

# SEARCHING BEYOND THE HORIZON

When you set out on your journey to Ithaca, pray that  
the road is long, full of adventure, full of knowledge.

C. P. CAVAFY, 1911

Great explorers are different from other men and women. Throughout the ages, certain people have excelled in their geographical endeavours to an extent that has changed the world. These are the people who, through their explorations, transformed our perception of our surroundings – they revealed the planet to us and opened our eyes to the physical, natural and historical world around us. It started long ago and it continues today. It has always been mankind's gift, and curse, to be inquisitive – this is what makes us unlike all other species. Without this curiosity we would all have stayed at home. Since we developed the brains we have today, perhaps at least 100,000 years ago, we have viewed life differently from other creatures. We have looked beyond our immediate surroundings, to the possibilities that each new territory has to offer, and we have felt an urge to go further and explore, not just for food, space and land, but also out of curiosity.

Never has it been more important to recognize where our curiosity has led us, what it has brought us in knowledge and understanding, and what it can tell us about our responsibility to this planet. Once, it was a new and unknown world. Now, while most of the wonder and diversity are still there, we are just beginning to realize, at the last dangerous moment, that there is still so much we do not understand and so little time to get it right. The urgency to explore has never been greater.

Ever since we emerged from the Rift Valley in Africa, where it is now generally accepted that *Homo sapiens* originated, we have explored. The earliest pioneers, who rapidly spread out to occupy most of the

habitable and accessible land, were the original great explorers. No one can ever again replicate the experience they had of setting foot for the first time on swathes of diverse, pristine landscape, from deserts to tropical rainforests, from mountains to fertile plains. There have, however, been many since who have been driven to explore the limits of the worlds known to them and to their societies. A few, whose curiosity and courage led them to reveal what lay beyond the horizon, stand out from the crowd as giants. These were the Great Explorers and, from the many who qualify for inclusion, this book describes 40 of the most interesting. These were the men and women whose biographies reveal not just their dogged ambition, which drove them to go the extra distance, but also their other strengths and weaknesses, their greed, courage, authority and individuality, and, above all, their spirit of inquiry. Often it was an obstinate belief in themselves and their dreams that made them succeed where others failed.

#### CROSSING OCEANS

The great era of recorded exploration began – as this book begins – with the oceanic journeys of around five hundred years ago. When Columbus reached the New World, his journey was arguably the most cataclysmic in human history. No other geographical discovery unleashed so much change on so many, nor had such a lasting effect. The known world was effectively doubled in size at a stroke. Soon after Columbus sailed west, Vasco da Gama, one of the few explorers to die successful and rich, opened the route to the east. Spices, such as pepper and cloves, were until then obtained only through the expensive and rare cargoes which survived interminable overland journeys. Suddenly, Europe found itself sitting between two vast sources of wealth. From then on, for the next few centuries, the majority of exploration was focused on finding better ways and faster routes to capitalize on these riches.

Magellan, another ruthless and determined man, demonstrated in his search for a western route to the Spice Islands that the world could be circumnavigated, though he himself did not survive the journey. Thereafter, gradually, the oceans were conquered until virtually no

habitable place within them remained unrevealed. At first Spain and Portugal concentrated on looting and destroying the incomparable empires of the Americas and jostling for possession of the Spice Islands. Then other important naval world powers, Britain and France, began to push the boundaries further to the east, discovering new islands and founding colonies. Their finest captains, such as Bougainville and Cook – perhaps the greatest navigator of all time – were enlightened men, who sought knowledge rather than riches, and in that sense were very different from the conquistadors; but the changes they brought to cultures unprepared for western diseases and attitudes were almost as devastating.

#### EXPLORING CONTINENTS, BY LAND AND RIVER

On land the challenge was to penetrate to the deepest parts of the interiors of the unknown continents. In the New World, there was the enticing prospect of mythical cities of gold, which drove conquistadors such as Hernan Cortés, Francisco Pizarro and Hernando de Soto to commit many excesses. Later, there was the prospect of new land to settle, which led President Jefferson to send Lewis and Clark to the west of North America. Unusually, these two men managed joint leadership of a major expedition without acrimony, but their success was to be followed by the massive American migration which displaced the Plains Indians.

Africa, of course, drew many explorers to uncover its wonders and secrets. Before the days of photography, skilful painters such as the modest Thomas Baines, who travelled for a time with Livingstone, recorded scenes that amazed and informed the Londoners and Parisians who bought them. Complex characters including the mystic Richard Burton, who travelled in Arabia as well as Africa, became the celebrities of their day, lionized and listened to. In Asia, the Great Game (the struggle for supremacy between the Russian and British empires) was an excuse and a cover for many explorations of epic length. The Russians had the redoubtable hunter Nikolai Przhevalsky, after whom the wild horse is named; the British had soldiers and dreamers such as

Francis Younghusband and dogged, reserved men such as Ney Elias and Nain Singh and other Pundits. They vied with each other to influence the course of history, while mapping vast unexplored areas. Once again, among them were those whose spur was their insatiable curiosity to measure or to understand – such as the determined and dogged Aurel Stein. Reading about these extraordinary men we learn what it is that drives a rare few to push the limits of travel beyond the bounds of possibility.

Often there were huge rivers running from a mysterious source, driving men mad in their desire to reach it. With so much life along the river banks, it seemed to make sense to believe that once the river was conquered and understood, the rest would fall into the colonizers' hands. In both North and South America it was the rivers that first led into the interior. Some, such as the Frenchman Samuel de Champlain, were wise enough to watch and learn from the indigenous inhabitants; they prospered and were able to secure large areas of land, in Champlain's case Canada, for their colonial masters. The idea that there might be a river passage across the American continent that would provide a route to the Far East continued to drive many, including Robert Mackenzie, an immigrant Scottish trader, to extremes, as he paddled further and further up unexplored rivers in pursuit of his dream.

The Nile was, from the dawn of time, a magnet for explorers. The first from Britain, the mighty James Bruce, was not believed when he returned to tell of discovering the source, albeit of the Blue Nile. Later, the Royal Geographical Society sent many expeditions to locate and map its headwaters and the search for the real source became a matter of intense rivalry, pride and shame – the failure to find it being known as the 'opprobrium of geographers'. Such competitiveness and obsession also brought tragedy. John Hanning Speke died on the morning he was due to debate with Richard Burton whether he had indeed discovered the Nile's source.

The charismatic Mungo Park solved the mystery of the direction of the flow of the River Niger, and returned to London from his first trip a hero, but longed to retire; like so many of these driven men, however,

he found the lure of Africa and adventure too great and returned there, only to perish. It was religious zeal that first drove the great missionary explorer David Livingstone, who covered immense distances in order to convert the natives and stop the slave trade rather than to gain wealth. He was convinced that rivers, especially the Zambezi, held the key to opening up the continent to legitimate trade. Some, like the Welsh orphan turned American journalist, explorer and finally British member of parliament, Henry Stanley, went further and discovered how much of Africa was ripe for exploitation. It was the explorers who showed the way, the colonizers who followed. And it was the same in the Far East, where the prospect of finding new routes for trade with China initiated French colonization in Indo-China, as the diminutive but feisty and determined Francis Garnier and his companions forced their way up the Mekong and through to the Yangtze.

#### ICY WASTES AND SEARING DESERTS

The inhospitable polar wastes then fired with enthusiasm those who wished to go beyond and to discover and understand the nature of what lay there. The Norwegians such as Fridtjof Nansen, who went on to win the Nobel Peace Prize, and Roald Amundsen, first to the South Pole and first to fly over the North Pole in a balloon, excelled in this environment. Although the heroic efforts of men like Shackleton and Scott captured the public's imagination, it is Edward Wilson the loyal, eclectic scientist, naturalist and doctor, who travelled with both, who is included here because he typifies so many of the heroic qualities that make an explorer great. Extreme cold travel reached its peak with Wally Herbert and his amazing transpolar expedition. His tenacity, which saw him and his three companions through 15 months of sub-zero temperatures, was matched by his skill as a painter. The lure of polar ice survives in the brave men and women who still test themselves to the limit reaching the Poles.

Deserts have always held a particular fascination for mankind. Most of the major religions were born in the silence to be found there and they have attracted some of the toughest as well as the most visionary

explorers. Usually, desert travellers were inspired as much by romance as by any thought of reward. Many wrote about their experiences in some of the finest and most passionate exploratory prose. The Sahara was an immense barrier to entry into Africa and most of those who tried to cross the endless wastes perished. Heinrich Barth was the first to survive extensive travels and to record meticulously what he saw. He applied scientific discipline to his exploration, a trait which was to become a feature of 19th-century expeditions.

The interior of Australia is one immense desert, but it was once widely believed to contain an inland sea and rich grasslands. Charles Sturt did more than anyone to reveal the truth: that there was nothing much there. The Arabian desert drew many into its harsh beauty, including some remarkable women, such as Lady Hester Stanhope and Lady Anne Blunt. But it was Gertrude Bell who left the most substantial legacy, including the somewhat tarnished credit of having effectively created Iraq. The Empty Quarter in Arabia attracted men who strove to be the first to cross it and there are several who contend to be called the greatest. Harry St John Philby was a flawed but fascinating character, who probably understood it best. Wilfred Thesiger's classic book, *Arabian Sands*, was accompanied by some of the most evocative black-and-white photographs of desert people; and these from a man who professed to despise photography. He famously said '... to have done the journey on a camel when I could have done it in a car would have turned the venture into a stunt'. His contemporary, Ralph Bagnold, had done just that in the Sahara, where his experiences on motorized expeditions to study archaeological remains and the behaviour of sand dunes led directly to the Long Range Desert Group in the Second World War.

#### THE QUEST FOR KNOWLEDGE

It took a long time for science to supplant religion and conquest as the prime mover in generating expeditions. But when it did, mainly in the 19th century, a whole new breed of dedicated polymaths emerged, who revealed an unknown and infinitely varied biosphere. From the

indefatigable Alexander von Humboldt, a driven man if ever there was one, whose punctilious recording of everything he saw and heard has never been surpassed, to the pensive Alfred Russel Wallace, who conceived the theory of evolution while lying fever-ridden in a hammock, the pursuit of scientific collections in the most inhospitable surroundings drove some remarkable men and women to superhuman feats of endurance. For both Marianne North, who only began her journeys at the age of 40 – and this in the Victorian age when it was not quite done for women – and for Frank Kingdon-Ward, it was a fascination with the world's richly varied flora that provided the motive for travel and exploration, though, as always, they pursued it with an exceptional energy and dedication that sets them apart.

For a time it seemed as though it would be possible to harness mankind's skills and knowledge to master the planet and exploit it without limit or fear of consequences. Gino Watkins combined a romantic thirst for adventure with a practical aim: he helped establish the air route over Greenland that opened up today's era of easy transatlantic air travel. But it is only in the last few decades, as we begin to plumb the remaining depths and reach for the stars, that have we begun to realize how little we truly understand about the workings of nature and how much more remains to be done. There are those, like Yuri Gagarin, the humble son of a carpenter who found himself thrust into space and fame, who have been a part of these colossal changes almost by accident. And there are still today those who are driven to seek the remaining unknown places left on earth: the Cousteaus, who virtually invented submarine research and brought the wonders of the deep to so many; and Andrew Eavis, a cave explorer committed to probing the secrets of the 90 per cent of subterranean passages still undiscovered. The new great age of exploration may be just beginning. It may be too late to prevent many of the ills that threaten our world, but there will always be people with the single-minded vigour to go to the limits and to inspire us all.

# THE OCEANS

Columbus sets the standard for what constitutes an explorer. He set out to find a route that no one had travelled previously and with no certain way of returning; and through his determined leadership changed the world. The story of this ‘Genoese upstart’ has inevitably become surrounded with myth and legend. This was an epic era, when visionary merchant-adventurers conspired, co-operated and competed to discover two new and unimagined continents.

Barely five years after Columbus sailed west, the route to the east was opened by Vasco da Gama, who pioneered a sea-passage to India by sailing around Africa. In 1493 the Papal Treaty of Tordesillas, having divided the unknown world between Spain and Portugal by drawing a line on a map, had effectively given this eastern approach to the Spice Islands to Portugal. By the time Ferdinand Magellan crossed the Pacific from the west in the first circumnavigation of the globe, the Portuguese were well ensconced.

The consequences of this surge in exploration were as significant as any in human history. Europe looked outwards, major powers began to build empires, and the world would never be the same again. Wealth beyond the dreams of avarice lay waiting to be plundered, and plundered it was, ruthlessly, for the next 400 years. Today, as we begin to reap the dreadful harvest of our greed, it is worth pausing to consider how different the world would be if peaceful trade, not violent conquest, had been the guiding principle. Had the long-established nations encountered by explorers been treated with respect instead of contempt, might we have avoided the shameful atrocities wreaked upon unsuspecting peoples and pristine environments? Some did recognize, if dimly, the common humanity of those they encountered, but they were virtually always overruled by more immediate and venal aspirations.

Equally significant was the extraordinary isolationism of the Chinese, and that too might have been otherwise. In 1405 the outward-looking

Yongle emperor assembled the most prodigious fleet the world had ever seen. Under Grand Eunuch Zheng He, 63 vast ocean-going junks set out to assert Chinese suzerainty over the known world. Having invented the compass 500 years before its general use in Europe, with ships 10 times the size of Columbus’s *Santa Maria* and 28,000 men on board, the Chinese were unassailable. On seven voyages they visited at least 35 countries, perhaps even South America. Yet 50 years before Columbus sailed west, China turned inwards once again.

For three centuries after Columbus, the oceans remained the main means of discovery and conquest. As both the sailing and navigational techniques pioneered by the Portuguese, and the conditions and nutrition of sailors, improved, long journeys probed the furthest corners of the earth. Once Magellan had proved that the world really was round, mapping rapidly advanced and many blanks were filled in. Australasia remained elusive for another hundred years and Polynesia for even longer, but one by one, remote societies on isolated islands were encountered, often to have their well-established lifestyles shattered by the introduction of disease and Christianity.

Louis-Antoine de Bougainville was a rare French member of the British Royal Society, and a wonderfully Gallic contrast to the rather puritanical, unmarried norm, being an inveterate womanizer, with a strong *joie de vivre* combined with the acute mind of a scientist. He was the first Frenchman to circumnavigate the globe and, unwittingly, he took with him the first woman to do so, Jeanne Baret, who had disguised herself as the valet of the expedition’s botanist.

James Cook has rightly been called the greatest of all explorers. A true Renaissance man, he led epic voyages of discovery and claimed Australia for the British Crown. His prodigious navigation skills took him to an astonishing number of unknown places in the Far East and the Pacific – journeys equivalent in distance to sailing to the moon. The fabled Great Southern Continent eluded him, but he came within 120 km (75 miles) of Antarctica before his death in Hawaii in 1779. By this point, much of the world’s oceans had been charted – but vast tracts of the continents remained unexplored.

DAVID BOYLE

# Christopher Columbus

## The Man Who Changed the Shape of the World

1451–1506

Now I observed the very great variation which I have described and because of it began to ponder this matter of the shape of the world. And I concluded that it was not round in the way that they say, but is of the same shape as a pear ... or it is as if someone had a very round ball, and at one point on its surface it was as if a woman's nipple had been put there; and this teat-like part would be the most prominent and nearest the sky; and it would be on the equator, in this Ocean Sea, at the end of the Orient.

CHRISTOPHER COLUMBUS, EXPLAINING HIS THIRD VOYAGE

Explorers are well known to be elusive, contradictory characters. Perhaps they have to be to generate the necessary will to make their journeys, and the bravado to persuade people to follow them. But of all the great explorers, Christopher Columbus must be a prime candidate for the most paradoxical. He was at the same time a brilliant navigator who was consistently mistaken in his calculations and theories, a snobbish social climber with a messianic sense of destiny, a greedy obsessive and a religious maniac.

What is so fascinating about these apparent contradictions in his character is that there are also paradoxes in sorting out fact from fiction in his own history. We have copious examples of his diaries and self-justifying letters, yet there are no contemporary portraits of him and there remains a whole library of bizarre theories about his identity. Columbus has been variously hailed as Italian, Spanish, Jewish, even American, and has been painted most recently as an aristocratic Portuguese spy. But an exhibition organized in Genoa to celebrate the 500th anniversary of his birth demonstrated the overwhelming

documentary evidence that linked the man calling himself Cristóbal Colón with the Christopher Columbus born there, the son of a cloth weaver and political activist named Domenico Columbus, in 1451 – 18 months before Constantinople fell to the Ottomans, cutting Genoa off from its lucrative colonies in the Black Sea.

Columbus's childhood and young adulthood are also obscure. He may even have been notorious as a corsair in the ongoing struggle over Genoa between the French and Aragonese. What we do know is that in 1476 the 25-year-old Columbus was shipwrecked on the coast of Portugal when his convoy was attacked by French pirates. From there he ended up in England, probably first in Southampton, where the convoy had originally been heading, and then Bristol. Here he would have witnessed the great 15-m (50-ft) tides – a clue to the size of the Atlantic Ocean before him. It was at this point also that he must have made the trip to Iceland that he boasted about later, sailing tantalizingly close to Greenland and the edge of the known world. While in Iceland, he may well have heard stories about the old Norse settlements beyond in Helluland, Markland and Vinland. And in Galway on the way home, something happened that definitely gave him an idea for the future. A small boat was towed in containing a man and a woman who were still alive though they had been found after drifting for some time; both were of 'most unusual appearance'. Columbus believed they were Chinese.

### MAKING PLANS

The events that led Columbus across the Atlantic, as with so much else concerning him, have been both well documented and bitterly argued over. They include his marriage into an eminent family of Portuguese explorers, his time on the remote island of Porto Santo, and his correspondence with the Sage of Florence, Paolo del Pozzo Toscanelli, who had long since advocated the idea of sailing west if you wanted to reach the untold riches of the east. There was also his time in Lisbon – where he would have heard plenty of gossip in the dockside bars.

This suggests another intriguing possibility. It seems likely that one of the people Columbus encountered in Lisbon was his fellow Genoese merchant John Cabot, by then a naturalized Venetian. The relationship between them remains hazy, yet the thrust of their stories implies that the enterprise of the Indies was in fact originally a joint project by Cabot and Columbus (along with Christopher's brother, Bartholomew), which subsequently unravelled in debt and acrimony. Both were from Genoa and probably had connections to the same political party and to the coastal port of Savona. They were almost exactly the same age. Both were involved around the edges of the wool and silk trade from southern Europe to Bristol and London. Both frequented the same ports. And both ended up so heavily in debt in the mid-1480s that they had to leave their homes with their families to live elsewhere.

This joint venture – if it did emerge between them in Lisbon – involved a tentative answer to the key problem: they would need to establish some means by which they could profit from their discoveries. One option for prospective explorers in those days was to hitch themselves to a monarch, but that gave them no personal rights over the territory they discovered: they would be rewarded and that would be the end of the matter for them. What Columbus and Cabot both developed was something different – an agreement with a monarch that, if they succeeded, they would get a cut of all the proceeds of their discovery, as well as other rights. If their plan had worked, and they had reached China, this would have made them the richest men in the world.

Whatever the truth of the matter, Columbus later abandoned the idea of involving the Portuguese. Instead, he and his brother Bartholomew then offered the enterprise in turn to the rulers of Castile, England and France, without success. After years of trying, and thanks to the backing of the Castilian treasurer, Luis Santángel, Columbus was finally given his chance by the monarchs of Castile, Ferdinand and Isabella. So it was that the *Santa Maria*, *Nina* and *Pinta* sailed from Palos in August 1492.

## THE FIRST VOYAGE

Once at sea, Columbus, who was congenitally over-optimistic, continually exaggerated their progress. But he kept a set of parallel charts to convince the crews that their journey into the unknown was not irreversible, and these were actually more accurate. Even so, his crews were in open revolt when, at 10 p.m. on 11 October, Columbus thought he saw something on the horizon 'like a little wax candle, rising and falling'. Then at 2 a.m. the following morning, the lookout on the *Pinta* sighted land. Columbus named the small island San Salvador, took the royal standard ashore and fell on his knees on the beach. He next turned his attention to the naked people watching him and gave them red caps and glass beads 'and many things of slight value in which they took much pleasure'.

The tragedy of Columbus's achievement, and his settlements on the island of Hispaniola – which the natives called Haiti – was that his delight at the innocence of the natives soon turned into desperate frustration at the lack of gold, followed by brutal suppression and finally genocide. It was to become the pattern of the relationship between the Old World and the New, and largely because Columbus's expedition was not so much exploration as speculation. It had to make a profit. It eventually did so, but the basic problem was that Columbus was wrong about the sea route to China. His calculations were mistaken. He had underestimated the circumference of the earth by a quarter and yet refused to believe it, even when it was clear to all his contemporaries that a vast new continent stood in the way.

On Christmas night, *Santa Maria* ran aground and sank. Its wood was rescued with the help of the locals and turned into a small settlement, where Columbus left the crew under the command of Diego de Arana, the cousin of his mistress. On the return voyage to Europe, Columbus had to rescue his crew from arrest by the Portuguese in the Azores and then lost touch with Martin Pinzón in the *Pinta* – nearly also losing the credit for his discovery as a result. He finally stumbled by mistake into Lisbon harbour and had to face a difficult and dangerous interview with the Portuguese king.

## ADMIRAL OF THE OCEAN SEA

Safely back in Castile, Columbus was addressed by the delighted Ferdinand and Isabella by all the titles he had demanded if he succeeded: 'Admiral of the Ocean Sea', 'Viceroy' and 'Governor of the islands that have been discovered in the Indies'. On his way to see them in Valencia he processed through the streets – proud and unsmiling, with six of his captives around him, almost naked, wearing as much gold and finery as he could find, each of them carrying a brightly coloured parrot in a cage. Among those who watched him was Cabot.

Columbus was desperate to get back, and in September 1493 he sailed from Cadiz with 17 ships, 1,300 men, including colonists, cavaliers and friars, and instructions from Isabella to convert the natives and to treat them kindly. But this was also the moment when his fortunes began to change, starting with the grim discovery the moment he arrived back on Hispaniola. His first New World settlement, La Navidad, had disappeared and its inhabitants were dead. A small faction had roamed about the island stealing gold and women, and the islanders had exacted a terrible revenge.

In deteriorating health, and despite voyages to Cuba, Trinidad and the coast of what is now Venezuela, Columbus clung rigidly to his original theory. Nothing deflected him from the conviction that he had found the way to the Indies, as he was God's chosen instrument. But his enslavement of the natives of Hispaniola, the Tainos, brought him into conflict with the one person in authority who really admired and valued him, Queen Isabella. His brutal treatment of his fellow colonists, his hangings and other cruel punishments, all of which had been expressly forbidden by her, also led to a growing political clamour for his removal. He was sent home from his third voyage in chains.

Despite his fall from grace, Columbus was allowed one last expedition. He called it the 'High Voyage' and it was intended finally to break through to the Indies and bring back enough gold to restore his lost titles. Instead, it ended with him marooned on the beach in St Ann's Bay, Jamaica, in armed conflict with half his companions and awaiting rescue from his enemies in Hispaniola.

It was at this point, when the local natives refused to supply any more food, that Columbus performed his famous trick with the eclipse. He discovered in his almanac that an eclipse of the moon was due on 29 February 1504. Bartholomew therefore summoned all the chiefs nearby to meet them that night and, when they had arrived, Columbus told them that if no more food was forthcoming, God would punish them by making the moon disappear. Right on cue, the shadow began to cover the moon and the villagers begged him for forgiveness. Timing his response carefully, he said it would only reappear if they promised to bring regular supplies of food. The supplies began again the following day.

Columbus spent his final years in increasing ill-health, complaining bitterly about his treatment by the sovereigns and his poverty. He was not actually poor. The ship carrying his own gold had been the only one which had escaped the disastrous hurricane (a Taino word) that destroyed the returning fleet of his nemesis Francisco de Bobadilla, but he felt poor.

He died in Valladolid on 20 May 1506 aged only 54, in a small house, looked after by the Franciscans whom he had long admired. There was scarcely any contemporary mention of his death. Cruel, mistaken and obsessive, he was undoubtedly a great navigator and – although he never recognized the truth about where he had been – a great pioneer.



RONALD WATKINS

# Vasco da Gama

By Sea to India

1469/70–1524

God gave the Portuguese a small country  
as cradle but all the world as their grave.

17TH-CENTURY PORTUGUESE JESUIT ANTÓNIO VIEIRA

The vast sweep of the Portuguese discoveries during the 15th century is generally unappreciated for its far-reaching consequences. It is not too much to say that the world as we know it, for better and for worse, came into being because of the Portuguese, and the pivotal act of the Portuguese accomplishment was Vasco da Gama's discovery of the all-sea passage to India.

The Portuguese expeditions were a part of a decades-long, systematic exploration of the unknown world. No other nation in history spread itself so widely, so fast, so utterly. It was the Portuguese who opened the way into the Atlantic and were the first to sail down the west coast of Africa. They were the first Europeans to cross the equator, to double the African continent, as well as being the first to reach India, then Asia beyond, by sea from Europe. In the Americas they 'discovered' Brazil.

In their quest to establish a sea route to India and its lucrative spice trade, the Portuguese invented, or adapted, the latest advances in navigation and modified their ships repeatedly. It was the Portuguese caravels, with the exotic lines of their hulls and triangular lateen sails, that led the way. The most disturbing aspect of the Age of Discovery was the introduction of black African slaves into the European economy. The Portuguese did not invent slavery, nor did they create African slavery, but they gave it unprecedented scale and brought untold misery and suffering to countless millions through its merciless application.

VASCO DA GAMA

THE PASSAGE TO INDIA

Neither rich nor aristocratic, the Gama family had a long and renowned history of service to the crown. Gama's father was a *cavaleiro* and was for a time the captain and *alcaide-mór* (similar to mayor) of Sines, where Gama was born in either 1469 or 1470. He grew up during the fascinating time when the accounts of the Portuguese discoveries had already become legend and continued to unfold with each new sailing season. Gama became a skilled navigator, probably among the best in Europe, and fought with distinction in Portugal's war with Castile. In 1492 he was given a delicate assignment by the then king, which he handled with uncommon dispatch and integrity.

Significantly, Vasco da Gama was not allied with any of the families in historic opposition to the king. And so when King Manuel I planned an expedition to discover a sea route to India, the honour fell to the young Vasco, since the last thing the king wanted was for his venture to bring wealth and distinction to any potential rivals.

The voyage was audacious in the extreme and this first passage to India was the 15th-century equivalent of a contemporary mission to Mars. About 175 men formed the crew of the modest four-ship armada. Amid enormous fanfare and in the presence of King Manuel, the fleet set sail from Belém, just south of Lisbon, on 8 July 1497. In a manoeuvre known as the *Volta da Guine* they sailed in a great loop southwestwards, entirely out of sight of land, over an estimated 5,420 km (3,370 miles), yet anchored within 160 km (100 miles) of their target in southern Africa on 4 November. It remains one of the most remarkable sailing accomplishments in world history.

Contact with the indigenous populations was largely benign, with some exceptions, until the Portuguese encountered the region of Arab, and Muslim, dominance at Mozambique Island on 1 March. Once the local ruler determined the visitors were Christians he ordered an attack on them. The pilots Gama had obtained attempted to wreck the ships. Overcoming this treachery, he managed to get his fleet, now reduced to three vessels, to Mombasa on 7 April. Relations here were no better, and the Portuguese fought off a determined night

attack. But a week later, at Malindi, Gama encountered a friendly Regent who was in competition with the ruler in Mombasa and who allowed reprovisioning, and, best of all, provided the expedition with a skilled pilot. In 23 days, sailing with favourable monsoon winds, the ships crossed the Arabian Sea and they arrived off the Malabar Coast in southern India on 20 May 1498.

#### THE IMPACT OF GAMA'S VOYAGE

India had known conquerors, many of them far more violent and lethal than the Portuguese ever proved to be, but the coming of the Portuguese and the other Europeans who followed in their wake changed the subcontinent permanently. Just as the Muslims had blocked direct European contact with India, so they had likewise barred the Hindus in India from direct European interaction as well.

Though initial relations were friendly, the local Arab traders persuaded the ruler in Calicut to deny a trade agreement. Reluctantly accepting the inevitable, and on learning of more treachery, Gama sailed north, refitted and resupplied. Then, on 29 August, against the advice of his pilot, he set sail for Africa in the absence of the vital monsoon winds. In a deadly passage lasting just under three months, the Portuguese lost to scurvy nearly half of those who died on the entire voyage, and when the remaining two ships reached Portugal just 44 of those who had sailed remained alive.

The voyage had taken two years and Gama and his crew had sailed 23,000 nautical miles, greater than the distance around the world at the equator. They had accomplished what only decades earlier had been considered unattainable. Cast as Homeric heroes, their expedition was portrayed as a national epic of divine providence. Gama became the greatest Portuguese of all time. The Portuguese king profited immensely from the nearly insatiable demand for spices stimulated by their new abundance through regular trade with the east. Production there rose dramatically, while the price in Europe actually increased threefold. King Manuel lived in luxury such as had not been seen in Europe since the Roman emperors.

Vasco da Gama returned to India twice again. His third voyage came late in life in 1524, when he was 54 years old. There, Dom Vasco da Gama, Admiral of India and Count of Vidigueira, took ill shortly after landing and died peacefully a few months later. His final resting place is at the Mosteiro dos Jerónimos in Belém.

The epic voyage of Vasco da Gama is arguably among the most significant in human history, as it brought about the first direct meeting of men from the west with those of the east since Alexander the Great, and from it came permanent contact and interaction. The consequence was to impose European superiority in technology and weapons across the world. It spread Christianity and western culture to the most distant lands. The conflict between Christians and Muslims which it renewed has scarcely played itself out even now.