition staff, who work onboard modern cruise-vessels and icebreakers, helping travelers to understand the complex environment of Antarctica. The White Continent has left a restless longing in their hearts. Touched by its overwhelming beauty, they keep coming back each Southern summer to work there. But Antarctica is no longer an imaginary place for them. They call it home.

The seven superb essays in this volume vividly attest to the sincerity and depth of their authors' gifts as powerful and knowledgeable

storytellers. They have been written in different corners of the world - Fairbanks in Alaska and Ushuaia in Tierra del Fuego are only two of the various locations. Gunter Weller started writing his travel memories "Polar Travels – Around the world in less than 80 Days" one evening during the Arctic Science Conference in Valdez, Alaska, after having thought about it for a few months. There was little to do that evening and when he switched on the TV and found nothing even vaguely of interest he sat down and, occasionally gazing out over the snow-covered peaks surrounding Prince William Sound, he started writing this wonderful piece about a terrible trip to the South Pole in one fell swoop.

Another great story, "Possession Bay", is the account of day to day activities on board a Russian cruise vessel, in which Carrn Clevidence not only sheds new light on the life behind the scenes of Antarctic cruises but also reveals her mother's passion for the extreme outdoors.

The historian Monika Schillat asks whether Francis Drake did in fact discover Cape Horn and not only the dreaded passage, which bears his name. In 1577, five tiny ships with 164 men set sail from Plymouth. At that time, Francis Drake had no idea that he was embarking on the greatest personal maritime adventure ever, or that he would circumnavigate the globe. No mariner had attempted that feat for fifty years, and no captain had ever successfully negotiated all the worlds uncharted oceans to bring his vessel safely home.

“A Woman in Antarctica” is the account of Rita Matthews, who in the sixties as a scientist on a base with 650 men and 42 women ran the gamut of treatments from abject deference to out-and-out solicitation; from respect for her science to contempt because of her gender. Nevertheless, she saw the humor in all this and set about categorizing the men. Being a biologist she found the men fell into three natural animal categories: Predators, Scavengers, and Herbivores.

Naturalist Tony Soper finally gives us the answer to the question some of us never dared to ask: Why are there no penguins in the Arctic? A justified doubt, indeed. As far as we can tell Habitats in the North Atlantic and Pacific seem ideal for penguins, although of course they would face competition from auks for food and nesting sites.

From Macalester College in Minnesota comes the fascinating essay “Global Warming and Antarctica”. Global warming is very much in the news at the present time with almost daily accounts of dire predictions in the popular press. Most of these accounts accept global warming as an obvious fact. An article in Scientific American begins (Epstein, 2000) "Today few scientists doubt the atmosphere is warming. Most also agree that the rate of heating is accelerating and that the consequences of this temperature change could become increasingly disruptive." But what are future climate predictions based on? Gerald F. Weber's essay will examine climates of the past, the question of whether or not global warming exists and whether human activities are having a major effect on earth climate, and the possible effects of climate change in Antarctica.

In Antarctica people usually don't care about their countries' political conflicts or the burden of territorial claims. The friendliness and the spirit of cooperation between all nations in Antarctica continued even through the worst years of the cold war. Despite the East-West tensions of the 1950's, the International Geographical Year became a successful international cooperative effort and made a significant contribution to the study of weather and climate, the upper atmosphere, and the antarctic ice sheet and underlying bedrock. Gunter Weller's story “Meeting the Russians on the White Continent” gives a fine account of several years at the Australian Mawson station, the Russian base Vostok and other personal experiences working together with Russian colleagues.

This book is for those of you who are Antarctic-bound and ready to brave the stormy seas of the Southern Oceans en route to the world's most remote continent. As a faithful cabin companion, it will hopefully give you not only information but also pleasure and an insight into the thoughts of modern polar explorers.

Graciela Ramacciotti

Francis Drake and his dreaded passage

Monika Schillat

Regardless of your port of embarkation – Ushuaia in Argentina, Punta Arenas in Chile or Port Stanley on the Falkland (Malvinas) Islands – you have to cross the notorious Drake Passage in order to get to the Antarctic Peninsula. This is an unfortunate and inflexible fact of geography for ocean-going voyages. The “Dreaded Drake”, as some call it, is the deep body of water between the legendary Cape Horn in Tierra del Fuego and the Antarctic Peninsula, encompassing parts of both the South Atlantic and the South Pacific. 1000 km wide and up to 4750 m deep, this rough sea was discovered by Francis Drake by accident on a secret mission for England more than 420 years ago. The British admiral had made an east-west passage through the Strait of Magellan and had afterwards been blown by storms until he was south of Tierra del Fuego. This was how it was discovered that Tierra del Fuego did not extend to the Pole, and how the Drake Passage was found. Since then the passage was widely considered to be the worst body of water in the world. Whaler’s *en route* to their hunting grounds in the Antarctic understood that beyond 40° S there was no law, and even worse, beyond 50° S there was no God. At this latitude westerly winds howl unimpeded by any landmass. Large low-pressure systems form, and when these are compressed between the Peninsula and South America, the Drake Passage can be the roughest place on earth.

William Shakespeare was a teenager just graduating from Stratford Grammar School when Drake became the most celebrated adventurer of the Elizabethan age by circumnavigating the globe between 1577 and 1580. One wonders how he managed to survive at all in this furious waters, without proper maps or nautical equipment. In this remote, unforgiving environment, the most basic elements – weather, wind and sometimes ice – determine every move. Weather can change with astonishing rapidity in this area. A sunny, calm day can give way to a blizzard in less than 10 minutes in the South Atlantic.

In the mid-sixteenth century, Europe was poised on the brink of discovering the unknown ninety per cent of the world. More than sixty years had passed since the great pioneering voyages of Columbus, Vasco da Gama and Ferdinand Magellan. Since then exploration and exploitation of new lands had been almost entirely in the hands of the Spanish and Portuguese. And the Iberian *conquistadores* had energetically exploited their monopoly. The Spaniards had been rewarded by the discovery of precious metals in Peru and Mexico. The Portuguese had fastened on the lucrative oriental trade – gold and ivory from Africa, spices from the Moluccas (today Indonesia), gems from India. Once they had acquired their seaborne empires, the governments in Madrid and Lisbon were more intent on preserving their mastery and commercial profit than in maintaining the momentum of exploration. The challenge of uncharted seas and unknown shores was taken up by the French, the Dutch, and especially by the English, who came late into the colonial race.

(mapa de Terra Australis)

Part of the European approach to the South Atlantic and later to the Antarctic arose from the desire to exploit an almost totally mythical continent: *Terra Australis Incognita*, also called *Quars Parta* - that part of the world not discovered yet. The existence of a landmass capping the bottom of the globe was suspected for several hundred years. Such a suspicion was in fact recorded by the ancient Greeks, whose fascination for symmetry led them to postulate four Continents distributed evenly over the surface of the globe. The germ of this idea was born anew in the Renaissance, when the notion of an immense continent covering almost the entire southern portion of the world took a firm hold on public fancy. The legend of this land mass derived substance from the report of Ferdinand Magellan, that south of the narrow straits linking the Atlantic to the Pacific which bear his name, he had seen a great mass of land which he named Tierra del Fuego, the "Land of Fire". The curious thing about the persistence of the belief in the Southern Continent was not its logic, but the fact that it was held far more strongly after men began to sail the South Seas than before. Every piece of negative evidence only stimulated new efforts. Every voyage that lopped one piece off the 'continent' by sailing through seas where it was supposed to lie also produced new evidence that could be interpreted as suggesting its existence in another part. The matter would undoubtedly have been cleared up much sooner but for the peculiar difficulties of exploring the Pacific south of the tropics.

It was over half a century since Ferdinand Magellan, a Portuguese sailor in the pay of Spain, had threaded his way through the 320 miles of narrow channel between the Cape of Virgins and Cape Desire. During those fifty years the implications of his discovery had remained largely unrealised. There had of course been several attempts to navigate the straits and exploit the commercial prospects of the westward route to Asia. But the passage of the straits was, even in good weather, a difficult feat – and the weather was seldom good. In addition the crossing of the vast and empty Pacific was a nightmare through which stalked the terrifying figures of hunger, thirst and scurvy. The Spaniards had little cause to make use of the long, hazardous haul around South America; for most purposes the overland route across the Isthmus of Panama was perfectly satisfactory. But the straits were there, a narrow postern gate in the defences of the Spanish Empire, and it was only a matter of time before someone tried to enter by that waterway.

Drake had proposed for years to send a well equipped expedition to penetrate the South Sea via the Straits of Magellan in order to show Spain that her mastery of the seas was at an end and of course to plunder at due source the rich river flowing from the Potosi mines.

The enormity of the proposed undertaking was breathtaking. No English mariner had attempted the passage of the straits since 1526 when Henry Latimer and Roger Barlow had joined Sebastian Cabot's expedition to the Moluccas, an expedition which got no farther than the Delta of the Rio de la Plata. It was an expedition to the unknown and, inevitably, the unknown was peopled in the popular imagination with all kind of horrors. As well as the usual hurricans, whirlpools, sirens and monsters of the deep said to bedevil uncharted

seas, legends spoke of cannibals, headless men, warlike savages and strange creatures.

(gráfico con serpiente de mar)

For experienced sailors who could take a more balanced view the possibilities were scarcely less daunting. They knew from reports by Portuguese and Spanish mariners just how difficult it was to negotiate the winds and currents around the coasts of South America and beyond. As to the inhabitants of the unknown lands, they had either been colonised by agents of Spain and Portugal who would certainly be unfriendly or were still “untamed”, and their reaction to strangers could not be predicted. But how reliable were the accounts of their predecessors? Most of the travellers of those days made people believe that they had visited parts they had never seen and supplied vocabularies of Indians they never saw and gave habits of animals they never knew. The Italian noble man Antonio de Pigafetta, who wrote the cronicle of Magellan’s voyage, was no exception to that rule. He was superstitious and addicted to the marvelous, delighting to record wonders and exaggerations. His sixteenth-century eyes turned St. Elmo’s fire into a holy phenomenon, observed curious sea birds that laid eggs on one another’s backs, and at the Rio de la Plata saw giant cannibals with bull-like voices. In Brazil he met people who lived to be one hundred and forty years old; off Buenos Aires three saints appeared to quell a storm and at Port San Julian Patagonian giants, instead of using purgatives, rammed arrows halfway down their throats.

However, Drake and his men had no choice but to believe in these reports, being scared beyond reason of having close encounters with the locals in Patagonia. But the natives were not the only potential problem for the sailors. The climate itself was quite severe in those latitudes too. Below the Cape of Good Hope, the earth is girdled by an ocean freeway along which awesome winds and waves can circle the globe unobstructed by land. Unique to those southern oceans, sailors christened this belt of maritime ferocity the Roaring Forties, exceeded in fury only by the Furious Fifties or, worse, the Shrieking Sixties.

Nevertheless, Drake finally obtained the crown’s permission to leave. During the summer of 1577 a hundred and fifty mariners enlisted with Drake and Wynter, thinking that the captains were bound for Alexandria to take on a cargo of currants. So much secrecy and so many deliberately circulated rumours attended the mustering of ships and men during that wet season, that only one assertion could be made with confidence: Francis Drake was getting together a small but extraordinarily well equipped fleet in Plymouth harbour, but to do what?

There was always a great deal of work to be done at the beginning of a long voyage, and Drake knew that any lack of attention to detail could prove disastrous. If the suppliers were not watched, they would sell him green timbers, meat not freshly salted, beer that had lain too long in the cask. If the hulls were not properly caulked they would be leaking badly before they had been a month at sea. If sufficient canvas were not stowed to replace several sails, a ship could

find herself stranded and powerless after a succession of bad storms. Therefore, Drake and his captains spent most of late September and early October personally supervising the preparations. One by one the casks of biscuits, beans, pears, lentils, salt pork, flour, onions, beer and vinegar, the cheeses and the jars of honey were stowed below. The hens and pigs were penned. The gunpowder and cannon balls were safely locked into the magazines. The spare canvas and spars, the timber, pitch, blocks, nails, leather and the tools essential for repair work were carried aboard. There were also the harpoons, nets and fishhooks that for weeks on end would be the mariners' only means of supplementing their diet with fresh food. Everything was loaded aboard except the water, and that was deliberately left until the last moment so that it would stay fresh for as long as possible.

Then, on 15 November, the wind finally veered round to north and a large crowd on the quayside watched the five vessels stand out into Sutton Pool to await the ebb.

But the very next dawn they had to encounter their first problems. As they rounded the Lizard the ships ran into a strong wind. No ship of that period could make headway against a completely contrary wind, so there was only one way to deal with it, to look for shelter. They made it to Falmouth, but the damage was already done. On 27 November Drake took his fleet back to Plymouth in order to deal with the necessary repairs and to wait for a fresh start with better weather.

Drake took five ships when he set out from Plymouth in the autumn of 1577. Their names were *Pelican*, *Elizabeth*, *Marigold*, *Swan* and *Christopher*. They were small by the standards of the time. Drake's flagship, of 100 tons displacement and an overall length of 100 feet and beam of 20 feet was sturdy and well built. The *Pelican* was fit for warfare with seven armed portholes on eachside. Inside she carried eighteen pieces of artillery. The *Pelican's* three masts carried a total spread of more than 4.000 square feet of sail. She carried topgallant sails for the fore and mainmasts which gave her a considerable extra turn of speed, making her capable of outstripping vessels many times her size. But in spite of her capacities it seems remarkable that those sixteenth century sailors survived ocean-going voyages at all. Their wooden sailing vessels offered primitive conditions: heat, light and ventilation were inadequate, and a monotonous diet at sea revolved exclusively around biscuit and salted meat, once they were out of sight of land. Sickness, injury, and death were inevitable concomitants of the sailor's life.

In spite of all their fears the expedition made good time, and on the morning of Christmas Day the beaches of Barbaria in Morocco were sighted. The crew held a Christmas party, and they got in touch with some locals. What at first sight seemed to be a friendly relationship turned into disaster when Berber tribesmen kidnapped one of the sailors. This would not be the only unhappy incident of the voyage. Rounding Cape Rir in January Francis Drake captured some Spanish fishing boats. The fresh fish went directly to the galleys

of his fleet. On January 16, with fair winds the expedition sailed along the promontory of Cape Bland and dropped anchor in its shelter. Several Portuguese ships were in the harbour when Drake's expedition arrived. They must have assumed that the newcomers were their countrymen. When they learned the truth, it was already too late to escape. Drake deployed the vessels strategically within the anchorage and then paid visits to each of the Portuguese ships in turn. Several barrels of fish and biscuit changed owners, but there was neither gold nor merchandise of wealth to be had. But Drake needed every scrap of food he could lay his hands on. Within days he would be asking his crews to venture out into the unknown southern Atlantic. They would spend several weeks out of sight of land. Accordingly, the admiral gave orders that every member of the crew not engaged in other duties was to catch fish. The next stop, just before crossing the ocean, were the Cape Verde Islands, where Drake was searching for fresh water to take in. On his way to Santiago he found something else. He captured a Portuguese merchant ship, the *Santa Maria* of Lisbon, which was bound on a voyage to the colonies in Brazil and laden to the gunwales with trade goods - wines, linen and woolen clothes, silks and velvets. But the best was yet to come. On board the ship Drake found one of the finest navigators of his time: Nuño da Silva of Oporto. As Drake's knowledge of the prevailing winds in the Southern hemisphere was as scanty as his knowledge of currents, he was glad to have the experienced pilot on board and treated him as a gentleman. Below the equator celestial navigation took on an altogether different complexion; the familiar stellar signposts were replaced by others more difficult to read. Drake would have probably overcome these problems and established his latitude within reasonable accuracy, but longitude was another matter altogether.

At the beginning of February 1578 the crew turned to gaze into the empty ocean ahead, and probably crossed themselves cursing their ill luck. For the fleet was heading southwest by south into the Torrid Zone, the Doldrums, the Devil's Sea. Drake aimed to cross the South Atlantic by the most direct route hoping to make landfall on the coast of Brazil with as little delay as possible. But he was sailing now into a region totally unknown to him and probably unknown to all his men, who ignored the purpose of the voyage. 16th century sailors often did not know where they were going until, with their homes well behind them, their captain announced his secret instructions. This served a double purpose, for in addition to preventing unguarded talk before the ships sailed, it prevented hasty desertion by men reluctant to sail into the vast and distant South Sea: both Magellan and Drake had to quell incipient mutinies before they could get their men to sail through the strait, and Drake's problems were yet to come.

The admiral's ships creaked their sluggish way across the glassy calm of the Atlantic, their crews dispirited and fearful. Day followed oppressive day and there was no sign of land. Occasional rain helped to supplement the fresh water supply, but every man was on short rations. It was this lack of food which gave rise to quarrels involving the noble men on board. But life was also fascinating aboard Drake's vessels. Strange phenomena could be observed, such as flying fish. Many of these creatures fell onto the decks of the ships and the sailors discovered that by using them as bait they could catch dolphins and other big fish. Another source of both interest and food was the sea birds, which preyed

upon the flying fish. For hours on end the travellers watched the lazy gyrations of these graceful creatures as they spiralled far up into the blue then swooped, hawk-like, to attack a shoal of flying fish skimming over the water's surface. Sitting and watching these antics from the shaded areas of the deck, the sailors devised ways of snaring and netting the birds and succeeded in killing quite a few.

(dibujo de los pescados)

It was not until the 5th of April that they sighted land. The southern coast of Brazil lay before them, and the mood of the men changed completely. But rejoicing proved to be premature when the fleet came into a sudden hazy fog and didn't manage to reach open sunlit water without one ship having scraped her bottom on a sandbank. Pilot da Silva would later explain that the local people were powerful magicians who had preserved their independence from Portugal by calling up sudden fogs, by moving sandbanks and by hurling offshore winds of hurricane force at the invaders. Two weeks of atrocious weather followed the pilot's explanations. Drake decided to go further south and try the Rio de la Plata for provisions of fresh water. They sailed well into the wide mouth of the Plate estuary and stopped on 19th of April in the Bay of Montevideo. A colony of seals was sighted and boatloads of sailors rowed to the island and began chasing the hostile creatures. Large numbers of them were clubbed. The men found their meat very tasty, and the oil extracted from their blubber was very soothing when applied to sores.

Passing further up the river, the ships eventually found themselves in three fathoms of fresh water. At last Drake's men were able to refill the water casks. But wind, tide and sandbanks on the estuary did not permit any safe anchorages. So on 27th of April the voyagers put to sea once more. They had to fight with bad storms again, losing the *Swan* for several days and with her part of the scarce provisions left over. The situation was serious and the men had even taken to saving their rations of biscuits until nightfall so that they could not see the worms. The cheese was finished, and for weeks the only hot meal – apart from lucky catches of fish – had been lentil soup.

Squalls and fog continued to separate the ships and to give the captains a hard time. On 14th of May they finally discovered a fine natural harbour at 47°45'. It was so ideal that Drake called it Port Desire (Puerto Deseado). The Patagonian shore was rocky and windy, but there was fresh water, as well as seals and birds in abundance. The sailors were busy replenishing the ship's larders and carrying out necessary repairs. Drake decided to get rid of the *Swan*, because she was slowing down the fleet considerably. So she was emptied, her crew dispersed among the other ships, towed to the middle of the harbour and burned. But this was not the only event of interest. The Englishmen managed to establish contact with the so-called "giants" of Patagonia, the stout Tehuelche Indians, a nomadic tribe of southern Patagonia. Drake's men offered rings, beads and other trinkets, which the Indians seemed pleased to receive. Drake had his trumpeter and musicians play and this amused the natives so much that they began to dance. These Indians were scantily clothed with skins, the rest of their bodies being painted, and they carried bows and arrows. The

visitors were obviously able to examine the natives quite closely, for Francis Fletcher, chaplain on board Drake's ship, the *Pelican*, made drawings of their arrowheads, fire sticks and musical instruments. Popular legends since the accounts of Antonio de Pigafetta attributed enormous size to these people. But the doubt in the accuracy of Pigafetta's claim concerning a race of giants in Patagonia is increased when we learn from the same journal that Magellan, desiring to give a present to the largest, most terrible of all natives, chose to give him the shirt and breeches worn by an ordinary European seaman. The second fleet to see the "gigantic Patagonians" was Francis Drake's. His nephew, exactly fifty years later, published the first account of the circumnavigation, taking his material from several sources, depending for the first part of the voyage upon a manuscript by Francis Fletcher. The chaplain gave a very long description of the Tehuelche Indians and their customs. Unfortunately many of his details are so blatantly untrue that they bring into question the reliability of his entire narrative. He speaks, for instance, of women who lightly roast their young children in order to impart to their skin a protective quality against the cold, and of nursing mothers who fling their pendulous breasts over their shoulders to nurture the infants carried on their backs.

"... their legs are all calves down to the ankles whose feet are like shovels & their hands like shoulders of mutton their ears most large & eyes in compass to a great hard bowl or ball or the inmost circle of a reasonable saucer their brows like the forehead of an elk. & under their chins a bag reaching to their breasts as if it were stuffed with bombast so that a camel should have much ado to carry one of them any long way." (01)

Leaving Puerto Deseado, problems multiplied for the admiral. Despite every attempt to keep together, the ships of the fleet were immediately scattered by bad weather. More importantly, the crisis point of the entire voyage was almost upon them. They were only days away from the Straits of Magellan, the hazards of which were unknown and terrifying. Another difficulty drew just as inexorably closer: the moment when Drake would have to take the entire company into his confidence and reveal the real objectives of the voyage. Drake knew that his predecessor, Ferdinand Magellan had faced the same crisis. He even had to hang some men in order to suffocate a mutiny in the Bay of San Julian, the next port of call. Valuable lives were lost in a battle, and part of Magellan's fleet deserted. Drake's company was also divided between those loyal to him and the supporters of a handful of men who wanted desperately to turn back to England.

To minimise the risk of ships getting lost again or of their crews deliberately deserting the expedition, the fleet had to be further reduced. The first ship to be scuttled was the little *Christopher*. The last anchorage before entering the Straits of Magellan was the sheltered Bay of San Julian. More adventures were waiting for the crew there. After a fight with a group of nomadic hunters, the gunner Oliver and the gentleman Winterthey were laid to rest in shallow graves upon the shore. After this incident, the men divided into groups for hunting, cleaning, repairing and loading, not taking any risks. This time it was the *Mary's* turn to be stripped and sunk in the middle of the harbour. And while the men were working hard, Drake still hesitated about what to do with the

troublemakers in his fleet, especially the arrogant nobleman Thomas Doughty, who tried to instigate the crews against him. Soon Drake would have to tell the gentlemen and captains that they were not bound for Terra Australis or for the Spice Islands (Moluccas, today Indonesia) but that their target was the unprotected South of the Spanish Americas. That would bring angry protests from Doughty and all who shared his aversion to piracy.

Piracy, of course, was as old as maritime commerce itself. But it took on a new face in 1545 when Robert Reveger of Southampton captured the Spanish treasure ship *San Salvador* and lifted 124 chests of sugar, 140 skins and a large quantity of gold. At the time England and Spain were firm friends, but this amity was not reflected in the King's attitude towards Reneger. After an official reprimand, Reneger was warmly welcomed at court, given a command in the royal fleet and allowed to keep a large proportion of his loot. In 1577 he was still living in Southampton the comfortable life of a man of substance. His exploit had inspired a whole new generation of English maritime adventurers who rapidly took over from the French as the most outrageous band of sea rovers afloat. On the other hand, the seizure of the *San Salvador* had provoked Spanish reprisals against perfectly innocent English merchants. This accelerated the growing hostility between Spain and England, and outrages multiplied on both sides. It was this hostile rivalry which sparked off England's expansion into the world of overseas exploration, colonisation and enterprise. But noblemen would not always agree to legalize piracy. Drake was concerned that if there were enough of them and if they were firmly led they would be able to make him turn back. So ringleader Doughty was finally executed. He died with greater dignity than he had often displayed during the voyage, bribing and instigating the crews. The place where the short trial and executions took place was officially named "The Islands of True Justice and Judgement". Many of the sailors, however openly, called it "The Island of Blood".

The removal of Doughty had not eliminated dissatisfaction but added fear. In July the weather was bitterly cold, decks were slippery with frost. The frozen mainland offered little prospect of animal or vegetable life. Mussels now became the men's stable diet. The mariners were hungry and miserable. The longer they stayed at San Julian, the worse the situation became. Several men died of disease and exposure. Drake had promised death to any man who even whispered mutiny and there seemed no doubt he would be true to his word.

On the 17th of August, the three remaining ships finally made their way out into the Atlantic. Drake's only guide was Pigafetta's account of Magellan's voyage, as they were well beyond the range of reliable charts and of Nuño da Silva's knowledge. But only three days later, following the coastline further south, they would finally face the east entrance of the strait.

But having found the strait they were unable to enter it. Winds and currents were unfavourable and all the masters could do was tack to and fro between the gaunt grey cliffs. To the south lay the lowlands of Tierra del Fuego. Finally, on the 23rd they could move forward, threading their way carefully between the cliffs which in places squeezed the channel through gaps less than a mile across. Night sailing was impossible and the water was too deep to

anchor. Before dark, therefore, the masters had to select a spot carefully and moor close in to the channel's wall held by cables tethered to the rocks. The next day, the expedition came to a group of uninhabited islands, which they carefully added to the new chart they were compiling "Elizabeth Island", "St. Bartholomew's Island", and "St. George's Island". The sailors were delighted to find thousands of flightless birds on the first of the three islands (today called *Isla Magdalena*). Pigafetta had called them geese, and their flesh was quite tasty to the hungry men. Some Welsh sailors aboard the *Pelican* gave the birds the name "whiteheads" or in Welsh *pen gwynns*. The men killed about 3,000 birds, enough for the expedition's needs for many weeks. It was too early in the year to look for penguin eggs, the birds had just started coming back from the sea to rebuild their nests and mate.

(*matanza de pingüinos*)

With these new provisions, Drake dared to penetrate further into the strait. This task was extremely difficult for his captains. Blustering, icy winds cut down at the little ships from the towering glaciers and through the maze of tortuous channels. Though there was little danger of running aground, as the strait was quite deep, there was every danger of being spun suddenly off course into the steep walls of the canyon or into one another. Sometimes the ships made excellent speed for several hours only to meet a sudden headwind and be swept miles back down the strait. As they travelled westwards the sailors moved into the belt of rain and snow which covers the Chilean side of Tierra del Fuego. The annual rainfall in this region can exceed 200 inches.

Fear of close encounters with the Indians of the area haunted the sailors. The expedition did not have direct contact with the natives, the hunter-gatherers Selk'nam and Alacaluf Indians. But their fires were often visible at night, and at one point Fletcher and some other intrepid voyagers went ashore to examine – by daylight – one of their temporarily deserted settlements. They found a huddle of simple huts and such belongings as bowls and cups made of bark, axes, knives made of mussel shells, cooking utensils and ritual paint, a mixture of sealblubber and white ashes.

Despite their difficulties and setbacks, the expedition completed its transit of the waterway in the extraordinary short time of seventeen days. On 6th September they saw beyond the rocks off the starboard and larboard bows not more cliffs and promontories but the flat, unbroken horizon of the sea Magellan had called *Mar Pacifico*. Drake had unlocked for England the treasure chest of the South Sea, which the Spaniards had so long kept for themselves. He had planned a ceremony to mark this great occasion but a sudden offshore wind carried the fleet out into the open ocean. The next day Drake's ships ran into the full fury of a Pacific spring tempest. With all sails furled, the bucking vessels were driven relentlessly south-eastwards along the coast.

On the night of 15th September, they observed an eclipse of the moon, a sure portent of disaster. Day after day the winds and sea roared till the mariners, unable to sleep and scarcely able to eat, believed themselves confined to eternal hell. The storm carried them far away from land, a hundred

miles or more to the south of Tierra del Fuego into 57 degrees of South latitude. Incredibly enough, the ships stayed together until the little *Marigold* finally keeled over and sank, taking with her the entire crew of twenty-nine men. The wind abated for a while so that Drake and Wynter were able to make their way back north once more to the entrance of the strait. The crews were suffering from scurvy by then, and terribly fatigued. But they did not even have the time to anchor properly before the storm started again, driving the ships out to the Ocean. Once more the ships were driven southwest then east. This time, they were separated and Drake's ship ran past the islands bordering Tierra del Fuego. Fortunately, the fury of the gale was now intermittent. On three occasions Drake was able to anchor and send a boat ashore in search of water and food. But there was still no going back. That persistent northwesterly continued to dominate. Rocks, islands and snow-capped mountains passed to portside. The exhausted crew watched in vain for a sheltered anchorage until the 24th. On that day the sun showed itself for the first time in forty-eight days, the wind dropped and the *Pelican* found herself bobbing in an easy sea in 56 degrees of Latitude near the southernmost tip of America: Cape Horn.

(Imagen de Francis Drake)

Drake found himself amongst a group of islands, which he entered on his chart as the "Elizabethides". The *Pelican* found a safe anchorage and, though there were many repairs to be done, the admiral allowed his sailors to relax. However, there were a few men willing to accompany Fletcher ashore next day. They found little to replenish their empty larder but there were plenty of small berries, which they called currants. Francis Fletcher remarked that from the southern headland of the island no other islands could be seen. And it is precisely this information which makes the American National Maritime Historical Society and the Dutch Cape Horners Foundations believe that more than 400 years after his death, our history books should be rewritten to acknowledge Francis Drake as the man who discovered Cape Horn, the southernmost point of South America. The Dutch sailor Willem Schouten did not land on the Cape until 1616, but he has generally been credited with the discovery. He named the Cape after his hometown *Hoorn*. Schouten's historical claim to have been the first European to reach the Cape was possible because Drake's discovery was made a state secret by Elizabeth I, who wanted to protect knowledge of a new gateway to the Pacific. The Straits of Magellan, controlled by the Spanish, were thought to be the only passage at the time and contemporary maps show still the continent south of the straits, known as Terra Australis. During the last three years several efforts have been made to find a carving on the island Horn that would provide the final proof of Drake's discovery. Francis Drake's nephew Drake had written:

"Fletcher went ashore with a boy and carved an inscription on a stone on the highest point of the island." (02)

This carving however, has never been found on the island Horn, neither by the Chilean soldiers stationed at the little base of Cabo de Hornos, nor by any of the French sailors who visit the island frequently during the southern summer as charter captains. This lack of evidence leads us to believe that

Francis Drake might have landed either at the False Cape Horn at the end of the Hardy Peninsula, or even further South at the Diego Ramirez Islands, southwest of Cape Horn. From both locations Fletcher's observation could have been the same:

"... chased along by the winds, and buffeted incessantly in each quarter by the seas (which our General interpreted, as though God had sent them of purpose to the end which ensued) till at length wee fell with the uttermost part of land towards the South pole, and had certainly discovered how farre the same doth reach Southward, from the coast of America aforementioned.

The uttermost cape or headland of all these Islands, stands neere in 56 deg. without which there is no maine, nor lland to be seene to the Southwards: but that the Atlanticke Ocean, and the South sea, meete in a most large and free scope."(03)

(Imagen de Cabo de Hornos, según Francis Drake)

Nevertheless, the determination of the latitude is actually more accurate for the island of Horn, which means that Francis Drake really could have been the one who discovered Cape Horn first. But while he was anchoring there, his problems were of course of a different nature. Food and water had to be found. The men had to be given time to build up their strength. Over the next week, the days were dedicated to cruising among the islands, filling the water casks from rivers and springs, gathering edible plants and berries as well as catching penguins, wild geese and seals. On board there were broken spars to replace, rotten and frayed lengths of rope to be cut out and new sections spliced in, the bilge to be pumped, gaps which had appeared between timbers to be caulked. The men, too, had personal chores to attend to – jackets and shirts to be dried out, torn jerkins to patch.

On several occasions the crew could catch a glimpse of the natives living in the archipelago, the Yaghans, nomads of the sea. They could see them hunting for otters and fishing from their canoes. There was always a fire burning in the canoe on top of sand and grass, and the nomads could probably feel the heat from stem to stern. The sailors were curious about these "Stone Age people" but their fear would stop them from further investigations and only little trade occurred between them:

"Wee found the people of the countrie, travelling for their living, from one lland to another, in their canowes, both men, women and young infants wrapt in skins, and hanging at their mothers backs; with whom we had traffique, for such things as they had, as chaines of certaine shells and such other trifles; ...and to provide such things as we wanted, albeit the same was with continuall care, and troubles to avoid imminent dangers, which the troubled seas and blustering windes, did every houre threaten unto us." (04)

For the admiral there was the task of entering on the charts all that they could recall of the delineation of land and sea. The one vital discovery, which they had to set down, was the junction of the oceans. His discovery proved conclusively that Magellan's Strait was not the only passage between South

America and the supposed Terra Australis Incognita. The myth of the great southern continent was also exploded, at least so far as the region to the immediate south of America was concerned. Fletcher remarked:

“We altered the name of those southerly islands from terra incognita (for so it was before our coming thither & so should have remained still with our good wills) to *terra nunc bene cognita*. This is broken islands, which in coasting it again on that side in returning to the Northward we proved to be true, & were thoroughly confirmed in the same” (05)

Drake had now shown that the southwest passage was much wider than had previously been supposed. The way for English, French and Dutch poachers into the Spanish preserve was now wide open, though, the atrocious winds around Cape Horn would prove almost as formidable a barrier as the solid mass of Terra Australis. It was not until the second half of the 19th century - with the introduction of steamships – that captains would dare to sail regularly around the horn.

On 1st November Drake sailed northwards having renamed his ship the *Golden Hind* in honour of Sir Christopher Hutton, the Queen’s minister. The weather was pleasant on his way to plunder the Chilean coast. Later he successfully attacked a Spanish treasure ship off Lima, and relieved her of her immense treasure, and then sailed northwards in search of the mythical NorthWest passage. Until Drake’s discovery in the South Atlantic, British interest had been more concerned with finding the much-sought-after passage in the high Arctic, and even after his vital discovery several expeditions in search of the northern passage would follow.

In 1579 Drake landed on the coast of California, in a bay that now bears his name, where he established a stockade, the first English settlement on the North American continent. He careened his ship there and claimed the land for the Queen before setting out on his momentous voyage across the Pacific. He made a trade treaty with the Sultan of Ternate, a document that later became the corner stone of the foundation of the East-India Company. On his way home he rounded the Cape of Good Hope, then sailed northwards across the ‘doorsteps’ of Spain, returning to Plymouth Sound on 26 September 1580. When Drake came back to England after his amazing voyage, he was rich and famous. He was knighted on his own quarterdeck and enjoyed the trust and confidence of the Queen. To support his new status he received landed estates and a grant of arms. The latter, soon to be proudly featured in coloured plaster over the fireplace in one of Buckland Abbey’s principal rooms (Drake’s home), emblazoned his achievements in comprehensive symbolism.

(Imagen de Drake con la reina)

Drake’s voyage proved that the seas were wide open to bold and wellprepared expeditions. It opened up possibilities for commerce and colonisation. And it opened them up to Englishmen. It gave Albion a future stake in the wider world. Drake’s circumnavigation of the globe was the first major accomplishment by an Englishmen on a world stage. As the years and

centuries unfurled, he became a legend. As the hero of ballads, mythology and serious works of history and biography, his virtues were magnified, his vices often denied. He became a symbol of all that Englishmen liked to think was best in the national character, such as a sense of adventure, courage and determination, natural leadership and a healthy contempt for foreigners. It's not easy to see the man behind this legend, but one can still catch a glimpse of the true and private Francis Drake in his former house, Buckland Abbey. At the dissolution of the monasteries, this Cistercian Abbey at Buckland, not far from Plymouth, had been converted into a private home. It still holds his treasured paintings, furniture and amongst other curiosities: Drake's Drum, one of the nation's most famous heirlooms. Numerous legends are recorded about these items. A visit to Buckland Abbey is a must for any Drake Passage Survivor!

(01) Francis Fletcher, *The world encompassed by Sir Francis Drake*, collected out of the notes of Master Francis Fletcher, preacher and others, London, 1628.

(02) Francis Drake, *Francis Drake revived*, London 1626

(03) F. Fletcher, *op.cit.*

(04) *Ibidem.*

(05) *Ibidem.*

Published in: Carin Clevidence, Rita Mathews and others, *First Antarctic Reader, Ushuaia, Fuegia*, 2001, ISBN 987-96999-1-2