



GREAT EXPLORERS

“Ambition leads me not only
farther than any other man has
been before me, **but as far as I think
it possible for man to go**”

Captain James Cook

.....

“What we get from this
adventure is just sheer joy.
**And joy is, after
all, the end of life**”

George Mallory, before attempting to conquer Everest

.....

**“The difficulties are great and
the tale of disasters a long
one**, for the few remaining
unknown corners of the world
exact a price for their secrets”

Percy Fawcett, Amazon jungle explorer

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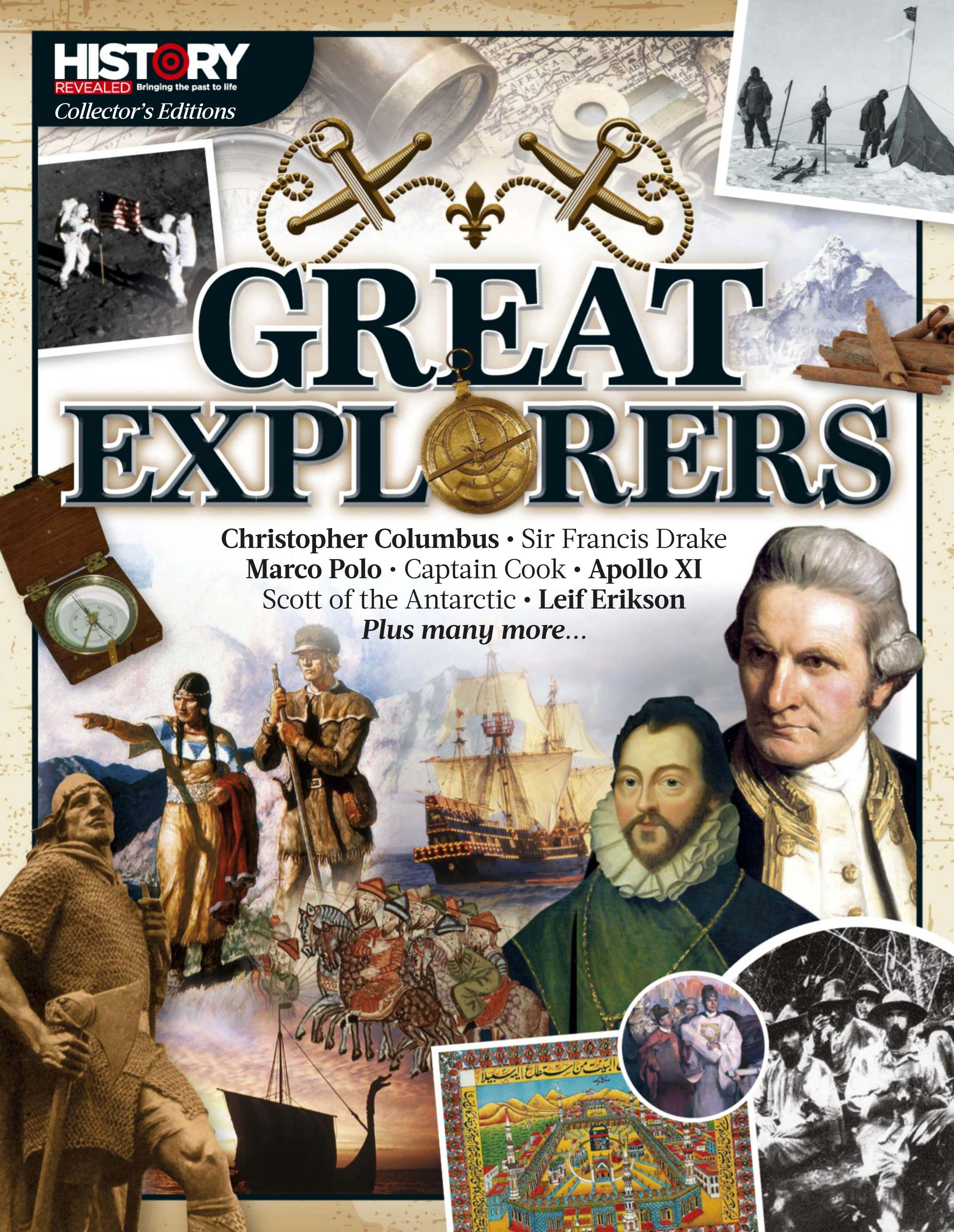
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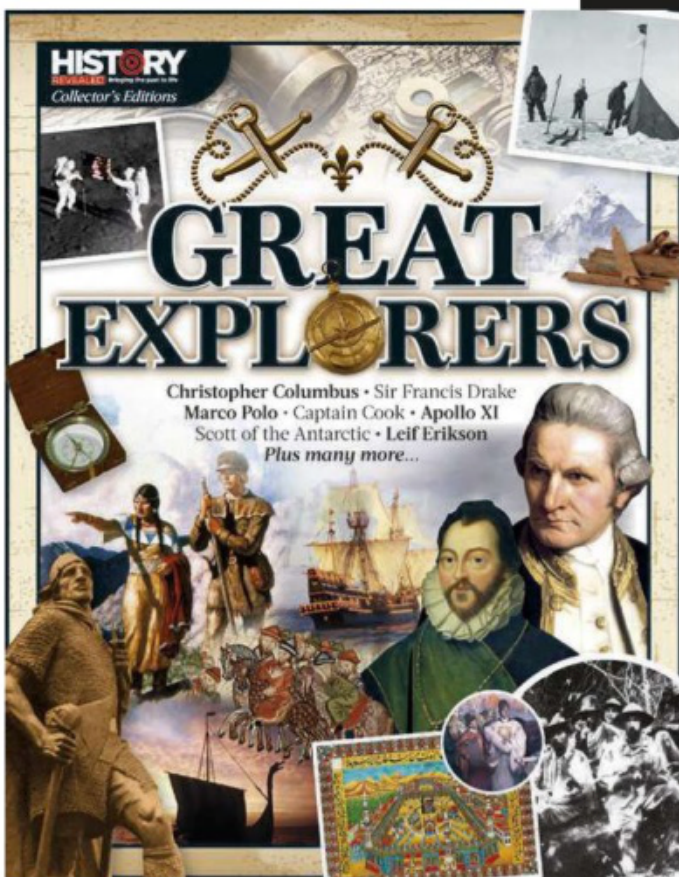
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Welcome



Since the dawn of humankind, it has been fundamental to our nature to explore – to find out **what's behind the hills, across the water, and beyond the stars**. Many of the most celebrated characters in history have been those **intrepid people** whose quests to head for the horizon has seen humans visit virtually every corner of the

Earth – and some beyond.

Explorers like **Sir Francis Drake, Marco Polo and Christopher Columbus** have become household names. But in this special edition of *BBC History Revealed* magazine, we also saddle up with a number of the less-familiar travellers, such as Ibn Battuta, who spent some **30 years walking through Africa, the Middle East and on to China**. Or how about the story of Francisco de Orellana, the Spanish conquistador who became **the first person to navigate the Amazon River**?

At *BBC History Revealed* magazine, we're endlessly fascinated by pioneers, those people who throughout history have pushed the limits of human endurance to explore new horizons. To enjoy more great adventures every month, why not turn to **page 38 for details of how to subscribe to the magazine?**

Happy exploring!

Charlotte Hodgman
Editor

Charlotte

EDITORIAL

Editor Charlotte Hodgman
charlotte.hodgman@immediate.co.uk
Production Editor Kev Lochun
Staff Writer Emma Williams
Writers & Contributors
Peter Beech, Paul Bloomfield,
Pat Kinsella, Mel Sherwood

ART

Art Editor Sheu-Kuei Ho
Picture Editor Rosie McPherson
Illustrators Dawn Cooper, Sue Gent

PRESS & PR

Communications Manager
Emma Cooney 0117 300 8507
emma.cooney@immediate.co.uk

CIRCULATION

Circulation Manager John Lawton

ADVERTISING & MARKETING

Group Advertising Manager
Tom Drew tom.drew@immediate.co.uk
Advertisement Manager
Sam Jones 0117 314 8847
sam.jones@immediate.co.uk

Subscriptions Director

Jacky Perales-Morris
Subscriptions Marketing Manager
Natalie Lawrence

PRODUCTION

Production Director Sarah Powell
Production Co-ordinator
Emily Mounter
Ad Co-ordinator Florence Lott
Ad Designer Julia Young
Reprographics Tony Hunt, Chris Sutch

PUBLISHING

Publisher David Musgrove
Publishing Director Andy Healy
Managing Director Andy Marshall
CEO Tom Bureau

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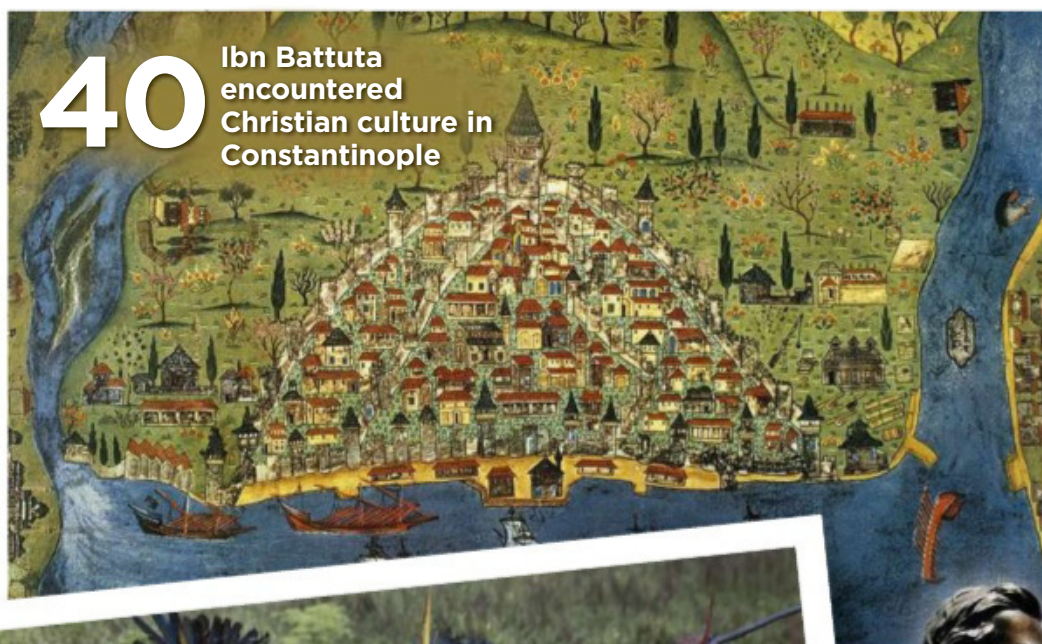


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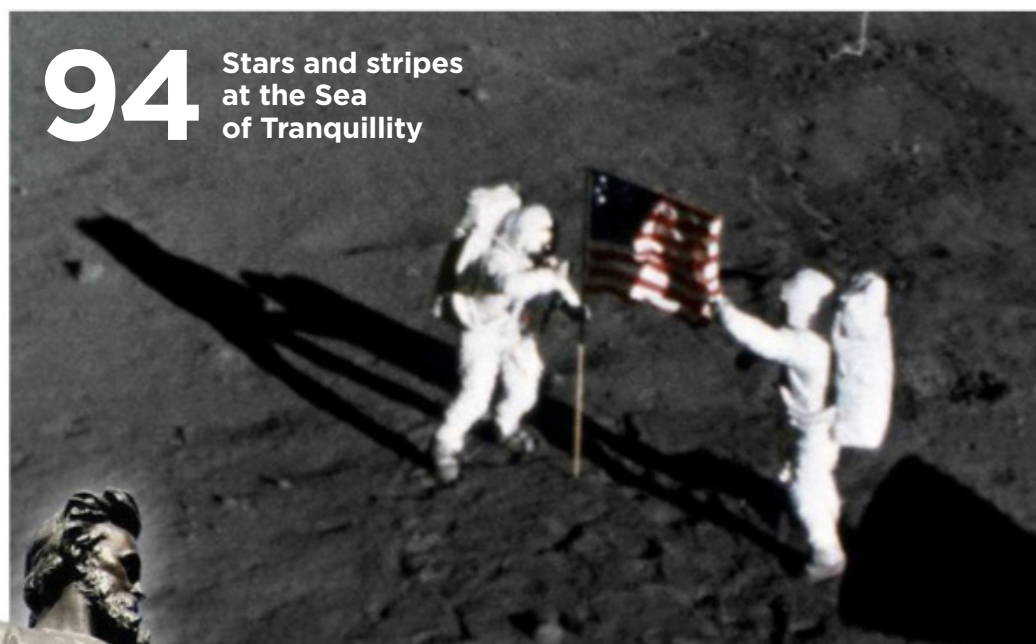
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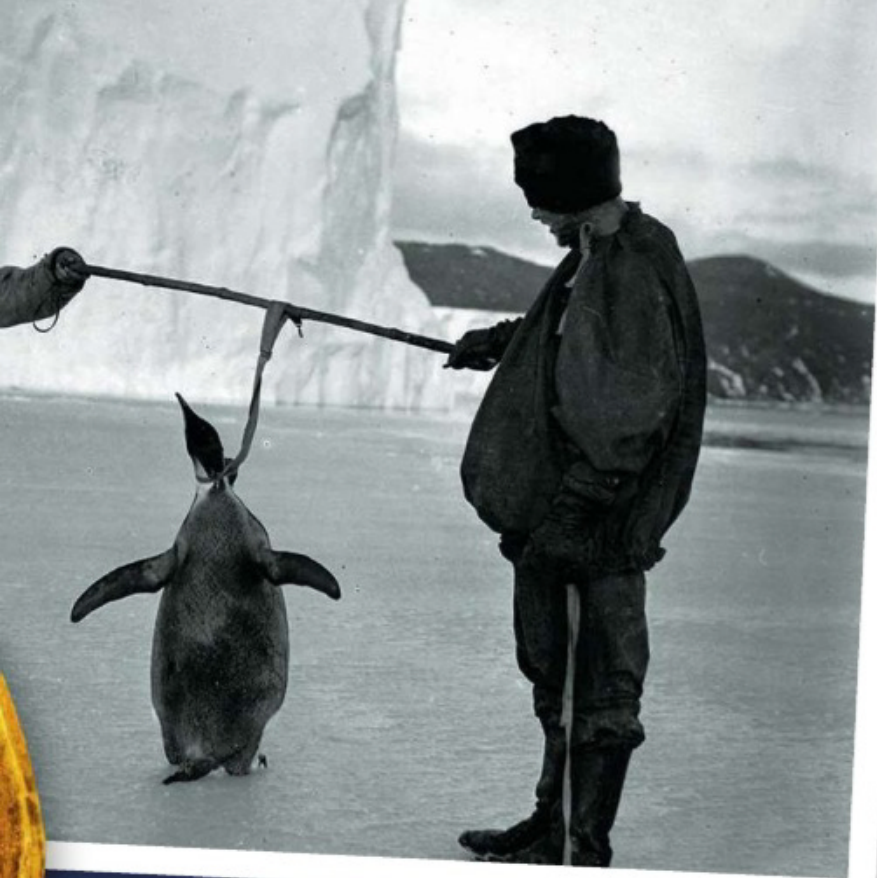
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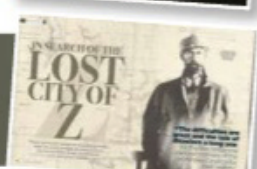
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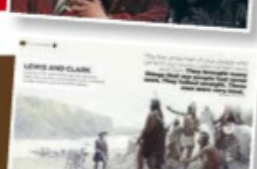
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“What we get from this adventure is just sheer joy. **And joy is, after all, the end of life**”

George Mallory

ON THIN ICE

A 1924 Everest expedition team member is dwarfed by jagged ice pinnacles



MYSTERY ON EVEREST: MALLORY AND IRVINE'S CLIMB TO THE TOP

Wrap up warm and explore a high-altitude enigma that might one day see the history of Earth's highest mountain rewritten



Around 1pm on 8 June 1924, George Mallory, one of the era's leading climbers, and his young companion Andrew Irvine, were spotted as tiny black specks clinging to Everest's towering Northeast Ridge, just a few hundred metres from the summit. And then the clouds closed in. Irvine has never been seen since, while Mallory's frozen corpse was finally found in 1999.

Their unfinished story is mountaineering's greatest mystery. That they died on the mountain over 90 years ago isn't in doubt, but what exactly happened up there, on the roof of the world, has been argued about endlessly by alpinists and armchair observers for decades.

Did they reach the top of Everest – 29 years earlier than Edmund Hillary and Sherpa Tenzing Norgay's accepted first ascent of the planet's highest peak – before tragedy struck?

When Mallory's perfectly preserved body was discovered, the photo of his wife that he had sworn to leave on the summit was the only thing missing. That and a Kodak camera carried by the climbers, which remains lost – presumably buried in the ice with the as-yet-undiscovered remains of Irvine. That camera is the Holy Grail of the adventure world.

EARLY EXPEDITIONS

By 1924, George Mallory, a highly accomplished climber, had already taken part in two expeditions to Everest. He first visited the Himalayas with the 1921 British reconnaissance expedition, organised by the Mount Everest Committee and led by Charles Howard-Bury.

This exploratory mission mapped the region around the mountain in detail for the first time. The team had two experienced mountaineers within their ranks, Alexander Kellas and Harold Raeburn, but Kellas died of a heart attack during the long trek in, and Raeburn fell ill and was forced to retire, making Mallory the expedition's de facto lead climber. In this capacity, he explored potential approach routes to the summit climb with a team of Sherpas. He was probably the first European to see the Western Cwm at the foot of the Lhotse Face, and his group established a path across the Rongbuk Glacier to the base of the North Face.

With his former schoolmate Guy Bullock and army surveyor Oliver Wheeler, Mallory then explored East Rongbuk Valley, traversing Lhakpa La pass. The trio became the first people to reach Everest's North Col, and therefore the first to climb on the mountain proper. They ascended to 7,005 metres, and Mallory picked out a "makeable" route to the summit via the ominous obstacle of what became known as the Second Step. It was late September, however, and in worsening weather conditions, a summit attempt was impossible.

Mallory was soon back with the 1922 British Mount Everest expedition, the first dedicated attempt to scale the highest peak, led by General

THE MAIN PLAYERS



GEORGE MALLORY

A schoolteacher in the midst of mainly military and medical men, expert mountaineer Mallory was the only person to go on all three British Mount Everest expeditions in the 1920s.



ANDREW 'SANDY' IRVINE

Fit and strong, Irvine was an elite rower and a gifted engineer but, aged 22, he was the youngest and least experienced member of the 1924 expedition – so a surprise choice as Mallory's partner for the summit push.

NOEL ODELL

Highly experienced, Odell was a more logical partner. Instead, he provided support for Mallory and Irvine's last-chance charge (and lived until 1987).

EDWARD NORTON

Expedition leader (after General Charles Bruce retired with malaria), who set a world altitude record of 8,570 metres on the Grand Couloir route.

HOWARD SOMERVELL

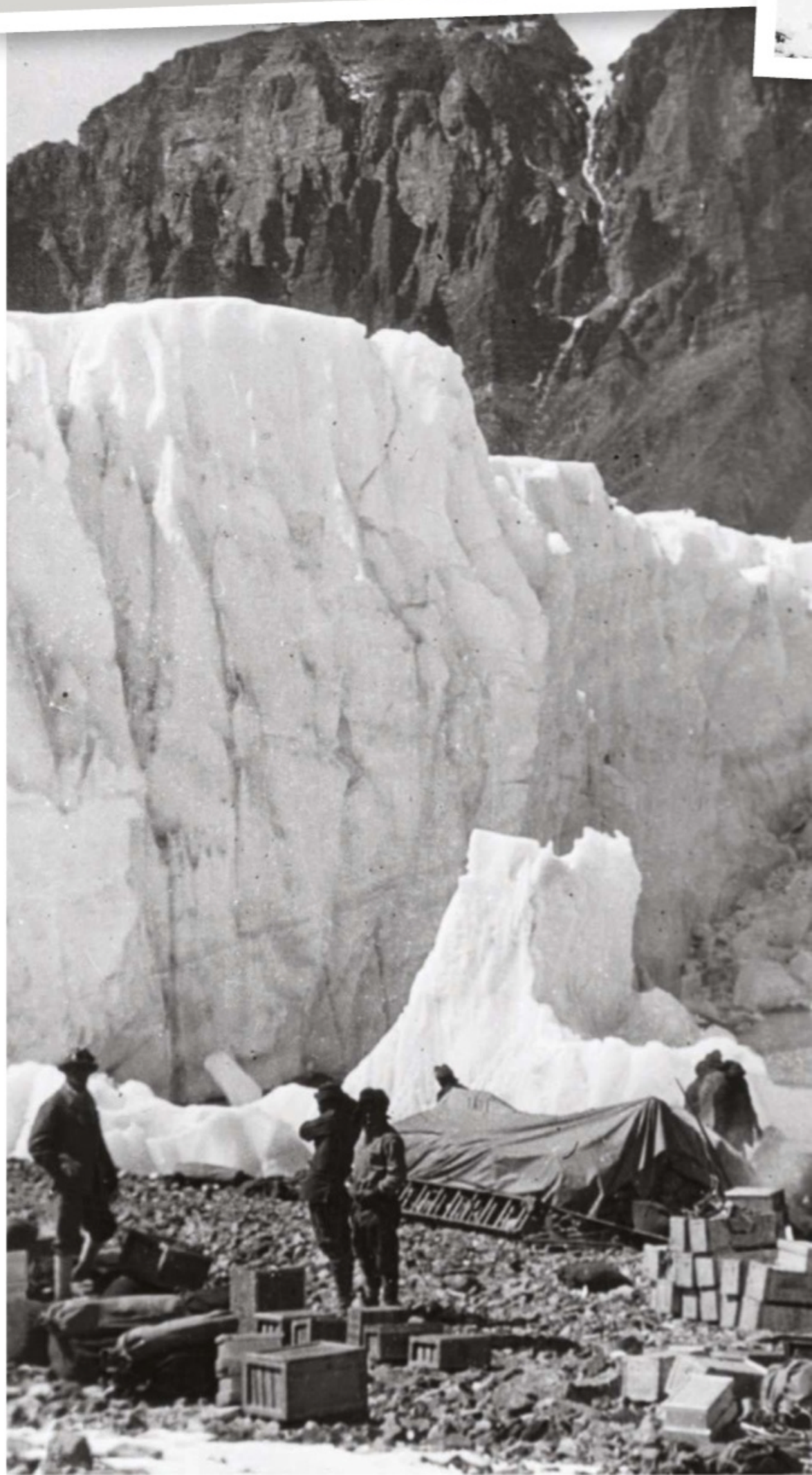
Surgeon and mountaineer Somervell survived coughing up a frostbitten piece of his own throat during the summit push.

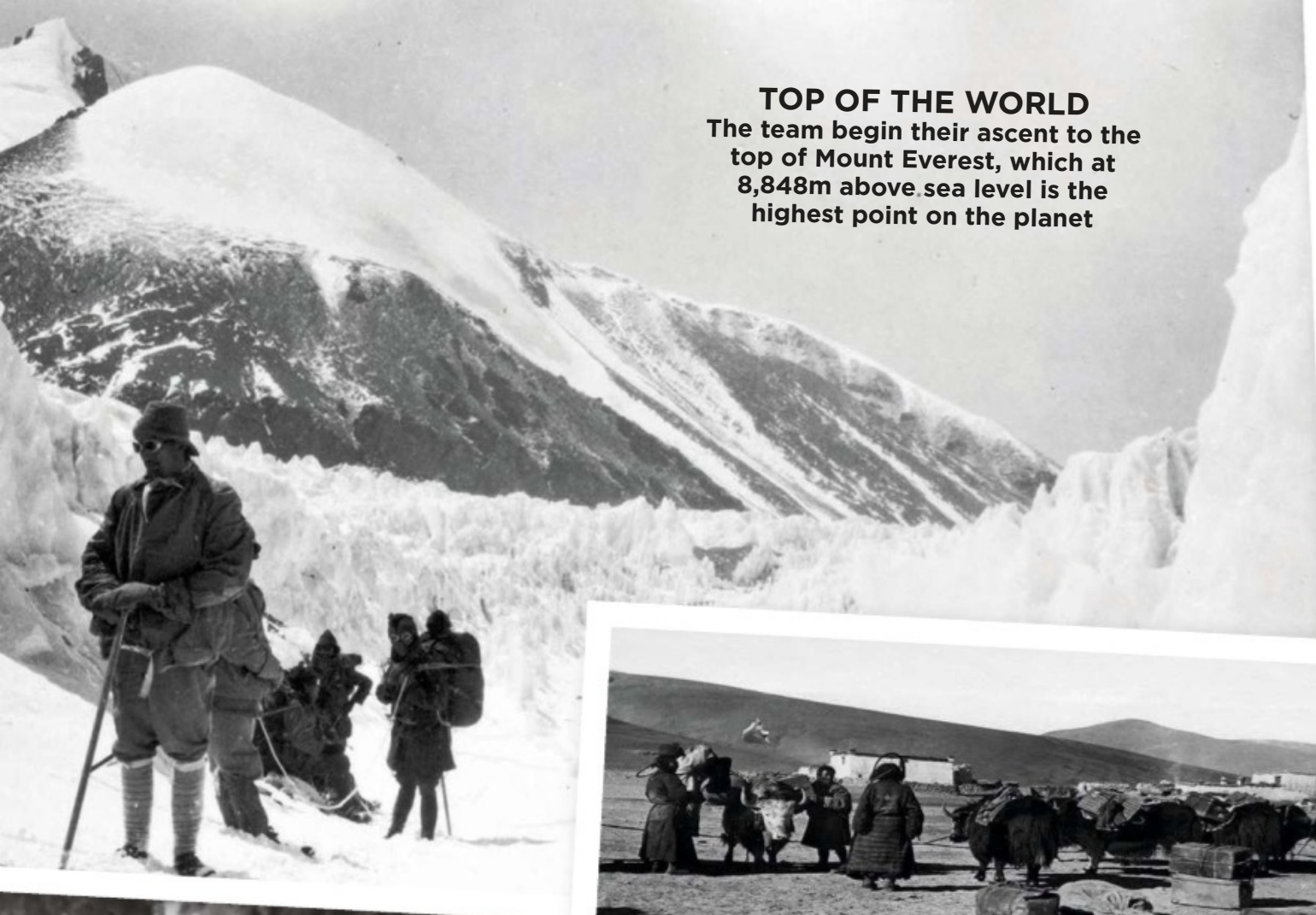
GEOFFREY BRUCE

Cousin of Charles, he had never climbed a mountain before he set a new altitude record of 8,326 metres on Everest in 1922.



THE 1924 EVEREST TEAM
BACK ROW L-R: Irvine, Mallory, Norton, Odell & Macdonald FRONT ROW L-R: Shebbeare, Bruce, Somervell & Beetham





TOP OF THE WORLD
The team begin their ascent to the top of Mount Everest, which at 8,848m above sea level is the highest point on the planet



SLIPPERY SLOPE
Climbing the North Col, a sharp-edged pass carved by glaciers

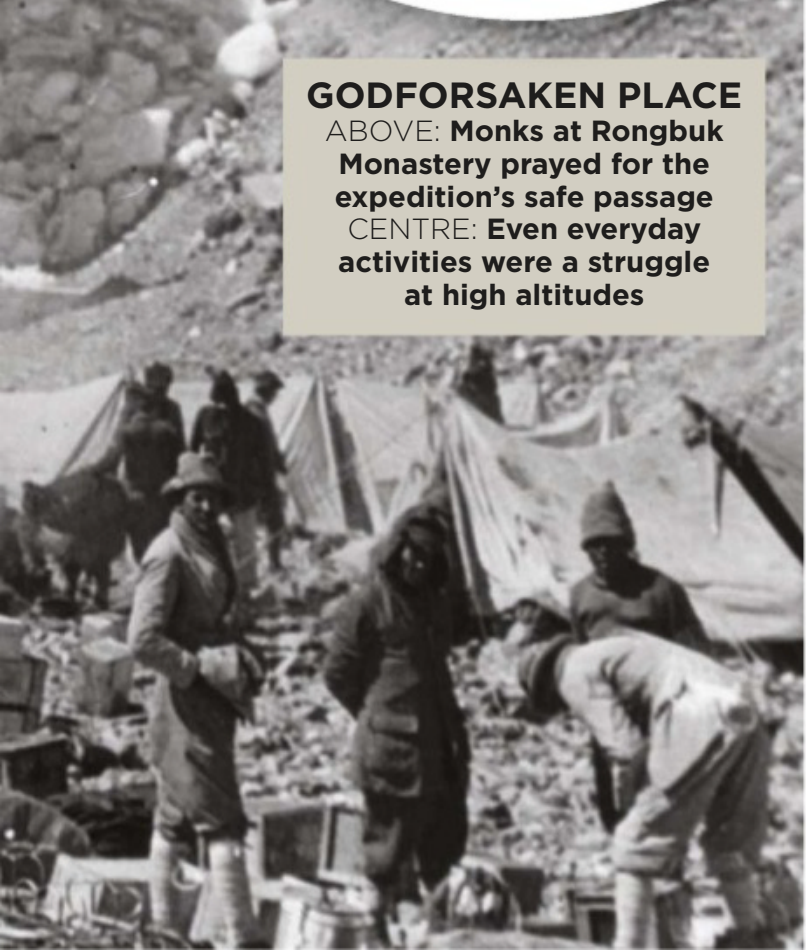


PACK YAKS
Donkeys, yaks and dozens of porters helped to carry the kit

1 SHILLING
The daily rate of pay for Sherpa porters during the 1924 expedition



GODFORSAKEN PLACE
ABOVE: Monks at Rongbuk Monastery prayed for the expedition's safe passage
CENTRE: Even everyday activities were a struggle at high altitudes



Charles Bruce. The route they would take was the one Mallory had scouted a year earlier.

It was also the first time that bottled oxygen was employed in climbing. Its use was controversial from the beginning – some climbers considered it improper, and others (including, initially, Mallory) were sceptical of its benefits, especially because the bottles were heavy and unreliable.

Three attempts at summiting were made in 1922, all making use of porters who were under-equipped and lacked warm clothing. The first, which took place on 19–21 May without oxygen, saw Mallory, Edward Norton and Howard Somervell reach a new altitude record of 8,225 metres, but bad weather and exhaustion forced them to turn around.

A second attempt was then made using oxygen by George Finch, Geoffrey Bruce and a Gurkha officer called Tejbir, who turned back during the attempt. Ascending to the North Col, they made fast progress on the North and Northeast ridges, despite facing severe wind, proving that the oxygen worked. Conditions worsened, however, and Finch and Bruce changed their approach to attempt what's now known as Norton Couloir. After reaching 8,326 metres (another new record), Bruce's oxygen system became faulty, and the climb was aborted.

THIRD TIME UNLUCKY

An ill-advised third attempt saw seven porters killed during an avalanche on the North Col, which led to Mallory being accused of

poor judgment. The climb was abandoned and the team beat a retreat to Darjeeling.

The next expedition was mounted in 1924, with General Bruce again in charge. Somervell, Norton and Geoffrey Bruce were in the team, but Finch had fallen foul of the snobby Mount Everest Committee – mostly for being Australian born. Mallory, unimpressed by the treatment of Finch, had to be talked into going by the British Royal Family. Other climbers included Noel Odell, Bentley Beetham, John de Vars Hazard and an affable 22-year-old called Andrew Irvine, better known as Sandy.

The ensemble of English alpinists and local porters departed Darjeeling in March, reached the high border towns of Tibet in early April, and a few weeks later arrived at Rongbuk Monastery, close to their planned base camp. En route, General Bruce fell ill with malaria, and leadership passed to Norton.

Under his command, Base Camp, Camp II and Camp III (Advanced Base Camp, 6,400 metres) were established between the entrance of the East Rongbuk Glacier and a spot about one kilometre below the North Col. After a delay caused by a snowstorm, Norton, Mallory, Somervell and Odell arrived at Advanced Base Camp on 19 May.

On 20 May, the climbers began fixing ropes on the approach slopes to the North Col, establishing Camp IV at 7,000 metres. The weather closed in again, however, stranding Hazard at Camp IV with 12 porters. He managed to descend, but four porters remained behind and were subsequently rescued by Mallory, Norton and Somervell, after which the entire party retreated to Base Camp. The strength

GEOGRAPHY

The North Col approach to Everest's summit pioneered by Mallory, Bullock and Wheeler in 1921 remains the main route from the Tibet side (although the Southeast Ridge route from Nepal is now much more popular). The crux of the North Ridge route is the infamous 'Second Step', a section of rock about 50 metres high, with the last five metres being virtually vertical. At sea level, most experienced climbers could clamber up it, but at 8,610 metres it becomes a huge hurdle. Whether Mallory could have accomplished such a feat in 1924 gear remains hotly debated.



1 MARCH 1924 Darjeeling, India

Members of the 1924 British Mount Everest expedition assemble, engage around 150 porters, and begin the long walk in, through Sikkim towards Tibet. Travelling in two groups, they retrace the footsteps of earlier expeditions, traipsing through snowy passes east of Kanchenjunga, then tracing the River Arun valley to Rongbuk valley, which leads to the North Face of Everest.

2 APRIL Tibet

After passing through Yatung and Phari Dzong, the group splits briefly, with the main party continuing along the established route to Khampa Dzong, while expedition leader General Charles Bruce and a smaller team seek out an alternative, easier route. They regroup, travel past Shelkar Dzong, and finally arrive at Rongbuk Monastery, close to their intended base camp, on 28 April.

3 EARLY MAY Establishing base camps

After a delay caused by snows, Camp I (Base Camp), Camp II and Camp III (Advanced Base Camp) were erected at 5,400 metres, 6,000 metres and 6,400 metres. On 15 May, a lama at Rongbuk Monastery performs the *puja* ceremony, asking the mountain deity for the blessing and safe passage of the mountaineers.

4 LATE MAY Camp IV

On 20 May, the team begin fixing ropes on the approach slopes to the North Col. Camp IV is established on 21 May at 7,000 metres. During a severe snowstorm, John de Vars Hazard and 12 porters become stranded in Camp IV. Hazard descends with eight porters, and the rest are rescued by Norton, Mallory and Somervell. The whole expedition retreats back to Base Camp to prepare for the summit attempt.

5 1-2 JUNE First summit attempt (without oxygen)

Supported by nine porters, Mallory and Geoffrey Bruce begin climbing the North Col. Blasted by winds whipping across the North Face, four porters dump their gear and turn around. The rest establish Camp V at 7,700 metres, but three more porters refuse to continue the following day, and the attempt is aborted.

6 2-4 JUNE Second summit attempt (without oxygen)

Norton and Somervell climb past the descending team of Mallory and Bruce, and spend the night at Camp V. The next day, supplied with equipment by porters, they erect Camp VI at 8,170 metres. At 6.40am on

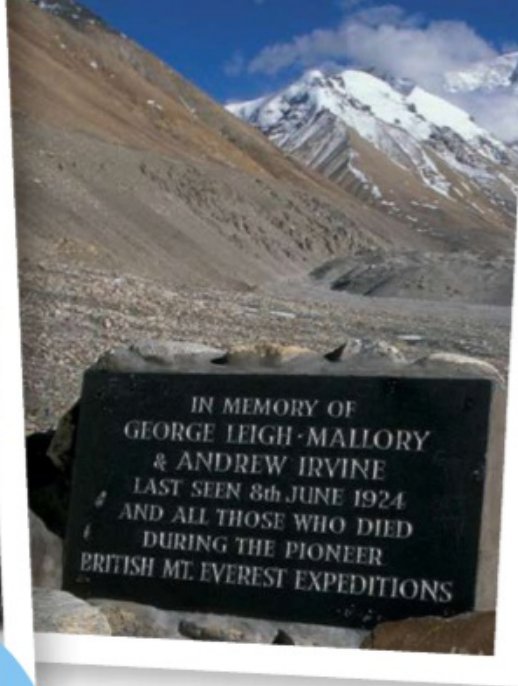
4 June, they begin their summit attempt. Somervell becomes ill after traversing the North Face, but Norton continues solo, ascending the couloir that now bears his name and setting a new altitude record of 8,570 metres before turning around just 280 metres below the summit.

7 5-8 JUNE Third summit attempt (with oxygen)

Having raced back to Camp III to get oxygen, and hastily formulated a surprising new plan to climb with Irvine, Mallory reaches Camp IV on 5 June, with his young partner and five porters. They reach Camp V the next day, and Camp VI on 7 June, from where the remaining porters are sent down with a message for Odell, who is waiting in Camp V. At 12.50pm on 8 June, Odell observes Mallory and Irvine climbing what he believes is the Second Step. The two men are never seen alive again.

8,848m
MOUNT EVEREST
Highest point on Earth





150

The number of porters typically taken on a British Mount Everest expedition in the 1920s

and climbing power of many porters had begun to be properly appreciated in 1922, and now their role was more formally recognised, with 15 of the hardest being designated 'Tigers'.

TREBLE TOP

Three staggered summit pushes were planned. Mallory and Bruce had the first crack, followed by Norton and Somervell, with Irvine and Odell providing support from Camp IV and Hazard hanging tough at Camp III. If the first two attempts, which would both take place without the use of oxygen, were unsuccessful, then the support crew would get their chance, using gas.

Accompanied by nine Tiger porters, Mallory and Bruce left Camp IV on 1 June and were immediately strafed by a vicious ice-laced wind whipping across the North Face. Four porters bailed before Camp V was established at 7,700 metres, jettisoning their loads in the process. The camp was erected, but the next day three more porters refused to keep climbing, and the summit push was aborted.

Meanwhile, Norton, Somervell and six Tigers had begun ascending on 2 June, and were startled to meet Mallory and Bruce heading in the other direction not far above Camp IV. Two of their own Tigers turned tail too, but the rest continued to Camp V. The next day, more porters brought up the materials to erect Camp VI, which was successfully achieved before all porters were sent back to Camp IV.

Norton and Somervell spent an uncomfortable night in Camp VI at 8,170 metres, well within the infamous Death Zone. When dawn finally broke

on 4 June, the two Englishmen began preparing for their final summit push, melting snow for water. One bottle was spilled, which delayed their departure by an hour, but they set off at 6.40am in perfect conditions.

After scaling 200 metres of the North Ridge, they traversed the North Face diagonally. By midday, Somervell, who was suffering from a wracking cough, was unable to continue. Norton carried on solo, clambering tenaciously through the Great Couloir, a gully that leads to the eastern foot of the summit pyramid and now known as Norton Couloir after his heroic effort. Eventually, at 8,570 metres, he was forced to concede defeat as the terrain became too technical to tackle in his exhausted state. He was 280 metres shy of the summit, but had set a new altitude record that remained unbroken for 28 years – at least, by anyone who survived.

Norton rejoined Somervell, and the two men slowly began downclimbing. During his descent, Somervell felt his throat closing. Thinking he was about to die, he sat down to await his fate. Later, he wrote: "Finally, I pressed my chest with both hands, gave one last almighty push – and the obstruction came up. What a relief! Coughing up a little blood, I once more breathed really freely – more freely than I had done for some days. Though the pain was intense, I was a new man."

The blockage was part of the lining of Somervell's throat, which had become badly

NO TRACE

ABOVE LEFT: **Mallory (left) and Irvine in their last known photo**
ABOVE: **A memorial at Rongbuk Base Camp**
ABOVE RIGHT: **Mallory's recovered possessions**

frostbitten and, having come detached, was choking him to death. It was dark by the time they reached Camp IV, but Mallory was waiting with bottles of oxygen and a new plan.

TOP SHOT

Mallory proposed making a final attempt with Irvine, who possessed good technical skills with oxygen bottles and was as "strong as an ox" to boot. Norton acquiesced, despite Irvine's inexperience at such extreme altitude. Accompanied by five porters, Mallory and Irvine dashed up through the camps. They reached Camp VI on 7 June, sending the porters down to meet Odell, who had climbed to Camp V to provide support. The porters carried a message advising Odell to look out for them "either crossing the rock band under the pyramid or going up skyline at [8am]" on 8 June.

Odell began scanning the mountainside the following morning, but the ridge was obscured by mist. At 12.50pm, the ethereal curtain parted and he spied two dark dots just below the Northeast Ridge. He watched as they quickly climbed what he thought was the Second Step to the ridge, and then the mist returned. Concerned that they were well behind schedule, Odell ascended to Camp VI, which he discovered in disarray. As snow began to fall, he went outside and began calling for the men, hoping to guide them towards the camp.

Forced inside by the snowstorm, Odell stayed until conditions cleared at 4pm, and then vacated the high camp, which would only accommodate two men, descending to Camp IV. He returned to Camp V the next day with two porters and stayed overnight before continuing alone to Camp VI, where nothing had changed. Venturing further, he still found no sign of his missing comrades. Arranging two sleeping bags into a 'T' shape, which signalled to those below that 'No Trace' had been found, he descended to Camp IV. The surviving climbers left the still-unconquered mountain on 11 June, with an enigma buried high on its frozen flanks. 📍

GET HOOKED

READ

In the Footsteps of Mallory and Irvine by Mark Mackenzie (John Murray, 2009) is a riveting account of the 1924 expedition, the discovery of Mallory's body and the subsequent attempt to re-create his climb.

WHAT HAPPENED NEXT?

In 1979, Chinese climber Wang Hongbao told a fellow mountaineer that he'd seen the body of an Englishman during an earlier (1975) expedition. Wang was killed in an avalanche the day after revealing this information, and the corpse – thought to be Irvine's – has never been located. Mallory's body, frozen in a position of self-arrest, was discovered in 1999 during an expedition dedicated to looking for the missing men. Goraks, the black ravens that haunt the Himalayas, had hollowed out the body, but

the corpse was intact enough to tell a few intriguing tales. Mallory's right elbow and leg were broken, and he had a severe head injury, the likely cause of death. His rib cage was compressed by a rope, which suggests that he was attached to Irvine when both men fell. His snow goggles were in his pocket, so presumably he was descending in the dark. The photo of Mallory's wife, Ruth, which he'd promised to leave at the summit, was missing from his body, suggesting that he'd conquered the peak.

GREAT EXPLORERS OF THE TUDOR AGE

During the 15th and 16th centuries, powerful European nations embarked on ambitious campaigns of exploration, colonial conquest and trade-orientated empire building. This was an era of intense ocean-crossing exploration. This was the Age of Discovery.

The impact of these missions was immense. The West's understanding of the planet skyrocketed as a 'New World' was revealed across the Atlantic. Enormous wealth poured into Europe, the daily diet of millions changed and technology boomed. Meanwhile, the transatlantic slave trade escalated, and disease and death were delivered to many indigenous peoples, whose cultures were also damaged or destroyed.

These consequences were as unpredictable as the new seas were uncharted. The Vikings had explored North America's east coast centuries earlier, but their findings weren't shared. While Aristotle showed, in the fourth century BC, that the Earth was spherical, a myth persisted that a great nothingness existed west of the Mediterranean. Explorers of the age were sailing off the edge of the map.



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**“THE DISCOVERY OF AMERICA
AND THAT OF A PASSAGE
TO THE EAST INDIES... ARE
THE TWO GREATEST AND
MOST IMPORTANT EVENTS
RECORDED IN THE HISTORY
OF MANKIND”**

ECONOMIST AND PHILOSOPHER ADAM SMITH, 1776

PIONEER CAPTAINS
Columbus, Cabot and Drake
(left to right) led the way in
this era of exploration



THE SEA OF DARKNESS

Sailors feared unknown waters, shown in a nightmarish vision in this 19th-century woodcut

“THE ARABIC NAME FOR THE VOID WAS *BAHR AL-ZULAMAT*... THE SEA OF DARKNESS”

VOYAGE OF INSPIRATION

Marco Polo left Venice in 1271 and, for 17 years, lived in China under Mongol ruler **Kublai Khan**. The book of his adventures inspired travellers for centuries.

DEEP SEA DANGERS

Medieval maps warned of the danger of uncharted waters, often depicting **sea serpents**. One from 1539 showed a 60-metre serpent coiled around a ship. Sailors also feared sirens and giant squid – the latter, at least, are real and can reach 12m long.

1

INTO THE DARKNESS

Europeans had no idea what wonders or terrors awaited them in uncharted waters

The Pillars of Hercules are mountainous points either side of the narrow Strait of Gibraltar, one being the rock of Gibraltar and the other a peak on the North African shore. In the 15th century, this is where maps ended and a knowledge vacuum began. The Atlantic expanse beyond the strait was known in Latin as *Mare Tenebrosum*, while the Arabic name for the void was *Bahr al-Zulamat*. Both mean ‘sea of darkness’.

Why, then, by the 15th century, were Europeans keen to sail past the end of the known world and into the dark? The pursuit of wealth is the basic answer. Africa promised gold, jewels and slaves, while the East (India, China and the Spice Islands) had prized spices. Other factors were at play too, including many

that would later drive the age of Antarctic exploration and the Space Race. Geographical curiosity was a natural progression from the Renaissance – the fertile period of artistic expression that flowered across Europe from the 14th century – in which creative boundaries were stretched and explored. The innate human inquisitiveness of key players was tickled by the tales of riches and adventure told by early travellers to the Orient, such as Marco Polo in the late 13th century.

National pride and international rivalry also played a role. Many European monarchs harboured ambitions to build empires, just as the Greeks and Romans had done in antiquity, and didn’t want to be outdone by their neighbours. Fear was equally important. Portugal was exposed and cut off from the Mediterranean, while other European countries felt vulnerable

15,000

The number of miles estimated as travelled by Marco Polo from 1271 to his return to Venice in 1295



to attack from the east. There, large, wealthy and advanced Islamic nations posed a potential threat – particularly with the dust having barely settled after centuries of violence brought about by the Crusades. More importantly, these Muslim countries lay between Europe and the Silk Road, a land-based trading route to the East, where valuable and highly coveted spices such as pepper, cinnamon, nutmeg and cloves grew.

The most pressing brief for the major explorers of the era was to find a sea route to the Orient. As early as 1291, two Genoese brothers, Vandino and Ugolino Vivaldi, travelled through the Strait of Gibraltar in a bid to get to India. They disappeared without trace, but many more would follow – some sailing into the history books, others into oblivion.

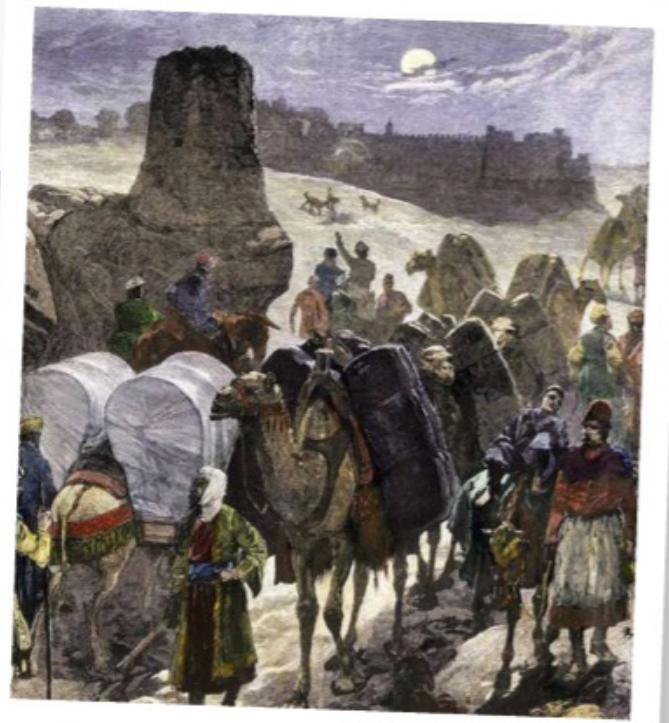
BY SEA TO THE ORIENT EVERY WHICH WAY BUT EAST

A glance at a map shows that, before the completion of the Suez Canal in 1869, travelling to the Orient by sea from Europe would be a long and scenic way to reach the riches of the region, compared with going directly east, over land.

The land route, however, had become problematic. The relationship between the Christian West and the Islamic East was far from friendly in the 15th century, after generations of bloody fighting sparked by Crusading campaigns instigated by the Catholic Church to try and seize access to the Holy Lands. Even in times of relative peace, transporting bounty along an overland

route was problematic, with middlemen enforcing tariffs and pushing up prices. After the fall of Christian Constantinople (now Istanbul) in 1453, the Ottoman Empire controlled the important trading route to the east known as the Silk Road, and the discovery of a sea route became imperative.

Explorers took to the ocean, sailing through the Pillars of Hercules into the great unknown. Once into the Atlantic, there were two options: they could either head south, ultimately around the soon-to-be-infamous Cape of Good Hope at the tip of Africa, or go west, where, initially at least, they had no idea that an entirely new world stood in their way.



NOT-SO-SUPER HIGHWAY
The Silk Road was the best trading route to Asia, but European access was limited



BRAVE LITTLE SHIPS
MAIN: An expedition of caravels ready to set out on a voyage of discovery, shown in 1528
BELOW: Henry the Navigator developed the small but sleek caravel for exploration

STATE OF THE ARK

The **lateen sails** (triangular) of swift, streamlined caravels made them much more manoeuvrable than ships with square sails.

EXPLORERS' SHIP OF CHOICE THE CARAVEL CLUB

Developed initially by Portugal's Prince Henry the Navigator, the caravel was a small, nimble, technologically advanced ship, specifically designed for exploration. With lateen (triangular) sails, the two- or three-masted caravel performed well when sailing into the wind – using a technique called tacking. Its small size – around 23 metres long, with room for just 20 men – made it ill-suited for carrying cargo, but it was the perfect machine for pioneering new routes and became the weapon of choice for explorers venturing down the West African coast or across the Atlantic.

Portuguese explorer Diogo Cão took two caravels down the coast of West Africa, and his

compatriot Bartolomeu Dias sailed one, the *São Cristóvão*, round the Cape of Good Hope in 1488. John Cabot's Atlantic-crossing *Matthew*, which left Bristol in 1497, was a caravel. Christopher Columbus took two, the *Pinta* and the *Niña*, to accompany his larger flagship, the *Santa María*, a three-masted carrack, on his first voyage in 1492.

When Vasco da Gama set out for India in 1497, the larger, square-rigged carracks (or *naos*) were preferred, although one caravel did accompany him. Ferdinand Magellan's round-the-world trip also featured a caravel, and Giovanni da Verrazzano's one-ship exploration of North America's Atlantic Coast was done in the *Dauphine* – a caravel.

WHO WENT WHERE AND WHEN?

East and west, the pioneers forged routes around the globe

Although John Cabot, sponsored by the English crown, was the first European to visit North America since the Vikings, it was Spain and Portugal that dominated transatlantic exploration in the 15th century.

Finding a northwestern route to Asia, rather than colonisation, preoccupied the first English explorers, but for Spain and

Portugal, conquest was the prime aim of early voyages. Within 50 years of Columbus's landing in the Caribbean, the Spaniards had conquered three empires, including the Aztecs, and were shipping huge amounts of riches to Spain. Little wonder, then, that the Spanish crown was happy to sponsor the efforts of early navigators.

100

The number of Spaniards led by Cortés who captured huge Aztec capital Tenochtitlan in 1519

TREATY OF TORDESILLAS DIVIDE AND CONQUER

Signed by Portugal and Spain in 1494, the Treaty of Tordesillas was an attempt by the two Iberian powers to divvy up ownership of the new territories into which the European nations had begun enthusiastically sticking their flags. An imaginary meridian (north-to-south line) was sketched to the west of the Portuguese Cape Verde islands (off West Africa) but east of the Caribbean island of Hispaniola, upon which Columbus had stumbled in 1492.

Lands to the east of this line (including West Africa and much of Brazil) were deemed Portuguese prizes, and those to the west (most of South, Central and North America) were Spanish. While this affected the geographical and language divide in Latin America, which remains to this day, other European nations largely ignored the treaty, which became obsolete because neither signatory had sufficient firepower to enforce it.

DEATH OR GLORY

With a few notable exceptions, it was Spanish and Portuguese explorers who dominated 15th-century voyages, encouraged by their crowns, who were happy to commit men, materials and money to exploration. Those lucky enough to survive carved out new territories and created trading routes in America and Asia.



Bartolomeu Dias

(c1450-1500)

The first explorer to successfully round the Cape of Good Hope, Dias did so in the name of his country, Portugal. He later drowned at the Cape.



Giovanni da Verrazzano

(1485-1528)

Though he worked for France, da Verrazzano was from Florence. He explored North America's Atlantic coast extensively. It is believed he was killed by Guadeloupeans.

PACIFIC OCEAN

LINE ON A MAP

The **Treaty of Tordesillas** ruled on new colonisation, but land already in the hands of a Christian ruler was strictly off limits.



Diogo Cão

(1452-1486)

This pioneering Portuguese sailor explored the West African coast as far south as Namibia. Cão may have died while on expedition.

LAND GRAB
This 1502 map shows how Spain and Portugal avoided treading on each other's colonial toes



John Cabot

(1450-1499)

This Venetian sailor was tasked by England to search for new territories. He landed in Newfoundland in 1497, the first European to visit North America since the Vikings.



Christopher Columbus

(1451-1506)

A Genoese explorer working for the Spanish. He landed in the Bahamas in 1492, while looking for a westward route to the Indies. Columbus made four transatlantic trips, all to the Caribbean, Central and South America.



Vasco da Gama

(1460-1524)

An explorer from Portugal, he led the first successful sea expedition from Europe to India (1497-1498). Da Gama consolidated the trade route and became Viceroy of India.



Sir Francis Drake

(c1540-1596)

This English privateer spent much of his career raiding the Spanish Indies. He was the first Englishman to circumnavigate the globe, returning home in 1580.



Ferdinand Magellan

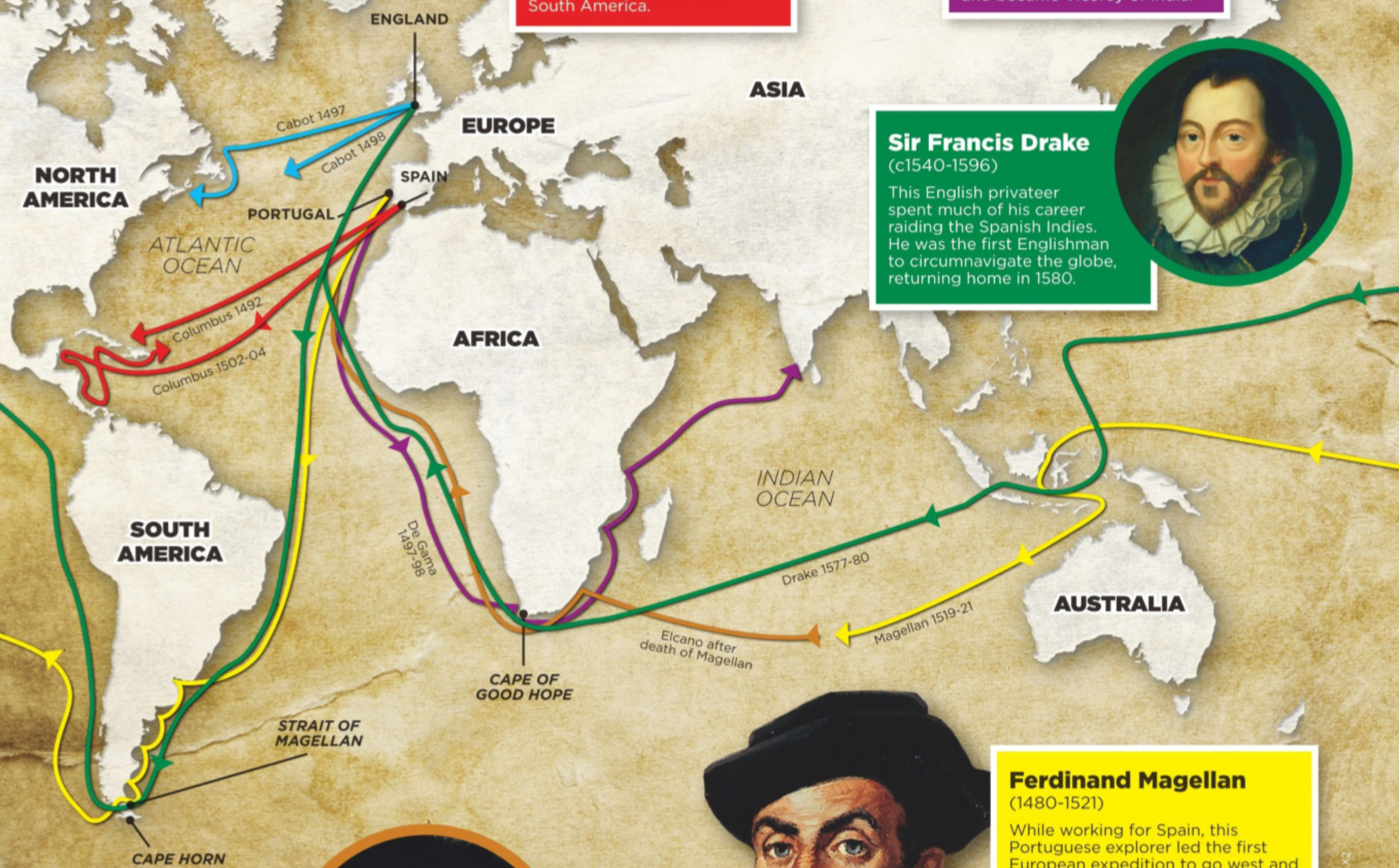
(1480-1521)

While working for Spain, this Portuguese explorer led the first European expedition to go west and reach Asia, passing through what is now called the Strait of Magellan, and crossing the Pacific. He was killed at the Battle of Mactan (now in the Philippines) en route.

Juan Sebastián Elcano

(1476-1526)

The Spaniard who led the second half of the first round-the-world navigation (taking over after the death of Magellan, right) and arriving back in Spain in 1522.



“THE SHIPS ARRIVED IN KERALA, CAPITAL OF INDIA’S SPICE TRADE, AND HISTORY TOOK A SUDDEN SWERVE”

WARM WELCOME

A contemporary journal of Vasco da Gama’s expedition describes its **arrival in Kerala**, where it attracted a huge crowd and was given advice on a safe anchorage.

MEET THE KING

On landing in India, da Gama was greeted by the governor with a large retinue of armed men, and conveyed with ceremony to the grand **court of the Zamorin**, or king.

PASSAGE TO INDIA

Da Gama disembarks in India, winning the race to find a sea route for the spice trade

3

THE SPICE RACE

To break into the lucrative spice trade, Europeans competed to find a sea route to India

Sponsored by Portugal’s Prince Henry the Navigator (third son of King John I) and later his great nephew John II, the Portuguese explored Africa’s west coast throughout the 15th century. Ships returned with gold and slaves, but the ultimate goal was to find a route to the riches of the Orient.

Diogo Cão ventured as far south as Namibia’s Walvis Bay in 1486, and explored the Congo River in a quest to find Prester John’s lost Christian nation (see facing page). When Cão died, the expedition returned to Lisbon. Bartolomeu Dias followed Cão’s route along the Skeleton Coast a year later, with orders to continue to India. His three ships rounded the tempestuous tip of Africa far from shore, pulling into what’s now Mossel Bay in February 1488, dispelling the myth that the Atlantic and Indian Oceans were landlocked, and proving a sea route to India was viable. Dias intended to press on but, with

his crew threatening mutiny, he turned around at present-day Kwaaihoek, where he left a *padrão* – a stone cross inscribed with Portugal’s coat of arms. While returning, Dias identified a point he christened Cape of Storms, but John II, optimistic that India’s riches were within reach, renamed it Cape of Good Hope.

54

The number of crewmen, out of 170, who survived the expedition that discovered the sea route to India

THE DOLDRUMS

John II died before his dream was realised, but his successor, Manuel I, sent Vasco da Gama to complete the journey in 1497, with bigger ships and more men. It is thought da Gama was also armed with knowledge supplied by Pêro da Covilhã, a secret agent who’d travelled east by land ten years earlier, searching for Prester John and obtaining information about navigation along the East African coast.

Dias accompanied the expedition to Cape Verde, and instructed da Gama to take a wide berth around the bottom half of Africa, to avoid the doldrums in the Gulf of Guinea and to

exploit what are now known as the Southern Trade Winds. After 13 weeks without sight of land, they came within 600 miles of Brazil’s coast before being blown back east.

By Christmas they were safely around the cape. The fleet visited a port in Mozambique in March 1498, before continuing to Mombasa. In Malindi, da Gama employed an Arabic navigator, who guided them across the Arabian Sea to Malabar, southwest India. On 20 May, the ships arrived at Calicut in Kerala, capital of India’s spice trade, and the course of history took a sudden swerve.

Da Gama landed back in Portugal as a hero after a two-year absence, but the return trip had been horrific. Of his original 170-strong crew, just 54 survived, with his own brother among the dead. Almost immediately, 13 ships carrying 1,200 men were dispatched to India, returning with a cargo that broke the Arab land-based monopoly on the European spice trade. In 1502, da Gama sailed to consolidate the route he’d pioneered. He was later made Viceroy of India. However, his reputation is tarnished by atrocities reportedly committed on the Malabar Coast.

SAILORS' NEMESIS CAPE FEAR

The Cape of Good Hope isn't Africa's Land's End (that's Cape Agulhas, 90 miles east, where the Atlantic and Indian Oceans really meet) but for thousands of unfortunate sailors, the infamous rocky headland has proved to be the end of the line. Dubbed Cape of Storms by Bartolomeu Dias when he led the first expedition to round it, the friendlier moniker may have been bestowed by Portugal's John II, for whom it was merely a corner to be turned en route to riches promised by the region beyond. Dias's description was more accurate; 12 years after his first historic voyage, his ship went down during a tempest.

Wrecks litter South Africa's ocean floor – more than 2,500 vessels have come to grief since 1500, and hundreds of these sank around the Western Cape. There are boats from almost 40 countries in this ships' graveyard. Its tales of horror and tragedy resonate around the seafaring globe, from yarns about *The Flying Dutchman* to the desperately sad story of the *Arniston*, which went down in 1815, packed with wounded soldiers returning from the Kandyan Wars in present-day Sri Lanka.

A BAD OMEN

In ocean lore, the ghost of a wrecked ship is a **portent of doom**. By the 18th century, the most famous was a man-of-war lost off the Cape of Good Hope and destined to sail the oceans forever – *The Flying Dutchman*.



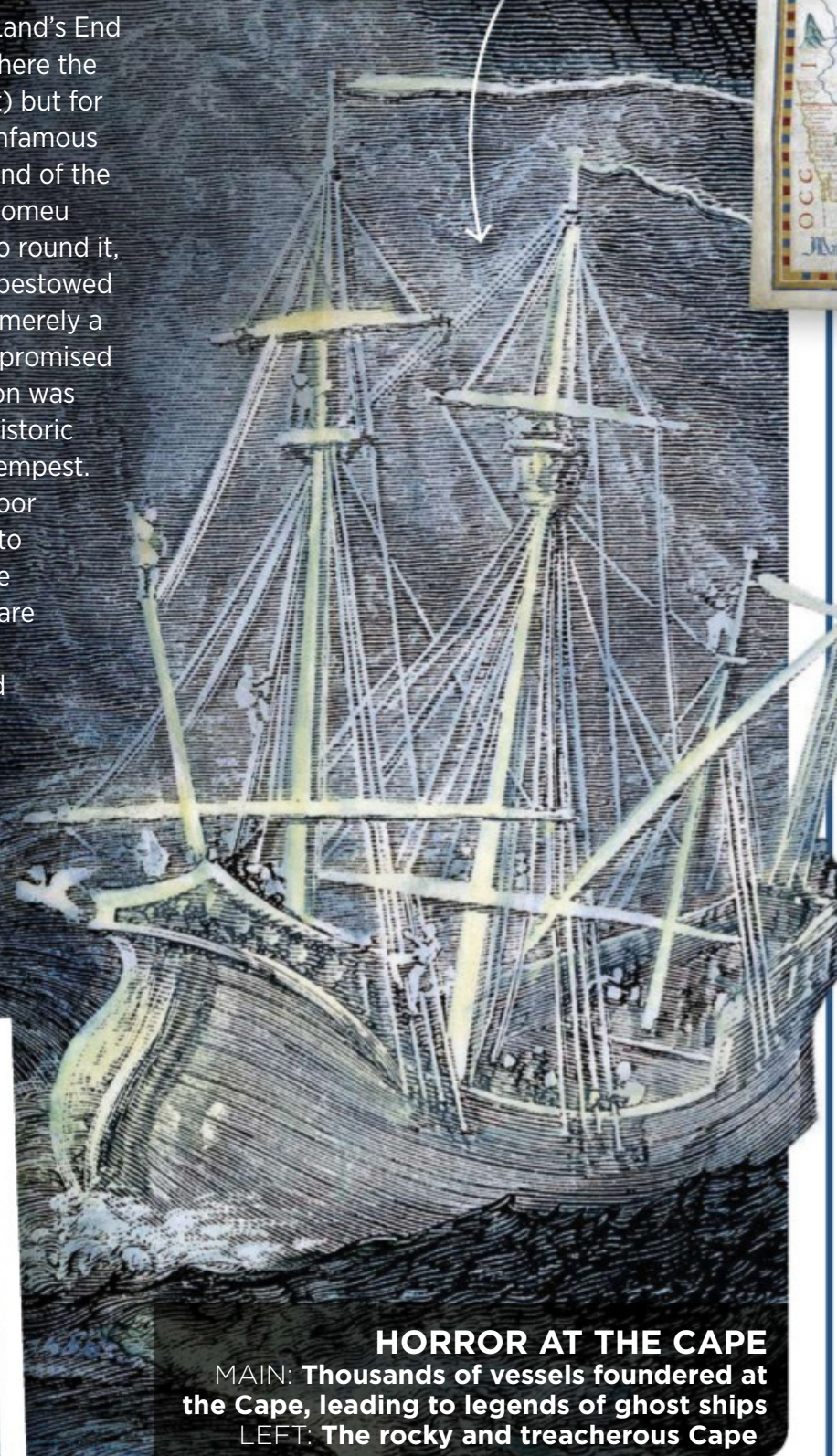
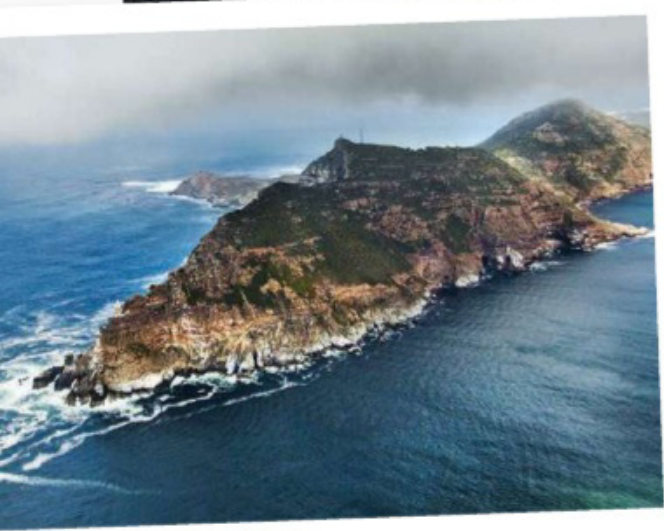
FABLED KING

The legendary Prester John is shown enthroned on a 16th-century atlas

PRESTER JOHN LEGEND LOST NATION

One of the more curious motivating factors behind some of the voyages undertaken during this era was the legend of Prester John – the (probably apocryphal) ruler of a lost nation of Christians, believed to reside somewhere in either India or Africa.

Portugal's Henry the Navigator and John II both firmly believed in the legend, and hoped to discover and build an alliance with this mysterious society. Its location was later narrowed down to Ethiopia, an island of Christianity in a sea of Muslim states since the seventh century. One of Dias's objectives on his 1487-88 expedition was to look for Prester John. John II also dispatched two explorers, Afonso de Paiva and Pêro da Covilhã, to travel overland and search for the Christian kingdom, while gaining geographical intelligence to aid the quest for a sea route to the Orient.



HORROR AT THE CAPE

MAIN: Thousands of vessels foundered at the Cape, leading to legends of ghost ships
LEFT: The rocky and treacherous Cape

HENRY THE NAVIGATOR ROYAL INNOVATOR

For the Portuguese, who had no port in the Mediterranean and had to access the sea via the strategically sensitive Strait of Gibraltar, establishing an alternative ocean-based route to the Far East was crucial. Recognising this, and in response to attacks from African pirates, Infante Dom Henrique de Avis (1394-1460) – third son of Portugal's King John I and now better known as Prince Henry the Navigator – kicked off the earliest European forays along Africa's Atlantic coastline.

Henry also instigated a number of seafaring innovations, including the development of

SEAFARING SCHOLAR

A man of learning as much as adventure, Henry (centre) may have set up a mariners school

the caravel, a nifty little sailing ship that revolutionised the reach and speed of exploratory expeditions (see p15). He is also rumoured to have established an academy of cartography, astronomy and navigation at his base on the Sagres peninsula, the most southwesterly point of Europe, although some historians doubt this. He presided over great advances in map making, and sent navigators further down the coast of Africa than Europeans had ever been before, discovering and claiming for Portugal the islands of Madeira and the Azores.



ROUND THE WORLD

Spain's attempt to find a route to India ended in the first circumnavigation of the globe

Once the Portuguese established a viable trading route to India, the Spanish had a problem. The Treaty of Tordesillas (see page 16) granted Portugal control of the African route and without independent access to the Orient, Spain's Iberian rivals could hold them to ransom. A potential solution came from an unexpected source: a Portuguese explorer with an audacious plan, who'd fallen out with his king.

Ferdinand Magellan left Portugal in 1517, when Manuel I dismissed his idea of approaching the Spice Islands (Maluku, now in Indonesia) from the east via the Americas. However, he successfully sold his idea to the King of Spain, Charles I. Spanish adventurer Vasco Núñez de Balboa had discovered the ocean beyond the New World four years earlier. Magellan's plan sounded plausible, and it avoided treading on Portugal's toes.

MAYHEM AND MUTINY

In September 1519, Magellan led five ships (*Victoria*, *Santiago*, *San Antonio*, *Concepción* and *Trinidad*) and a multinational, 270-strong crew into

the Atlantic. Manuel I sent Portuguese ships to follow the expedition; Magellan soon lost them. By December, the fleet was tracing the South American coast, searching for the strait Magellan believed would allow them through.

At the onset of winter, this opening still eluded them and a mutiny erupted on three ships. Magellan acted decisively, pardoning many men involved – including Juan Sebastián Elcano – but brutally executing most of the ships' captains and leading mutineers, abandoning others on the coast. The *Santiago* was lost in a storm before the expedition traversed the strait that now bears Magellan's name in October 1520.

While exploring the strait, the *San Antonio* deserted, returning to Spain, but the remaining three ships continued to the ocean that Magellan named *Mar Pacifico*, because of its apparent calmness.

Striking northwest, they crossed the equator in February 1521 and by March had reached the islands known today as the Philippines. Magellan became embroiled in a dispute between two chiefs, which

escalated into a skirmish on Mactan Island, where he was killed. More deaths followed and when the Europeans escaped, too few men remained to crew three ships. The *Concepción* was burnt, and the survivors fled to Brunei.

In November, the remaining crew finally reached the Spice Islands and traded with the Sultan of Tidore. Loaded with spices, they attempted to return home by sailing west across the Indian Ocean, which hadn't been Magellan's intention, until the *Trinidad* started leaking. The damaged ship stopped for repairs and eventually tried to return via the Pacific, but was captured by the Portuguese and subsequently sank. Meanwhile, under the captaincy of Elcano, the *Victoria* continued, limping around the Cape of Good Hope on 6 May.

Twenty men starved on the last leg and 13 were abandoned on Cape Verde, but around 6 September 1522, after three years' absence, the *Victoria* arrived in Spain, having completed the first circumnavigation of the planet.

58
Years before another round-the-world voyage was completed – by Francis Drake, who arrived home in 1580

IT'S PARTY TIME

A 1522 celebration of the expedition that, despite its leader's death, accidentally went round the world



MACTAN REMAKE

Most years, the Battle of Mactan is reenacted by the islanders. To recreate the drama, more than 150 actors **don loincloths** or Spanish armour, while specially built makeshift huts are **set on fire**.



MAGELLAN MEETS HIS MATCH
Weighed down by armour, and perhaps his colonialist prejudices, the navigator underestimated Lapu-Lapu's warriors

BEATEN BY BAMBOO

THE BATTLE OF MACTAN

In the Philippines, Magellan communicated with local rajahs through his enslaved Malay companion, Enrique. A number of island chiefs, including Cebu's Rajah Humabon, converted to Christianity. In return, Magellan supported Humabon in a disagreement with a neighbour, Lapu-Lapu, a chief on Mactan Island, who declined to convert or bow to the Spanish crown.

On 27 April 1521, 60 heavily armed Europeans accompanied a fleet of indigenous boats to Mactan, where Lapu-Lapu again refused to recognise the authority of Humabon or the Spanish.

Facing 1,500 warriors, Magellan – presumably confident of the shock-and-awe capability of his superior weaponry, which included guns, crossbows, swords and axes – instructed Humabon to hang back, while he waded ashore with an attack party of just 49 men.

They torched several houses in an attempt to scare the islanders, but this whipped Lapu-Lapu's warriors into a battle rage. In the resulting beachfront melee, where the Europeans were weighed down by their armour, Magellan was identified and injured by a bamboo spear thrust. Felled, he was surrounded and killed, along with several others. Their captain dead, the survivors retreated to the boats.

More deaths followed, when Humabon turned against the Europeans – possibly in support of Enrique, whom the sailors refused to release, despite Magellan's orders to do so in the event of his death. Several were poisoned during a feast, including Duarte Barbosa and João Serrão, who'd assumed leadership of the expedition. Juan Sebastián Elcano took command, and ordered an immediate departure.

LIMPING IN TO PORT

Five ships set off on Magellan's expedition but only one, *Victoria*, returned. It is thought their leader didn't tell the expedition's c270 sailors where they were going because they'd be too frightened. **Just 18** of the Europeans **survived**.

"NO MAP MAKER COULD HAVE PREPARED MAGELLAN FOR THE CRUSHING MAGNITUDE OF THE PACIFIC"

HOME AND DRY
Captained by Elcano, the *Victoria* rounds Cape St Vincent on the approach to home

TURN OVER TO EXPLORE THE *VICTORIA* - THE FIRST SHIP TO SAIL AROUND THE WORLD

SURVEYING THE SEAS OFF THE CHART

The newly-invented printing press, along with Renaissance-led artistic advances, heralded a revolution in map making during the 15th century. Now, detailed navigation charts could be produced, showing natural features and compass lines.

Reliable cartography and geographical knowledge remained valuable intellectual property, however, for economic, military and diplomatic reasons. They were jealously guarded, but there was collaboration, particularly among the Portuguese. Just as Diogo Cão benefited from Henry the Navigator's work, so Bartolomeu Dias provided expertise to Vasco da Gama on avoiding the doldrums, catching the Southern Trade Winds, and rounding the cape on his trip to India.

While explorers often travelled out blind, they lit up the world in their wake. Columbus didn't know where he was when he landed in the Bahamas in 1492, but with him was Juan de la Cosa, a Spanish cartographer. In 1499, de la Cosa accompanied Alonso de Ojeda to South America, after which he created the earliest European world chart

TO THE NEW WORLD

Cosa's sea chart shows the New World, so recently discovered, and features a **compass rose**. The Tropic of Cancer (*top*) and equator are shown in red and the Tordesillas line in blue.

to incorporate the Americas. Eight years later, the world map *Universalis Cosmographia* by German cartographers Martin

Waldseemüller and Matthias Ringman featured the first known use of the word America, and showed it unconnected to Asia.

Magellan worked with cosmographer Rui Faleiro – a pioneer in applying scientific methods for determining latitude and longitude – to plan his expedition. Portuguese cartographers Jorge Reinel and Diogo Ribeiro also developed charts for Magellan's journey, but no map maker could have prepared him for the crushing magnitude of the Pacific Ocean, previously uncrossed by

MAN WITH A PLAN

RIGHT: Cartographer Juan de la Cosa, who travelled with Columbus

MAIN: Cosa's 1500 sea chart

Europeans. In 1527, Ribeiro used data from Magellan's epic expedition to create the first scientific world map, the *Padrón Real*.

Magellan's crew kept a periplus, a book in which they documented day-by-day locations, distances and landmarks. This revealed that the expedition lost a full day during the westward circumnavigation, going against the rotation of the Earth.

A SAILOR'S LIFE

Life at sea was a struggle – the odds of staying alive and finding your way home were not good

Life on board ships in the Age of Discovery was typically uncomfortable, unhealthy, dangerous and monotonous. Many expeditions lasted for several years, during which extended periods of time would be spent on the open ocean, where sleeping and working conditions were woeful and the daily diet dreadful. Exposure, draconic discipline, cramped conditions and the ever-present scourge of scurvy were sailors' constant companions.

2 MILLION

The number of sailors estimated to have died of scurvy between 1500 and 1800

Ships were often manned by a mix of nationalities. As well as Spaniards and Portuguese, Magellan's fleet had sailors from as far afield as Sicily, England, France and North Africa. Ships were hierarchical: crew ranged from peasant pages (boys as young as eight, who did the most menial jobs) to skilled seamen such as the pilot, boatswain, gunner, carpenter and barber, who would also operate as the ship's surgeon and dentist. In between were the apprentices (*grumetes*) and sailors (*marineros*).

FRYING TONIGHT

This fishing set was probably used by crew to supplement their rations.

HARD TACK

Ship's biscuits of flour and water (dunked before eating) could last for years if kept dry.

RUB IT IN

A contemporary surgeon's canister, which held beeswax and poppy oil for inflammations.

FOOD

A sailor's main rations consisted of salt beef and pork, cheese, fish and some form of ship's biscuit (called hard tack by British sailors), usually full of maggots and weevils. Sailors drank large quantities of beer, which stored longer than water. During the Age of Discovery, food was cooked barbecue-style on the open deck, often by sailors who had been wounded and were unable to perform other tasks.

WATCH DUTY

A ship's crew was divided into three watches, rotating day and night. Columbus's crew worked four-hour shifts, measured using sandglasses (hourglasses). Glass bulbs allow a regulated trickle of sand from top to bottom. Once the top is empty, it is tipped to begin again. These usually measured 30 minutes, the length of time between 'bells', eight of which made up a watch.

EIGHT BELLS

A sandglass from the *Mary Rose*, the carrack-type ship of the English Tudor navy, built 1509-1511.



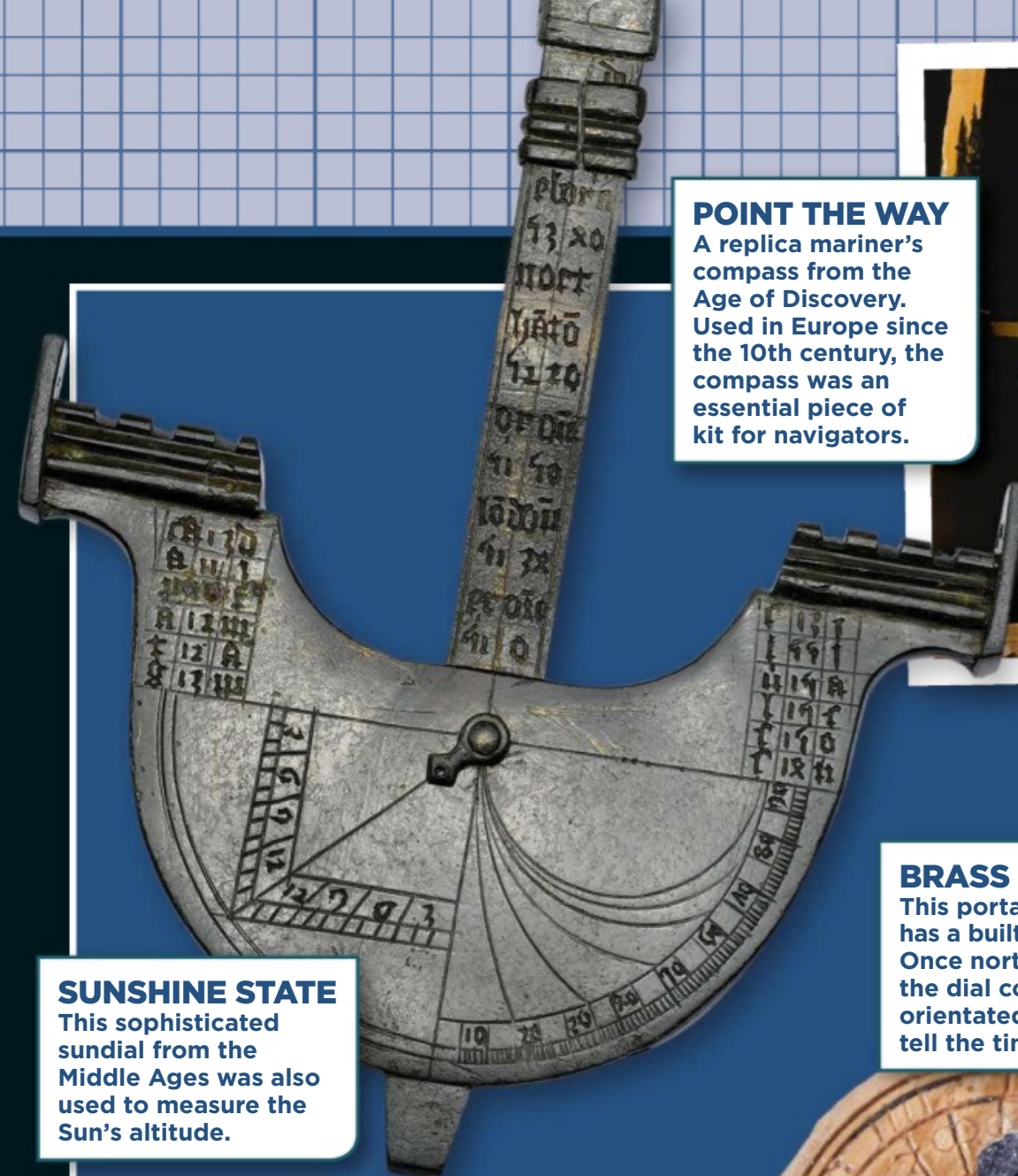
HEALTH

Scurvy, which rots skin and gums, causes teeth to fall out and can lead to insanity and death, was suffered by most sailors. They also fell ill from excess salt (from ship's meat). Infections and gangrene were common after injury, since surgeons operated in squalid conditions.

AMPUTATION

Surgeon's mallet from *Mary Rose*, for amputations, carried out without anaesthetic.





SUNSHINE STATE

This sophisticated sundial from the Middle Ages was also used to measure the Sun's altitude.

POINT THE WAY

A replica mariner's compass from the Age of Discovery. Used in Europe since the 10th century, the compass was an essential piece of kit for navigators.



BRASS IN POCKET

This portable sundial has a built-in compass. Once north was located, the dial could be orientated correctly to tell the time.



DEGREE OF LATITUDE

Astrolabes such as this helped measure latitude (north-south position on the Earth's surface) to plot a ship's course.



NAVIGATION

Correct navigation was life or death for sailors. Besides dead reckoning, which 'guesstimated' course and speed, seafarers also used a magnetic compass. With the help of instruments such as sea charts, astrolabes and backstaves, navigators used the Sun, the Pole Star and the horizon to work out the time and their position.

ROUGH SLEEPING

Sleeping on deck was dangerous, as seamen could be thrown about in high seas.



SLEEPING

Columbus first came across hammocks in the Bahamas. Before they were widely introduced on boats, sailors would sleep on the deck wherever they could find some space and a little comfort, perhaps resting on a coil of rope.



MUTINY!

Ringleaders would be executed, but ordinary mutineers were needed and often forgiven.

MAKING AN EXAMPLE

In 1520, mutiny broke out on the Magellan expedition, then in South America. Some leaders were killed then **drawn, quartered and impaled upon sticks**. Others were marooned on the coast. Most sailors were forgiven.

DISCIPLINE

To maintain order, rules were strict and penalties severe. The most common punishment was flogging, but other methods of discipline, borrowed from the Inquisition, included the *toca* (a form of waterboarding) and the *strappado*, in which men were strung up by their wrists.



EUROPEANS IN AMERICA

Explorers Columbus and Cabot could both have claimed they reached the New World first but, while one found fame, fortune (and later on, disgrace), the other almost disappeared from history

During the late 15th century, European eyes were firmly fixed on the Portuguese. They were making more and more headway on their mission to find a sea trading route with India in the east by sailing down the coast of Africa. That discovery, it was correctly anticipated, would trigger an earthquake in the global economy. With all of this to worry about, the powers of the world hardly noticed when two explorers with itchy feet set sail to the west.

The story of how these two adventurers – Christopher Columbus and John Cabot – both came to be in the employment of foreign powers and accidentally stumbled upon a new world is a remarkable one, and the impact of their efforts would change the course of human history.

INTREPID EXPLORERS

Few historical characters have a legacy quite as double-edged as that of Christopher Columbus. In popular history, the stubborn globetrotter from Genoa (then an independent state, now part of Italy) is lauded as the European who ‘discovered’ America – but in fact he didn’t have

a clue where he was when he landed on a beach in the Bahamas in 1492.

Worse, Columbus’s continued insistence that he’d found another side of the Indies – a claim that he clung to until his death – resulted in the Americas being named after a rival, Florentine explorer Amerigo Vespucci, one of his more clued-up contemporaries who knew they were exploring a new world.

“CABOT BEAT COLUMBUS TO THE MAINLAND OF THE AMERICAS BY AS MUCH AS A YEAR”

Monumentally mistaken Columbus may have been, but his expeditions were destined to have a profound effect on the course of history, and resulted in spectacular returns for his sponsors, Ferdinand II of Aragon and Isabella I of Castile, and their newly minted Spanish Empire. Yet it all ended in disaster, disgrace and disappointment for Columbus, with arrests, spells in chains, public humiliation, reneged-on agreements and bitter recriminations. Although he has been revered as a hero, more recently his

reputation has been blighted by revelations of horrific acts of violence and cruelty inflicted on indigenous people and on settlers.

But at least Columbus is remembered. Consider the plight of his compatriot John Cabot. John who? Well, exactly. Born Giovanni Caboto, he was another intrepid Genoese who left Europe in the 1490s, sailed west looking for the Orient and instead found new land – which indeed later became known as Newfoundland.

Cabot, who had lived for several years in Venice, was commissioned by England’s King Henry VII. He sailed from Bristol in a caravel called the *Matthew* in May 1497. A few weeks later, on 24 June, he landed in modern-day Canada, becoming the first known European to stretch his sea legs on North American soil since the Vikings.

Cabot may have beaten Columbus to the mainland of the Americas by as much as a year – depending on where he landed. The most commonly posited spot is Cape Bonavista, Newfoundland, but some suggest Nova Scotia, Labrador or Maine. It wasn’t until Columbus’s third trip across the Atlantic in 1498 that he went beyond the Caribbean and stuck a Spanish flag in South American soil, somewhere on the Gulf of



VOYAGE INTO THE UNKNOWN
ABOVE: Columbus sets off from Palos in Spain on his first voyage in 1492

RIGHT: Land ho! The explorer's moment of 'discovery' celebrated in a statue in Barcelona

GREAT EXPECTATIONS

Columbus had a lot at stake on his first voyage. His agreement with the Spanish crown was that he would become governor of any new lands and would keep **10 per cent of the wealth** he brought back.



ALL THIS COULD BE YOURS

Columbus, seen showing a map to Ferdinand and Isabella, gained royal support with the promise of new land and riches

Paria, in what's now Venezuela. He never ventured to continental North America.

Cabot has not just been neglected by posterity, he was under-appreciated in his own lifetime. In 1497, Henry VII rewarded "hym that founde the New Isle" with a prize of just £10. Although he did also receive a pension of £20 per year, perhaps he would have fared better if, like Columbus, he had shown up with evidence of gold instead of fertile fishing grounds.

COLUMBUS GOES WEST

Long before he set sail for the west, Columbus had set his mind on the idea. He was influenced by the theories of Florentine astronomer Toscanelli who, as early as 1470, had proposed that the best route to the east was to sail west, and sneak through the back door.

Formulating a plan he dubbed the 'Enterprise of the Indies', Columbus twice presented his ideas to Portugal's King John II. In

1485, John's royal experts

decided the would-be explorer had undercooked his estimated distances, and they were right. Columbus underestimated the size of the planet, and made a number of other critical geographical errors, including getting the distance represented by each degree of longitude wrong.

The second time he proposed a westward expedition, in 1488, his timing was terrible; Bartolomeu Dias had just rounded the Cape of Good Hope and the Portuguese were close to establishing a direct eastward trade route.

Frustrated, Columbus took his plans to France, England and, finally, Spain, where King Ferdinand and Queen Isabella



AMERICAN PIONEER

ABOVE: John Cabot embarks from the port of Bristol, 1497
INSET: Henry VII's commission to the explorer

RIGHT: Cabot lands on the mainland of the Americas, preceding the arrival of Columbus by around a year

rejected them several times until, in 1492, with the royal coffers running low after their successful campaign to subdue Granada, the last Muslim stronghold on the Iberian Peninsula, they agreed to take a chance on the tenacious Genoese.

On 3 August 1492, Columbus led a fleet of three ships, the *Santa María*, the *Pinta* and the *Niña*, into the Atlantic. Ten weeks later, on 12 October, terra firma was sighted.

After landing in what is now the Bahamas, Columbus spotted Cuba (which he thought was China) and explored Hispaniola (which he mistook for Japan). His flagship, the *Santa María*, was wrecked here, in present-day Haiti, while the crew were apparently drunk or asleep. Columbus ordered the ship's wood to be used to construct a fort, named *La Navidad*, or Christmas (as it was around 25 December), and left behind 39 men to set up a colony.

Columbus was a skilled sailor with good knowledge of the *volta do mar* ('turn of the sea', the Portuguese expression for trade winds) and he was back in Spain by March 1493. Ferdinand and Isabella, pleased with his bounty of gold, spices and even 'Indian' captives, gave him the title Admiral of the Ocean Sea. A fleet of 17 ships was made available for a second journey, and he sailed west again in September 1493.

Despite discovering that all the men he'd left in La Navidad had been killed by the indigenous

people of Hispaniola, Columbus dropped off a large contingent of settlers – between 1,200 and 1,500 – on the other side of the island, now the Dominican Republic. He left his two brothers in charge of the colony, christened La Isabela. On this trip he explored the Lesser Antilles, Puerto Rico, Jamaica and Cuba, but his welcome back was less enthusiastic, as the expedition's gains hadn't covered its costs.

Against the backdrop of Vasco da Gama's attempt to sail from Portugal around Africa to India, Ferdinand and Isabella commissioned a third transatlantic trip in 1498. This time, Columbus was instructed to locate a strait through the landmass he'd discovered, to the unknown ocean on the other side, where, they assumed, India lay waiting.

After visiting Trinidad, he finally landed on the South American mainland (in present-day Venezuela) in August 1498, and sighted the mouth of the Orinoco River. The immense

6
The approximate miles that a young Columbus swam to shore after being shipwrecked near Portugal in 1476

**EXPERT VIEW**

*Dr Evan Jones,
Cabot Project,
University of Bristol*

THE CONSEQUENCES OF THE AGE OF DISCOVERY ARE STILL FELT TODAY

Which was the greatest single journey made during the Age of Discovery?

The greatest voyage in terms of its consequences was that of 1492. Whether you regard Columbus as brave or mad is another matter.

What sparked the explosion of exploratory zeal across Europe?

Fear, then greed. In the 15th century, fear of Ottoman expansion in south-east Europe, plus the power of Islamic states, kicked off the voyages. As profits began to be made, people became convinced that exploration could yield great returns.

How much public interest was there in the exploits of the explorers?

Most people would have barely been aware of the voyages and nobody foresaw their long-term consequences. What we see as the most important were not necessarily regarded as such at the time. Da Gama's return from India in 1499 caused consternation to those in Mediterranean commerce because it had such potential to disrupt trade networks, wrecking the economy of Venice, in particular. The voyages to the Americas of the 1490s attracted less interest until the 16th century.

Why has Cabot largely been ignored?

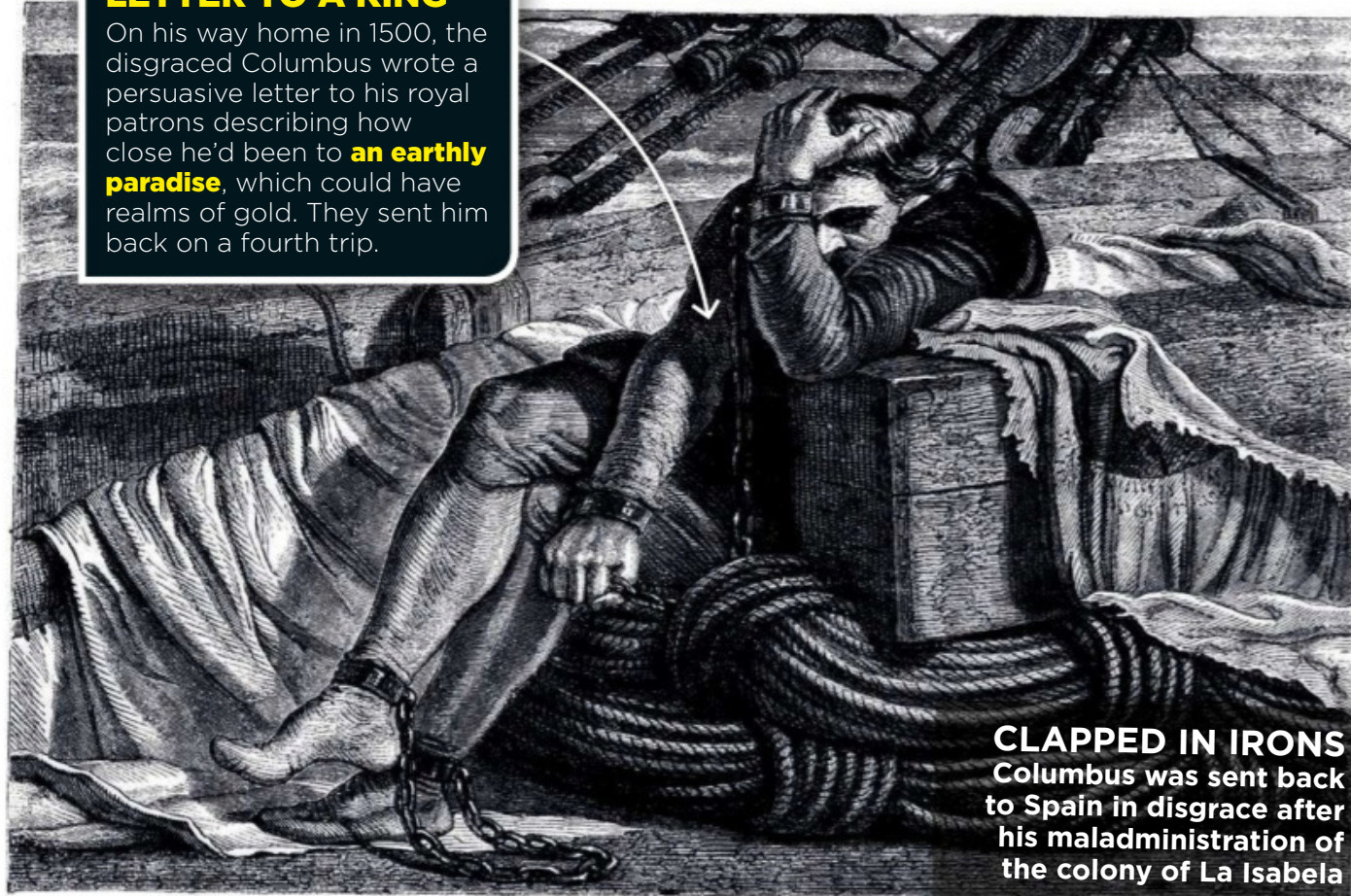
Mainly because little was recorded about his voyages at the time. By 1508, following a decade of voyages from Bristol to the New World, it seemed they'd failed. Europe wanted trade routes to the east or people to trade with. In North America it found neither.

Why do we remain so fascinated with these explorers today?

In the 16th to 19th centuries, people became fascinated by the discovery voyages as their long-term consequences became apparent. That the US is today the world's global superpower is, after all, just one consequence of 1492.

LETTER TO A KING

On his way home in 1500, the disgraced Columbus wrote a persuasive letter to his royal patrons describing how close he'd been to **an earthly paradise**, which could have realms of gold. They sent him back on a fourth trip.



CLAPPED IN IRONS
Columbus was sent back to Spain in disgrace after his maladministration of the colony of La Isabela

"FAR FROM VANISHING, CABOT EXPLORED THE ENTIRE EAST COAST OF NORTH AMERICA"

Columbus told him he was standing on a continent, not an island, and the devout explorer believed it could be Eden. Thoughts of paradise were quickly dispelled, however, when he called in to La Isabela and found the settlers in open revolt. They were livid about being misled by promises of wealth in the New World and resentful of the despotic rule of the Columbus brothers. He restored order with a brutal vengeance, but Ferdinand and Isabella had already sent the Spanish Chief Justice to investigate and, in 1500, Columbus was hauled back to Spain in chains.

POLITICAL STORM

Meanwhile, in May 1498, Cabot had left Bristol on another Atlantic expedition. This time he had five ships (one of which may have been abandoned

in Ireland after a storm) and was allegedly accompanied by several friars. At this point, Cabot sails into some serious sea mist. Very little information about his fate exists, and for years most historians assumed he was lost at sea.

However, the foremost expert on his life, the late Dr Alwyn Ruddock, thought that far from vanishing, Cabot actually explored the entire east coast of North America, claiming it all for the British crown. The historian found evidence that Cabot travelled as far as South America, where he ran into one of Columbus's captains, possibly Alonso de Ojeda, and blundered into the eye of a political storm.

According to the Treaty of Tordesillas, these western lands were Spain's to explore and exploit. Henry VII was in the middle of arranging a marriage between his son, Arthur, and Catherine of Aragon, daughter of Ferdinand and Isabella, to cement an alliance against France. Things were delicately poised and Cabot's wanderings threatened to compromise

Henry VII's plans. As a result, news of the explorer's achievements was subdued.

Ruddock believed that Cabot quietly returned to Bristol in 1500, and died shortly afterwards. Unfortunately, she never published her full findings and ordered that all her notes be destroyed after her death in 2005. The Cabot Project at Bristol University is attempting to put the jigsaw back together, and discover the true extent of John Cabot's travels and achievements.

So how did the story end for Columbus? Despite being dragged back in disgrace from

20

The pension, in pounds, that Henry VII granted to John Cabot upon his discovery of North America

**GONE WEST**

A statue of Cabot graces the docks at Bristol, the port from which he embarked in 1497

his third trip, the explorer was sent on a fourth expedition by Ferdinand and Isabella, who had developed a royal appetite for the riches he had hinted at on the new continent. He left in May 1502, on a mission to locate a passage through to India and collect gold.

A CASTAWAY

This final journey was a disaster. Columbus became stranded on present-day Jamaica when his ships became unseaworthy. With his crew, he lived as a castaway for a year, until eventually being rescued after two of his captains had canoed 450 miles to Hispaniola to raise the alarm.

Christopher Columbus finally returned to Spain in November 1504. Queen Isabella died a few weeks later, and he never managed to get another audience with King Ferdinand.

The explorer himself died on 20 May 1506, a wealthy but embittered man and one who left an extraordinary legacy. 📍

WELSH WANDERERS

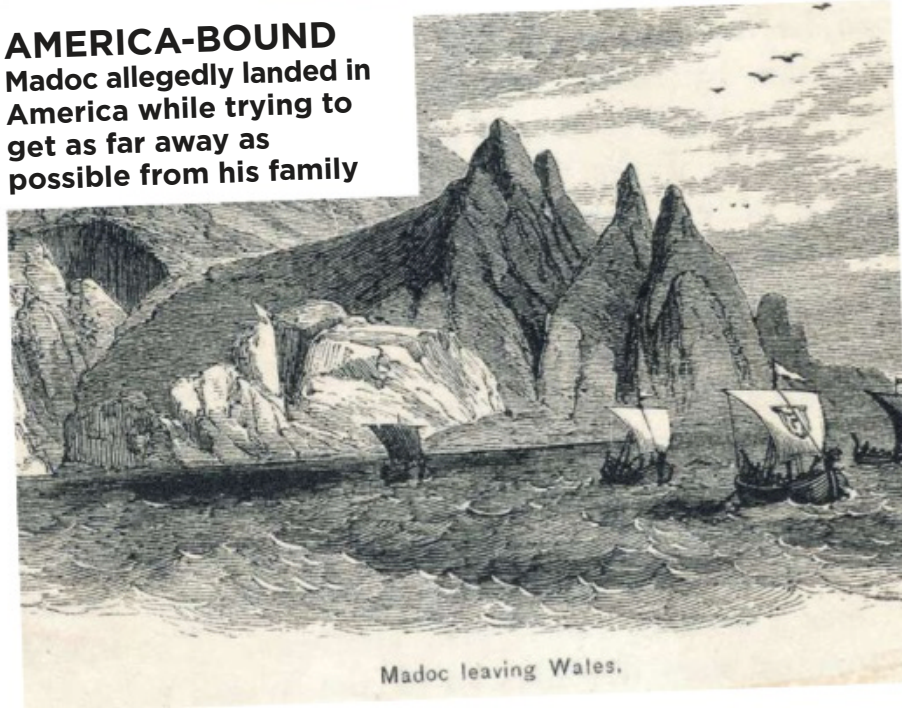
Did a Welshman reach America in 1170?

The Vikings crossed the Atlantic around 1000, some 500 years before Columbus was beached in the Bahamas and Cabot

crashed into Canada. But did a Welshman beat both men to the Americas? An intriguing legend tells of Prince Madoc and his brother Rhirid who, in 1170 – upset with family infighting after the death of their father, the Welsh king Owain Gwynedd – upped sticks and set sail west, all the way across the Atlantic to a new land where they settled among the indigenous population.

The story was given substance by the discovery of some Native American tribes with a dialect that sounded very much like Welsh. Moreover, the Mandan Indians used boats with the same design as traditional Welsh coracles. The yarn was popular currency in Elizabethan England, when it was retold by respected writers such as Richard Hakluyt. It was used as propaganda to back up the crown's claims to land already requisitioned by the Spanish. Sadly, there's no hard archaeological evidence to support it.

AMERICA-BOUND
Madoc allegedly landed in America while trying to get as far away as possible from his family



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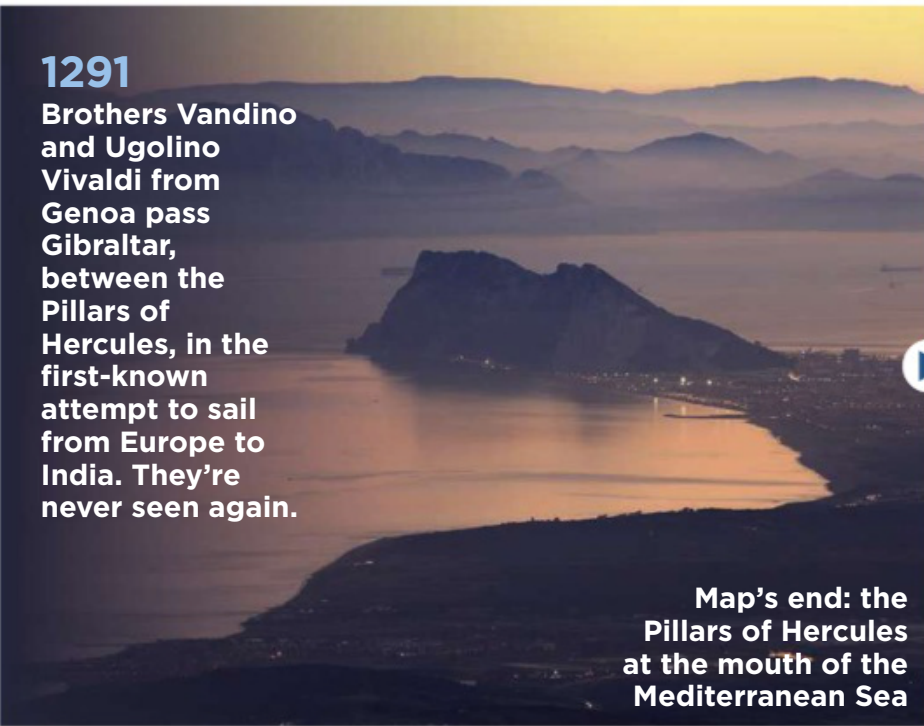


Lucy Worsley



TIMELINE Milestones in

With few charts to guide the way, early European navigators risked danger



1291
Brothers Vandino and Ugolino Vivaldi from Genoa pass Gibraltar, between the Pillars of Hercules, in the first-known attempt to sail from Europe to India. They're never seen again.

Map's end: the Pillars of Hercules at the mouth of the Mediterranean Sea



c1450
Sponsored by Portugal's Prince Henry the Navigator, the agile caravel ship is developed, allowing explorers to venture further and faster.

29 MAY 1453
The fall of the Christian city of Constantinople (now Istanbul). The Ottoman Empire's capture of the key city slams the door on overland trade routes between Europe and the east – making the discovery of a sea route imperative.



28 AUGUST 1481
John II becomes Portuguese King, rekindling efforts to explore Africa's coast in search of a sea route to the Orient.



27 APRIL 1521
Magellan dies in battle at Mactan (Philippines). By the time the expedition limps back to Spain on 6 September 1522, via the Indian Ocean, it is led by Spaniard Juan Sebastián Elcano. The ship he commands, the *Victoria*, has made the first circumnavigation of the world.

20 SEPTEMBER 1519
Portuguese explorer Ferdinand Magellan leads a large Spanish expedition into the Atlantic, seeking a western route to the Orient via South America.

1507
German cartographers Waldseemüller and Ringmann produce the *Universalis Cosmographia*, a world map containing the first use of the word America and showing that the New World is unconnected to Asia.

MAY 1502
Columbus begins his fourth and final journey across the Atlantic. It ends in disaster and a year spent stranded on Jamaica.



1524
Italian Giovanni da Verrazzano explores the Atlantic coast of North America, including New York Bay.

24 JULY 1525
Spaniard García Jofre de Loaísa leads a large fleet to Asia via the western route, intending to colonise the Spice Islands in the East Indies for Spain. One ship accidentally rounds Cape Horn. The expedition ends in disaster and the death of de Loaísa, Elcano and hundreds of others.

1543
Portuguese traders, thought to include the writer and explorer Fernão Mendes Pinto, arrive at Tanegashima, Japan, by mistake, and become the first Westerners to trade with that Asian nation.

1558
Mary I, Catholic Queen of England and wife of Philip II of Spain, dies. She is succeeded by the Protestant Elizabeth I. This new clash of religions, among other factors, leads to a breakdown in relations between England and Spain.

1565
Spanish navigator Miguel López de Legazpi pioneers a cross-Pacific route between Mexico and the Philippines, knitting together trade links that join China, the Americas and Europe via the combined Pacific and Atlantic crossing routes.



ALAMY X6, GETTY X5, REX/SHUTTERSTOCK X2

the Age of Exploration

and death to seek treasure and new lands

**JANUARY
1488**

Portugal's Bartolomeu Dias leads the first European expedition to survive rounding the Cape of Good Hope and the Southern tip of Africa.

12 OCTOBER 1492

Christopher Columbus makes landfall on an island in the Bahamas, believing he has reached the Indies. Unbeknown to anyone at the time, it's a pivotal moment in Western history.



**25 SEPTEMBER
1493**

Columbus embarks from Cádiz, Spain, heading off on a second mission, with 17 ships and a large colony of settlers bound for Hispaniola.

7 JUNE 1494

Portugal and Spain sign the Treaty of Tordesillas, claiming authority over all new land to the east and west (respectively) of an imaginary meridian line running down the Atlantic.

30 MAY 1498

Columbus departs from Sanlúcar, Spain for his third transatlantic expedition, landing for the first time on the mainland of the Americas, in what is now Venezuela.

20 MAY 1498

Portuguese explorer Vasco da Gama arrives at Calicut in Kerala, India, directly connecting Europe to the lucrative spice trade and unleashing a tsunami of change that will sweep across the Western and Eastern worlds.

24 JUNE 1497

Setting out from Bristol, the *Matthew*, captained by John Cabot, a Genoese-born Venetian employed by Henry VII, lands in Newfoundland. The crew are the first-known Europeans on North American soil since c1000, when Vikings landed.

1500

Spanish cartographer Juan de la Cosa completes the first world map to include the New World (the Americas).

JUNE 1579

Francis Drake lands in modern-day California, claims all of America north of New Spain (now Mexico) for the English crown, and names it *Nova Albion* (New Britain).

**26 SEPTEMBER
1580**

On the *Golden Hind*, Francis Drake sails into Plymouth. His ship is not only full of spices and purloined Spanish bounty, but has just completed what may have been the second-ever circumnavigation of the globe.

1584

Elizabeth I grants the English adventurer and writer Walter Raleigh a charter to colonise America.

1585

As a result of religious conflict and commercial disputes over trade with the New World, the Anglo-Spanish War begins. It rages on and off until 1604.

24 MARCH 1603

Queen Elizabeth I dies, bringing the Tudor age of exploration to an end.



ON THE HIGH SEAS

Drake **sailed round the world** in the *Golden Hind*. All that remains of the original are a chair made of the timbers, at the Bodleian Library, Oxford, and a table at Middle Temple, London. This working reconstruction was built in the seventies and is based in London.



SIR FRANCIS DRAKE ENGLAND'S SEA DRAGON

The first Englishman to sail around the world, Drake was feted at home for filling Elizabeth I's coffers with stolen treasure, but hated by Spain, who feared the man they called '*El Draque*'

The Protestant Queen Elizabeth I ascended the English throne in 1558, succeeding her half-sister Mary I, a Catholic who'd been married to King Philip II of Spain. The relationship between the two European powers quickly soured.

Philip considered Elizabeth a heretic and felt duty bound to protect England's Catholics. The new Queen observed with alarm and resentment the growing wealth and power of the Spanish, as they extracted a seemingly endless supply of treasure from their new territories in the Americas.

Fuelling the Spanish King's anger and delighting the English Queen in equal measure were the buccaneer-like shenanigans of a swashbuckling English sea captain called Francis Drake, known to the Spanish, who considered him a pirate, as *El Draque* – the Dragon. The eldest of 12 sons born to a Protestant farmer and vicar in Tavistock, Devon, in around 1540, Drake's seafaring career began early, when he was apprenticed to a neighbour who owned a trading barge. From such lowly beginnings he would become vice admiral of the English fleet and a knight of the realm. He is remembered as an icon of the

Tudor age and one of the most famous English naval leaders in history.

Drake was first and foremost a privateer, captaining a private ship given permission by the crown (often unofficially) to attack enemy ships. His popularity was built on the hurt he inflicted on England's enemy, Spain, although it began in less-than-glorious circumstances. During a slave-running expedition with his cousin Sir John Hawkins, an English pioneer of

mule train, Elizabeth engaged him on a secret mission. She wanted him to explore the Pacific coast of the Americas, disrupting Spanish activities along the way.

Under the pretence of a voyage to Alexandria, Drake would leave Plymouth with a flotilla of ships and travel across the Atlantic with Thomas Doughty (a nobleman and soldier) and John Wynter (a sea captain, later an admiral) through the Strait of Magellan into the Pacific.

As well as harassing the Spanish, they were also to search for the rumoured, but elusive, Northwest Passage. This, it was hoped, would connect the Atlantic and Pacific.

Although command of the expedition was supposedly shared between the three senior

men, Drake quickly assumed leadership. As the only one of the trio to complete the full journey, he is credited for its achievements, which were considerable. He may not have found a north-west route to the Orient, but the three-year odyssey saw Drake complete the second-ever circumnavigation of the world, claim North America for the English crown and bring back enormous wealth for his Queen and country.

The epic voyage began disastrously. Horrendous weather ended the first attempt at a launch shortly after the boats set sail on 15 November 1577, and they were forced to seek shelter in Falmouth, Cornwall. On 13 December, they left Plymouth for a second time, with five ships: the 100-ton, 18-gun flagship the *Pelican*, plus the *Elizabeth*, *Swan*, *Marigold* and *Benedict* (later swapped for the *Christopher*). There were

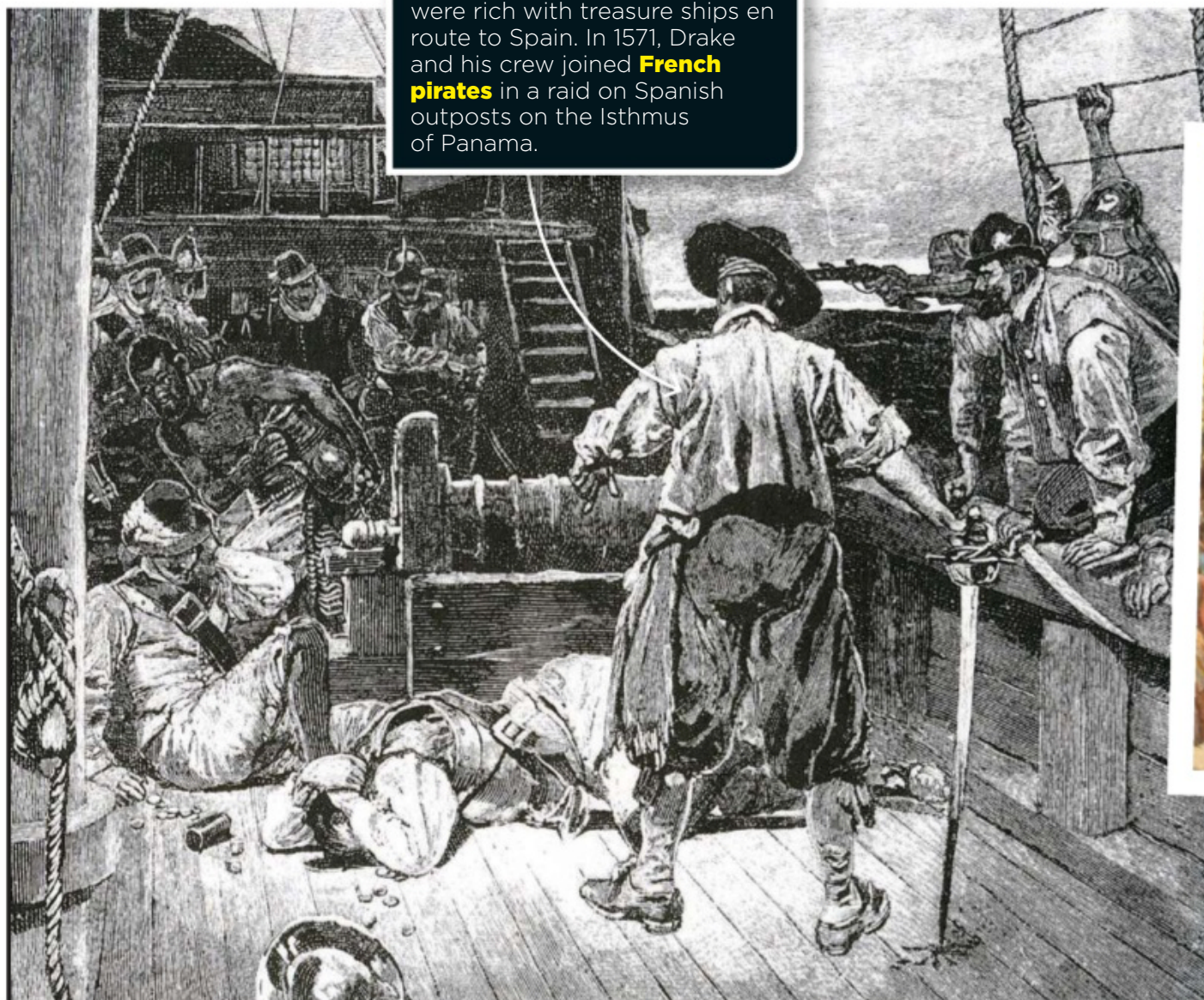
“DRAKE WAGED A VIOLENT VENDETTA AGAINST PHILIP II'S INTERESTS, POCKETING AS MUCH TREASURE AS HE COULD”

the trade in humans, Drake narrowly escaped with his life when they came under attack from the Spanish in the port of San Juan de Ulúa, in modern-day Mexico, in 1568. Thereafter, Drake waged a violent vendetta against Philip II's interests around the globe, pocketing as much treasure as he could in raids that were wholeheartedly, if clandestinely, encouraged by the English monarch.

In 1577, shortly after Drake had conducted a chaotic but lucrative attack on the Isthmus of Panama (on the Spanish Main), where he stole 20 tons of gold and silver from a Spanish

SCOURGE OF SPAIN

The seas by the **Spanish Main** (the mainland of Spanish America) were rich with treasure ships en route to Spain. In 1571, Drake and his crew joined **French pirates** in a raid on Spanish outposts on the Isthmus of Panama.



DRAKE'S TRAVELS

ABOVE: Drake gets his first view of the Pacific Ocean at the Isthmus of Panama, the narrow strip of land between Pacific and Atlantic
LEFT: Drake (boarding, right) and his crew seize a Spanish ship at Santiago, Cape Verde



PERMIT FOR PIRACY

Letters from Elizabeth I to Drake about his 'trading voyage', 1587

164 men, including Drake's brother, Thomas. A sixth boat was added to the flotilla when it was pinched from the Portuguese south of Morocco. A small vessel, it was renamed the *Mary* and captained for a time by Doughty.

After resupplying on the Cape Verde Islands, the party travelled west across the Atlantic. The journey was tortuous, and when they approached the South American coast in May 1578, so many crew members had been lost that the *Christopher* and the *Swan* were scuttled because there was insufficient crew to sail them. Later on in the trip, the *Mary* was also burned when rotten beams were discovered.

WITCHCRAFT AND MUTINY

In June, the party made landfall at Puerto San Julian in present-day Argentina, where the bleached remains of Magellan's mutineers were still hanging from gibbets on which the Portuguese explorer had left them in 1519.

Drake believed he was facing a mutiny of his own. He'd become increasingly hostile to Doughty during the awful Atlantic crossing, particularly after the latter had caught his brother, Thomas Drake, stealing supplies. Doughty had been taken off the *Mary* and eventually placed in command of the small supply ship the *Swan*, a major insult to the nobleman. At one point, the *Swan* had been separated from the other boats during a huge storm; when it rejoined the fleet, Drake had accused Doughty of witchcraft.

All the ills of the unlucky expedition were blamed on Doughty and, when the unhappy party reached San Julian, he was put on trial for mutiny, witchcraft and treason. Perhaps inspired by Magellan's macabre example, Drake ordered Doughty to be beheaded. Drake had dubious authority to carry out such a trial and pass a death penalty, and the incident remains controversial. Shortly afterwards, the *Pelican* was renamed the *Golden Hind*, apparently to honour (or perhaps pacify) Christopher Hatton, a major sponsor of the expedition who had employed Doughty as his private secretary, and whose family crest contains a hind.

108

The number of men who went to Roanoke, the colony planned by Raleigh, in 1585

SIR WALTER RALEIGH

The explorer who dreamed of El Dorado

After Drake claimed North America for England in 1579, several attempts were made to establish colonies in Nova Albion. The earliest was organised by another man who'd caught the Queen's eye: Walter Raleigh. An aristocratic soldier, Raleigh's early career was spent in Ireland. In 1584, Elizabeth granted him a charter to establish a colony in America, essentially to gain a foothold in the continent and provide a base from which the English could attack the Spanish. He would name the area Virginia, in honour of the Virgin Queen.

Raleigh never travelled to North America, but in 1584 he organised an exploratory expedition that travelled up the east coast and identified Roanoke Island, in present-day Carolina (then Virginia), as a potential site. The next year, Raleigh's cousin, Sir Richard Grenville, took 108 men to Roanoke to begin work.

Eight months later, after Grenville failed to return with promised supplies, and locals had attacked them, the colonists gratefully accepted a lift back to England with Francis Drake, who dropped in on his way back from raiding the Spanish in the Caribbean. With them, the returning pioneers brought tobacco, potatoes and maize. Grenville arrived at the deserted colony shortly afterwards and left a contingent of men to look after the place – they were never seen again.

In 1587, Raleigh tried again to organise a colony in Virginia. The colonists – men, women and families – were left under the governorship of John White.

After an attack by hostile locals, White came back to England to seek extra help. He wasn't able to return for three years because of the Anglo-Spanish war, and by that time the entire group (90 men, 17 women and 11 children, including White's daughter and baby granddaughter) had disappeared. It was another 17 years before the Colony of Virginia became properly established.

Meanwhile, after getting one of Elizabeth's ladies-in-waiting pregnant and marrying without the Queen's consent in c1591, Raleigh spent time in the Tower of London. He was released to conduct an attack on the Spanish in 1592.

Hearing Spanish rumours of a golden city at the headwaters of the Caroní River, Raleigh set off to explore parts of modern-day Guyana and Venezuela in 1595. The following year, back in Europe fighting in the Anglo-Spanish War, he was injured during the capture of Cadiz.

After Elizabeth died in 1603, Raleigh was accused of plotting against King James and spying for Spain. Sentenced to death for treason, he was imprisoned in the Tower until 1616, when he was released to go to Venezuela in search of El Dorado.

While there, his men attacked a Spanish outpost, contravening the peace treaty recently signed with Spain. On Raleigh's return to England, the Spanish ambassador demanded his death penalty be reinstated. On 29 October 1618, he was beheaded.



RALEIGH'S MYSTERY

ABOVE: When relief reached the Virginian colony in 1590, the crew found it deserted
RIGHT: Raleigh fell out of Elizabeth I's good books when he secretly married

THE LOST COLONY

The colony governor left Virginia to get help, but on his return, all he found were the words 'Croatoan' carved into a tree, and 'Cro' into another. **There was no sign of a struggle.** The fate of the colonists is a mystery that intrigues historians to this day.

**FROM PIRATE
TO KNIGHT**

To avoid censure from Spain, no official inventory was made of the treasure Drake brought home. Only he and the Queen knew the exact sum but it was more than **enough to earn him a knighthood.**

**“DRAKE’S HAUL IS
ESTIMATED TO BE
WORTH £7 MILLION
IN MODERN MONEY”**

ARISE, SIR FRANCIS
Queen Elizabeth knights
Francis Drake on the deck of
his ship, the *Golden Hind*

In September 1578, after over-wintering in Patagonia, the depleted flotilla negotiated the Strait of Magellan and entered the Pacific. The ocean was in a very different mood to the one Magellan had encountered 58 years earlier, when he named it. Drake and his crews were hit by a terrible tempest, which drove them south towards Cape Horn. The storm sank the *Marigold* and separated the two remaining boats for so long that the *Elizabeth*, captained by Wynter, eventually limped back to England, believing the *Golden Hind* to be lost.

Undeterred, Drake turned north and proceeded to attack Spanish ports and ships all along the coast of modern-day Chile. Although these raids were largely successful, with valuable seafaring charts being among the spoils, Drake was injured during a conflict with the indigenous Lafkenche people on Mocha Island, an encounter that left him with a deep scar on his face.

After sacking the port of Valparaíso, Drake seized control of a ship full of Chilean wine, but it was off the coast of Peru that he really hit the jackpot. Near Lima, Drake’s men captured a Spanish vessel packed with Peruvian gold.

The haul has been estimated to be worth the equivalent of £7 million in modern money, but even more valuable was the intelligence he acquired along with the booty.

UNIMAGINABLE TREASURE

Drake learned of the *Nuestra Señora de la Concepción* (nicknamed *Cacafuego* – ‘the freshtitter’), laden with even greater treasure, which was heading for Panama. He caught up with the galleon on 1 March 1579, close to Esmeraldas in Ecuador. He disguised the *Golden Hind* as a merchant ship until he came alongside the treasure ship and demanded that her captain surrender. The Spanish were taken by surprise and, after a very brief struggle, the English captured the ship and with it a massive swag that included 26 tons of silver, 36 kilos of gold, and an enormous amount of jewels.

It was Drake’s greatest haul and the flamboyant privateer, giddy with success, threw a dinner party for the occupants of the ship. He then put them ashore with a little souvenir of their experience (jewellery to match their rank) and a letter of safe conduct.

26

The number of tons of silver seized by Drake from one Spanish treasure ship

**BEFRIENDING THE LOCALS**
Drake established friendly relations with the Coast Miwok Native Americans

Heavy with bounty, but still in search of prey and looking for a potential northern trade route, Francis Drake travelled up the American coast, possibly as far as the 38th parallel (just north of present-day San Francisco) before landing on the shores of what is now California on 17 June 1579. Here he audaciously claimed all of America north of New Spain, from “sea to sea”, in the name of the English crown, naming it *Nova Albion* – New Britain.

After forging good relations with the Coast Miwok Native Americans, Drake and his men stayed at this natural port for long enough to repair their boats and stock up for their return. The exact location of the spot is a matter for conjecture (it was a closely guarded secret at the time, with maps and charts sometimes altered so as to confuse the Spanish).

WORLD TRIP

Whether or not Drake intentionally set out to complete a circumnavigation of the globe is another subject open for debate, but when he left the Americas he went south-west, searching for the winds that would carry him across the Pacific.

In November 1579, the *Golden Hind* reached the Moluccas (the Maluku Islands, an archipelago in present-day Indonesia), where Drake established trading relations with the Sultan of Ternate and took on six tons of cloves. The ship grounded on a reef in January, and all her treasure was almost lost, but after one day she was afloat again and en route to Java. Striking out across the Indian Ocean, the

LEGEND OF THE DRUM

Drake left behind him a drum that he'd taken round the world. Allegedly, he said if England was in danger someone was to beat the drum and **he'd return to defend his country**. Legend has it that it was heard when World War I broke out.



BURIAL AT SEA

ABOVE: Drake is delivered up to the sea, despite having asked to be buried on land
LEFT: Drake took this drum, which shows his coat of arms, on his voyages

crew rounded the Cape of Good Hope without pause, and by 20 July were off the coast of Sierra Leone. Finally, on 26 September 1580, Drake sailed the *Golden Hind* triumphantly back into Plymouth, with 56 men and an almost unimaginable bounty of treasure on board.

Despite its rocky start and misadventures on the way, the expedition had been a huge success financially. Of the loot that accompanied Francis Drake on his return, Elizabeth I's claim was significant. The sum was greater than all the rest of the crown's income for that year, and the

treasure trove cleared England's foreign debt. Drake was knighted aboard the *Golden Hind* and his status as an English hero was cemented.

Any pretence of friendship with Spain crumbled, and within five years the nations were at war. Drake was part of the English command that famously inflicted a humiliating defeat on Philip's Armada, ending Spain's dominance of the seas. His later career involved several less-successful battles against forces in Spanish America, shortly after one of which he died of dysentery aged about 55. He was buried at sea near Portobelo in Panama, in full armour and encased in a lead coffin. 🎯

GET HOOKED!

Our shortlist of where to find out more about the exciting Age of Discovery

MUSEUMS AND MONUMENTS



▲ GOLDEN HINDE, BANKSIDE, LONDON

Fully working reconstruction of Drake's flagship. Tours with costumed actors bring the history of the ship to life with tales of his voyages.
www.goldenhinde.com

ALSO LOOK OUT FOR

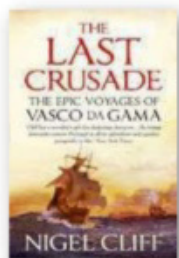
- Buckland Abbey, Drake's Devon home www.nationaltrust.org.uk
- The Matthew, Bristol, a replica of Cabot's ship www.matthew.co.uk
- The Mary Rose Museum, Portsmouth www.maryrose.org

BOOKS



ELIZABETH'S SEA DOGS: HOW ENGLAND'S MARINERS BECAME THE SCOURGE OF THE SEAS

by Hugh Bicheno (Conway, 2012)
The story of the privateers, including Drake, Raleigh and others.



THE LAST CRUSADE: THE EPIC VOYAGES OF VASCO DA GAMA

by Nigel Cliff (Atlantic, 2012)
A well-written, lively and stirring book that tells the story of da Gama's exciting adventures.

ALSO LOOK OUT FOR

- The Race to the New World: Christopher Columbus, John Cabot, and a Lost History of Discovery by Douglas Hunter (Macmillan, 2011)
- Maps: Their Untold Stories by Rose Mitchell & Andrew Janes (Thomas Reed, 2014)
- Magellan's World by Stuart Waldman (for younger readers; Miyaka Press, 2007)

ON SCREEN



1492: CONQUEST OF PARADISE (1992)

Epic drama by Ridley Scott, telling a fictionalised story of the first voyage to the New World by Christopher Columbus.

ALSO LOOK OUT FOR

- The Sea Hawk (1940) with Errol Flynn is a piece of WWII propaganda, loosely based on Drake's exploits

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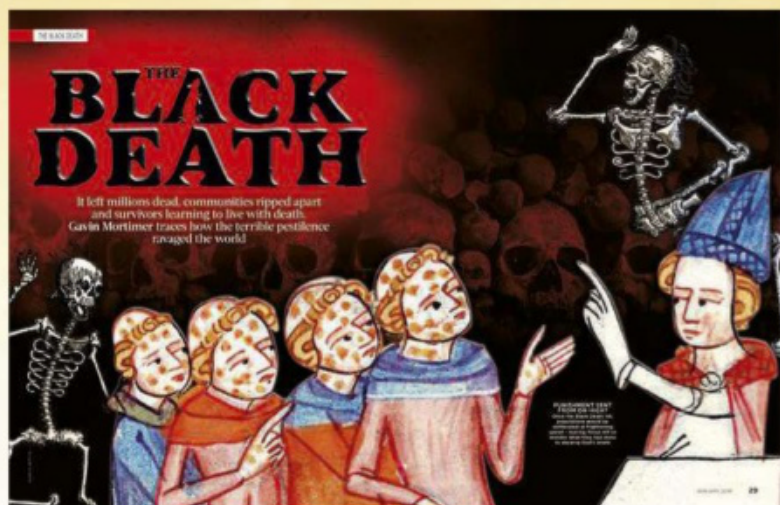
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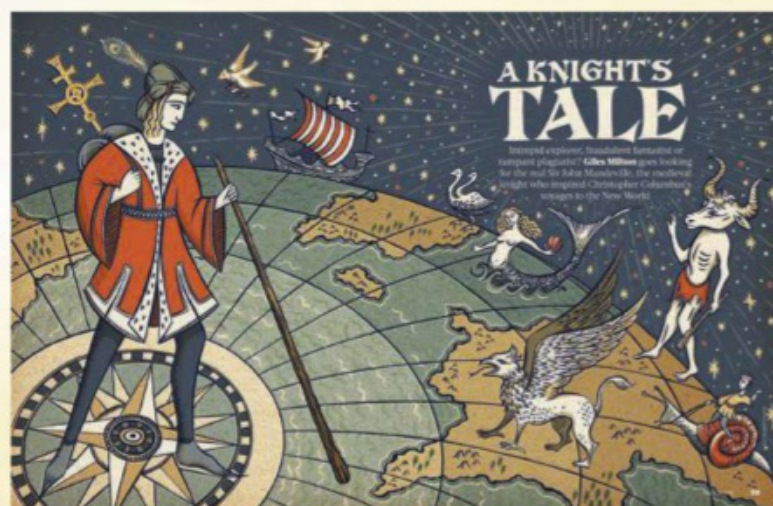
IN PICTURES – WOMEN IN WORLD WAR I



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IBN BATTUTA'S WORLD TOUR

Meet a 14th-century Moroccan globetrotter, whose 29-year journey led him over 75,000 miles across three continents, visiting some 44 modern-day countries...

ALAMY

**“I braced my resolution
to quit all my dear ones,
female and male, and
forsook my home as birds
forsake their nests”**

Ibn Battuta



THE GREAT DESERT
A caravan treks through the
Sahara in Mali - Ibn Battuta
crossed the same sun-baked
sands some 665 years ago

Like Marco Polo, Ibn Battuta's adventures weren't recorded until he'd stopped travelling – and some of his claims are deemed questionable. Yet the book about his wanderings, *Rihla (Journey)*, remains a fascinating portal into Dar al-Islam – the medieval Muslim world – and an important source of information about everything from politics and geography through to cultural attitudes.

Yet his wasn't a carefree sojourn. During the course of his travels, Battuta was accosted by bandits and pirates, shipwrecked, became

embroiled in battles and nearly executed by a notoriously unhinged sultan.

MOROCCO TO MECCA

Born in 1304 in Tangiers, Ibn Battuta studied Muslim law before beginning his first pilgrimage in 1325, setting out solo by donkey along the Maghreb (coastal North Africa) towards Egypt.

After traversing the Moroccan mountains, he joined a caravan. When he fell ill, Battuta's companions tied him into his saddle and he spent two months in a Tunis *madrassa* – an educational institution – recuperating. Leaving as part of a bigger hajj group, he was appointed the caravan's *qadi*, or Islamic judge.

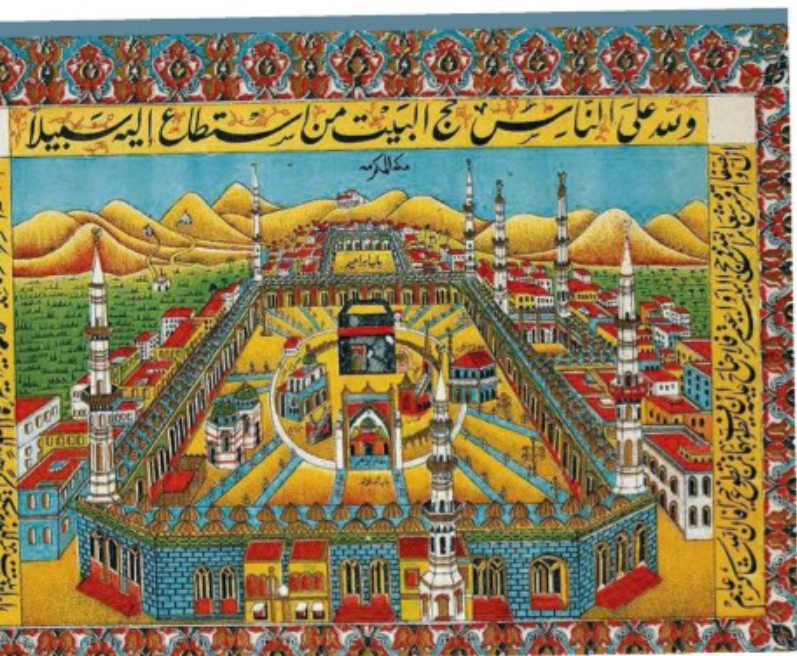
During an eventful crossing of Libya, Ibn Battuta married twice, separated once, and survived an encounter with a gang of sword-waving camel robbers. In the busy harbour city of Alexandria, he beheld the Pharos, an ancient

lighthouse and one of the Seven Wonders of the Ancient World.

In 1326, he reached Cairo, passing the pyramids of Giza. He attempted the less-travelled route to Mecca, via the Nile Valley and Red Sea, but was forced to turn back by an uprising. He then tried the Royal Road, visiting Hebron, Jerusalem and Bethlehem en route to Damascus. Here he describes the Cave of Blood, where Cain supposedly dragged the body of his murdered brother Abel.

Although in Damascus for only 24 days – during Ramadan, when he also fell ill – Ibn Battuta managed to marry again, father a son (whom he never met) and get divorced. Joining another caravan, he then continued to Medina, visiting Muhammad's grave, before reaching Mecca, where he earned the honorific status of 'al-Hajji' (given to Muslims who complete a pilgrimage).

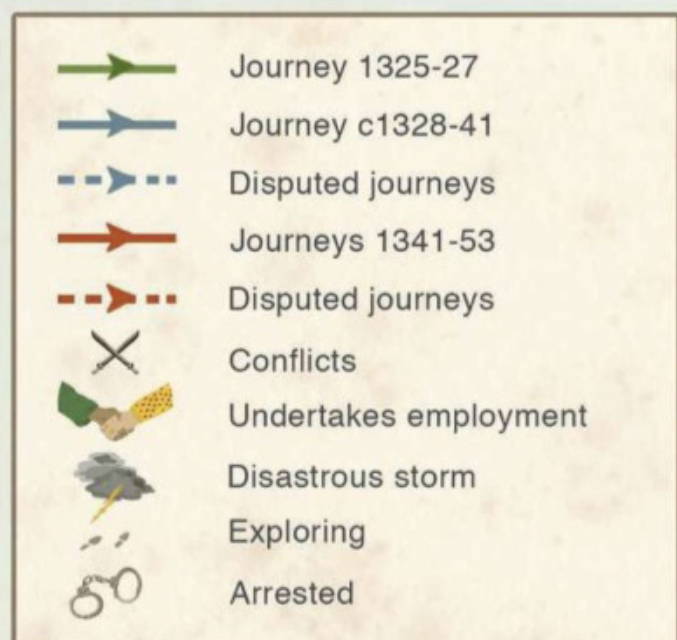
Ibn Battuta then spent six months exploring



THE GREAT MOSQUE OF MECCA
The ultimate destination for those undertaking a hajj, which Ibn Battuta visited several times

DAR AL-ISLAM

While he encountered Christian societies, multi-faith China and newly Muslim lands, Ibn Battuta mostly travelled through an established Muslim world known as Dar al-Islam. As an educated Muslim, the traveller enjoyed hospitality throughout the lands, where sophisticated networks facilitated trade and travel. Much of Dar al-Islam was still reeling from the 13th-century Mongol invasion that had created the Ilkhanate of Persia, weakened Baghdad and Damascus, and shifted power to Egypt.



1 TANGIERS June 1325

Ibn Battuta leaves home on his first hajj, arriving in Egypt in spring 1326, visiting first Alexandria and then Cairo.

2 DAMASCUS Ramadan 1326

Having tried and failed to reach Mecca via the Nile and Red Sea, Ibn Battuta travels to Damascus via Hebron, Jerusalem and Bethlehem.

3 MECCA AND MESOPOTAMIA November 1326-27

After a month in Mecca, Ibn Battuta explores Mesopotamia, visiting Basra, Shiraz, Tabriz and Mosul. He returns to Mecca, and stays for a few years.

4 MOGADISHU c1330

The traveller witnesses Mogadishu's heyday, and experiences "an exceedingly large city" full of merchants. He follows East Africa's coast to Kilwa, before returning to Mecca for a third hajj.

5 CONSTANTINOPLE 1332

Via the Crimean Peninsula, Ibn Battuta travels along the Volga River with the leader of the Golden Horde, before accompanying one of the Khan's wives to Constantinople, then a Christian city.

6 DELHI c1334

Having traversed the Eurasian Steppe and stayed with a Mongol leader, Ibn Battuta heads to India, where he works under the unpredictable Muhammad bin Tughluq, Sultan of Delhi.

7 CALICUT 1341

Ibn Battuta sets out for China, charged with gifts to deliver to the Emperor. Disaster strikes in Calicut, where a storm sinks boats and cargo.

8 MALDIVES 1343-45

Recently converted to Islam and in need of educated Muslims to establish a new

order, the authorities of this island nation appoint Ibn Battuta as high judge, shower him with gifts and slaves, and make it difficult for him to leave – until he marries four women, abuses his position and upsets the governor.

9 SOUTHEAST ASIA 1345

Fleeing the Maldives, Ibn Battuta explores Ceylon (Sri Lanka) and modern-day Bangladesh, where he meets the celebrated Sufi Muslim Shah Jalal, before continuing to Sumatra, Malaysia and Vietnam en route to China.

10 CHINA 1345-46

Landing in Ch'uan-zhou, Ibn Battuta explores parts of Mongol-controlled China, including Guangzhou, Fuzhou and Hangzhou, and possibly travels the Grand Canal to Peking to meet Emperor Togon-temür of the Yuan Dynasty (some doubt this section). He sees and describes The Great Wall.

11 ANDALUSIA 1349-50

Returning from China through a rapidly collapsing Persia, with the Black Death close on his trail, Ibn Battuta briefly goes back to Morocco before travelling to Andalusia to take up arms in defence of Muslim-held Gibraltar, under attack from Christian forces. The threat abates and he explores the Granada region (southern Spain) instead.

12 MALI 1351

Crossing the Atlas Mountains and the Sahara, Ibn Battuta completes his exploration of the Islamic world with a trip to Mali, where he stays with Mansa Sulayman and visits Timbuktu.

13 TAKADDA (NOW AZELIK IN NIGER) 1352

Summoned home by Sultan Abu Inan Faris, Ibn Battuta returns to Morocco via Sijilmasa, in the company of a large caravan carrying 600 enslaved black women. He returns for good in September 1353.



Mesopotamia. He followed the River Tigris to Basra, crossed the Zagros Mountains into Persia and visited Shiraz, before returning across the mountains to arrive in Baghdad, where he met the great ruler Abu Sa'id Bahadur Khan, and joined the royal caravan. Turning north on the Silk Road to Tabriz, he explored Mosul before joining another caravan to cross the Arabian Desert back to Mecca.

UNDER AFRICAN SKIES

Sometime between 1328 and 1330, Ibn Battuta boarded a ship to travel to Jeddah via the Red Sea. Falling ill, he was put ashore and continued overland to Yemen. He stayed there with the sultan, before carrying on to the trading port of Aden. From here, he travelled the East African coast by dhow, visiting Zeila in the Christian kingdom of Ethiopia, Mogadishu (the pre-eminent city of the Berbers), Zanj, Mombasa,

the islands of Pemba and Zanzibar, and Kilwa Island (modern-day Kilwa Kisiwani).

His description of this section remains the only eyewitness account of the region during the medieval period. He paints a colourful picture of a cultural melting pot and a hive of business (including that of slavery) between black Africans and Arabic traders. After two weeks, when the monsoon winds turned, he sailed back north.



ON THE ROAD
L-R: A hajj caravan arrives in Mecca, amid flags and fanfare; coins of Kipchak Khan Ozbeg, who Ibn Battuta joined along the Volga River

THE MAIN PLAYERS

IBN BATTUTA

While opinions are split on the veracity of some passages of the *Rihla*, it's generally accepted that the Moroccan did wander widely. He worked as a judge after 1352 and died in 1377.



IBN JUZAYY

Poet, scribe and author of Ibn Battuta's *Rihla*, written 1352-55, decades after many of the events. Some descriptions are clearly borrowed from other contemporary travelogues.

MUHAMMAD BIN TUGHLUQ

Ruthless and unpredictable Sultan of Delhi 1324-51. In 1334, he hired Ibn Battuta to work as a judge.

SULTAN ABU INAN FARIS

Marinid ruler of Morocco, who ordered Ibn Battuta home to record the history of his travels in 1352. Strangled by his vizier in 1358.



HISTORICAL ISLE
14th-century ruins on Kilwa Kisiwani island, Tanzania – now a World Heritage site

While back in Mecca for a third hajj, Ibn Battuta learned that the sultan of Delhi in Muslim-controlled India was seeking educated Muslim lawmen.

Travelling north, he caught a Genoese galley from Syria to Anatolia in order to look for a Turkish caravan bound for India. Landing in Alanya, he was impressed by the Turks' hospitality and Sunni Muslim faith, but expressed surprise that "they eat hashish, and think no harm of it", as well as being critical of liberal attitudes towards women. He also speaks of a formidable citadel in Alanya, where prisoners were executed by being hurled over the precipice with catapults.

THE GOLDEN HORDE

From the Black Sea port of Sinop, he crossed to the Crimean peninsula. Arriving in al-Qiram (present-day Staryi Krym), he learned that Kipchak Khan Ozbeg, ruler of the Golden Horde, had just left along the Volga River. He quickly caught and joined the Khan's caravan. To his shock, he observed his host getting drunk on a fermented drink called 'buza'.

One of the Khan's wives was pregnant and she was granted permission to return to her father in Constantinople. Ibn Battuta went with her, leaving Dar al-Islam for the first time. His account describes Constantinople 120 years before it was conquered by the Ottoman Turks and renamed Istanbul. Here, he met Emperor Andronikos III Palaiologos and saw the great Christian cathedral of Hagia Sophia, later redesigned as a mosque.

Ibn Battuta returned to the Khan before travelling south, through the great Mongol Empire. He overwintered with Tarmashirin, the Khan of Chagatay and a descendant of Genghis Khan, who'd made Islam the official religion of the empire. He then joined a caravan travelling to Afghanistan, battling bandits, rockslides and snow en route, and continued through the Hindu Kush mountain range into India.

Sultan Muhammad bin Tughluq was an infamous figure, known for inflicting sadistic punishments on his enemies, including cutting people in half, skinning them alive and having prisoners tossed

around by elephants with swords attached to their tusks. Despite this, Ibn Battuta went to Delhi to become a judge and signed a contract agreeing to stay in India.

He was paid handsomely, but veered close to disaster when he married and had a child with the daughter of a rebellious court official, who was subsequently executed by the Sultan. Even more serious was his association with a non-conformist Sufi holy man, who was tortured and beheaded for ignoring the Sultan's orders. Ibn Battuta was arrested, but managed to get released by ridding himself of all possessions and taking on the attire of a beggar. For five months, he lived with a hermit in a cave, before being invited back into the Sultan's palace.

Understandably fearful, Ibn Battuta asked to make another hajj. The Sultan refused, instead making him ambassador to the Mongol court of China. The pilgrim was dispatched with a large armed entourage and valuable gifts to deliver to the Mongol leader.

They were soon attacked by Hindu rebels, but the soldiers fought them off. During another assault, Ibn Battuta was separated from the party and chased by ten horsemen. He escaped, only to be captured, robbed and imprisoned in a cave by another group of Hindus. Avoiding execution, he was rescued by a Muslim traveller and eventually reunited with his group.

In Khambhat, they boarded four boats – three dhows and a warship carrying soldiers to defend them against pirate attack – and sailed to Calicut, where everything was transferred onto three Chinese junks. A terrible tempest blew up, however, sinking two of the ships. The third, full of slaves – including one pregnant with Ibn Battuta's child – had already sailed. (This ship was later seized by the King of Sumatra.)

Afraid to return to Delhi, Ibn Battuta presented himself before another Muslim sultan in southern India, even going into battle to show loyalty. He remained determined to reach China, though, and eventually set off, taking the scenic route.

The Maldives had recently converted to Islam and needed judges educated in Islamic

WANDERING PILGRIM

RIGHT: Constantinople (present-day Istanbul) in Turkey, where the wayfarer encountered Christian culture

BELOW: An 18th-century image of the religious traveller (right) on a visit to Egypt

BELOW RIGHT: King Alfonso XI of Spain, against whom Ibn Battuta went to war

80

The number of lashes awarded as a penalty for drinking wine under Ibn Battuta's rule in Delhi



“He was attacked by pirates who left him with nothing but his trousers”



reached Calicut, where he returned briefly to the Maldives before catching a junk to Ch'uan-zhou (Quanzhou) in China, beyond the eastern extremity of Dar al-Islam.

Ibn Battuta was impressed with many things in China, but the country's non-Muslim ways offended him and, after visiting Hangzhou and Fuzhou, he began the long journey home.

Reaching the southern coast of the Arabian Peninsula, he travelled quickly through Persia, where the once-mighty Ilkhanate was rapidly disintegrating after the death of the heirless Sultan Abu Sa'id, and returned to Baghdad. From there, he crossed the Syrian Desert following the camel route to Damascus.

The Black Death was hot on his heels as he passed through Syria to Aleppo and then on to Palestine and Cairo, where he later claimed 24,000 people were dying from the plague every day. Fleeing up to the River Nile, he crossed the Red Sea to Jeddah, and then Mecca. Returning to his homeland of Morocco after a 24-year absence, he discovered that both his parents had passed away.

In 1350, with Alfonso XI of Castile besieging Gibraltar, Ibn Battuta joined an Islamic army travelling to defend the town. It was not battle but the Black Death that killed Alfonso, however, and Gibraltar remained in Muslim hands. While in Andalusia, Battuta explored Málaga, Alhama and Granada, where he met 28-year-old writer Ibn Juzayy, who would later transcribe his travels.

THE LAST RESORT

One corner of Dar al-Islam had eluded him and, in 1351, Ibn Battuta set out to visit Mali. Traversing the Atlas Mountains, he waited for winter in the Oasis of Tafilalt before crossing the vast Sahara Desert in a camel caravan. He reached Walata (now Oualata, in Mauritania) at the end of April, and then followed the Niger River to Mali, where he visited Timbuktu, which would soon become a great centre of Islamic scholarship and trade.

In Takadda, he received a message from the Sultan of Morocco, ordering him home. Joining a caravan carrying 600 enslaved black women, he crossed the High Atlas Mountains in the midst of winter, describing it as the hardest road he'd ever travelled, and returned to Morocco for good. 📍

GET HOOKED

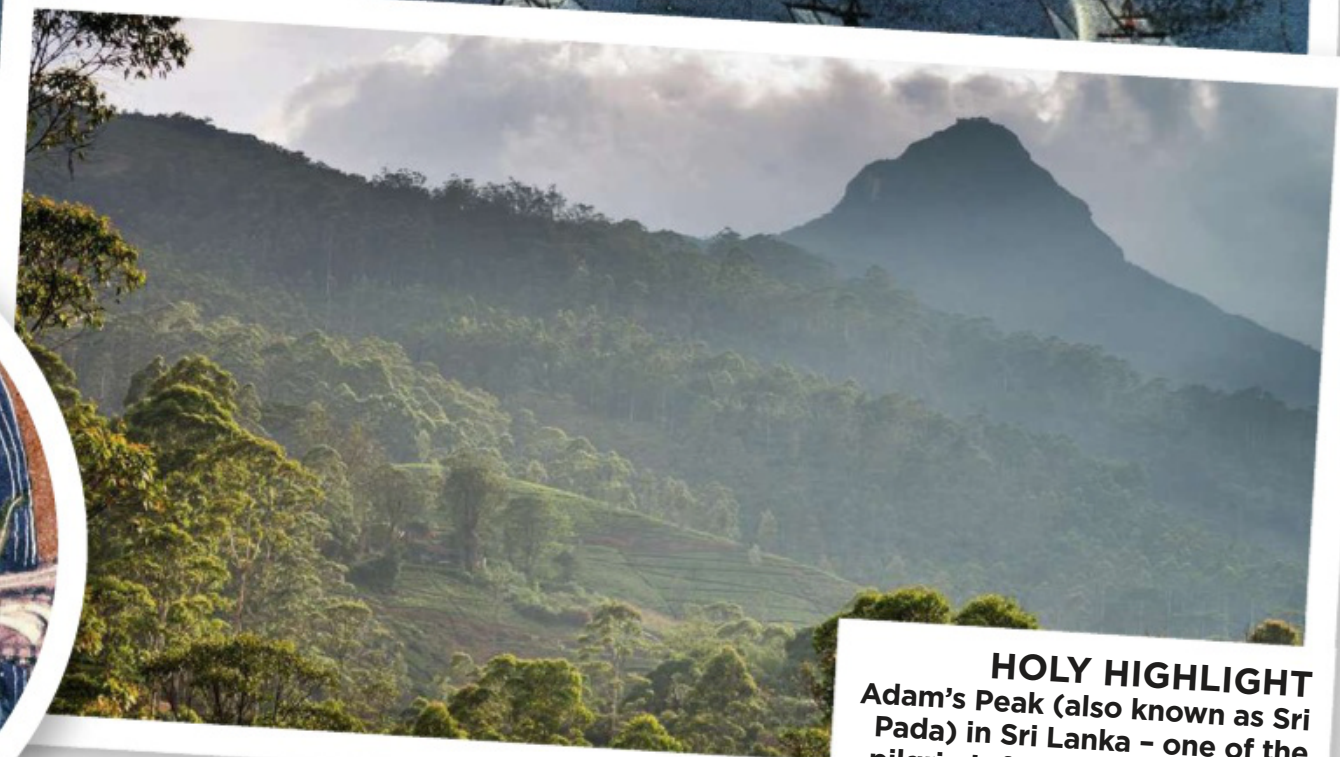
READ

A complete translation of Ibn Battuta's *Rihla* by HAR Gibb is available in three volumes. Well-regarded modern tellings of the story include Tim Mackintosh-Smith's *Travels of Ibn Battuta* (Macmillan, 2016) and Ross E Dunn's *The Adventures of Ibn Battuta* (U Cal Press, 1992).

WHAT DO YOU THINK?

Was Ibn Battuta a pioneering Muslim globetrotter or an imaginative raconteur?

Email: editor@historyrevealed.com



HOLY HIGHLIGHT
Adam's Peak (also known as Sri Pada) in Sri Lanka - one of the pilgrim's far-flung destinations

COLD MOUNTAIN
Ibn Battuta made the treacherous journey across Morocco's High Atlas Mountains in the depths of winter



law. When Ibn Battuta arrived in Male, he was deemed perfect – they showered him with slave girls, pearls and gold to convince him to stay.

NEW CONVERTS

While he attempted (in vain) to impose strict Muslim law, with whippings and amputations handed out to offenders, Ibn Battuta took advantage of the situation to demand luxurious privileges. He took four local wives, each with powerful political connections, but he eventually fell foul of the governor, however, and had to make a quick exit (via another island, where he took two more wives).

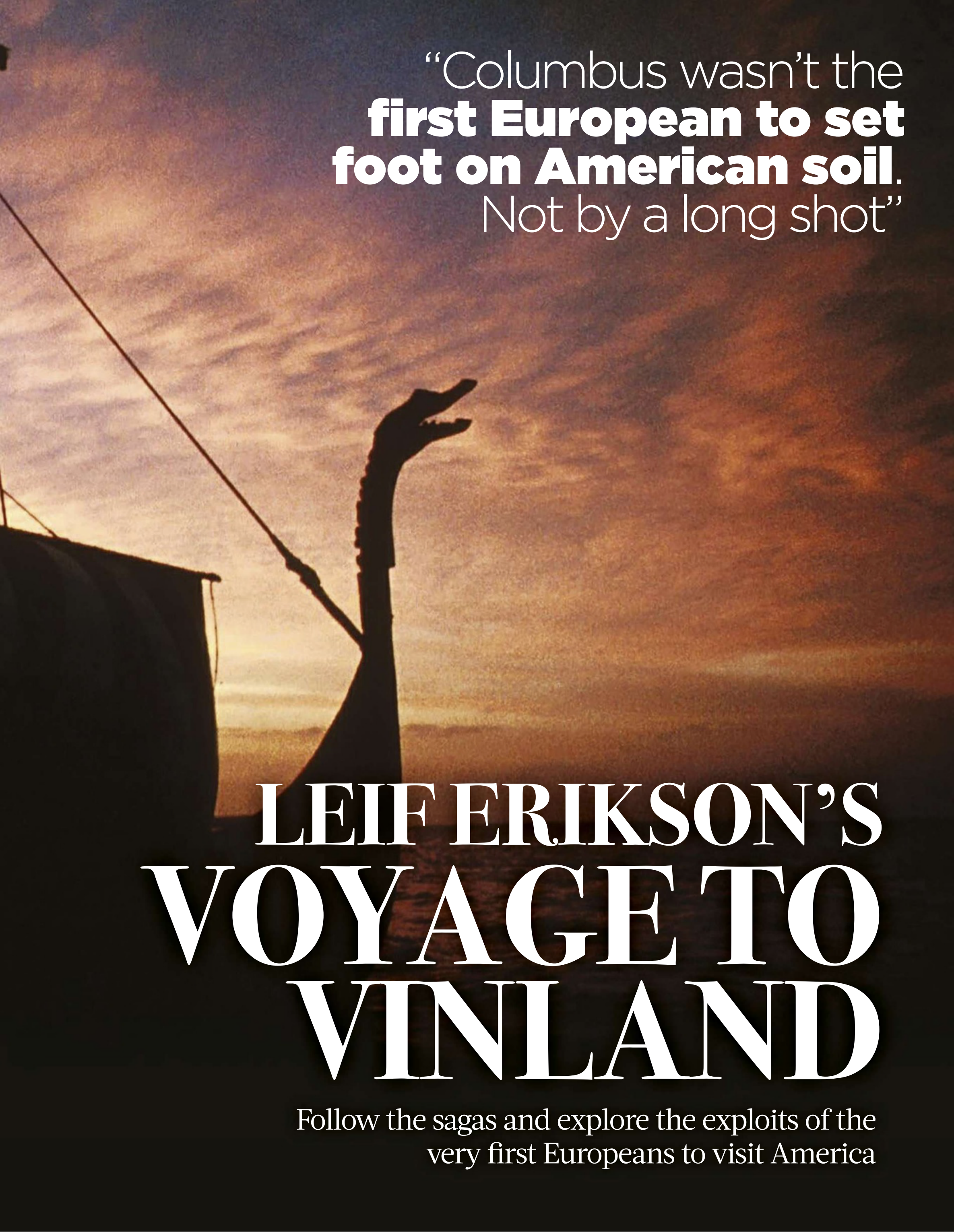
In Ceylon (present-day Sri Lanka), Ibn Battuta met the king and went on a pilgrimage to Adam's Peak, where a depression in a rock is said to be the footprint of Adam made when he was thrown from the seventh heaven by God.

The king gifted him a boat, but it was wrecked during a storm. Once aboard another vessel, he was attacked by pirates, who left him with nothing but his trousers. Eventually, though, he

**BOLD
ADVENTURER**

Leif Erikson, the
Viking hero and
first European to
land in the
Americas





“Columbus wasn’t the
**first European to set
foot on American soil.**
Not by a long shot”

LEIF ERIKSON’S VOYAGE TO VINLAND

Follow the sagas and explore the exploits of the
very first Europeans to visit America

The second Monday of October is a federal public holiday in the United States. Known as Columbus Day, it marks the anniversary of Christopher Columbus's arrival in the Americas in 1492 – an event that, without doubt, marked a turning point in the histories of the conjoined continents, north and south of where he landed. But despite popular perceptions, the Italian explorer wasn't the first European to set foot on American soil. Not by a long shot.

Almost five centuries before Columbus crashed into the Bahamas, a boatload of flaxen-haired Europeans had made landfall in North America. And while the Vikings' initial encounter with what would become known as the New World was almost certainly a fluke, within a short time Norse explorers led by Leif Erikson and his siblings were deliberately pointing their longboats at the fertile western land. By the early 1000s, a Viking colony was attempting to put down roots in the earthly Valhalla they called Vinland, a place of wine-grapes and wheat.

Leif was from a long line of adventurers, some of whose wanderings were not undertaken entirely voluntarily. His grandfather, Thorvald Asvaldsson, was banished from Norway for manslaughter, a punishment that prompted him to seek a new home for his young family. This he found in Iceland, a land originally discovered by his relative Naddodd. Some 22 years later, Thorvald's son (and Leif's father), Erik the Red, was in turn turfed out of Iceland for killing Eyiolf the Foul. During his exile, he found and settled Greenland.

So Leif had a lot to live up to, but sowing the seeds for the foundation of the first European settlement in the Americas isn't a bad legacy – even if it went unnoticed by most of the world for the next millennium.

But how did this Viking vagabond find his way right across the angry Atlantic with no navigational aids, and what did he hope to find there? Was he even the first European to set foot on American soil, or did some of his kinsmen get there earlier?

NORSE CODE

It's never easy accurately to trace a tale that begins over 1,000 years ago, but luckily the Vikings left a legacy of sagas – detailed written accounts of their heroes' exploits.

However, in the case of Leif and the great American adventure, about 200 years passed between the action happening and the events being transcribed into the written word. During this time, the stories would have been passed down orally across generations and around the societies of Greenland and Iceland (which became increasingly culturally separated from the Norse homeland of Norway) with inevitable distortions, exaggerations and elaborations being introduced.

The result is not one but two separate accounts – the *Grœnlendinga saga* (*Saga*

THE MAIN PLAYERS

LEIF ERIKSON

Viking explorer and early Christian evangelist, born sometime between AD 960 and 970, and the second of three sons of Erik the Red and Thjohild. He was also known as 'Leif the Lucky', famed for reaching America.

TYRKER

Leif's older servant – a foster-father figure (possibly a freed German slave), who accompanied the explorer during his American adventure and discovered the 'grapes' that gave the continent the name Vinland.

ERIK THE RED

Leif's father, who, exiled from Iceland for killing Eyiolf the Foul around the year AD 982, was the first to settle Greenland.

THORVALD ASVALDSSON

Leif's grandfather, who, banished from Norway in AD 960 for manslaughter, went into exile in Iceland, a land first discovered by his relative Naddodd.

BJARNI HERJÓLFSSON

Possibly the very first European to sight the Americas, in circa AD 986. Although unmentioned in the *Eiríks saga rauða*, in the *Grœnlendinga saga* Bjarni is blown off course while attempting to reach Greenland, and spots land far to the west, but he chooses not to land.

THORFINN KARLSEFNI

Icelandic explorer and prominent character in the *Saga of Erik the Red*, in which he is credited with leading the first major expedition to explore North American soil and with establishing a settlement.



“Hearing of his forebears’ adventures, Leif had an urge to explore”



VIRGIN SOIL
Erikson steps onto the mainland of present-day North America, where he encounters a clement climate and fertile land



VIKING VOYAGES

TOP LEFT: The 'Vinland Map', claimed to date from the 15th century, and documenting Norse exploration TOP RIGHT: Leif Erikson's home territory of Greenland ABOVE: The weather vane of a Viking ship



of the Greenlanders) and the *Eiríks saga rauða* (Saga of Erik the Red). Collectively, they're known as the Vinland Sagas, and contain differing versions about who did what and when. According to the *Grænlandinga saga*, the very first Norseman to spot North American soil was a Viking merchant called Bjarni Herjólfsson, who was blown off course by a storm and became lost while attempting to follow his father's route from Iceland to Greenland in around AD 986.

Bjarni never made landfall on the strange new continent, and no one seemed overly interested in his story for over a decade, until it reached the restless ears of young Leif Erikson. Enthused by the tale, Leif set off on an expedition to explore the mysterious western land, to be followed later by his brothers Thorvald and Thorstein, and his sister Freydis, along with the Icelandic explorer Thorfinn Karlsefni.

35

The number of crew in Leif's expedition to Vinland in AD 1000, as described in the Greenlanders' saga

However, in the *Eiríks saga rauða*, Leif has a lesser role, simply spotting the coast of North America in much the same way as Bjarni (blown off course and lost while returning from Norway), and it's Thorfinn Karlsefni who leads the main expedition to the area named in both books as Vinland.

Although both stories are heavily peppered with fantastic flourishes, historians have long believed they were originally spun with fact-based threads, a theory that was proved correct when a Viking-era settlement was discovered at L'Anse aux Meadows in Newfoundland, Canada, in the early 1960s by Norwegian explorer Helge Ingstad and his archaeologist wife Anne Stine Ingstad.

Some scholars consider the *Grænlandinga saga*, written slightly earlier than the *Eiríks saga rauða*, to be the more reliable of the two accounts, although the respective stories do share several aspects and characters, and many of the events described are not mutually exclusive of one another.

GREEN LEIF

According to the Viking tradition, as a child Leif was looked after and taught outside the family unit. His tutor and minder was a man called Tyrker, thought to have been a freed German *thrall* (or slave) captured years earlier by Erik the Red. Tyrker became more of a foster-father figure than a servant to Leif, later accompanying him on his far-ranging expeditions.

Doubtless having heard his father's and grandfather's tales of adventure from a young age, by the time he was in his early 20s, Leif was experiencing a strong urge to explore. His initial escapade saw him depart from Greenland in AD 999 on a trip to Norway, where he intended to serve the King, Olaf Trygvason.

En route, however, Leif's ship was blown off course and extreme weather forced him to take shelter in the Hebrides, off the northwest coast of mainland Scotland. The heavy conditions continued for a month or more, preventing the Vikings from setting sail, but Leif kept himself busy and ended up impregnating the daughter of the local lord who was hosting him. The woman, Thorgunna, gave birth to a son, Thorgils, but not before Leif had left for Norway.

Leif made a good impression on Olaf, and the King invited him to join his retinue as a *hirdman*, one of a close circle of armed soldiers. During his stay in Norway, which lasted for the winter, Leif and his entire crew were converted to Christianity, the faith followed by Olaf, and baptised. In the spring, Leif was given a mission: to introduce Christianity to the people of Greenland. It was a challenge he would eventually set about with enthusiasm, but he hadn't yet sated his appetite for adventure.

The stories surrounding Leif's first encounter with the Americas differ significantly. In the *Eiríks saga rauða*, storms again blow the

ALL OVER THE MAP

The exact chronology and geography of Leif Erikson's adventures are debatable subjects, with the two primary sources offering differing accounts, but the following is a representation of events primarily described in the *Grænlendinga saga* (the Greenlanders' saga), which most scholars accept as being the more reliable text.

1 SPRING/EARLY SUMMER, AD 999 Greenland

Leif departs Greenland, heading for the Norse homeland of Norway, where he intends to serve the King, Olaf Tryggvason. His boat is blown off course, however, and he makes a forced landfall in the Hebrides.

2 SUMMER Hebrides, Scotland

Confined to the islands for a month or more by extreme weather, Leif is shown hospitality by a local chief and begins an affair with his daughter, Thorgunna, which results in the birth of a son, Thorgils.

3 WINTER Nidaros (present-day Trondheim), Norway

Upon reaching Norway, Leif is well received by Olaf Tryggvason. While spending the winter in Norway, Leif adopts the Christian faith followed by his host, and is sent back to Greenland on a mission to convert his brethren. According to the *Eiríks saga rauða* (Saga of Erik the Red), Leif's boat is blown off course again during his return trip, taking him past the area of North America that would later become known as Vinland. Reports differ about whether this happened at all, and, if it did, whether he landed.

4 AD 1000 Brattahlíð (Brattahlid), Greenland

Having either been inspired by the tales of Bjarni Herjólfsson (a Viking trader who spotted the American coast after becoming lost in AD 986) or seeking to return to the fertile land he'd glimpsed while recently returning from Norway (depending on which saga you

believe), Leif deliberately sails northwest to locate and explore the mysterious continent.

5 HELLULAND (believed to be Baffin Island in the present-day Canadian territory of Nunavut)

After crossing the icy waters now known as the Davis Strait, Leif encounters a barren and frostbitten coast, which he names Helluland ('stone-slab land').

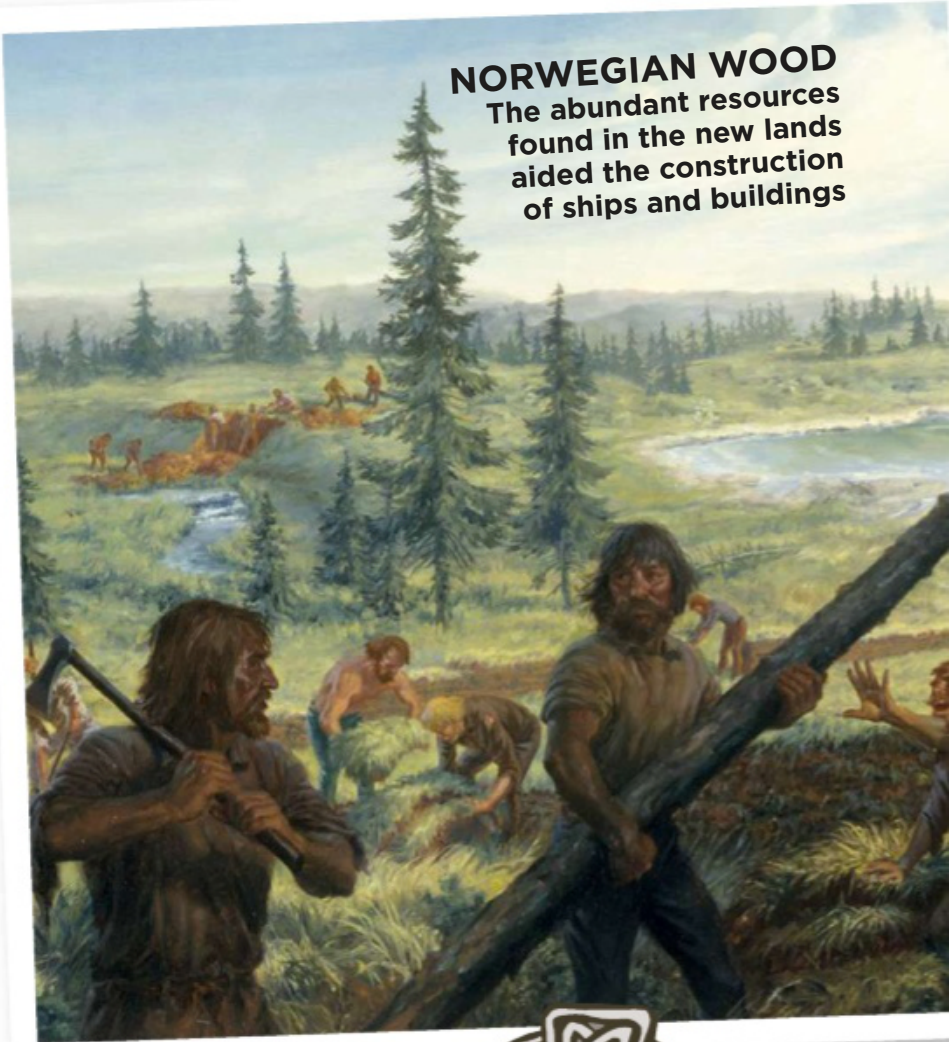
6 MARKLAND (probably part of the Labrador coast, Canada)

Sailing on, tracing the coastline south, Leif finds forested terrain skirted by white shoreline. Leif calls this Markland ('wood land'), but he doesn't dwell there long.

7 WINTER AD 1000 Vinland (L'Anse aux Meadows, Newfoundland, Canada)

Pushed along by a north-easterly wind for two days, Leif finally finds the sort of landscape he's been looking for – fertile and full of food including 'grapes' (although these may have been gooseberries). The party overwinters here, in a small settlement called Leifsbúðir ('Leif's booths'). In spring, Leif and his crew sail back to Greenland, carrying a precious cargo of 'grapes' and wood. En route, they chance upon some shipwrecked Vikings, whom they save.

NORWEGIAN WOOD
The abundant resources found in the new lands aided the construction of ships and buildings



HOME FROM HOME

A reconstructed Viking encampment at L'Anse aux Meadows, near Erikson's original settlement

returning Viking off course after he leaves Norway, this time taking him so far west that he veers close to the coast of a continent that is unfamiliar to all aboard, but which appears promisingly fertile.

In the *Grænlendinga saga*, however, Leif learns about this mysterious land from Bjarni Herjólfsson, and is so intrigued that he buys Bjarni's *knarr* (boat) and determines to retrace his route. According to this account, with a crew of 35 men, and armed only with a secondhand boat and a verbal description of the route to follow, Leif sets off on his 1,800-mile journey to a completely new world sometime around AD 1000.

Erik, who reportedly harboured reservations about the expedition, was prepared to accompany his son, but pulled out of the trip after falling from his horse not long before departure, which he interpreted as a bad omen.

Undeterred, Leif set sail and followed Bjarni's AD 986 homecoming route in reverse, plotting a course northwest across the top end of the Atlantic. The first place they encountered is described as a barren land, now believed to be Baffin Island. Leif called it as he saw it, and named the place Helluland, meaning 'the land of the flat stones'.

He continued, heading south and skirting the coast of the country we know as Canada. The next place of note, where the landscape changed to become heavily wooded, Leif branded Markland – meaning 'land of forests' – which was likely the shore of Labrador. The country

looked promising, not least because of the abundance of trees, something sorely lacked by Greenland (despite its name, which Erik the Red chose to make it sound appealing to the people he wanted to lure there from Iceland). Although wood was in high demand for building homes and boats, Leif kept sailing south.

Eventually, the explorers came to a place, thought to be Newfoundland, that ticked all Leif's boxes. The expedition set up camp in a place that would come to be called Leifsbúðir (literally Leif's Booths) near Cape Bauld, close to present-day L'Anse aux Meadows on the northern tip of Newfoundland. Here they spent at least one winter, enthusing about the comparatively mild climate, fertile conditions and abundance of food.

One day, Tyrker apparently went missing from a group gathering supplies, and when Leif located him, he was drunk and babbling happily about some berries he'd found.

These are referred to in the saga as grapes, although modern experts think it unlikely that grapes as we know them would have grown so far north, and speculate that Tyrker had been scrumping naturally fermenting squashberries, gooseberries or cranberries. Either way, this discovery was greeted with delight, and the

Leif Erikson is reported to have captured a polar bear cub, which he reared and kept as a pet

SISTER ACT

Erikson's sibling Freydis fends off attacks by the native 'Skrælings'



place was subsequently named Vinland, meaning 'land of wine'.

At some point in 1001, laden down with supplies of precious wine 'grapes' and wood, Leif and his men made the return journey to Greenland, full of tales about a western land of bounty and beauty. On their way home, they chanced upon and rescued a group of shipwrecked Norse sailors, an adventure that added to the captain's fame and led to him acquiring the nickname 'Leif the Lucky'.

However, unlike Greenland and Iceland, Vinland had a population of indigenous people – known to later Viking explorers as the 'Skrælings' – who were less

than impressed at the sudden arrival of the Scandinavians, and would make this apparent to later expeditions. The next trip was led by Leif's brother Thorvald, who earned the unfortunate honour of becoming the first European to die on the continent when he was killed in a skirmish with them.

LEIF'S LEGACY

The American chapter of the Vikings' saga had begun by accident, and their subsequent attempts to deliberately colonise the continent were doomed to fizzle out. Ferocious attacks from First Nations' people, climate change and distance from their Norse brethren have all been blamed for their failure.

But these intrepid and fearsome folk knew how to wield pens as well as battleaxes and oars, and news of the Norsemen's globe-bending discovery percolated through European ports over the centuries, influencing the ambitions of later European explorers, including Columbus, who claimed to have visited Iceland in 1477.

Very belatedly, Leif's achievements are now being recognised in the land he explored over 1,000 years ago, with Leif Erikson Day being celebrated on 9 October – the same day that the first organised immigration from Norway to the US took place in 1825. Today, there are more than 4.5 million people of Norwegian ancestry living in the United States. The saga continues.

GET HOOKED

VISIT

The L'Anse aux Meadows National Historic Site of Canada, thought to be part of Leif's Vinland and now a World Heritage-listed site at the tip of Newfoundland's Great Northern Peninsula.

READ

Vikings in America by Graeme Davis (Birlinn, 2011).

WHAT HAPPENED NEXT?

Leif subsequently remained in Greenland, enthusiastically espousing Christianity, while his brother Thorvald undertook a second expedition to Vinland, during which he was killed. His other brother, Thorstein, attempted to retrieve Thorvald's body, but died following an unsuccessful voyage. His wife, Gudrid Thorbjarnardóttir, then met and married Thorfinn Karlsefni, an Icelandic merchant who subsequently led an attempt to establish a bigger, more permanent settlement on the new continent. This failed, but the

couple did give birth to a son, Snorri Thorfinnsson, the first European to be born on the American continent.

Freydis Eiríksdóttir, Leif's sister, also travelled to Vinland, either with Thorfinn Karlsefni or as part of an expedition with two other Icelandic traders, who she subsequently betrayed and had killed (depending on which saga you read). Ultimately, although the terrain offered a good supply of wood and supplies, operating a permanent settlement so far from home proved too hard for the Vikings.

IN SEARCH OF THE LOST CITY OF Z

When a gentleman explorer set off to find El Dorado under the media spotlight, he wasn't to know that his expedition would conclude with a very unexpected headline

By
Major P.H. Fawcett, F.R.G.S., R.A. Art.
Commissioner & Chief Engineer Bolivian boundary delimitation.

1909

1909

P.H. Fawcett

Lieutenant Colonel
Percy Fawcett served
in World War I before
embarking on his
mission into the
Amazon jungle

**“The difficulties are
great and the tale of
disasters a long one,
for the few remaining
unknown corners of the
world exact a price for
their secrets”**

Percy Fawcett

In April 1925, veteran English explorer Lieutenant Colonel Percy Fawcett hacked his way into the near-impenetrable jungle of Mato Grosso, deep in the sweaty, unmapped mess of the Amazon, accompanied by his son Jack and young Raleigh Rimell. Armed with custom-made machetes, rifles and a ukulele, the intrepid trio hoped to discover a long-lost city that Fawcett was convinced lay deep in the wilderness, beyond the Brazilian Pale: an Atlantis of the jungle, the shell of an ancient and highly developed civilisation.

It was Fawcett's eighth foray into the ferociously fecund forest. His 58-year-old body had thus far withstood everything the Amazon had thrown at him, including encounters with anacondas, vampire bats and piranhas, infestation by flesh-eating maggots, relentless clouds of blood-sucking mosquitoes, poison-arrow attacks by tribespeople and weeks-long periods of near-starvation. But this was his last chance. And he knew it.

One last time he would follow the jealously guarded handful of hints, hunches and half-clues he'd amassed during a colourful career, to risk life and loved ones on a quixotic quest for the elusive citadel he referred to only as 'Z'.

ROUGH PLAY

Schooled as a classic gentleman explorer by the Royal Geographical Society (RGS) in London, former military man Fawcett briefly worked as a spy in Morocco before accepting his first Amazon assignment in 1906: to survey the vague and violent border between Bolivia and Brazil. Despite atrocious conditions and ever-present mortal danger, he completed his mission in a year (half the expected time).

During the following two decades he survived six equally horror-ridden expeditions into the Amazon – tracing the Rio Verde to its source, exploring the Peruvian borderland and making contact with numerous tribes – and three years' active service on the Western Front during the worst of World War I.

While his expedition partners – who variously included experienced outdoorsmen such as polar explorer James Murray, and tough guys like towering Australian boxer Lewis Brown – withered in the woeful conditions, Fawcett powered on, seemingly immune to the myriad ailments that beset the body in the Amazon.

The dogs and pack animals he took with him invariably died, as did several of his human colleagues, but he never sugarcoated the dangers. Party members who couldn't keep pace would be abandoned, he explained, before the rest of the expedition was put at risk.

Although often accused of lacking empathy for companions, Fawcett demonstrated a level of compassion, understanding and respect for the Amazon's indigenous peoples that was well ahead of his time. He attempted to learn local languages and risked his life numerous times to avoid bloodshed.

THE MAIN PLAYERS



PERCY HARRISON FAWCETT

Fawcett was a polarising character, either revered or reviled by those who followed him into hell, both in the Amazon and in Flanders. A recipient of the RGS Founder's Medal, Fawcett is often called Colonel, but his correct rank was actually Lieutenant Colonel.

JACK FAWCETT

The eldest son of Fawcett and his long-suffering wife Nina, Jack was cut from the same cloth as his father, taking a very serious approach to the business of discovery, forgoing meat and alcohol and maintaining good physical fitness. He'd just turned 22 when they disappeared.

RALEIGH RIMELL

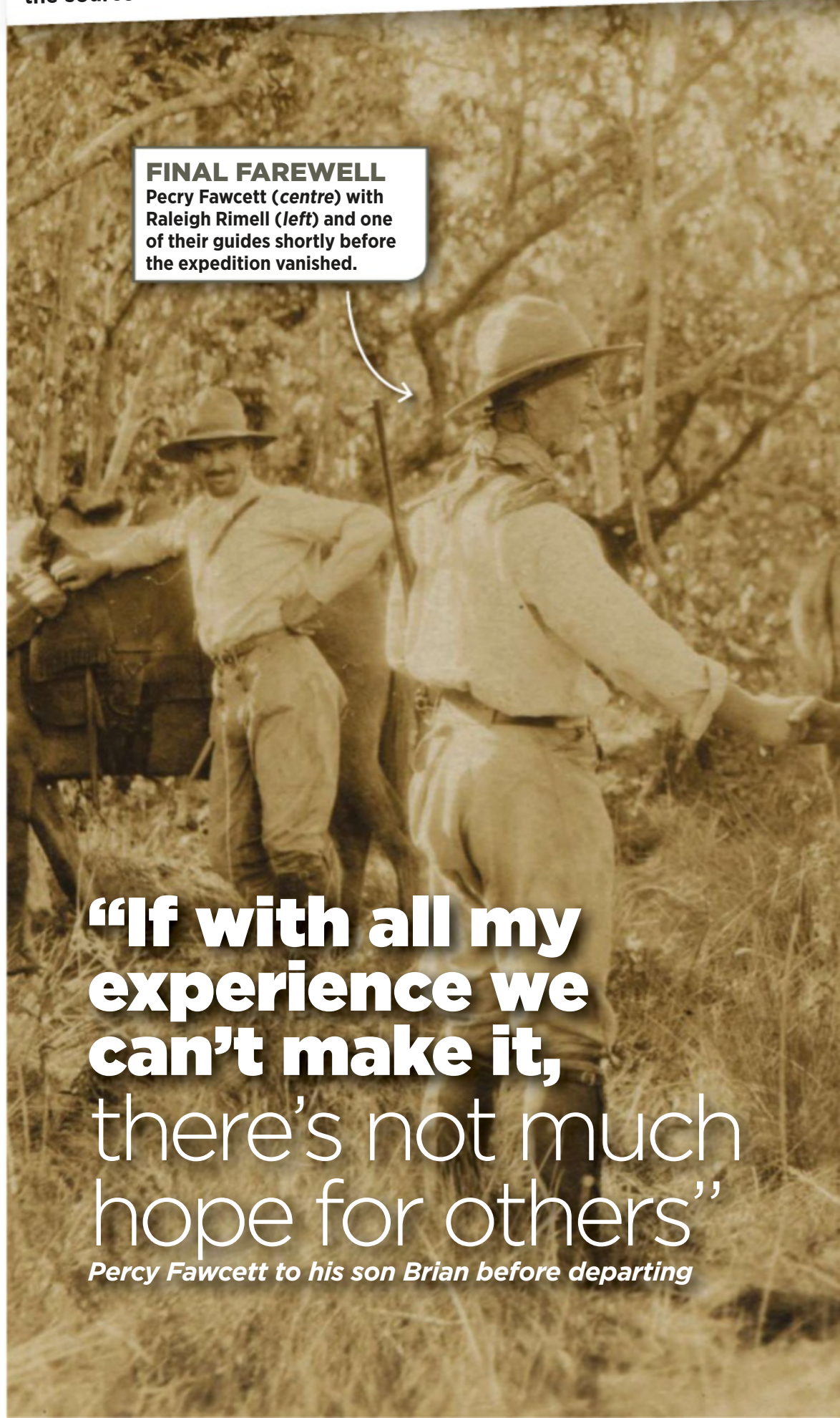
Son of a doctor in the sleepy seaside town of Seaton, Devon, Rimell was more flamboyant and emotional than his best friend Jack. He almost bailed from the expedition before it started, after falling madly in love with a girl aboard the boat taking them from New York to Rio.

NINA FAWCETT

Percy's wife remained a staunch defender of his expeditions (and later his reputation), despite various forced moves around England and the US and extended periods on the brink of destitution. She remained convinced her husband and son were alive for many years after their disappearance.



Fawcett (front right) and his team face starvation during an expedition to find the source of the Rio Verde river

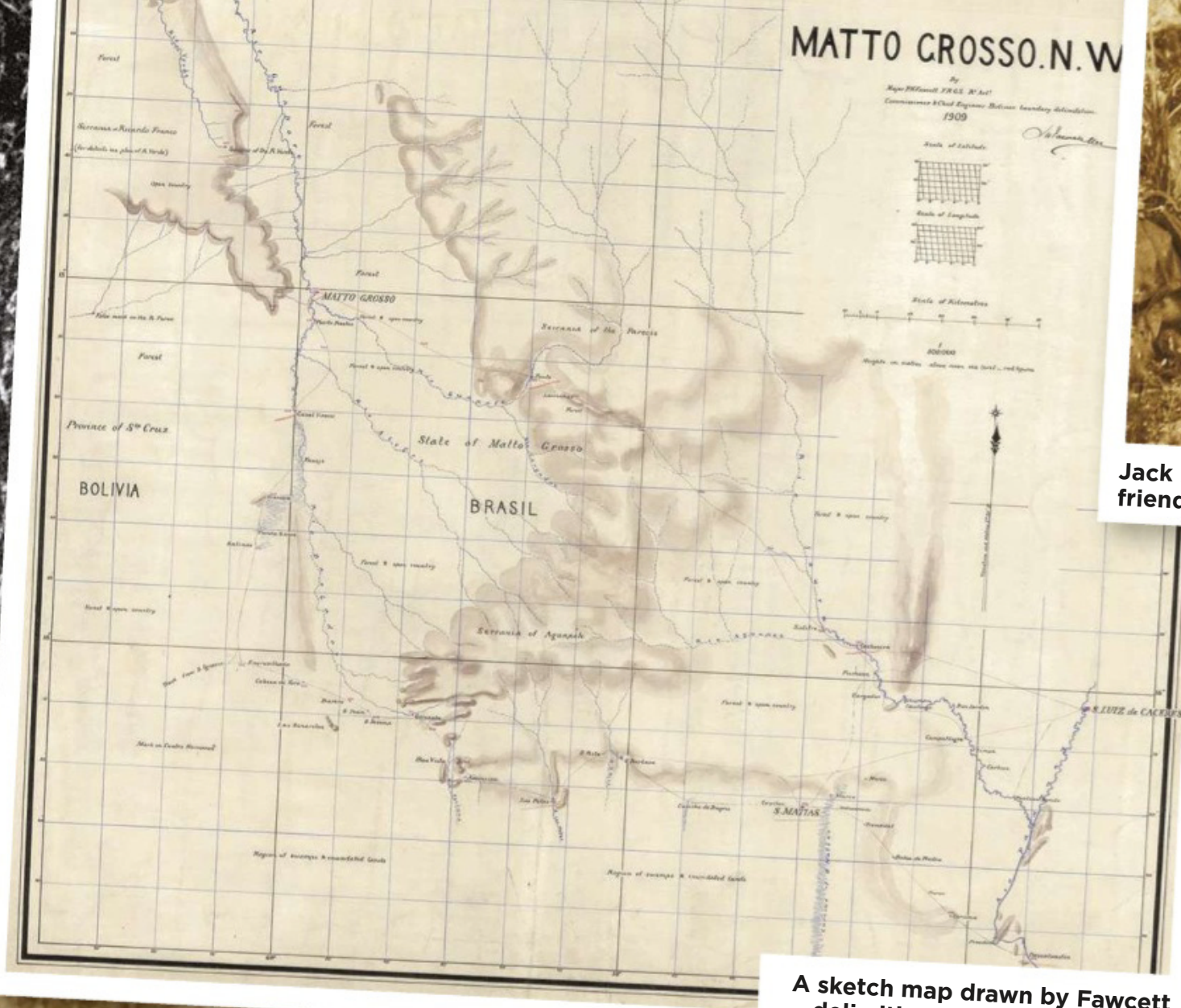


FINAL FAREWELL

Percy Fawcett (centre) with Raleigh Rimell (left) and one of their guides shortly before the expedition vanished.

"If with all my experience we can't make it, there's not much hope for others"

Percy Fawcett to his son Brian before departing



A sketch map drawn by Fawcett delimiting the Bolivian border



Jack Fawcett (left) and his best friend Raleigh Rimell

“both strong as horses and keen as mustard” as Fawcett enthused, whose services were essentially free – their only fee a share of the spoils should they actually discover a city of gold at the end of the rainforest. But, even with such budget-friendly companions, the expedition needed backers, and the RGS was reluctant to splash the cash.

Savvy media man George Lynch came to the rescue, garnering sponsorship through an American press consortium by promising updates would be provided to their papers (including the *New York World* and *Los Angeles Times*) via a system of ‘Indian’ runners relaying reports from the explorers as they advanced through the jungle.

People were used to farewelling major expeditions and then hearing nothing for years, but this quest would be broadcast to the world in near-live fashion, and it generated much excitement. Fawcett’s eccentricity and colourful history, combined with his young companions’ Hollywood looks, made them perfect reality media stars, and the public was seduced by this modern search for El Dorado.

CITIES OF GOLD

Explorers and treasure hunters had been searching South America for El Dorado for centuries. From their earliest rapacious advances into the New World, Iberian conquistadors had removed hoards of gold from Mexico and the southern continent, but their thirst was insatiable and they continued to salivate over a mythical metropolis so rich the king was ritually covered in suits of powdered gold (El Dorado means ‘gilded man’).

Later, *bandeirantes* (Portuguese-Brazilian fortune hunters) continued the search, followed by modern explorers of Fawcett’s ilk – the real-life inspiration for popular fictional figures including Indiana Jones. And not all of these escapades were fruitless. In 1911, American academic and explorer Hiram Bingham captured the world’s attention with his sensational ‘rediscovery’ (aided by locals) of the lost Inca citadel of Machu Picchu, high in the Peruvian Andes. There was no gold, but it was an archeological treasure trove that electrified interest in the region’s people and past.

Fawcett’s theories about an ancient settlement hidden in the Brazilian Amazon

After his initial achievements as an extreme surveyor, Fawcett’s post-war, anthropologically orientated expeditions were less successful, and by the time he returned from an ill-advised solo attempt to find Z in 1921, he was bankrupt, struggling even to pay the £3 RGS annual membership fee.

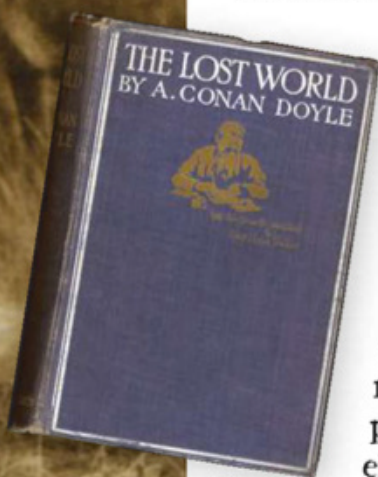
His endeavours hadn’t earned him money, but they had won the respect of fellow explorers and those who live vicariously through them. Arthur Conan Doyle was inspired to write *The Lost World* after reading Fawcett’s field notes detailing his Amazonian exploits, and adventure writer H Rider Haggard was a personal friend.

Colonel TE Lawrence (Lawrence of Arabia) even asked to join his next expedition. Wary of what Lawrence would cost, doubtful about the desert man’s adaptability to jungle exploration, and possibly concerned that the celebrity of such a companion would eclipse his own role in any discoveries made, Fawcett preferred the thought of taking his eldest son on a mission that would make a man of him.

Jack jumped at the chance to accompany his father on one of the adventures he’d heard so much about, so long as his best mate Raleigh Rimell came, too. Here were two strapping lads,

20,000

The number of applicants to a newspaper ad seeking volunteers to join a rescue expedition into the jungle to look for Fawcett



ABUSED

The Kayapo people were believed to have a hatred of white men, following their own mistreatment at the hands of the rubber barons.



GEOGRAPHY

Fawcett believed that other Amazonian citadel seekers were looking in the wrong places – too close to major rivers – and instead planned to explore inland between the Xingu and Tapajós tributaries, where he was convinced Z lay. Many tribes had tasted contact with the so-called civilised world were profoundly opposed to repeating the experience – having suffered slavery, torture, murder, rape, abuse and exploitation at the hands of the rubber barons who controlled the ‘black gold’ trade – and often met white intruders with lethal violence.

1 DECEMBER 1924 England – Rio de Janeiro

Percy and Jack Fawcett leave from Liverpool on 3 December, bound for New York aboard the *Aquitania*. Raleigh Rimell is in America already, as is Fawcett’s business partner, Lynch, who is busy boozing through the expedition kitty. After a brief NYC stop they continue together (minus Lynch) to Rio de Janeiro.

2 FEBRUARY 1925 Rio de Janeiro – Corumbá

Travelling by train, the Fawcetts and Rimmell leave Rio on 11 February. They first visit São Paulo for antivenom supplies before going west into the enormous country’s interior towards the Paraguay River, skirting along the Brazil-Bolivia border and arriving in Corumbá a week later.

3 FEBRUARY–MARCH 1925 Corumbá – Cuiabá

On 23 February, the party boards the *Iguatemi* and travels along the Paraguay, São Lourenço and Cuiabá rivers, reaching the remote outpost of Cuiabá on 3 March.

4 APRIL 1925 Cuiabá – Rio Novo

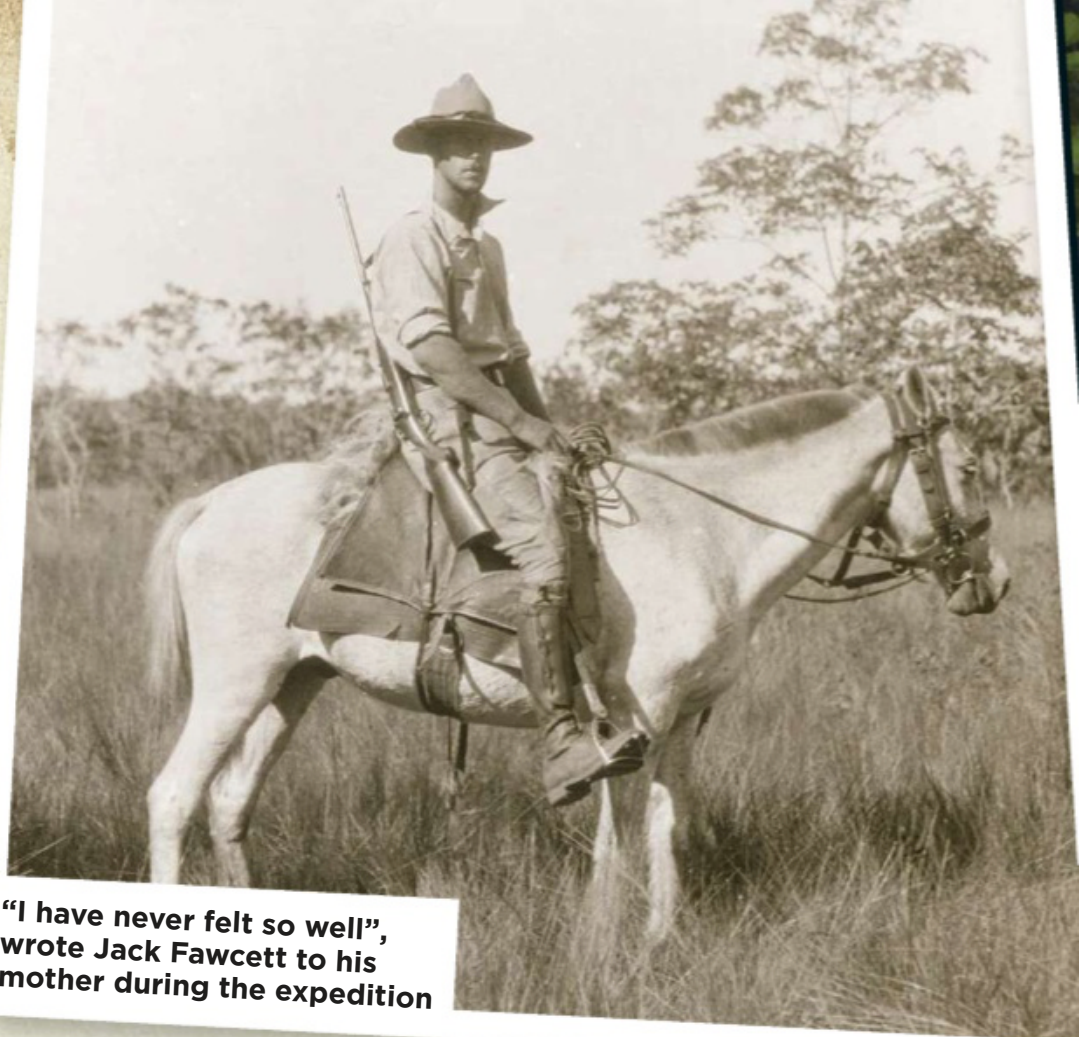
Having waited out the end of the wet season, the expedition begins in earnest on 20 April, with the party trekking across the hot cerrado. After an incident in which Fawcett senior becomes separated from the party while looking for rock art, he allows a pit stop at a remote Rio Novo ranch, home to Hermenegildo Galvão.

5 MAY 1925 Bakairi Post

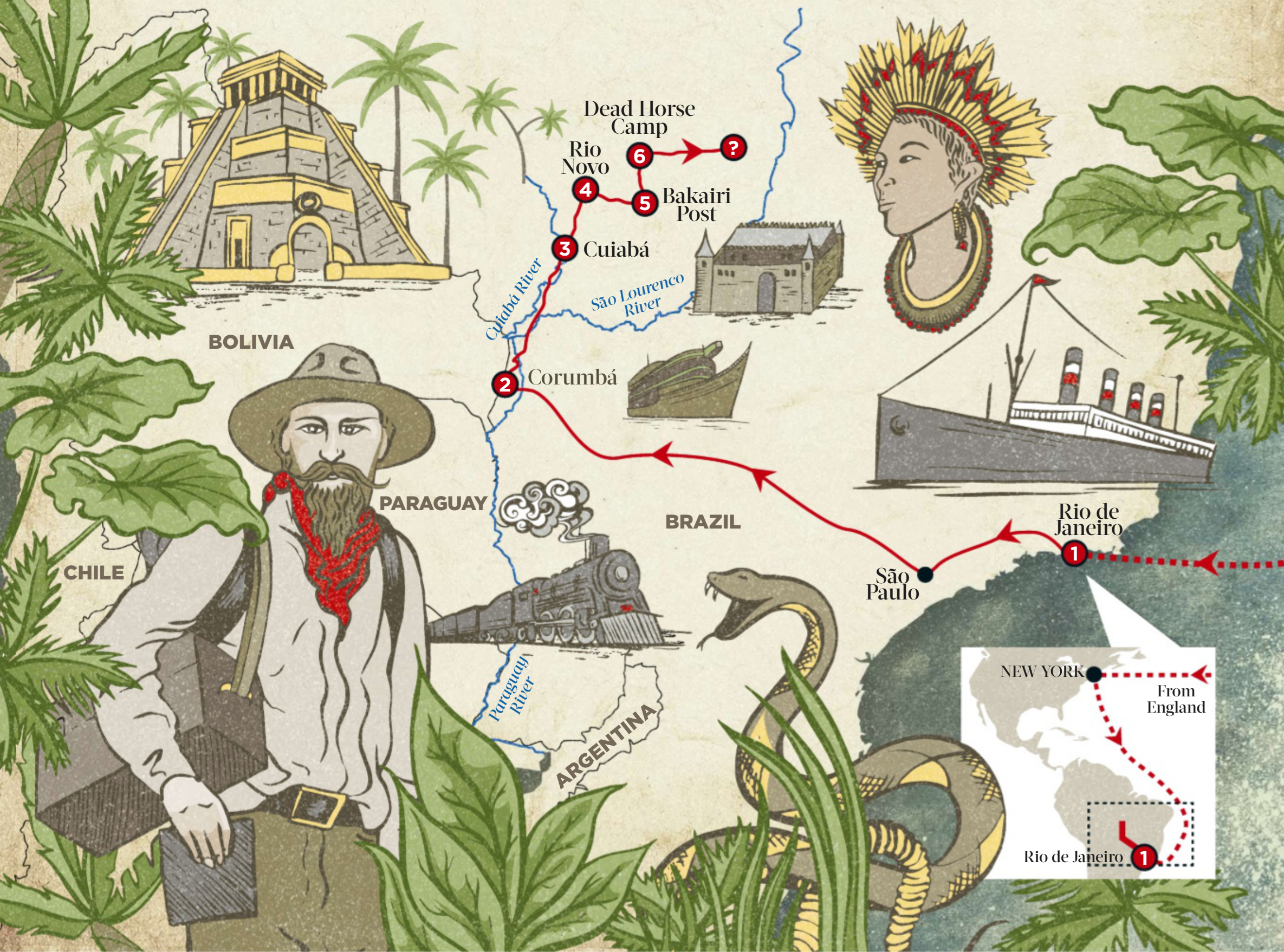
After a tough month of travel through rough terrain, the party reaches the very last outpost on the edge of the virgin Amazon jungle, a tiny government garrison.

6 MAY 1925 Dead Horse Camp

Setting off from Bakairi Post on 20 May, it takes the party nine days to reach the spot where Fawcett had been forced to turn around on a



previous expedition. The bleached bare bones of his old horse still mark the spot. From here, the native guides return to Cuiabá with written dispatches for publication and letters for the explorers’ families, while Percy and Jack Fawcett and Raleigh Rimell press on, into the hostile territories of the Kayapo, Suyá and Xavante peoples. They are never seen again.





Charlie Hunnam plays Fawcett in the 2017 movie adaptation

formed over years, as he chanced upon unexplainable pottery shards in the darkest depths of the jungle and gained an appreciation of the complexity and size of the indigenous cultures he encountered.

While scouring forgotten documents in the recesses of Rio de Janeiro's National Library, he discovered a manuscript written by a bandeirante – possibly João da Silva Guimarães – describing the ruins of a once-great city, which the author had found in 1753. This tattered piece of paper stoked his lethal obsession and ultimately sealed his fate.

OFF THE CHART

Sailing from England to America with Jack in late 1924, Fawcett exuded confidence, yet inwardly he was wracked by paranoia. What if his rivals beat him to Z? The rich American explorer Dr Alexander Hamilton Rice, with a light aircraft at his disposal, and the native Brazilian Cândido Mariano da Silva Rondon, who worked for government and had guided Theodore Roosevelt along the Amazonian River of Doubt, both had ambitions in the area. To muddy his tracks and conceal clues, the cagey colonel concocted a code for writing down grid references and kept his exact route top secret.

100

Estimated number of people who died looking for Fawcett after his disappearance.

The Fawcetts met Rimell in New York, where they discovered Lynch had blown a fifth of their expedition fund on illegal booze and prostitutes in the Waldorf Astoria hotel. Fortunately, millionaire oil magnate JD Rockefeller Jr had read about their quest, and replenished the kitty. Lynch was dispatched to London in disgrace, and the explorers continued by boat to Rio de Janeiro.

By February 1925, the party was in São Paulo, visiting a snake farm to pick up a load of antivenom serum. From here they travelled by train, heading west towards the Paraguay River along the Brazil-Bolivia border to Corumbá. Aboard the *Iguatemi*, the party then cruised the Paraguay, São Lourenço and Cuiabá rivers to reach the outpost of Cuiabá, which Rimell described as a “God forsaken hole ... best seen with eyes closed”. Here, they bought provisions and pack animals, and impatiently waited for the dry season.

When Fawcett judged the time was right, they set off. Several native guides acted as porters for the first, easiest section of

the expedition, before returning to Cuiabá with the promised dispatches for the newspapers.

Jack Fawcett and Rimell's first taste of the difficulty was crossing the cerrado, dry and comparatively easy terrain, but it brought home how tough the trip was going to be. Fawcett senior drove them through savage heat at an unforgiving pace, covering up to 15 miles a day, and the young men had a brutal introduction to the bites of the region's insects.

Rimell's foot became infected from bites, he rapidly lost weight and his ardour for the adventure began to cool. Jack, however, demonstrated a similar constitution to his father, almost revelling in the adversity.

By the banks of the Manso River, Percy Fawcett forged ahead and the party was separated overnight, leaving the boys fearful that their leader had been captured or killed by indigenous Kayapo people. They were reunited the next morning, however, and Fawcett subsequently consented to several days rest at the super-remote Rio Novo ranch of Hermenegildo Galvão, an infamously brutal cattle farmer who lived deep in the forest.

A month after leaving Cuiabá they reached Bakairi Post, a tiny government garrison on the very edge of the known map. Here, the excited younger men met their first true tribespeople, even engaging in a singing session with them using a ukulele they'd brought along.

On 20 May, the day after Jack turned 22, the men left the last hint of civilisation. Nine gruelling days later, they reached Dead Horse Camp, where Percy Fawcett had been forced to shoot his ailing pack animal and retreat on a previous

expedition. From here they entered utterly unknown territory, heading towards the River of Death. This region was home to tribes such as the Kayapo, Suyá and Xavante, who harboured a violent hatred of intruders after their murderous mistreatment at the hands of rubber barons and soldiers, and the suffering they'd endured as epidemics of disease devastated their societies following contact with Europeans.

The guides would go no further, and they began heading back to Cuiabá with expedition reports and letters for loved ones.

Percy Fawcett wrote to his wife, and Jack's mother, Nina: “You need have no fear of failure.” The three men were never seen again. 📍



Fawcett's younger son Brian inspects bones believed to be his father's, found in the Amazon

WHAT HAPPENED NEXT?

In the 90-plus years since they disappeared, dozens of expeditions have ventured into the jungle attempting to discover the fate of the Fawcetts and Rimell. Many went missing themselves. Various gory stories and far-fetched survival yarns have emerged, including claims that the explorers found Z and disappeared through a portal into another dimension. In life Fawcett experimented with mysticism, and in absentia he has acquired a cult-like following. Years after they vanished, an indigenous fair-skinned boy was presented and paraded as Jack's son, before Nina pointed out he was simply an albino. In all probability, the men were killed

by a hostile tribe or simply succumbed to one of the Amazon's innumerable dangers. In an ironic twist, though, it now appears that Fawcett had already found his lost city without realising it. Unearthed by anthropologist Michael Heckenberger, Kuhikugu is a sprawling archaeological site in remote Mato Grosso, near the Xingu River, which evidence (including the pottery Fawcett puzzled over) suggests once played home to an enormous and sophisticated civilisation. It's no Machu Picchu-style citadel, but around 50,000 people lived here before the arrival of Europeans heralded a disease apocalypse.

GET HOOKED

READ

The Lost City of Z by David Grann (Doubleday, 2009) is a lively read detailing the backstory to the 1925 expedition and subsequent attempts to locate the explorers.

WATCH

A film version of David Grann's *The Lost City of Z*, starring Charlie Hunnam, Sienna Miller and Tom Holland, was released in April 2017.

PARADISE FOUND
Captain James Cook's three voyages greatly enlightened the Western world about life in the South Pacific

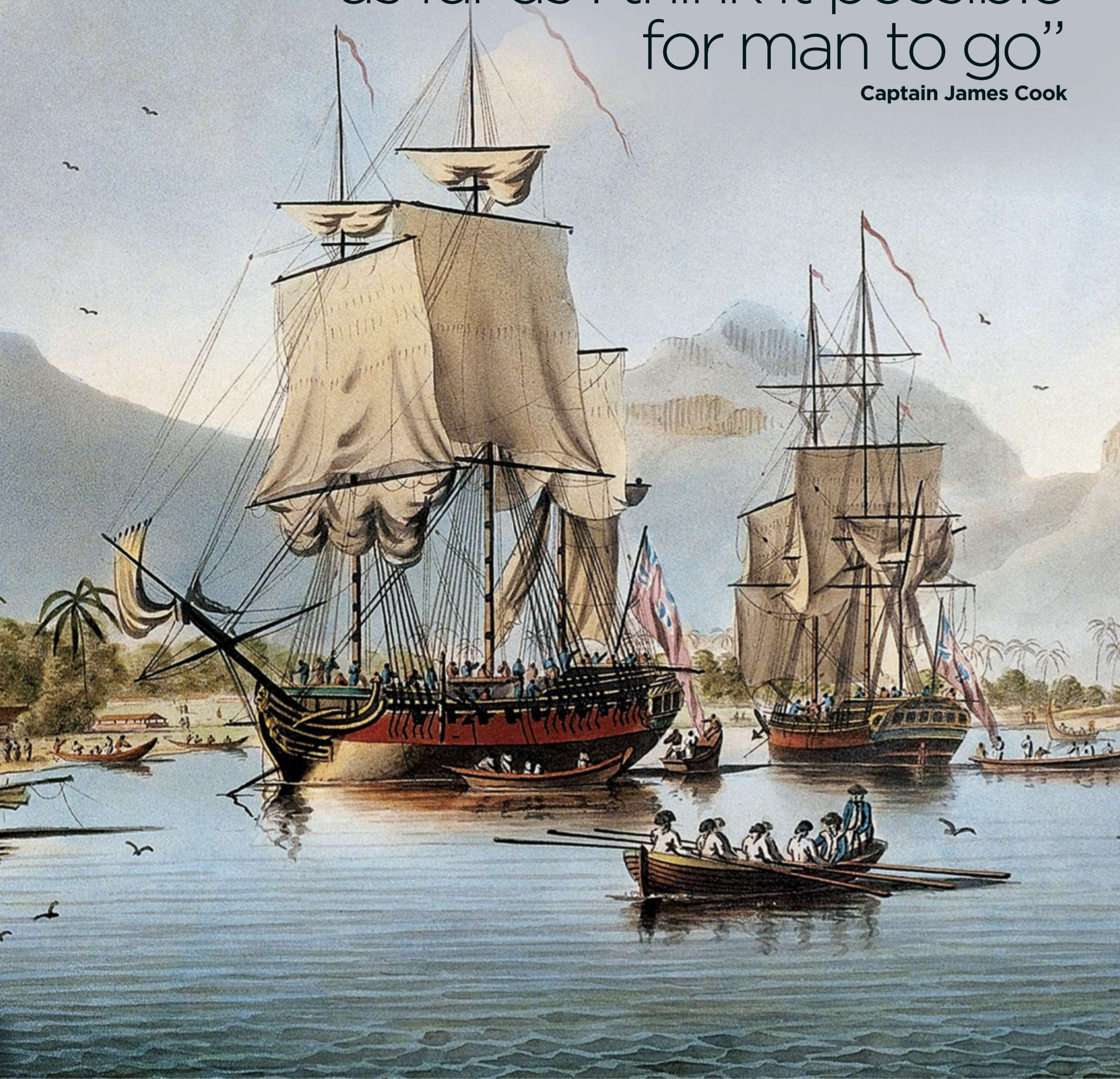
THE MAN WHO REDREW THE MAP

Captain James Cook's globe-spanning voyages not only revealed previously uncharted lands, but were packed with adventure and bloodshed

GETTY X2

**“Ambition leads me
not only farther than
any other man has
been before me, but
as far as I think it possible
for man to go”**

Captain James Cook



Captain James Cook rose from humble beginnings in Yorkshire to become the most accomplished explorer of his age. A taciturn man, he was nonetheless a natural leader and diplomat, held in high esteem even by England's many enemies in a violent era. He managed to negotiate peacefully with the great majority of indigenous communities he encountered during his globe-defining adventures.

Cook's journeys and discoveries had a profound impact on the fortunes of millions of people. He christened countless natural features around the planet, while his own name now adorns numerous places and landmarks around the world he circled several times. But his ultimate fate was as gory and inglorious as it was untimely.

By the time Cook embarked on his third and final fateful expedition, he had already circumnavigated the planet twice and added thousands of miles of new coastline to the world map – so accurately, in fact, that some of his charts were still being used well into the 20th century.

Technically, Cook had hung up his captain's hat once he'd returned from his second major

voyage in 1775, but the explorer embraced retirement reluctantly and made it well known to the Admiralty that he was looking for another opportunity to hit the high seas.

GOLDEN OPPORTUNITY

The restless Yorkshireman didn't have to wait long for his chance. Within a year, Cook spotted an opportunity to have a crack at finding, navigating and charting the elusive Northwest Passage, a hypothetical sea route between the north Atlantic and north Pacific. London merchants were waiting desperately for someone to unlock the passage, so they could easier trade with the Far East.

Cook's orders were to find a western way through the Bering Strait, starting from the north Pacific, but since his expedition was taking place during a politically sensitive time – with Britain engaged in the American Revolutionary War – his true objective was kept under wraps. As a cover, the voyage was reportedly explained as a mission of mercy, to return a young Raiatean man named Omai (who had been brought to England by Captain Tobias Furneaux during Cook's second expedition)

DID YOU KNOW?

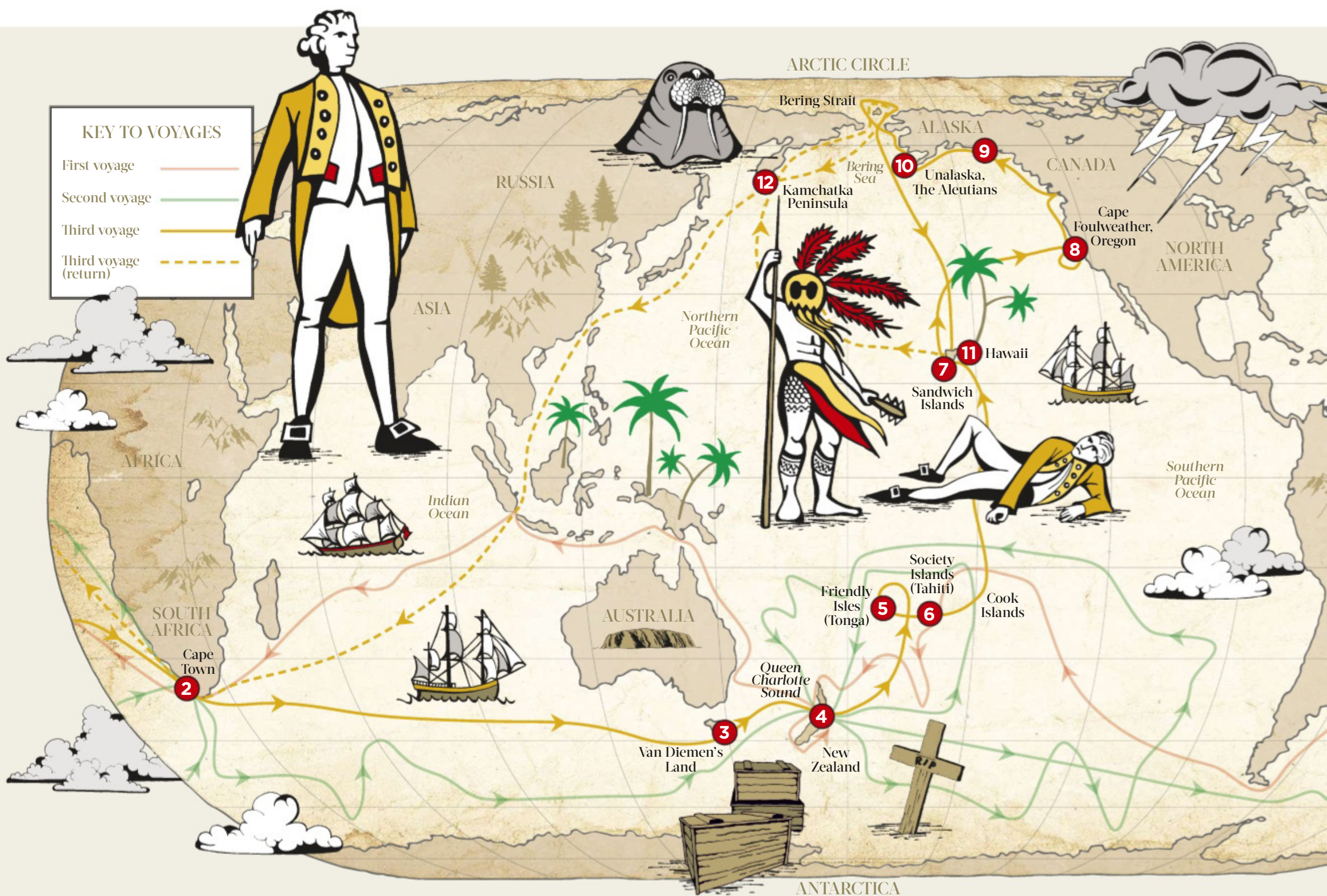
The final NASA Space Shuttle was named after HMS *Endeavour*, the ship on which Cook first navigated the globe

back to his homeland of Huahine in the Society Islands. As on his

previous voyage,

Cook took charge of HMS *Resolution*, sailing from Plymouth in July 1776. After resupplying in the Canary Islands, he made an extended stop off in Cape Town, where the leaky ship was re-caulked and where he was joined by Captain Charles Clerke, in command of HMS *Discovery*.

Leaving South Africa in early December, the two ships travelled east across the Indian Ocean, where Cook spotted and named the Prince Edward Islands. This was despite the fact that the archipelago had already been located and named by French explorer Marc-Joseph Marion du Fresne four years earlier. Du Fresne had subsequently been killed by New Zealand Māori, and his second-in-command, Jules Crozet, had blabbed news of the islands to Cook while they were in Cape Town on a previous voyage,





ALIEN INVASION

LEFT: Cook lands on Van Diemen's Land ABOVE: A crew member's drawing, possibly of Cook being presented with a lobster by a native

but the Englishman had missed them that time around.

Propelled by powerful westerly winds, the expedition reached Tasmania – then called Van Diemen's Land – on 26 January. Coincidentally, the date would later be known as Australia Day, after events that unfolded exactly 11 years later, when the First Fleet arrived in Sydney Cove under Captain Arthur

Phillip, their destination directly influenced by reports from Cook's second voyage.

After restocking, Cook's expedition continued east to New Zealand, which the explorer had circumnavigated aboard the *Endeavour* during his first voyage, proving that it wasn't part of the fabled Terra Australis. The explorer also visited New Zealand on his second expedition and, during that trip, Captain Tobias Furneaux, in command of the *Adventure*, had lost several men in a violent encounter with a group of Māori.

FRIEND OR FOE?

The locals in New Zealand's Queen Charlotte Sound were reportedly nervous when they saw the foreigners' ships returning, thinking they'd come to exact revenge, but the two-week

THE MAIN PLAYERS

JAMES COOK

Born into a farm-labouring family in the village of Marton, Yorkshire, in 1728, James Cook worked as a grocer's apprentice before first going to sea aged 17 on a coal-hauling ship. After years of graft in the merchant navy, he volunteered for the Royal Navy in 1755 and saw action during the Seven Years' War.



CHARLES CLERKE

Sailed with Cook on all three of his major voyages. For Cook's third expedition, Clerke captained the *Discovery*. He took command of the entire expedition when Cook was killed, but never made it back to England, dying at sea of tuberculosis on his 38th birthday.



OMAI

Having been picked up from Huahine by Commander Tobias Furneaux in August 1773 during Cook's second expedition, Omai was used as a translator. He travelled back to England aboard HMS *Adventure*, meeting King George III at least once. Cook returned him to the Society Islands in 1777.



CAPTAIN'S COOK THIRD VOYAGE

Cook's final voyage is inevitably best known for his landing on Hawaii, as well as his death at the hands of its inhabitants. But arguably the biggest achievement of the great surveyor's third major journey of exploration was the highly detailed mapping he completed of North America's northwest coast. His charts led to the inclusion of the now-familiar coastline of Canada and Alaska on world maps for the first time, closing the gap between the known extent of the New World and Russia.



1 12 JULY 1776 Plymouth, England

The *Resolution* sets sail from England, under the command of Cook, who is ostensibly tasked with returning Omai to the Society Islands. He sails via Tenerife to Cape Town. The *Discovery*, captained by Charles Clerke, leaves in August.

2 1 DECEMBER 1776 Cape Town

The *Resolution* and the *Discovery* leave southern Africa together, having both undergone repairs, including re-caulking.

3 26 JANUARY 1777 Van Diemen's Land (Tasmania)

The expedition stops off to take on supplies of wood, water and food. The crew encounter Aboriginal people.

4 12 FEBRUARY 1777 Queen Charlotte Sound, New Zealand

Sailing into a tense atmosphere, after the death of several crew members at the hands of Māori during his previous expedition (albeit when he wasn't there), Cook defuses the situation by befriendling the attackers.

5 28 APRIL–MID JULY 1777 Friendly Isles (Tonga)

After discovering and stopping off at Mangaia and Palmerston Island in what's now known as the

Cook Islands, the expedition washed up in the Friendly Isles, where they were afforded an appropriately warm welcome by locals, and didn't feel like moving on for several months.

6 12 AUGUST 1777 Society Islands (Tahiti)

After finally dropping off Omai back home (or at least in the right neighbourhood), the first part of Cook's mission was complete. However, he'd missed his chance to attempt the Northwest Passage in 1777 and had the luxury of hanging out in a Pacific paradise for a bit longer before heading into the freezer.

7 18 JANUARY 1778 Sandwich Islands (Hawaii)

Cook and his crew become the first Europeans to visit the islands now known as Hawaii, which he names the Sandwich Islands.

8 MARCH 1778 Cape Foulweather, Oregon coast

Bidding the sun goodbye, the expedition sails across the north Pacific and hits the American mainland amid terrible storms.

9 APRIL–AUGUST 1778 Canadian and Alaskan coast

For months, Cook crawls along the west of present-day Canada and Alaska, completing highly accurate mapping of the coastline and looking for

a passage north into the Bering Strait. They pass into the Arctic Circle on 11 August 1778, but are ultimately frustrated and forced back south.

10 2 OCTOBER 1778 Unalaska, the Aleutians

The expedition makes another forced stop for repairs, with both ships being re-caulked.

11 NOVEMBER–FEBRUARY 1778 Sandwich Islands (Hawaii)

The ships head south to escape the winter, first spotting Maui in the Sandwich Islands on 26 November. They circumnavigate the big island of Hawaii before landing at Kealahakua Bay on 17 January 1779, where they're greeted as gods. The relationship deteriorates, though, and they depart the islands after a month, but are forced to return after a storm damages the *Resolution*. Tensions escalate, resulting in a violent melee, which ends in the death of Cook and several others.

12 MARCH–AUGUST 1779 Northern Pacific and the Kamchatka Peninsula, Russia

Under the command of Captain Clerke, the expedition makes another failed attempt to find a Northwest Passage. Clerke dies in August, leaving John Gore and James King to lead the expedition home via Japan, Macao and Cape Town, reaching Britain in October 1780.

THE EARLIER ADVENTURES

James Cook fine-tuned his famous surveying capabilities during the Seven Years' War. The quality of his Saint Lawrence River charts, drawn during the siege of Quebec City, attracted the attention of the British Admiralty, ultimately leading to his first commission as a captain.

The declared objective of his first quest was to sail into the heart of the Pacific to observe and record the 1769 transit of Venus. Cook's *Endeavour* left England in August 1768, rounded Cape Horn and reached Tahiti for the transit.

He then began the second, more secretive part of his mission: the search for the mysterious southern continent of Terra Australis. Dutch explorer Abel Tasman had already discovered parts of Australia and New Zealand, but myths about a massive, single southern landmass endured.

With one ship, Cook proceeded to add 5,000 miles of coastline to the world map, accurately charting both islands of New Zealand, the entire east coast of Australia (crashing into the Great Barrier Reef en route, before landing at Botany Bay and controversially claiming the entire continent for Britain) and sailing through the Torres Strait, proving that New Guinea and New Holland (Australia) were separate.

He completed his first global circumnavigation by rounding the Cape of Good Hope and sailing up the west coast of Africa, arriving in England in July 1771.

However, Terra Australis had neither been confirmed nor disproved, and Cook was dispatched on a second expedition to decide the debate. He left England on the *Resolution* in July 1772, accompanied by Captain Furneaux aboard the *Adventure*. They circumnavigated the bottom of the globe, visiting and naming many Pacific islands, penetrating the Antarctic Circle for the first time ever, and ultimately discrediting the Terra Australis myth.

The ships were twice separated. Furneaux arrived back in England in July 1774 – after surviving a violent encounter with Māori in New Zealand – while Cook returned in July 1775, having re-entered the Antarctic Circle and gone further south than anyone else, before being repelled by ice. He later conceded: "I, who had ambition not only to go farther than anyone had been before, but as far as it was possible for man to go, was not sorry in meeting with this interruption..."



STAKING A CLAIM
In 1770, Cook lands at Botany Bay and declares Australia to be British

visit passed without bloodshed when Cook seemingly befriended the leader of the attack.

Next stop should have been the Society Islands, where Captain Furneaux had picked up Omai in 1773, but the elements intervened, pushing the ships further west. At the end of March, they became the first Europeans to sight, and land on, reef-ringed Mangaia, the most southerly of the super-scattered group of Pacific islands now collectively called the Cook Islands.

Following the winds west, the *Resolution* and *Discovery* made another pit stop in April at Tonga, known to Cook as the Friendly Isles after the hospitable reception he'd received there during his second voyage. Welcomed once again, the Captain dallied here for almost three months, before finally departing for Tahiti.

Omai finally arrived back home to the Society Islands on 12 August 1777, after a bewildering four years that must have seemed like an alien abduction. Knowing he'd missed his chance to thread the Bering Strait during the northern summer of that year, Cook was in no rush to leave. The party stayed in Tahiti for a further four months, before finally setting sail again on 7 December.

LAND AHOY

On 18 January 1778, uncharted land appeared out of the blue to the north. Guiding his ships into a bay that would eventually become Waimea Harbour, Cook christened the previously unknown archipelago the Sandwich Islands – in honour of John Montagu, fourth Earl of Sandwich, First Lord of the Admiralty and one of his patrons. These days we know them as Hawaii.

After a brief stop, the ships steered north east, across the immensity of the mid-Pacific, to meet the American mainland near modern-day Oregon. Cook hit the west coast in brutal conditions in early March and proceeded to plant a time bomb for the region's future tourism industry by bestowing the area with the name Cape Foulweather.

In bad visibility, Cook sailed straight past the mouth of the Strait of Juan de Fuca, which leads to present-day Vancouver, and instead sought sanctuary in the protective embrace of Nootka Sound on Vancouver Island. They remained here for a month, in Resolution Cove, trading with the Nuu-chah-nulth people, who demanded metals from the Europeans, paying for tools and other trinkets with otter pelts.

ALL OVER THE MAP

RIGHT: The crews go hunting on the Arctic leg of the third voyage BELOW: Cook and his crew stayed in Tahiti for four months BELOW MIDDLE: While instructing his men to stop shooting, Cook is fatally stabbed in the back

BOTTOM LEFT: A head of the war god Kūka'ilimoku, collected by Cook BOTTOM RIGHT: The Captain Cook Monument at Kealahou in Hawaii



50

Cook's age when he was killed in Hawaii in 1779. One eyewitness account describes how he was stabbed in the back





“They were welcomed by a huge flotilla of canoes and heralded with great fanfare”



Cook proceeded to lead the expedition north, meticulously charting the coastline from Vancouver, right around the west coast of current-day Canada and Alaska, past what's now known as Cook Inlet, until he was forced to hook west and then south around the curve of the Aleutians. He eventually managed to turn north again, past the Chukchi Peninsula in Russia, to enter the Bering Sea.

On 11 August, the expedition crossed the Arctic Circle, reaching as far north as latitude 70° 41' North before being repelled by pack ice off Icy Cape. Cook was nothing if not tenacious, and he made multiple attempts to pick a path through the Bering Strait, but ice and violent seas made progress impossible. Continuing to feel around for a possible route, the Captain went west and worked his way down the Russian coast before sailing east again to Alaska's Norton Sound.

By this time, his crew were getting restless and Cook knew it was far too late in the year to find an ice-free route around the top of Russia. In October, the expedition put in at Unalaska in the Aleutians, where the ships were again re-caulked. He then ordered them to turn around and the expedition sailed back south, towards the sun and the Sandwich Islands.

VALENTINE'S DAY MASSACRE

The island of Maui was spied on 26 November 1778, and the *Resolution* and *Discovery* spent all of December and the first two weeks of 1779 circumnavigating the big island of Hawaii, before finally anchoring in Kealahou Bay on 17 January. They were welcomed by a huge flotilla of canoes and heralded with great fanfare. By chance, the Europeans had gatecrashed a significant religious festival called Makahiki, dedicated to the god Lono. The situation could have gone either way, but fortunately the Hawaiians appeared to believe Cook was the personification of Lono.

The relationship between the Europeans and the islanders thus began on a positive note, and the crew made the most of their celebrity status by greedily tucking into everything the island had to offer. When one of the men died from a stroke, however, his untimely demise rather undermined their veneer of godly immortality, and the Hawaiians' suspicions were aroused. By the time

Cook ordered his ships to leave on 4 February 1779, strains had begun to show.

Unfortunately, after just a week at sea, the ships ran into fierce gales that snapped a mast on the *Resolution* and forced the captain to make a U-turn. The reception when they arrived back in Hawaii – looking more mortal and fallible than ever – was distinctly chilly and, in the following days, a group of locals stole the *Discovery's* cutter, a single-masted small boat.

On 14 February 1779, Cook went ashore with nine marines, intent on taking Kalani'ōpu'u, a powerful Hawaiian island chief, captive until he could negotiate the return of the cutter. A violent melee erupted, and Cook was killed, along with four of his marines and a number of locals.

One eyewitness report credited to Lieutenant Molesworth Phillips, who suffered a spear wound in the conflict, talks about gunfire coming from English boats and describes how Cook was stabbed in the back when he faced the ships and requested they cease firing. Other accounts suggest the Europeans panicked and were fleeing to the sea when they were cut down.

In death, Cook was treated with great ceremony by the Hawaiians, who prepared his body as they would one of their highest chiefs – disembowelling the torso, preserving the hands in sea salt, roasting the remains in a pit and preserving the bones.

Parts of the Captain's corpse were recovered after a truce was called between the clashing cultures, and his devastated crew buried the remains of the explorer and surveyor at sea in Kealahou Bay. 📍

GET HOOKED

READ

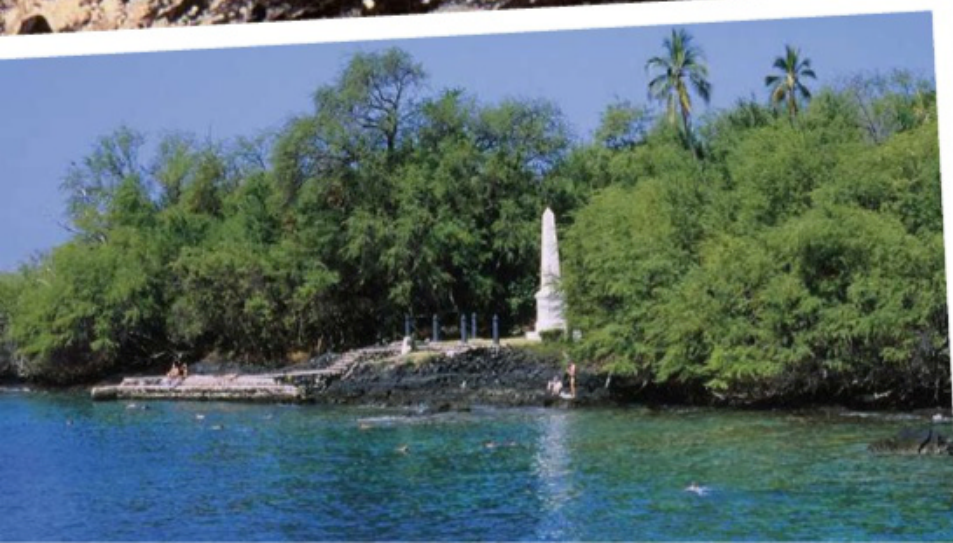
Read all about his adventures in the Captain's own words in *The Journals*, published by Penguin Classics

VISIT

The Captain Cook Memorial Museum in Whitby, North Yorkshire, is located in the house in which Cook lodged while he received his seaman's training. www.cookmuseumwhitby.co.uk

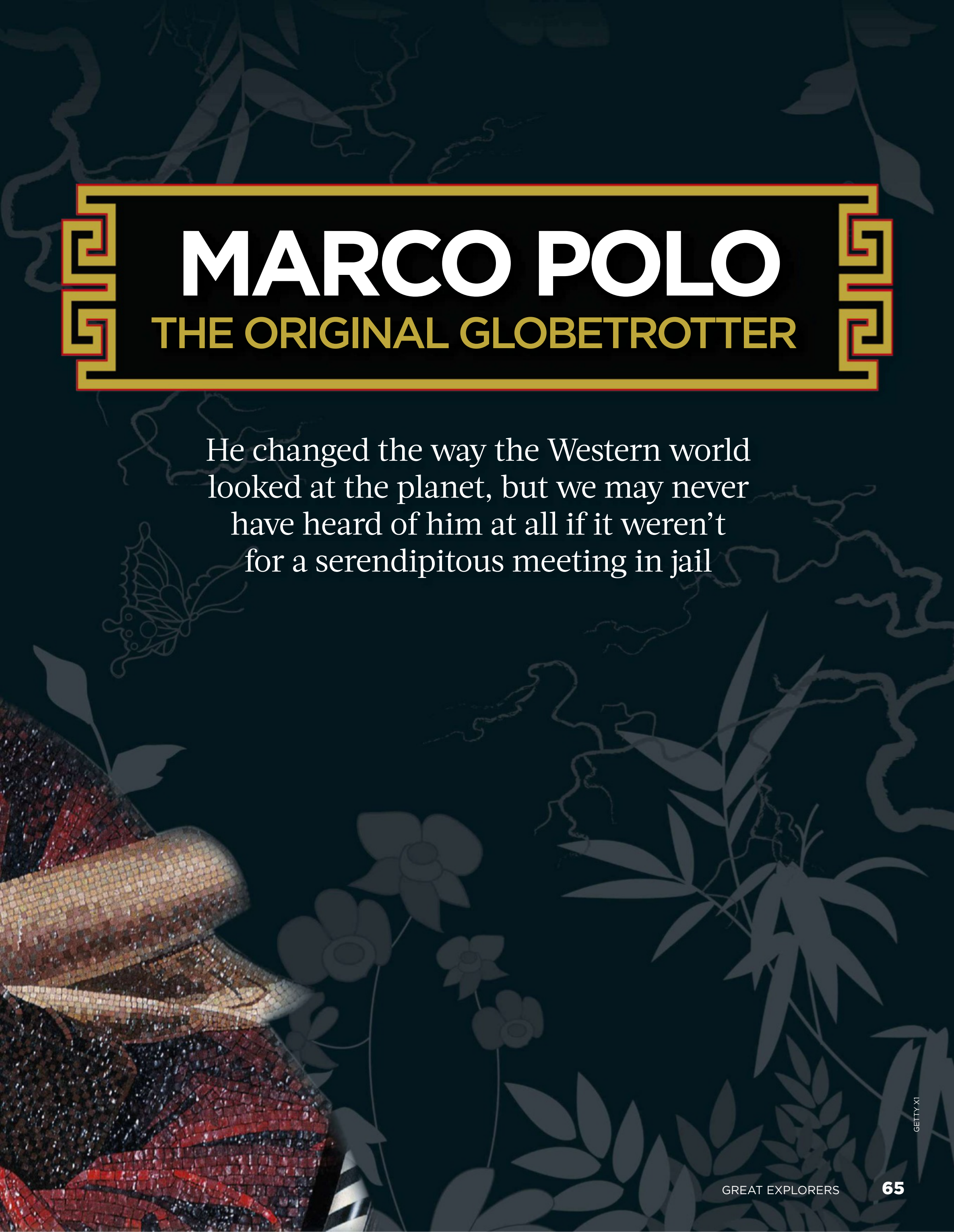
LIFE ON BOARD AFTER COOK

When Cook was killed in the skirmish with Hawaiians on 14 February 1779, Captain Charles Clerke took overall command of the expedition. He led both ships back north and attempted to continue the mission to locate a navigable Northwest Passage, progressing as far as the Pacific coast of Siberia. Suffering from tuberculosis, Clerke died on 22 August 1779 and was buried in the town of Petropavlovsk on Russia's Kamchatka Peninsula. Lieutenant John Gore took command of the voyage as captain of the *Resolution*, appointing Lieutenant James King as the *Discovery's* skipper. The expedition sailed home via China and Cape Town, docking back in Britain in October 1780.



MARCO POLO





MARCO POLO

THE ORIGINAL GLOBETROTTER

He changed the way the Western world
looked at the planet, but we may never
have heard of him at all if it weren't
for a serendipitous meeting in jail

c1254 THE MERCHANT OF VENICE

Marco Polo is born into a merchant family in the cultural capital of the Western world, Venice. He probably receives a thorough education to prepare for his merchant life. His mother dies when he is young and he is raised by an aunt and uncle, as his father is away on an epic, 17-year merchant expedition.



c1271 LEAVING THE NEST

Having only met his father Niccolò and uncle Maffeo two years previously, upon their return to Venice, Marco embarks for China with his newfound family members. His elders have a mission from Kublai Khan, Emperor of the Mongol Empire, to deliver letters to the Pope and to collect oil from the Holy Sepulchre in Jerusalem, making these the family's first two stops.



c1272 TRAVEL SICK

After having to change their plans at Hormuz, on the Persian Gulf – where the boat the Polos were meant to take to Beijing was not fit for the journey – the merchants continue over land to China. The expedition is waylaid for a year by sickness.



For Italian romance writer Rustichello da Pisa, being locked up in a Genoan prison near the end of the 13th century was a blessing in disguise – for in his cell, he stumbled across a story that is still in print today. His cellmate was Marco Polo – the story the tale of the merchant's travels. In that dank prison, the 40-something Venetian traveller let his exotic accounts of Jerusalem, China, India and beyond unfurl. The caged wordsmith lapped them up. A cosmography-cum-memoir, originally entitled *Divisament dou Monde* (*Description of the World*) now commonly called *The Travels of Marco Polo*, was born.

The book was a sensation – it created ripples in Italian society that would, over the years, turn into tidal waves, with his story inspiring many adventurers of the Age of Exploration.

But Marco Polo's real story begins long before the narrative of the book, with a young lad in

the most prosperous and sophisticated city in the known world.

ON TOP OF THE WORLD

Growing up in a wealthy merchant family during 1250s Venice, Marco's childhood was a mixture of fortunes. His home life would have been very comfortable, and his education thorough. He would have learned to read and write, with extra emphasis on mathematics and book-keeping. Such an education was hardly common for most at this time. And where he grew up was hardly common, either. In the 13th century, Venice was in its heyday. The proud Venetians called their city – considered the cultural centre of the Western world – *la serenissima*: 'the most sublime'. Venice's port was the main gateway to Asia, and with oriental fashions at a peak in Europe, this made for a prosperous place.

Such wealth – combined with the city-state's involvement in the Crusades – attracted

enemies, and Venice often found itself entangled in conflicts, notably with the Byzantine Empire and Genoa. But while it was waging wars, it was also creating great beauty. Venice's most noble families were engaged in a competitive showcase of opulence, flaunting their wealth with ever-more exquisite palaces and attracting the world's top artists.

However exciting school and society may have been for young Marco, family life was likely less happy. His father, Niccolò, along with his Uncle Maffeo, left home on a merchant expedition to the East before Marco was born, and wouldn't return for nearly two decades. Furthermore, Marco's mother died when he was a young boy, after which an aunt and uncle raised him.

Meanwhile, Niccolò and Maffeo were off making a fortune on an extraordinary trip of their own. A shrewd pair, they hotfooted it out of Constantinople (now Istanbul) just a year before the Crusader leaders there were overthrown in 1261. Their pockets lined with jewels they had invested in, the brothers headed for China, where they would make a very important contact: Kublai Khan, ruler of the Mongol Empire. The merchants were given a mission – deliver a letter to the Pope, and return with 100 Christian priests and oil from the Holy Sepulchre in Jerusalem. In return, they received the Khan's personal seals for safe passage – invaluable items for merchants wishing to collect the riches of the Orient. So, after some 16 or 17 years, they finally headed home.

GIOVANNI BATTISTA RAMUSIO,
16TH-CENTURY GEOGRAPHER
“It is a truly magnificent thing to consider
the voyage that the father and uncle of
Marco made all the way to the court of
the grand Khan, Emperor of the Tartars”





c1274-91 CHINA TOWN

The travellers arrive in China and head to Kublai Khan's court, where Marco is hugely impressed with what he sees. His superb linguistic skills lead the Khan to send him around the empire on special missions. He discovers amazing cities, and later correctly estimates that millions of people must have lived in them. In Venice, these grand statements will lead to the derisory nickname *Il Milione* – 'the million'.

When the Polo brothers returned, they found a 15- or 16-year-old Marco, fully trained and ready to work with his father – who may not have even known of his son's existence. They had two years to get to know each other while they waited for the appointment of a new Pope – the other had recently died – so they could deliver the Khan's letters. The Pope agreed to give the Polos just two friars – (both of whom found the travelling too taxing, and returned home soon after departure). Finally, the family set off back to China, not to return for a further 23 years.

FIRST GLIMPSES

En route to Jerusalem, Marco's worldview was shaken to the core. Hitherto, Venice – the lagoon-city with marble palaces – was, he had always been told, the most marvellous place in the world. But, audacious as his hometown was, he was not prepared for the exoticism of the Middle East. His first glimpses of this alien and alluring culture struck him hard, leaving a lasting impression on the man who, a quarter of a century later, would recall the sights in vivid detail. The fantastical pictures he painted in his account would hit Venice's collective ego so hard that they wouldn't believe his words.

Having travelled to Jerusalem to collect holy oil for the Khan, the Polos continued deeper into Asia, trekking over harsh, arid terrain to reach Hormuz on the Persian Gulf. In the

midst of parched desert expanses, the group encountered lush oases, to Marco's surprise. He later described them to his cellmate as "delightful little palm groves... a great pleasure to the travelling merchants".

At Hormuz, things were not as Marco's uncles had planned. The boat they should have boarded to take them to Beijing was unfit for the journey, so the trio took the much more time-consuming and challenging land route.

After trudging through the inhospitable desert landscape of what is now northeastern Iran, Marco was taken ill, possibly with malaria. They remained in Afghanistan, where the

"The city is beyond dispute the finest and noblest in the world"

Marco Polo on Quinsay (Hangzhou)

conditions and the people were much more welcoming, for a year, while the young man recovered. Supposedly, he recuperated in a mountainous region where clear air and a pleasant climate helped to cure him, though it is unclear where this may be.

IN XANADU

The three travellers made it to China c1274-75, where they headed for the Khan's court in

EAST IS EAST AT HOME WITH THE MONGOLS

The Mongol Empire spread through the East during the 13th and 14th centuries, beginning when Genghis Khan came to power in 1206. The Mongols took Beijing in 1215 and, by the time Kublai became the great Khan in 1260, the realm extended to Turkey in the west, north into Russia and south as far as Vietnam.

Kublai, known as *Setsen Khan* – the 'Wise Khan' – believed that, in order to rule over a group of such disparate cultures, he had to embrace them all. To that end, he encouraged Mongols and Chinese to adopt each others' traditions and welcomed all religions.

Despite this, the Khan was still wary of his subjugated Chinese population – which is exactly why foreigners such as the Polos were placed in such positions of trust within the court.

Marco appears to have enjoyed his time with the Mongols, describing the Emperor as a model ruler. This is certainly in contrast to the general opinion of the Mongols in Europe, where they were considered great savages.

GREAT KHAN
Kublai, grandson
of Genghis Khan
and Mongol leader



Xanadu – the Emperor's summer palace. The memory of this resplendent residence must have been a welcome one for Marco when he described it to Rustichello in their dingy jail: "A huge palace of marble, its halls and chambers all gilded, a wall encloses fully 16 miles of parkland, well watered with springs and streams."

The Emperor can't have been too upset by the lack of a mass of priests, as the Polos were soon engaged as employees of the state. Marco flourished during this time. He appears to have had considerable linguistic skills, mastering four different languages

with relative speed. According to Marco's account, the Khan noticed this talent and liked to hear the merchant tell his tales of the distant places he had seen. Realising that the Venetian had a rare knack for perception, the leader began to send Marco off on missions to the far-flung corners of his empire. With his merchant's education and keen eye, Marco gathered information about trade and industry – exactly the sort of information the Khan



c1295 THE TRAVELLERS RETURN

After a long and complicated journey home, via Khorasan (in modern-day Iran) where they escorted a Mongol princess to her new husband, the Polos arrive back in Venice. It has been some 23 years since they left, and they find their hometown is at war with Genoa.



1298 PRISONER OF WAR

In a classic case of being in the wrong place at the wrong time, Marco is taken prisoner by the Genoese as part of the ongoing conflict. While in jail, he comes to share a cell with a writer named Rustichello. Between them, they write a book that causes a sensation upon its release. By 1307, he is famous around Europe, but most people believe the account to be fictitious.

1324 END OF THE ROAD

Having married and had three daughters, the great adventurer passes away, aged around 70. He has lived quietly as a merchant in Venice for some 25 years. On his deathbed, he reportedly says: "I did not write half of what I saw, for I knew I would not be believed." In his will, he frees a Tartar slave – probably a servant brought back from China.

liked to keep track of. As the Emperor's envoy, Marco was sent all over China, as well as Myanmar and even as far as Java.

When he visited Quinsay (now Hangzhou), a lakeside city in eastern China, he was struck by its sophistication, boldly stating, "the city is beyond dispute the finest and noblest in the world". He goes on to correctly estimate that there were a million people living in the city – ten times as many as in his home city. Indeed, his use of the word 'millions' later led the Venetians to adopt the cruel moniker 'Il Milione' for both the book and Marco.

Marco had a great interest in the different cultures and behaviours he witnessed, and one salacious trend seems to have been of particular interest to him. At this time in China, sexual experience, rather than innocence, made women more valuable as wives. So young ladies were offered up to travellers, who were deemed to be the most experienced of men. Indeed, he hints that he made the most of it, saying China was "a wonderful place for a man of 17-24 to visit".

HOMeward BOUND

The Polos asked the Khan for permission to leave his service and go home sometime around 1291. The Emperor rejected the request, instead sending Marco off on a journey to India, but around 1292, the Polos were called to see the nearly 80-year-old Khan. He had clearly had a

change of heart. They were asked to escort the Mongol Princess Kökechin to her husband-to-be in Persia, after which, they would be free to return to Venice.

They set sail from Zaiton (now Quanzhou) with a fleet of 14 ships. The voyage was hampered by monsoon storms, and had to wait the season out for five months. When they finally made it to Khorasan (in current

the book were released. Marco soon became a celebrity, but he wasn't happy with his fame. The story was generally assumed to be a work of fiction because of the flamboyance, extravagance and abundance of it all. He insisted on the book's veracity, but society simply couldn't accept it.

The merchant settled down – he married, had three daughters, and lived to 1324, when he must have been pushing 70. He saw no great respect for his journey in his lifetime.

However, words live longer than people, and the next generations were inspired by his tale. Whether fable or fact, this intrepid explorer made the world seem at the same time smaller and larger – reachable, yet full of untold wonders waiting to be

seen. And see them they did. Hundreds of wanderlust-filled adventurers set off to discover the East for themselves. Among Marco's fans was the man who would discover the New World in 1492, Christopher Columbus. How different the Age of Exploration might have been without Marco's story. 🎯

"I did not write half of what I saw, for I knew I would not be believed"

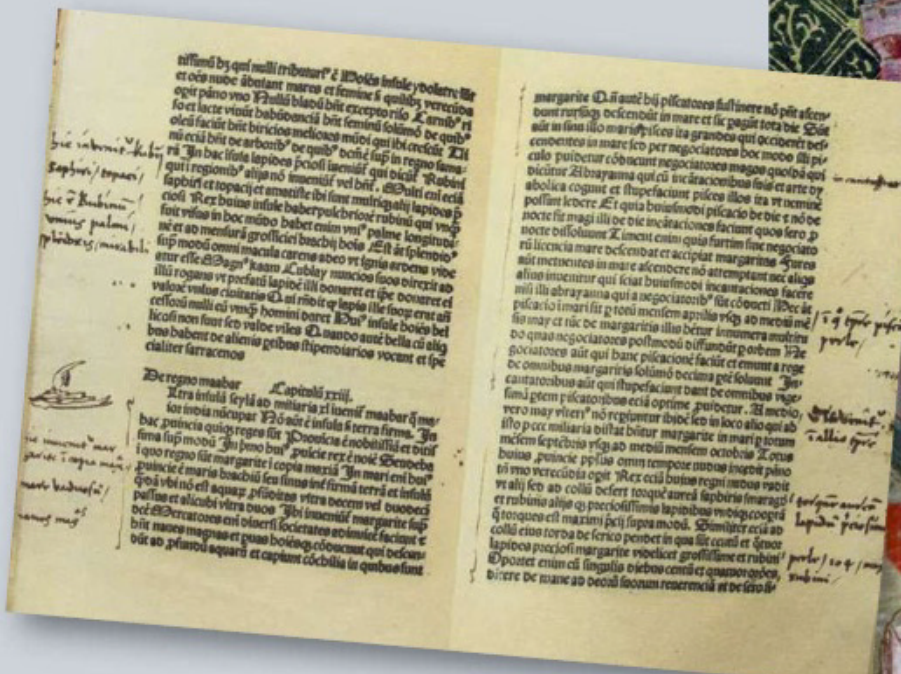
Marco Polo

Iran) they found that Kökechin's betrothed had passed away. She married his son, instead.

En route to Europe, in what is now Turkey, the weary Polos were robbed of the majority of their valuable stock. When they eventually made it home in 1295, the men could barely speak their native language, family members hardly recognised them, and the city-state was at war with Genoa.

In a cruel twist of fate, Marco was taken prisoner by the Genoese after the boat he was travelling on was raided, which is how he came to share a prison cell with Rustichello. After a year in captivity, both the prisoners and

WHAT DO YOU THINK?
Which other characters from history have inspired such world-changing events?
Email: editor@historyrevealed.com

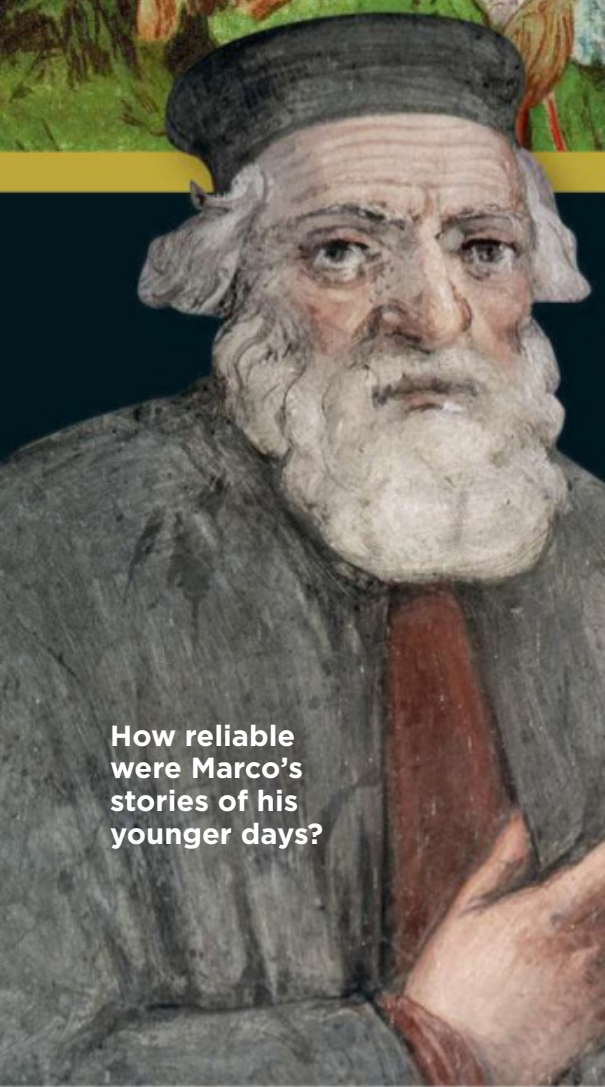


1400s IN HIS FOOTSTEPS

Long after his death, Marco's tales inspire a wanderlust generation. The book becomes ever more popular until, in the 1450s, explorers start to follow in his footsteps. These adventurers use maps based on those brought back from China by the Polos, and Christopher Columbus is so excited about his hero's book that he writes notes in the margin.



ALL AROUND THE WORLD
When Marco Polo set sail in 1271, he couldn't have imagined the legacy his trip would leave



IS THIS JUST FANTASY... DID MARCO COOK THE BOOK?

Ever since it was first let loose on Venetian society, *The Travels of Marco Polo* has been a source of controversy. While 13th-century readers were left flabbergasted by the idea of high culture in the East, modern historians have found reason to dispute the tale's veracity. For some, the fact that the author fails to mention the Great Wall of China or tea drinking is pretty peculiar. He also claims a battle occurred during his

visit, though it happened three years earlier, and he himself is not named in any Chinese document of the time. However, as Marco would most likely have been given another name, that is easily explained. There is much evidence in his favour, too, as he correctly refers to countless animals, plants, the use of paper money and many other specifics of the time. For most of today's historians, it is beyond doubt that Marco definitely served in Kublai's court and, while his reports may be given through rose-tinted glasses, they are based in truth. What *is* debated, is how many of the reported sights Marco saw himself, and how many were based on the descriptions of others.

How reliable were Marco's stories of his younger days?

LEWIS AND CLARK

It was an 8,000-mile mission into the unknown. Follow the men who canoed uphill across a continent to unite America with its manifest destiny..



“The first white men of your people who came to our country were named Lewis and Clark. **They brought many things that our people had never seen. They talked straight. These men were very kind**”

Chief Joseph of the Nez Percé



President Thomas Jefferson was a man with a vision. When serendipity gifted the United States a vast swathe of new and unexplored territory, he immediately sent a handpicked team of soldiers and frontiersmen across the Mississippi and into the void beyond, to explore North America's longest river, the mysterious Missouri, and push his newborn nation's horizons as far as they could go.

The 35-man expedition was spearheaded by Jefferson's personal secretary and, besides surviving whatever the wilderness threw at them – including bone-crunching rapids, mountains, grizzly bears and unknown tribes – the explorers had to become cartographers, journalists and scientists on the hoof. Their journey is one of the most celebrated feats of endurance and discovery in the history of the US. Indeed, it was a crucial part of the jigsaw puzzle that pieced the country together in the first place.

GROWING AMERICA

In late 1803, the United States of America suddenly doubled in size when Napoleon –

preparing to recommence war with Britain – flogged the country 828,000 square miles of land at a bargain price, in a flash sale known as the Louisiana Purchase.

Little was known about this immense territory, which sprawled across land that now forms all or part of 15 modern-day states, other than that it offered the ambitious young nation a springboard for further exploration and expansion – potentially all the way to the west coast.

This brought the realisation of Manifest Destiny (the belief that the US would and should ultimately span the continent from Atlantic to Pacific) a significant stride closer – a concept that horrified Britain and Spain. But Europe was embroiled in the Napoleonic Wars, and Jefferson acted swiftly. He founded the Corps of Discovery and commissioned a task force to explore and chart the vast wilderness that had suddenly become bolted onto the US.

To posterity, the Corps of Discovery Expedition is better known by the names of

the two men who led it – Captain Meriwether Lewis and Second Lieutenant William Clark. Their mission was mammoth. Besides mapping the new territory, they were tasked with

making contact with the myriad tribes of Native Americans that lived along the Missouri River, and establishing US sovereignty over these people and their land – by peaceful means if possible (but they carried serious firepower just in case).

In addition, they were seeking the Northwest Passage, a navigable river route across the continent that Jefferson and many others desperately hoped existed. And they had a broad scientific goal too, to study the area's unfamiliar flora and fauna. It was a near-impossible challenge, but Jefferson knew just the man for the job.

Since 1801, Lewis, a former soldier, had worked as an aide and personal secretary to the President, who considered him an extraordinarily capable man. A student of world exploration and the western frontier, Jefferson earmarked Lewis as leader for the expedition

200

The number of dogs eaten by the party (only Seaman, Lewis's Newfoundland, completed the expedition)

ILLUSTRATION: DAWN COOPER, ALAMY X3, GETTY X2



1 14 MAY 1804 Camp Dubois

After spending the winter training on the east bank of the Mississippi, Clark and the main expedition team depart Camp Dubois (near present-day Wood River, Illinois), paddling canoes up the Missouri to meet Lewis at St Charles. Together they set off up the Missouri River on 21 May. Four days later they pass the village of La Charrette, noted as the last white settlement on the river.

2 20 AUGUST 1804 Floyd's Bluff

Sergeant Charles Floyd falls ill and dies (likely from a ruptured appendix). Remarkably, he is the only man lost during the entire expedition. The party marks the grave with a cedar post and names the spot Floyd's Bluff and a nearby waterway Floyd River in his honour.

3 24 OCTOBER 1804 Fort Mandan

Present-day Washburn, North Dakota. The party reaches a Mandan village, opposite which they build Fort Mandan and settle for the winter. Here they employ Toussaint Charbonneau and his wife Sacagawea, who gives birth to a son. The family accompanies them for the rest of the expedition.

4 25 APRIL 1805 Missouri meets Yellowstone

Eighteen days after leaving Fort Mandan, the party reaches the confluence of the Missouri with the Yellowstone River.

5 AUGUST 1805 Headwaters of the Missouri

Lewis meets Shoshone leader Cameahwait, who turns out to be Sacagawea's brother. After establishing Camp Fortunate, they

purchase horses, hire Old Toby as a guide and cross Lemhi Pass.

6 SEPTEMBER 1805 Bitterroot Range

The party traverses the Bitterroot Mountains along the Lolo Trail, almost starving in the process, but eventually overcoming the Continental Divide.

7 6-9 OCTOBER 1805 Clearwater River

The party encounters a friendly tribe of Nez Percé, who agree to look after their horses. Five dugout canoes are built for the trip to the ocean.

8 18 NOVEMBER 1805 Pacific Ocean

After canoeing down the Clearwater, Snake and Columbia rivers, the expedition reaches

the Pacific Ocean at the mouth of the Columbia River. They build Fort Clatsop on the south bank, where they sit out the winter.

9 10 JUNE 1806 Camp Chopunnish

Having left Fort Clatsop in late March, the party arrives back at the Bitterroot Mountains to find them still covered in snow and impossible to cross. They split into two groups, with Lewis leading one party up the Blackfoot River and Clark leading another along the Bitterroot River.

10 6 JULY 1806 Clark's party

Clark's group crosses the Continental Divide at Gibbons Pass, travels on to Yellowstone River and discovers Pompey's Tower (now Pompeys Pillar).

POINTS WEST
Clark's compass, which helped him navigate the route, is now held at the Smithsonian, Washington DC



MISSION IMPASSABLE
The keelboat used for the first 2,000 miles. On several occasions it had to be back-breakingly hauled upstream

even as he conceptualised it. He then personally prepared Lewis for the task ahead by arranging expert

instruction in medicine, geography, astronomy and navigation, and giving him access to his own extensive library.

On 5 July 1803, two days after the Louisiana Purchase was made public, Lewis departed

Washington, DC, and travelled to Pittsburgh to begin organising supplies and hiring men. He chose his old military commander Clark as joint leader, and tasked him with recruiting the rest of the team, requesting bachelors who were good hunters and experienced in wilderness survival. In total, 33 men were engaged, and they spent the winter of 1803-04 training at Camp Dubois, on the east bank of the Mississippi.

THE MAIN PLAYERS

MERIWETHER LEWIS

Presidential aide, soldier and explorer. Joint leader of the Corps of Discovery. Became Governor of Upper Louisiana in 1807. Died from gunshot wounds (probably self-inflicted) in 1809.



WILLIAM CLARK

Soldier, explorer, Indian agent, territorial governor and slave owner. Recruited as joint leader of the Corps. Later became Governor of Missouri Territory and a Superintendent of Indian Affairs.



SACAGAWEA

Became invaluable to the expedition as a translator, guide and de facto peacemaker (her presence signalled to Native Americans that the expedition came in peace).



OLD TOBY

Real name Pikee Queenah (Swooping Eagle). A war chief of the Tuziyammo (Big Lodge) band of Western Shoshone, he led Lewis and Clark across the Continental Divide, guiding them along the Lolo Trail.

GEOGRAPHY

For the first 2,000 miles of the journey, along the Missouri – against the current all the way – Lewis had a 55-foot shallow-draft keelboat built. It carried 12 tons of cargo and had a sail, but the cumbersome boat was primarily man-powered, with oars and poles. When the current became too much, the men would tow the boat from the bank. It was arduous work, and they often travelled only 13-14 miles a day. Without the assistance of friendly Native American tribes – including the Shoshone and Nez Percé nations, with whom they negotiated – Lewis and Clark would almost certainly have perished in the Rockies, a hurdle which they barely knew existed before running into it.



- Outbound route
- Return route
- Lewis's return
- Clark's return
- Sergeant Floyd dies
- Lewis fights Blackfoot tribe
- Meeting with Shoshone tribe
- Building canoes

11 7 JULY 1806 Lewis's party

Lewis's group crosses the Continental Divide at Lewis and Clark Pass. They later become involved in a fight with the Blackfoot tribe, during which two Native Americans are killed.

12 12 AUGUST 1806 North Dakota

The two groups reunite on the Missouri River, from where the river's current carries them swiftly towards home.

13 23 SEPTEMBER 1806 Journey's end

The expedition arrives back in St Louis, where most people have long since given them up for dead.

THE
LOUISIANA
PURCHASE

In May 1804, the expedition set off from the confluence of the Missouri and Mississippi rivers. The men travelled up the Missouri, paddling canoes and a keelboat against the flow, as they would for the next 2,000 miles. The going was slow and tough but, despite several disciplinary issues (stealing, drunkenness and dereliction of duty – all punished by flogging), steady progress was made. Unbeknown to Lewis and Clark, however, their fortunes could have been very different.

PUSHING BOUNDARIES

Although exploring land covered by the Louisiana Purchase was legit, the Discovery Corps Expedition fully intended to venture beyond the territory of the US into turf claimed by Spain. Authorities in New Mexico heard about the plan as early as March 1804 (from US General James Wilkinson, a spy), but it took them until 1 August to try to stop Lewis and Clark. From Santa Fe they dispatched Pedro Vial and José Jarvet, along with 52 soldiers, to intercept the expedition in central Nebraska, but they completely missed the Americans, who'd already gone through.

Oblivious to the fact that they were being chased, the expedition continued. Their first encounter with Native Americans came in early August, when they met representatives from the Oto and Missouri nations. Well prepared, Lewis and Clark were armed with a haul of special silver medallions (called Indian Peace Medals), featuring a portrait of Jefferson and a message of peace and friendship. Handing these out, they engaged in trade with numerous tribes including the Missouris, Omahas, Yankton Sioux and Arikaras.

Early meetings passed without incident, but further upstream the Lakota people were less tolerant of the white-faced intruders, and made considerable demands in return for letting the party continue up the river. Tensions mounted and violence between the two groups almost erupted several times.

By October, the party reached a Mandan village near present-day

Washburn, North Dakota. The captains decided to overwinter just across the water from the settlement, building a fort that provoked much interest from the Mandans and their Hidatsa neighbours.

Here Lewis and Clark met Toussaint Charbonneau, a French-Canadian fur trapper with Native American blood, who'd been living with the Hidatsa. They employed Charbonneau as a translator, but it was his pregnant 15-year-old Shoshone wife, Sacagawea, who would prove genuinely invaluable to the success of the expedition. Sacagawea gave birth to a son, Jean Baptiste Charbonneau, in February 1805, and the baby remained with the party for the duration of the expedition.

In spring, the keelboat was dispatched back down the river with several men, a progress report and some botanical samples, such as a live prairie dog, a species previously unseen in the east.

Meanwhile, the expedition continued, leaving the fort on 7 April, reaching Yellowstone

River a couple of weeks later and travelling on

through modern Montana. In May, Charbonneau's boat capsized during a storm, spilling crucial supplies and journals into the river, but Sacagawea rescued most of the items, earning respect from the captains. Her value would soon become even more evident.

ROCKY ROAD

In mid-June, Lewis came across the Great Falls of the Missouri River while scouting ahead, and soon the expedition arrived at the headwaters of the river. Here they ran up against the Rockies and, as the magnitude of the Continental Divide sank in, hopes of locating the Northwest Passage receded.

On 13 August, Lewis, again scouting ahead, located and crossed the Lemhi Pass and the following day met Cameahwait, a Shoshone leader. Returning to the expedition party, he established Camp Fortunate, and a meeting was staged with the Shoshone. During this

WESTERN QUEST

BELOW: The expedition also had a scientific mission to record new plant and animal species. They sent the first prairie dog they saw to Jefferson as a gift. BELOW RIGHT: Lewis and Clark hold a council with Omaha and Oto tribes at Council Bluff. BOTTOM: Lewis meets the Shoshones. RIGHT: The Columbia River, the last leg before the weary party finally reached the Pacific

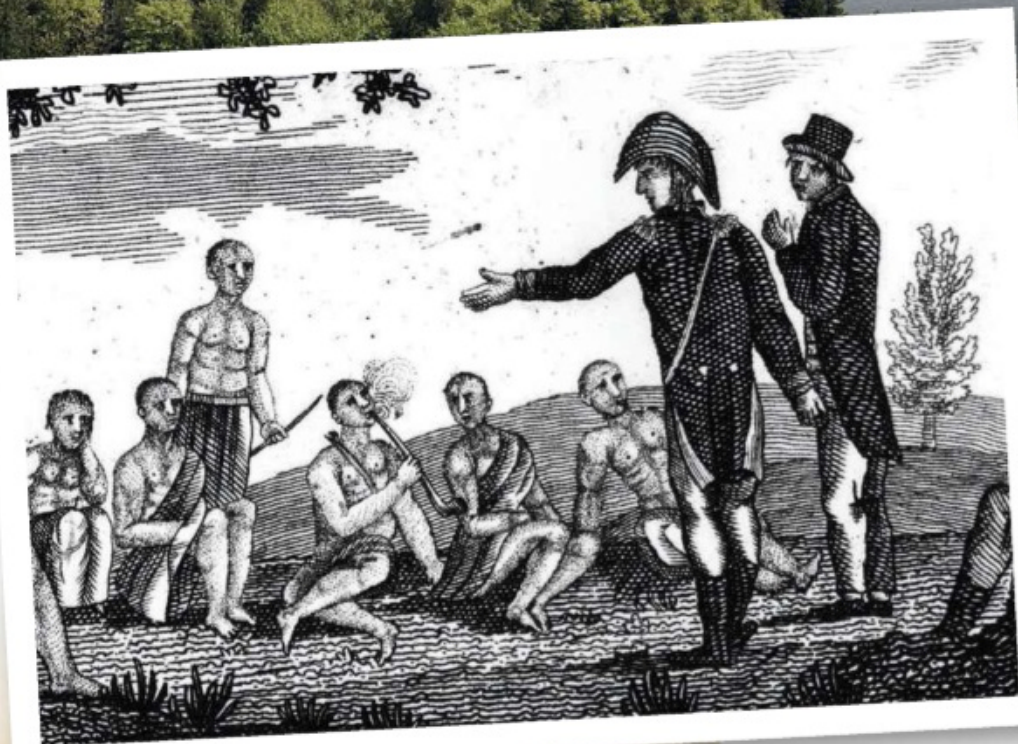


\$500.33

The fee paid (plus a horse and a lodge) to Charbonneau and his wife for 19 months' service with the expedition



“Conditions were brutal... they **ate candle wax to survive**”



encounter, it transpired that Cameahwait was Sacagawea's brother.

With good relations established, the explorers traded guns, ammunition and uniforms in exchange for horses and a Shoshone guide, Old Toby. The party crossed the Continental Divide through Lemhi Pass on 26 August 1805, at which point they left US territory, passing into

the disputed terrain of Oregon.

In September, Old Toby led them along the Lolo Trail across the Bitterroot Range of the northern Rocky Mountains. It took 11 days, and snow was already on the ground. Conditions were brutal and the party resorted to eating candle wax and horse meat to survive.

OCEAN-BOUND

On the other side of the mountain range, the expedition party chanced upon a friendly Nez Percé tribe who agreed to look after their horses while the group continued to the coast. After constructing several dugout canoes, on 9 October they set off down the Clearwater, Snake and Columbia rivers.

When Mount Hood loomed into view, the explorers knew they were following in the paddle strokes of William Robert Broughton, a British naval officer who'd explored inland along the Columbia from the Pacific coast in 1792. They sighted the ocean on 7 November and arrived at the river mouth on the 18th.

On the south side of the Columbia, the weary party built Fort Clatsop, which would be their home until 23 March 1806, when the long return journey began. More than just an overwinter shelter, Clatsop was a US base in Oregon. Within decades, tens of thousands would join the Oregon Trail and trace the Missouri River, cross the Rockies (albeit via an easier pass) to settle on this land. Manifest Destiny would be fulfilled, with no small debt to the Corps of Discovery Expedition.

They weren't the first people to cross the continent – Scotsman Alexander Mackenzie had done that a decade earlier, across land that is now Canada – but their achievements were extraordinary. They'd made predominantly positive contact with numerous Native American nations, coloured in large chunks of the map of North America and chronicled many species of flora and fauna.

Perhaps their most significant contribution, however, came via something they didn't find – the elusive Northwest Passage that the President had so pinned his hopes on. By discovering the scale of the mountains that divided the continent, this idea could now be cast into the bin of myths about western North America, along with talk of llamas and woolly mammoths. 📍

GET HOOKED

READ

Undaunted Courage: Meriwether Lewis, Thomas Jefferson and the Opening of the American West by Steven Ambrose (Simon & Schuster, 1997)

WATCH

Lewis & Clark: The Journey of the Corps of Discovery by Ken Burns

TRAVEL

Follow in their pioneering footsteps: www.lewisandclarktrail.com



WHAT DO YOU THINK?

Should Lewis and Clark's achievements be celebrated more? What was their real legacy?

Email: editor@historyrevealed.com

WHAT HAPPENED NEXT?

The return journey was no less eventful. Travelling upstream along the Columbia, Clearwater and Snake rivers was brutal, but the Nez Percé honoured their promise to look after the horses. The Bitterroot Mountains were snow-covered and impassable, and the expedition party split. Lewis explored the Blackfoot River,

crossed the Continental Divide at what's now known as Lewis and Clark Pass and became involved in a skirmish with a Blackfoot tribe – the one episode of hostility between the expedition and Native Americans. Clark travelled the Bitterroot River, crossed the mountains at Gibbons Pass and explored the Yellowstone

River, where he discovered a feature he called 'Pompey's Tower' after Sacagawea's baby son. The groups met up again on 12 August on the Missouri River, in modern-day North Dakota, and on 23 September they arrived back in St Louis – two years, four months and ten days after they'd left.

SCOTT'S LAST EXPEDITION

In the midst of the Heroic Age of Antarctic Exploration, one Brit was determined to reach the South Pole: Robert Falcon Scott...

IN THE GROTTO

ICY RECEPTION

Getting to know their new stomping ground, two of Captain Scott's team explore an ice grotto near the *Terra Nova* ship. Having arrived at the Antarctic in January 1911, the British naval officer's party makes Ross Island their temporary home. Meanwhile, a Norwegian team - led by explorer Roald Amundsen - also arrives and begins preparations for a polar push.



HOME-MAKING

With base camp needing to support the expedition for years, it had to be well supplied and fitted out



MOTOR MAYHEM

TECHNOLOGY FAIL

With the ice deteriorating, Scott's crew quickly unload equipment. This motorised sledge is one of three brought along. Not only do the vehicles prove less practical than hoped in the extreme cold, but one of them slips through the ice and sinks.



PREFAB BUILD

SCOTT'S HUT

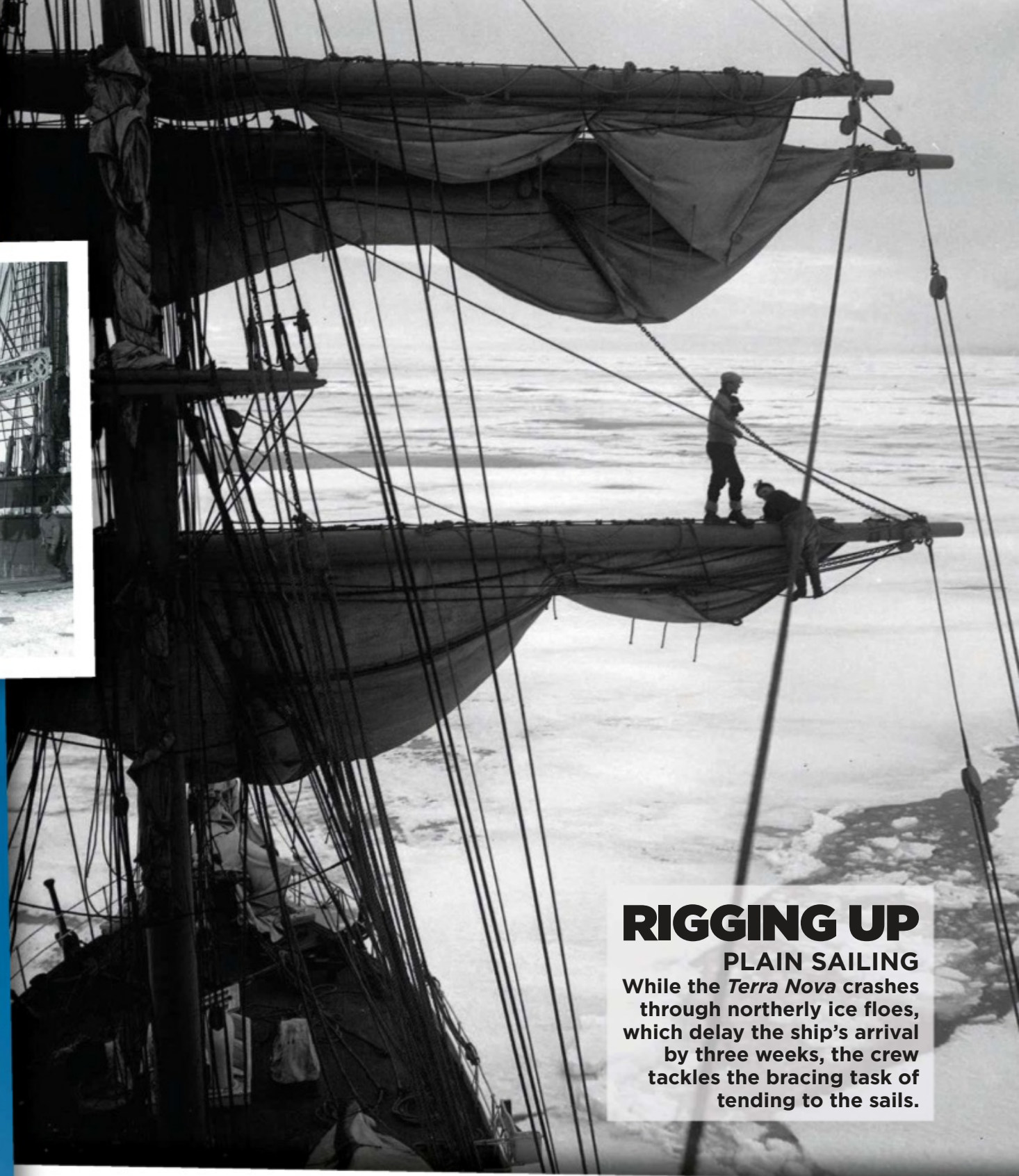
Two members of Captain Scott's crew erect a wooden hut at the camp. Prefabricated in the UK, the final structure is well insulated with a quilt of seaweed, and finished in only eight days.



ON BOARD

TERRA NOVA

Originally a whaling vessel, the *Terra Nova* is designed for sub-zero conditions. Although able to sail through pack ice, the overloaded ship struggles to get to the Antarctic. En route, the crew has to throw coal and petrol overboard.



RIGGING UP

PLAIN SAILING

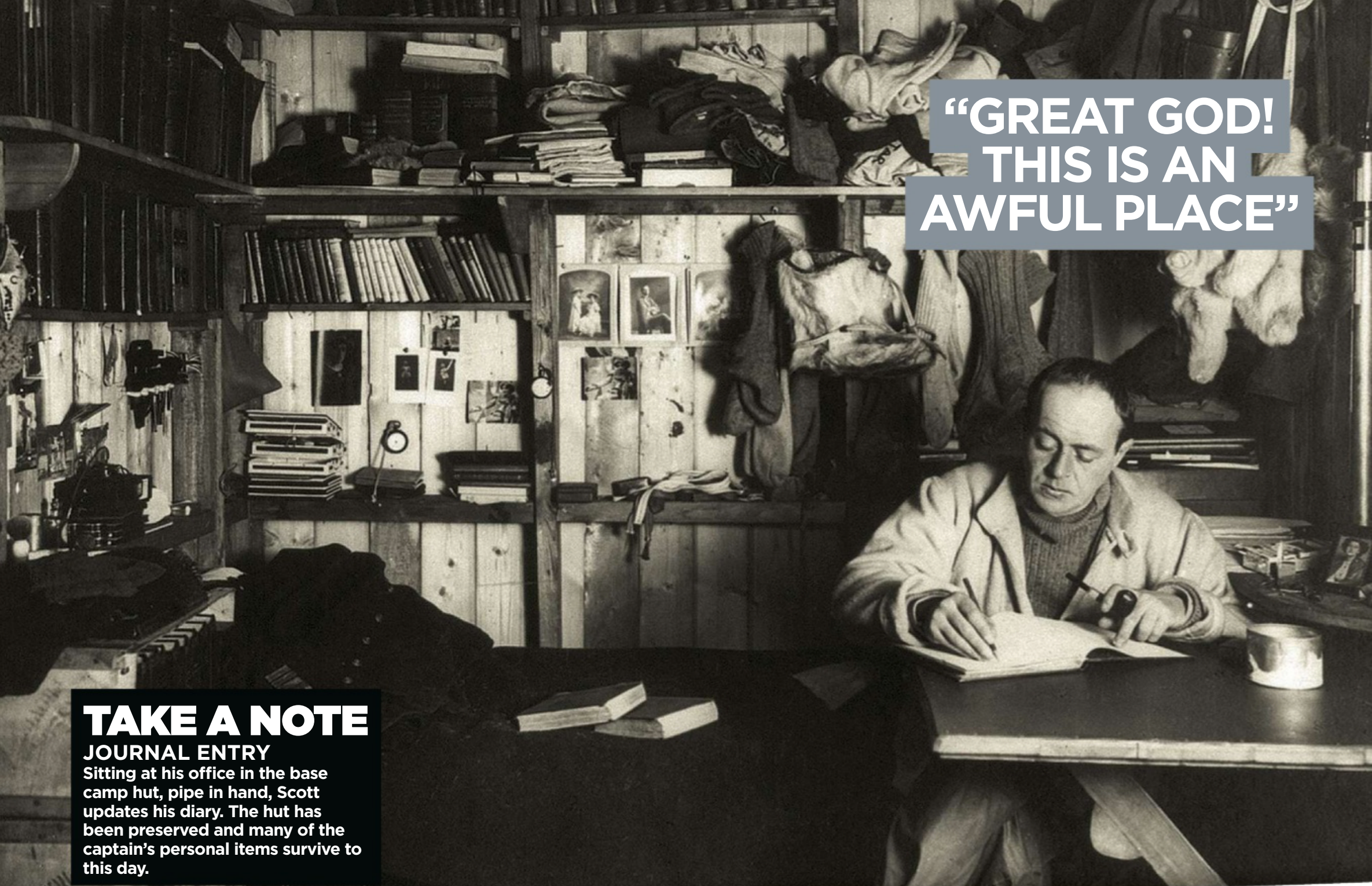
While the *Terra Nova* crashes through northerly ice floes, which delay the ship's arrival by three weeks, the crew tackles the bracing task of tending to the sails.

À LA CARTON

PLENTY OF PROVISIONS

Non-perishable foods, including flour from one of the trip's sponsors, are stacked by the box-load. In the background, the team's hardy Manchurian ponies – all white as, on previous Antarctic journeys, the pale nags seemed to fare better – attempt to graze on the bleak terrain.



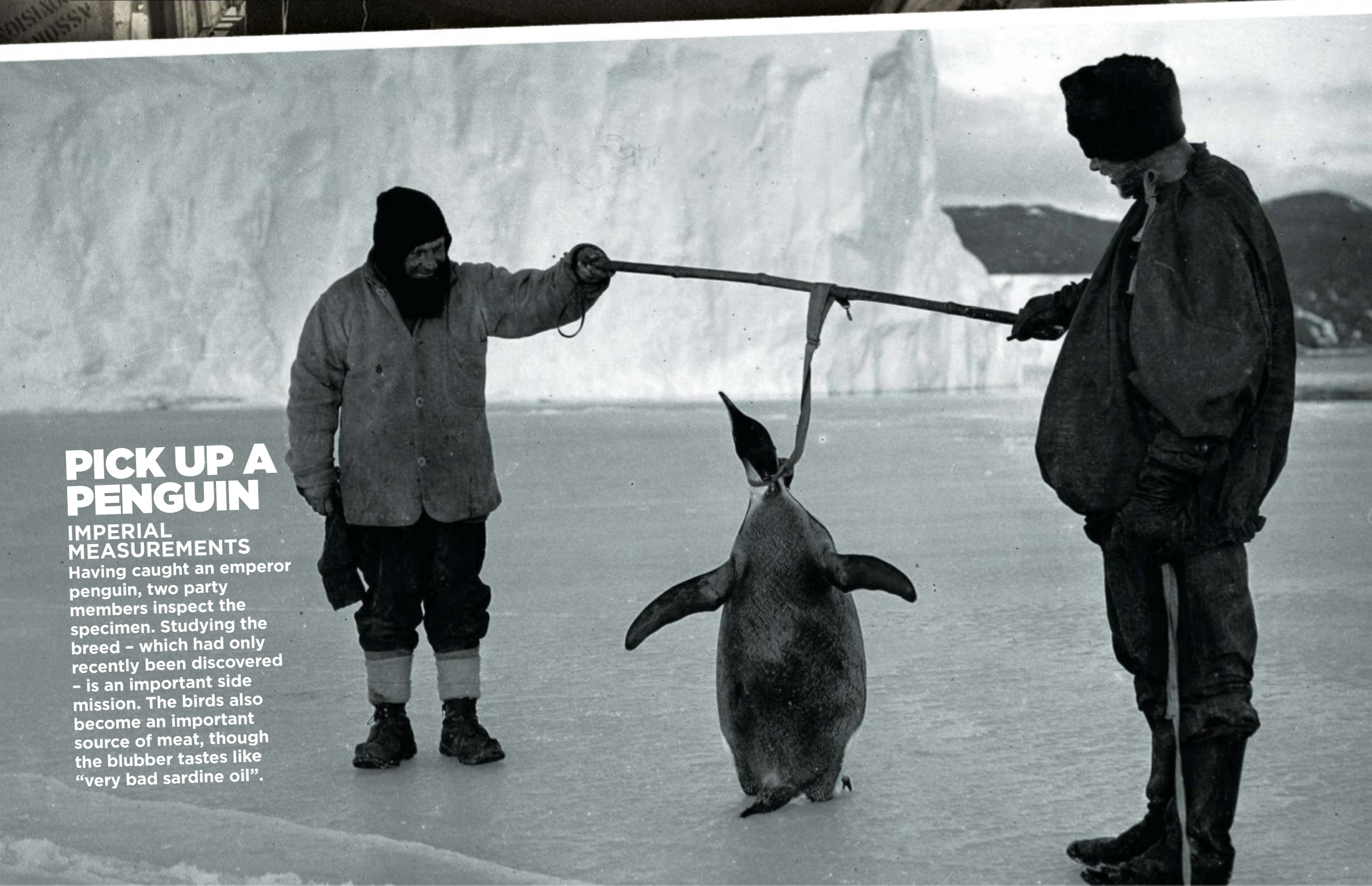


**“GREAT GOD!
THIS IS AN
AWFUL PLACE”**

TAKE A NOTE

JOURNAL ENTRY

Sitting at his office in the base camp hut, pipe in hand, Scott updates his diary. The hut has been preserved and many of the captain's personal items survive to this day.



PICK UP A PENGUIN

IMPERIAL MEASUREMENTS

Having caught an emperor penguin, two party members inspect the specimen. Studying the breed – which had only recently been discovered – is an important side mission. The birds also become an important source of meat, though the blubber tastes like “very bad sardine oil”.

CAMP LIFE

When not hard at work, the explorers made the most of their time on the bottom of the world



NIGHT LIGHT

WINTER PHOTOGRAPHY

The expedition photographer, Herbert Ponting, teaches some of the crew members how to take photos. But he also documents with many shots of his own. Here, Mount Erebus – a volcano – is seen behind base camp, and all is lit by moonlight.

GOOD TIMES

MANY HAPPY RETURNS

On 6 June 1911, Scott celebrates his 43rd, and last, birthday. Having decorated the hut with sledging flags, the crew indulges in a veritable feast – there is even a cake for the birthday boy.



HOME SWEET HOME

PLAY IT AGAIN...

Helping to keep the crew's morale high, the hut has its own a pianola, as well as a gramophone. After the self-playing keyboard is brought over from the officer's quarters on board the *Terra Nova*, the first tune that it plays is 'Home Sweet Home'.



HOT TODDY

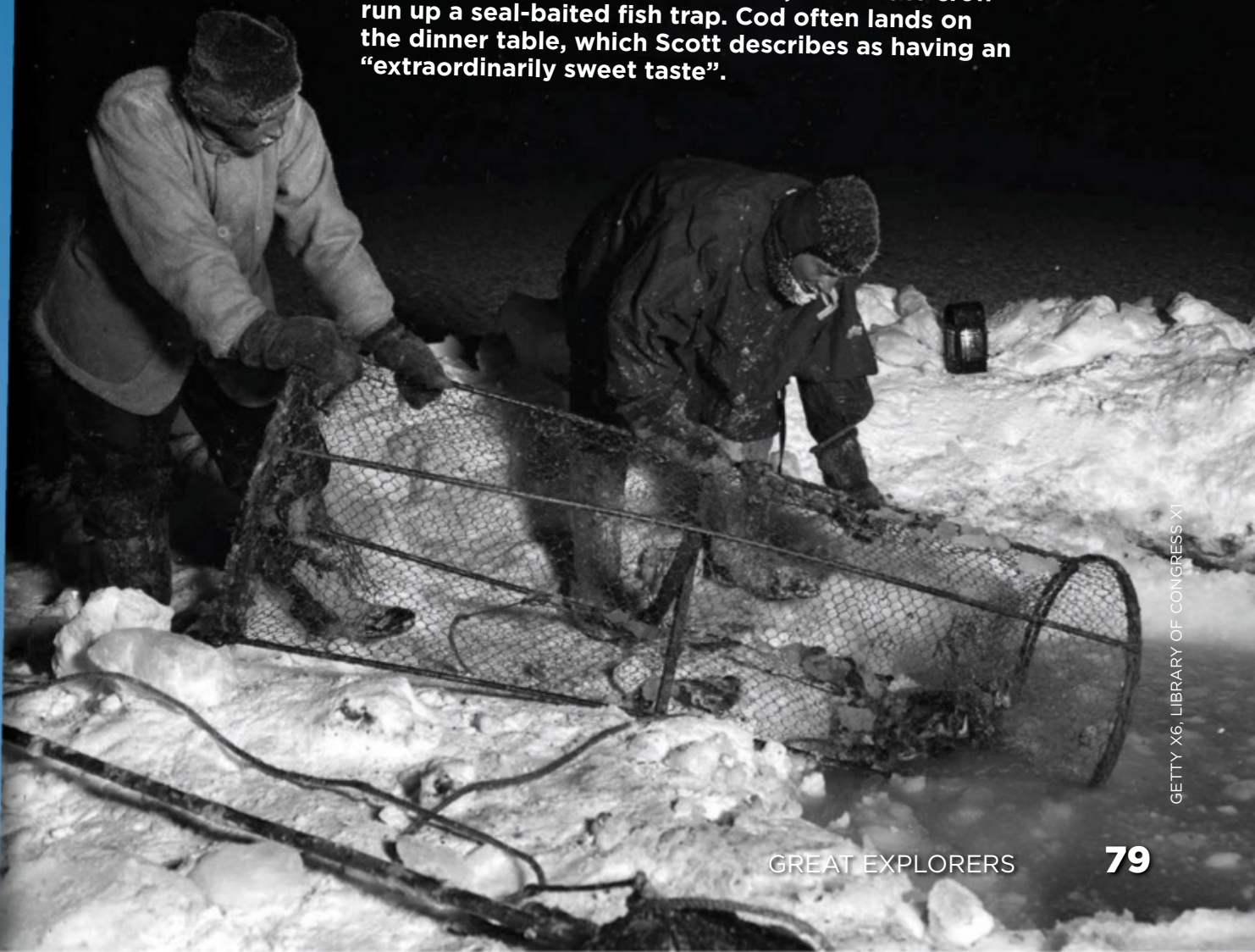
INTO THE HORSE'S MOUTH

After it braved the elements to swim ashore from the *Terra Nova*, several expedition members try to warm a shivery pony with whisky.

THE DAILY CATCH

FISH SUPPER

In the depths of winter's darkness, two of the crew run up a seal-baited fish trap. Cod often lands on the dinner table, which Scott describes as having an "extraordinarily sweet taste".



TO THE POLE

On 1 November 1911, Scott's crew set off for Earth's southernmost point. Difficulties would soon beset them...



MAN POWER

HARD GRAFT

The pack ponies suffer terribly from exhaustion in the cold and, eventually, they are all put down for their meat. Dog sleds prove more efficient, but when the last of the support teams returns to camp, the canines have to go with them. Only Scott, Wilson, Bowers, Oates and Edgar push on.



PITCHING UP

A WELL-DESERVED REST

In a photo staged ahead of the walk, the final five set up a tent. On the journey, each man has a cosy-sounding reindeer-fur lined sleeping bag. The lining, however, captures the moisture from the men's breath and freezes it solid.



SLOW PROGRESS

BATTLING ON

Despite being inexperienced skiers, four of the men continue on wooden skis, while Bowers walks. Their heavy equipment and thick, woollen clothing hampers progress and proves ineffective; all suffer from terrible frostbite.

WHITE WILDERNESS

EPIC SLEDGING TRIP

As a man heads out with a sled, the enormity of this vast mission can be understood. Some 900 miles stand between the Brits and their polar goal, as well as the Ross Ice Shelf, the Beardmore Glacier and the Transantarctic Mountain range.

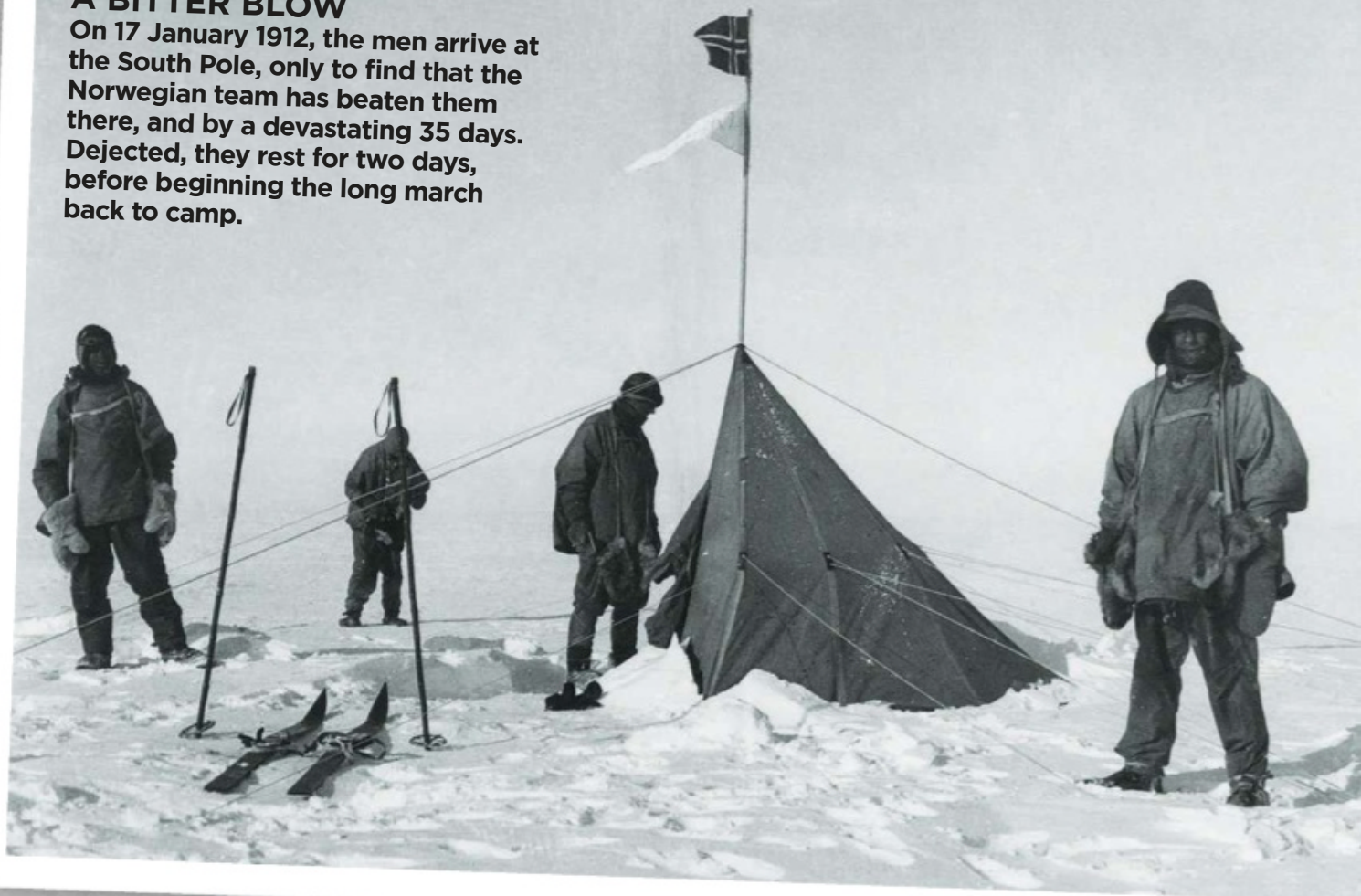


**“HAD WE LIVED,
I SHOULD HAVE
HAD A TALE TO
TELL OF THE
HARDIHOOD,
ENDURANCE
AND COURAGE
OF MY
COMPANIONS”**

TOO LATE

A BITTER BLOW

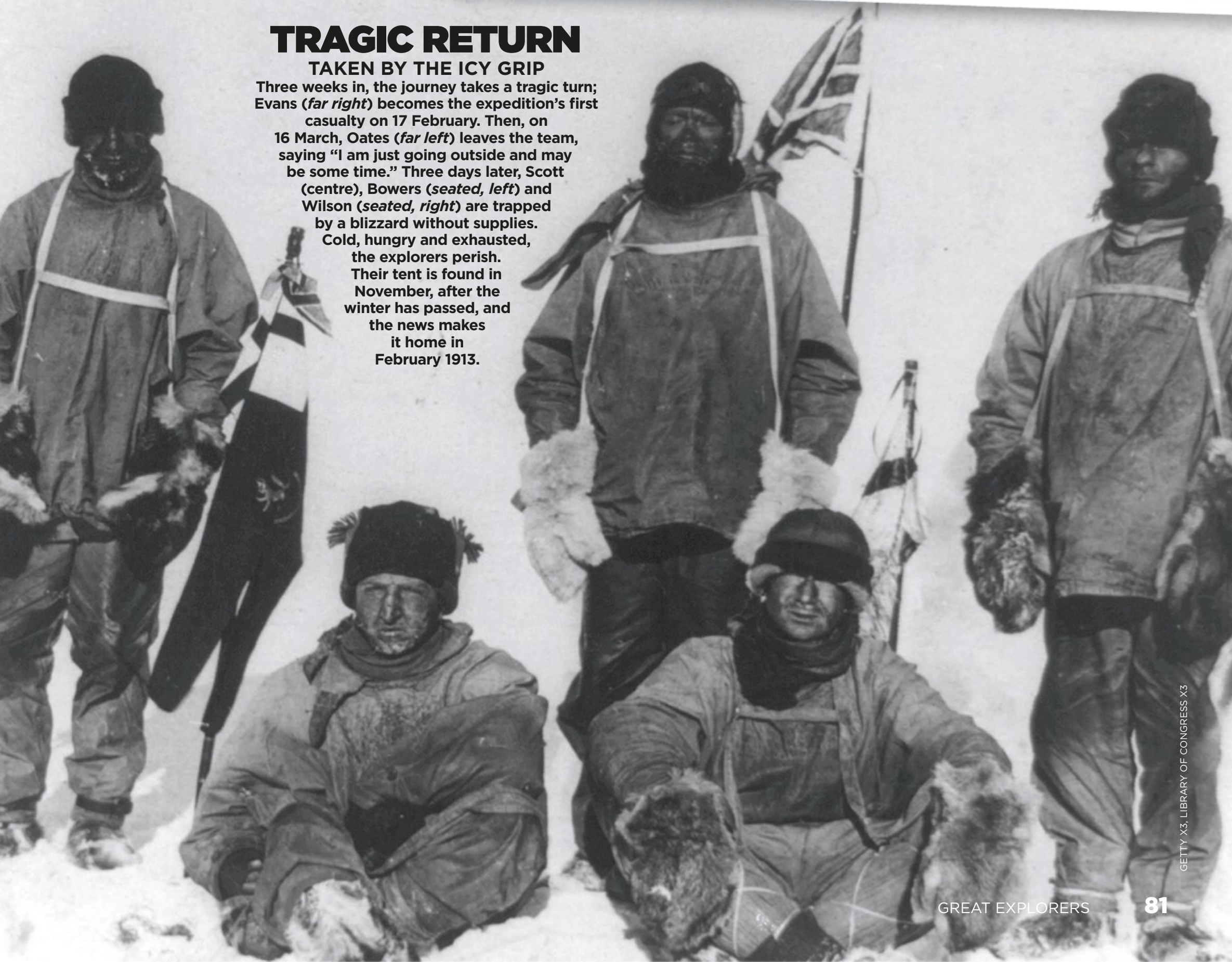
On 17 January 1912, the men arrive at the South Pole, only to find that the Norwegian team has beaten them there, and by a devastating 35 days. Dejected, they rest for two days, before beginning the long march back to camp.

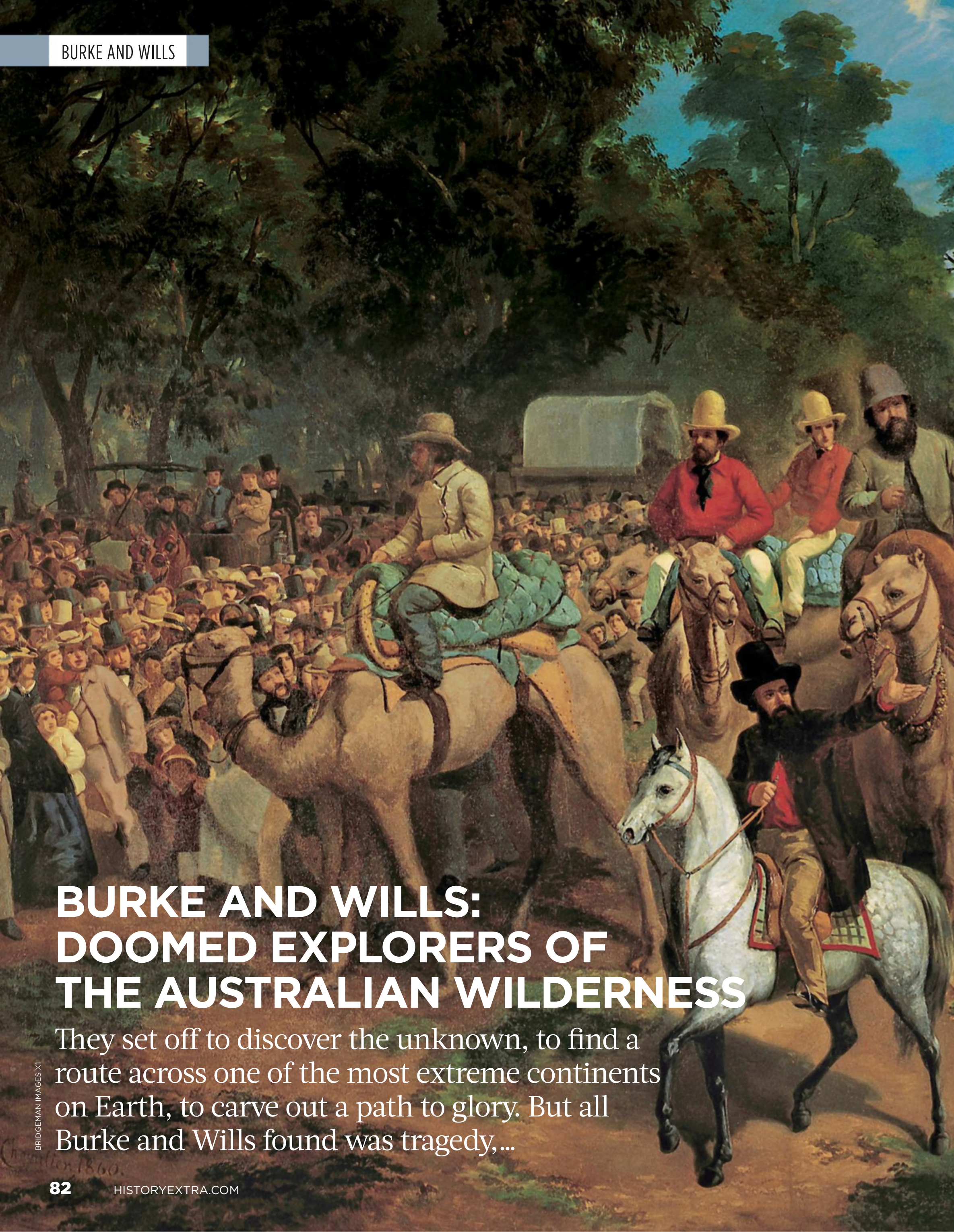


TRAGIC RETURN

TAKEN BY THE ICY GRIP

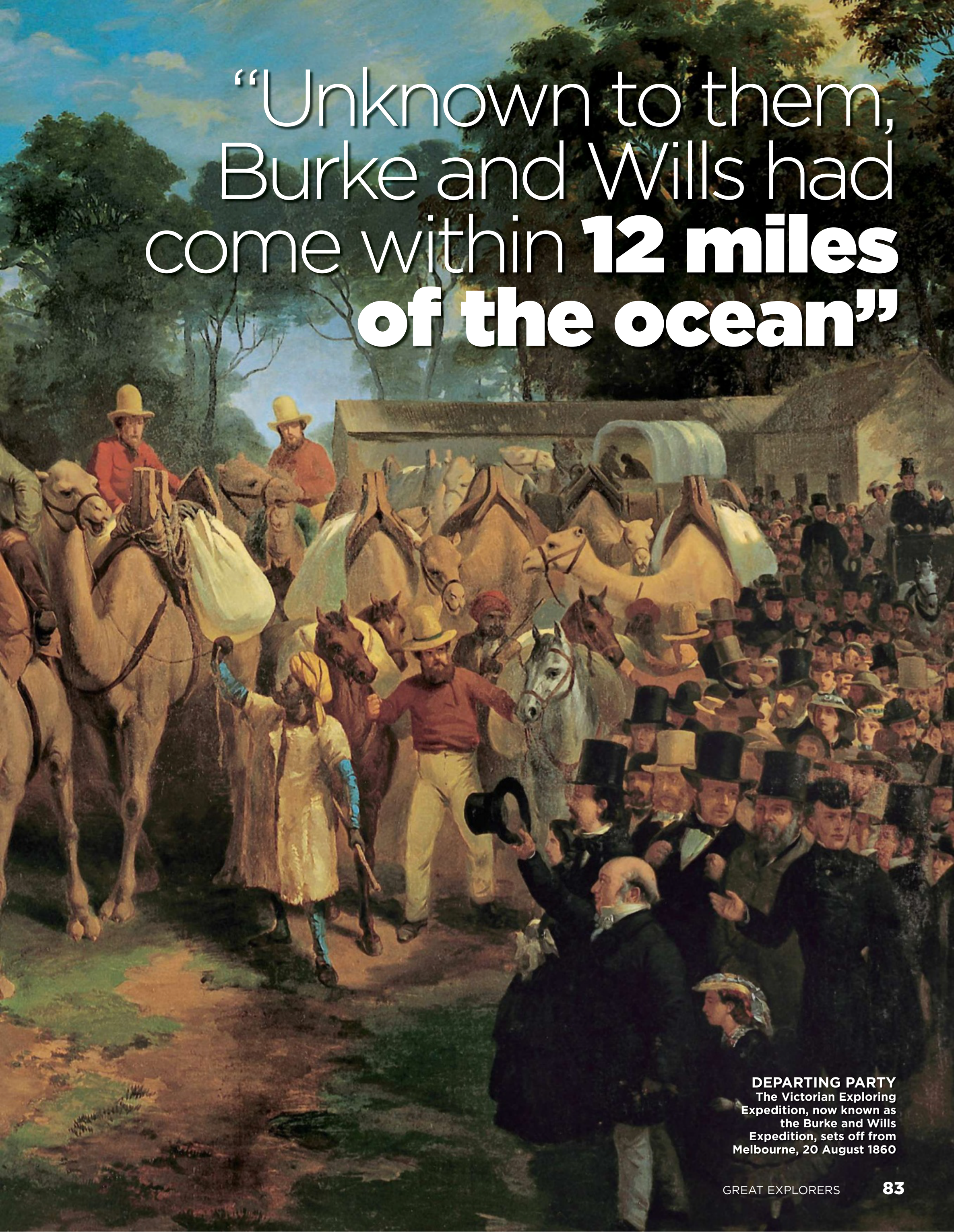
Three weeks in, the journey takes a tragic turn; Evans (*far right*) becomes the expedition's first casualty on 17 February. Then, on 16 March, Oates (*far left*) leaves the team, saying "I am just going outside and may be some time." Three days later, Scott (*centre*), Bowers (*seated, left*) and Wilson (*seated, right*) are trapped by a blizzard without supplies. Cold, hungry and exhausted, the explorers perish. Their tent is found in November, after the winter has passed, and the news makes it home in February 1913.





BURKE AND WILLS: DOOMED EXPLORERS OF THE AUSTRALIAN WILDERNESS

They set off to discover the unknown, to find a route across one of the most extreme continents on Earth, to carve out a path to glory. But all Burke and Wills found was tragedy,...



“Unknown to them,
Burke and Wills had
come within **12 miles**
of the ocean”

DEPARTING PARTY
The Victorian Exploring
Expedition, now known as
the Burke and Wills
Expedition, sets off from
Melbourne, 20 August 1860

Bound together in death, as they are in history books and monuments across Australia, Robert O'Hara Burke and William John Wills made an unlikely double act in life. Burke, a flamboyant Irishman, had an impulsive streak that saw him lurch from policeman to soldier to expedition leader. In contrast, Wills was an unexcitable Englishman. He had a methodical and careful character with the mind of a scientist.

In fact, the only thing the pair did share was a lack of relevant qualifications for leading the Victorian Exploring Expedition of 1860, which was tasked with finding a south-north route across Australia. Burke had no exploration experience or knowledge of bushcraft whatsoever, while Wills was never supposed to be second-in-command. When the expedition left Melbourne, Burke's right-hand man was George Landells. Wills' original role was as surveyor and astronomical observer.

The expedition took place against a backdrop of intense competition between the colonies of Victoria, New South Wales and South Australia. At stake were the potential riches of the Australian inland, links with the important ports in the north, and ownership of the proposed telegraph line that would straddle the continent and open up communications with Australia's gold-rich (but completely isolated) south.

THE PARTY STARTS

In mid-1860, Scottish explorer John McDouall Stuart, working for South Australia, located the centre of the continent and came within 500 miles of the northern coast. While Stuart was suffering the extremities of the Red Centre with just two colleagues and three horses, the Royal Society of Victoria was busy putting together an extraordinarily extravagant expedition party.

On 20 August 1860, a 15,000-strong crowd assembled in Melbourne's Royal Park amid a carnival atmosphere, during which a camel broke loose and chased a police officer. Burke also sacked three expedition members before they set off, two for being drunk.

They finally departed at 4pm, carrying two years' supplies and 20 tonnes of equipment – including a Chinese gong and a cedar-topped oak camp table with two chairs. One wagon broke down before they'd left the park. Another two failed before they escaped Melbourne. The party was battered by awful weather causing them to crawl along on average between 0.5 and three miles per hour.

Arriving in Balranald, New South Wales, on 15 September, they jettisoned supplies to lighten the load. Two months after leaving Melbourne, they arrived in Menindee – a journey the mail coach could manage in a week. Here, a quarrel between Burke and his second-in-command dramatically escalated, stopping short of a duel. Landells left the group and Wills was promoted.

Burke, frustrated by their glacial progress, could feel the breath of rivals on his back. He

THE MAIN PLAYERS



ROBERT O'HARA BURKE

Born in Ireland c1820, Burke served in the Austrian Army and Irish Constabulary before emigrating to Australia and joining the police.



WILLIAM JOHN WILLS

Born in England, 1834, Wills moved to Australia at 18. He worked as a shepherd, gold digger and surgeon apprentice and finally a surveyor.



JOHN KING

Born in Ireland, 1838. Lone survivor of the party that nearly made the crossing. He never fully recovered and died in 1872, aged 33.

WILLIAM BRAHE

Born 1835 in Germany, he moved to Victoria in 1852. Brahe was in charge at the Cooper Creek waterhole. He lived until 1912.

WILLIAM WRIGHT

Joined the party after meeting Burke in Menindee. Within weeks, he'd become the third-in-command.

JOHN MCDOUALL STUART

Burke's nemesis, the Scottish-born Stuart made his own south-north crossing of Australia in 1861-2.



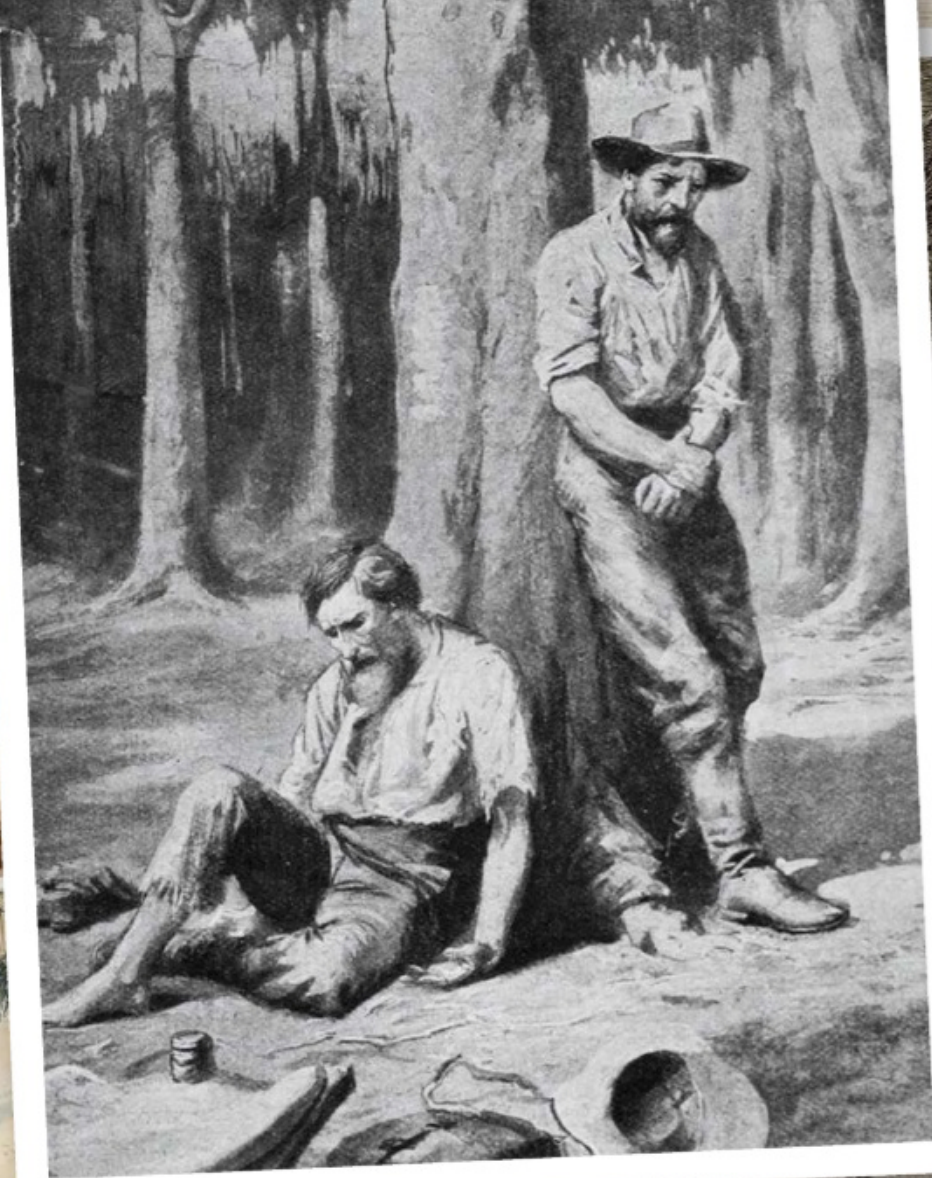
HIGHS & LOWS

ABOVE: Burke, Wills and King are in dire straits as they fight against the odds to reach Mount Hopeless
RIGHT: 100 miles in, and the extravagant expedition party is still in one piece



“I will cross Australia – or perish in the attempt”

Robert O'Hara Burke



THE END IS NIGH

LEFT: The weary travellers rest as their journey nears its fateful end

ABOVE: King mourns the loss of the expedition leader



SUCCESS WITHOUT CELEBRATION

Burke, Wills and King head back to Cooper Creek after reaching coastal mangroves at the northern end of the continent, but failing to see the sea

knew Stuart would mount another lightweight expedition. Reducing each man's allowance to 15kg, Burke forced the party's two scientists to dump almost all their gear, effectively reducing them to camel-hands with sketch pads.

As more men resigned or were sacked, others were hired en route, among them William Wright, a sheep-station manager who'd recently been to Cooper Creek - over 500 miles north.

DIVIDE & CONQUER

Shortly after leaving Menindee, Burke decided to split the party. Impulsively, he promoted Wright to third-in-command. Burke left the new recruit in charge, as he took seven men and the strongest horses and raced ahead.

At Cooper Creek, instead of sitting out the ferocious summer heat and waiting for Wright, Burke split the team again, taking a four-man lightning party (himself, Wills, John King and Charles Gray) and heading for the Gulf of Carpentaria. Burke left William Brahe in charge at Cooper Creek, telling him to wait for three months. Secretly, Wills implored Brahe to allow them an extra month.

They made good progress until, on 9 February, at the Little Bynoe River, mangroves blocked their way. Leaving King and Gray with the camels, Burke and Wills made a final push north, but had to turn back after 15 miles. Unknown to them, they'd come within 12 miles of the ocean. There was no moment of triumph, nowhere to leave their mark. It had taken them 59 days to get this far and they had 27 days' provisions to get them back.

The wet season erupted, and in the tropical monsoons the camels began to fail. One was released; three more were shot, butchered and eaten. The horse went into the pot too. A native plant kept scurvy at bay, but another bush-tucker experiment with a snake ended in dysentery for Burke and Gray.

Gray was then caught stealing rations, for which Burke administered a beating. Trust was shattered within the group, which staggered solemnly onwards. By 15 March 1861 - on Brahe's three-month deadline - they were still 685 miles from Cooper Creek.

THE JOURNEY IN NUMBERS

1,761

The length, in miles, of the highway that now dissects Australia, south to north

390

Days between John King leaving Melbourne and being rescued

60

Gallons of rum taken for the camels (it was believed to prevent scurvy)

50

The temperature, in degrees Celsius, regularly reached in the shade in the northern deserts of Australia

26

The number of camels originally taken on the expedition

27

Wills' age when he died alone in the middle of Australia

Gray's health deteriorated rapidly and on 17 April, over 90 miles from Cooper Creek, he died. It took the men a day to bury him - a delay that would have tragic consequences.

CLOSE ENCOUNTERS

On 21 April, after a 930-mile round trip, the trio reached the waterhole they'd left four months earlier, only to find that the camp had just been abandoned. The fire was still warm, and there was an engraving on a coolibah tree:

DIG
UNDER
3 FT NW

As instructed, they dug and found a trunk of rations and a note confirming that Brahe, who had waited four months and a week, had left nine hours earlier. The note also explained that Wright had never made it to Cooper Creek.

The following day, while Wills and King pleaded with him to head back along the Darling River, Burke insisted on trying to reach a police outpost at Mount Hopeless, 155 miles away. Burke wrote a note explaining their actions and King reburied the trunk. He asked Burke whether he should engrave another message on the tree. Burke told him not to bother. It was his second disastrous decision that day.

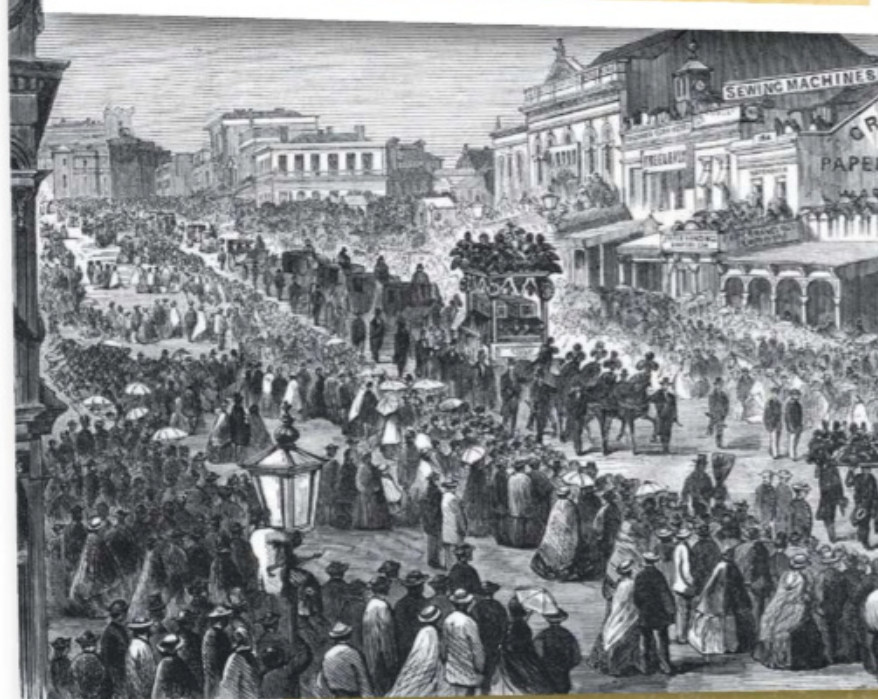
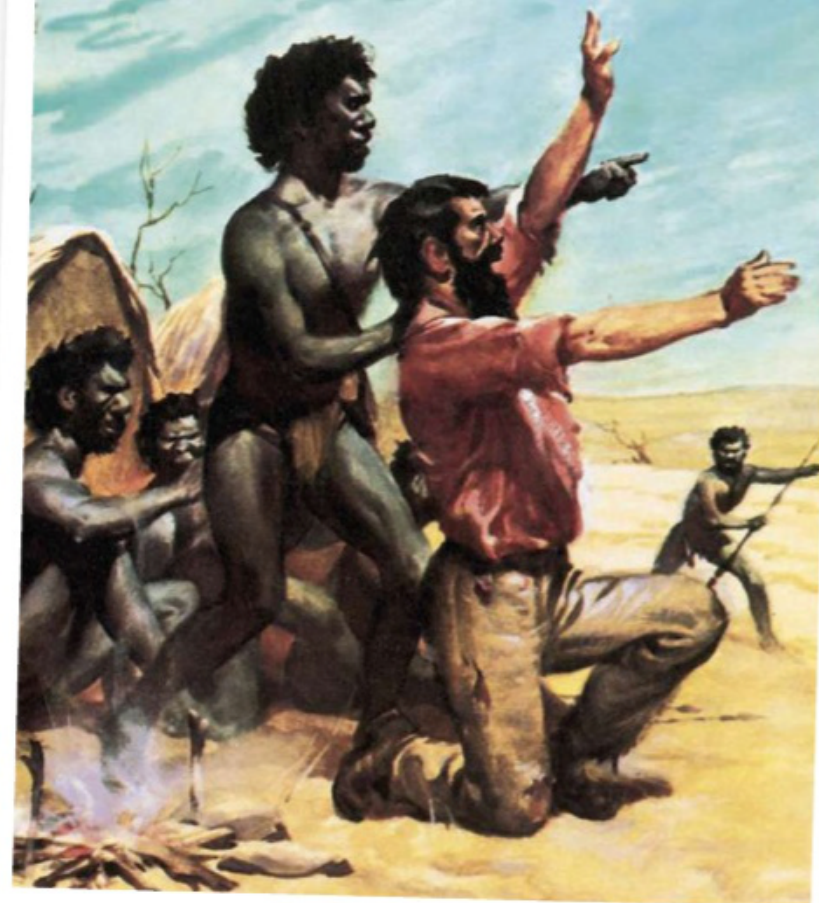
Meanwhile, heading south, Brahe stumbled across Wright's party at Bulloo. They'd only managed to advance 280 miles from Menindee and were in a pitiful state.

Troubled by his decision to leave his post, Brahe rode back to Cooper Creek with Wright, for one last check. When they arrived, everything seemed the same. No new engravings on the tree; no need to dig up the trunk. They stayed 15-30 minutes, then rode back to Bulloo.

Barely 25 miles west, Burke, Wills and King clung to life. They'd butchered their last camels, and some local Yandruwandha people had given them food. Sensing a happy ending was unlikely, the ever-pragmatic Wills returned to Cooper Creek to bury his diaries. When he arrived, there was no sign that Brahe and Wright had recently been there, looking for them.

THE LAST BLUNDER

When Wills returned, he found that Burke had fired his gun over the head of a Yandruwandha man, who'd tried to take a scrap of cloth. No more food was forthcoming.



LIFE & LEGACY

TOP: After two months living with a local tribe, expedition assistant King is rescued

ABOVE: Thousands turn out for the joint funeral of Burke and Wills, held in Melbourne, January 1863

8 CULLYAMURRA WATERHOLE

Where King is found by a member of Alfred Howitt's rescue party on 15 September 1861.

Relief missions like Howitt's delivered great gains in area knowledge - much more than Burke's.

REVERED PIONEERS

The Burke and Wills statue in Melbourne



THE GREAT UNKNOWN

With no knowledge of the land they had to cross, one of the wagons in the original expedition could be converted into a boat, for crossing large bodies of water. In some respects they were lucky in the north – navigating many rivers and mangroves without encountering saltwater crocodiles. The expedition was the first to use camels for transport in Australia, along with four ‘sepoy’ camel handlers, who were paid a fraction of the wages of the other men.

6 LITTLE BYNOE RIVER

An arm of the Flinders River delta, and as far north as Burke and Wills travel – just 12 miles shy of sighting the sea in the Gulf of Carpentaria.

5 CAMP 65

On the banks of Cooper Creek, the loyal William Brahe waits with his ailing men for four months and one week in dreadful conditions. Brahe turns homeward just hours before Burke, Wills and King arrive back. Site of the Dig Tree, scene of a tragic series of missed encounters.

4 BULLOO

The furthest north that Wright’s rear-guard party reaches, after the expedition split outside of Menindee. Several expedition members die here, and it is the scene of a violent showdown with an indigenous group.

3 MENINDEE

Scene of a major bust up between Landells and Burke, who challenges his second-in-command to a duel. Landells leaves on 14 October. Here, William Wright joins the group.

2 BALRANALD

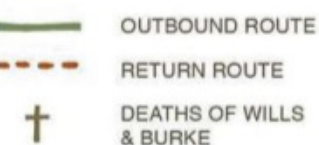
The group arrives here, just inside New South Wales, on 15 September, much later than hoped. Burke orders the dumping of large amounts of sugar, scurvy-preventing lime juice, and guns.

1 ROYAL PARK, MELBOURNE

Anarchic scenes take place here on 20 August 1860, as the grandest expedition ever assembled is waved off by 15,000 people, many of whom have been visiting the ‘sly grog shop’.

7 MOUNT HOPELESS

An ultra-remote South Australian police outpost, 155 miles west of Cooper Creek, that Burke is hell bent on trying to reach because it had been used by explorer Augustus Gregory on his journey back from the Cooper two years earlier.



By June, Wills was fading fast. He convinced his companions to leave him and follow a group of Yandruwandha in an attempt to get food. Burke didn’t make it far, before settling down under a coolibah tree and writing a final letter. At his request, King stayed with him while he died. Afterwards King retraced his steps and found Wills’ body where they’d left him.

The survivor found a group of Yandruwandha nearby, who fed him. After he bathed and treated a woman’s injured arm, this group adopted him for two months, until he was discovered by a rescue party at Cullyamurra on 15 September – a date King celebrated as his birthday for the rest of his short life.

The bodies of Burke and Wills were recovered, and 40,000 spectators attended their joint state funeral in Melbourne on 21 January 1863. Although it had ended in tragedy, the expedition – and especially the six rescue missions that followed – opened up vast tracts of hitherto unknown Australian inland. 📍

GET HOOKED

The site of the tragedy, near Innamincka



TRAVEL

The ‘Dig Tree’ at Cooper Creek, scene of the tragic series of missed encounters that could have saved the lives of Burke and Wills, can still be seen close to Innamincka, on the Strzelecki Track where South Australia and Queensland collide. Not far downstream you can find markers commemorating the spots where Burke and Wills died, and the place where King was rescued.

If you don’t have time to go that deep into the Red Centre, check out the Burke and Wills Memorial Cairn in Melbourne’s Royal Park, or visit the explorers’ graves at nearby Melbourne General Cemetery.

WEBSITE

An excellent online archive of historical documents relating to the Burke and Wills expedition can be explored here: www.burkeandwills.net.au

BOOKS

There are numerous books devoted to the Burke and Wills Expedition, but one of the best, most thoroughly researched and eminently readable is Sarah Murgatroyd’s *The Dig Tree* (Bloomsbury, 2003).

MOODY RIVER

The Río Tiputini – whose waters eventually flow into the Amazon – meanders through Yasuni National Park in Ecuador's Francisco de Orellana Province

MASTER OF THE AMAZON

In 1541, a Spanish conquistador set out in search of cinnamon, and ended up navigating the world's mightiest river, the Amazon. Meet history's greatest accidental explorer, Francisco de Orellana...



“We reached a state of privation so great that we were eating nothing but leather, **belts and soles of shoes, cooked with certain herbs.**”

Friar Gaspar de Carvajal

When Francisco de Orellana floated off down the Río Napo in December 1541, he was just trying to find food for a starving expedition party, fruitlessly searching for the mythical *País de la Canela*, 'country of cinnamon', in the foothills of the Andes, somewhere east of Quito. The current caught him, though, and by the time he popped out the other side of the continent eight months later, he'd led the first-known descent of the biggest waterway on Earth. It remains, perhaps, the most impressive feat of accidental adventuring in history.

WELCOME TO THE JUNGLE

A blood relation of Francisco Pizarro, the man who toppled the Empire of the Incas, Francisco de Orellana arrived



SPICE SEEKERS
Gonzalo Pizarro and his men set off in search of cinnamon in 1541

TALES OF THE RIVER

Orellana's report came to be viewed with scepticism, when later explorers saw no evidence of the communities he had described. In recent years, however, deforestation has revealed evidence of vast man-made structures and it is now known that up to eight million people may have been in the region in 1500, before European diseases decimated the population. What is less understood, is why the Spaniards had so little success fishing that they ended up eating their shoes.

- Route
- Attacks from tribes
- Building a boat
- Poisonous plants
- Forge for making nails
- Attacks by Machiparo Warriors
- Warning from hostile tribes
- Battle with the Amazons
- The Victoria

in Peru in 1533. The 22-year-old *hidalgo*, or 'nobleman', took part in decisive battles during the Spanish conquest of the country, seeing action at Trujillo and Cuzco, and losing an eye in the process.

After helping the Pizarro brothers defeat the forces of rival conquistador Diego Almagro at the Battle of Las Salinas, Lima, in 1538, Orellana was made Captain-General and sent off to conquer the coastal province of La Culata, where he established the city of Guayaquil.

When Gonzalo Pizarro became Governor of Quito in 1539, he was tasked with exploring lands to the east to search for the cinnamon trees rumoured to exist there, and Orellana opted to join him. As with all conquistador missions, the pursuit of gold was also high on the agenda.

Pizarro departed Quito in February 1541, with an enormous expeditionary force containing over 200 Spaniards, 4,000 *indígenas* (indigenous peoples) and thousands of horses, dogs, llamas and pigs, but no Orellana, who'd travelled to Guayaquil to recruit more men. Arriving back in Quito to discover Pizarro

had left without him, Orellana set off into the mountains in pursuit, along with 23 soldiers. This small group survived repeated attacks from hostile tribes, finally catching the main party in Zumaco, 110 miles from Quito, where Orellana was appointed Lieutenant-General, effectively second-in-command.

Continuing east, they reached the Río Coca, roughly 250 miles from Quito, which led to the Río Napo. The going was tough and already hundreds of men had either deserted or died in the freezing passes of the Andes.

Ten months into the expedition the party was much reduced in size, but no faster moving, and they were struggling. Constantly under attack, they'd eaten the pigs and most of the dogs, and supplies were desperately low. A boat was built, named the *San Pedro*, but progress remained slow, with most men still having to negotiate the thickly forested riverbanks on horseback and foot.

Pizarro habitually tortured indigenous peoples he encountered en route, to extract information about the location of cinnamon, gold and resources. One captured



1 QUITO

February 1541

Conquistador Gonzalo Pizarro embarks on the expedition, taking with him over 4,200 men. Francisco de Orellana leaves with a smaller party shortly afterwards.

2 ZUMACO

March 1541

Orellana meets up with the main party and is appointed Lieutenant-General, second-in-command to Pizarro.

6 APARIA

26 February 1542

Orellana is granted an audience with local chief, Aparia the Great. The Spaniards stay here for almost two months, building a second boat, *The Victoria*.

5 RÍO MARAÑÓN CONFLUENCE

11 February 1542

Orellana and his men begin their descent of the Amazon proper.

7 RÍO NEGRO

3 June 1542

Having survived various skirmishes with the Machiparo and Omagua people, Orellana's party reaches the confluence with the Río Negro.



chief, Delicola, divulged that food and a rich civilisation lay further east, up a confluence in the river (thought to be Río Aguarico).

By Christmas, with the spectre of starvation looming, Orellana proposed that he take a small advance party ahead to locate this food and bring it back. Pizarro agreed and, on Boxing Day 1541, Orellana left with 59 men (57 Spaniards and two unnamed African slaves), several canoes (taken from locals), and a large proportion of the expedition's weapons, including *arquebuses* (a form of rudimentary rifle) and crossbows. He told Pizarro he'd be back in 12 days. The two never met again.

GOING WITH THE FLOW

After surviving a crash on the first day, Orellana's party stuck to the middle of the river, where the flow was fastest. If they saw the Aguarico confluence, they didn't take it and, within a week, it became obvious that a return trip, against the current, would be incredibly

35

The number of days it took Orellana's expedition party to build a new boat

hard – even if they did find food, which remained elusive. The men were reduced to eating their shoes, while some experimented with plants that made them sick.

But, on 1 January 1542, drums were heard. Two days later, people were spotted. The indigenous group, astonished at the arrival of bearded aliens, armed with gleaming swords, fled their settlement, and the expedition party gorged on the food left in the village, which they called Imara.

Orellana, a gifted linguist, had learned some local dialect from Delicola, and when the inhabitants slowly returned, he negotiated with them – a strikingly different approach to Pizarro's policies of violence, and one that undoubtedly saved many lives.

By now, the advance party was 700 miles downstream from where they'd left Pizarro. In ten days they'd travelled three times further than the main expedition had managed in the previous ten months. They'd found food, but no one was willing to travel back up the river.

THE KEY PLAYERS

FRANCISCO DE ORELLANA

The Spanish conquistador who led the first-known descent of the Amazon. He founded the city of Guayaquil in Ecuador. Died during a second Amazon trip.



FRANCISCO PIZARRO

The Spanish conquistador who brought down the Inca Empire, and went on to become Governor of Peru and founder of Lima. He was assassinated in 1541.



GONZALO PIZARRO

Half-brother of Francisco Pizarro and Governor of Quito, he led the cinnamon expedition. By the time he escaped the jungle, his brother Francisco had been killed and Peru was in chaos. He later rebelled against his king and was beheaded.

FRIAR GASPAR DE CARVAJAL

The expedition chaplain, who chronicled the trip in his snappily titled *Account of the Recent Discovery of the Famous Grand River Which Was Discovered by Great Good Fortune by Captain Francisco de Orellana*.

ILLUSTRATION: DAWN COOPER, ALAMY X2 GETTY X2, REX/SHUTTERSTOCK X1

3 EL BARCO/ CHRISTMAS CAMP

26 December 1541

After the construction of a rough boat, the *San Pedro*, Orellana sets off down the Río Napo with 59 men, tasked with finding food for the main party.

4 IMARA

3 January 1542

Orellana's party makes contact with a friendly tribe and stays for a month, recovering from near-starvation.

10 CUBAGUA

11 September 1542

After briefly becoming separated on the open ocean, the *San Pedro* and *The Victoria* are reunited on this island off Venezuela.

8 AMAZON TERRITORY

24 June 1542

Somewhere east of where the Río Madeira runs into the Amazon, Orellana's party battles with an indigenous tribe, whose soldiers include fierce female warriors.

9 MOUTH OF THE RIVER

24 August 1542

Orellana and his men emerge from the mouth of the Amazon into the Atlantic Ocean.

MEETING OF WATERS

The dark waters of the Río Negro and the lighter Río Solimões meet, but do not mix, in the upper section of the Amazon



Conscious of how it would look if he simply abandoned his leader – and painfully aware of how ruthless the Pizarro brothers could be – the ever-astute Orellana got his men to sign a document imploring him not to force them into a suicidal upstream journey. In reality, a return trip was effectively impossible anyway. It would take weeks, if not months, by which stage Pizarro and his men would either be dead or gone.

Instead, they ate themselves back into good health and built a forge for making nails, planning to construct a second, bigger boat. The locals happily hosted the Spaniards for a time, but eventually they outstayed their welcome. To avoid conflict, Orellana's party left on 2 February, before the boat had been built.

IN DEEP WATER

Within nine days they reached the confluence with the Río Marañón, the beginning of the Amazon proper.

Orellana, who continued to converse with locals, discovered they'd entered the realm of Aparia the Great. Relations remained friendly, with food forthcoming from encounters, usually in exchange for Spanish trinkets.

On 26 February, the group was met by canoes bearing food and guided to a large settlement full of warriors. Initially Orellana thought they'd been led into a trap, but, after a standoff, he met with local chief Aparia the Great.

The Spaniards stayed in this village, which they called Aparia, long enough to build a second boat, a larger brigantine named *The Victoria*. During feasts of roasted manatee and fowls, their hosts warned of the dangers that awaited in the territories of the fierce Machiparo and Omagua people, and of the ferocious Coniupuyara (grand mistresses), who would kill them all.

Leaving Aparia on 24 April, the party followed the upper Amazon (the Río Solimões) where they were indeed attacked by Machiparo warriors in canoes. Pitched battles were fought as the Spaniards invaded villages and pinched

food, with 18 being wounded and one killed in the skirmishes that continued for several days along the river.

Fighting their way out of Machiparo territory, they quickly entered the Omagua's realm, where yet another hostile reception awaited. This time, Orellana responded with a considerable display of force, occupying an entire village to give his men the time needed to recover. By 16 May, his party was ready to continue, and 18 days later they met the confluence of another big, deep, dark river, which Orellana called the Río Negro – a name that's endured.

News of the approaching Spaniards spread along the river like wildfire. In one spot, human heads were nailed to gibbets to warn them off and, in another instance, a village appeared deserted but warriors lay waiting in the wings. Orellana, a canny leader, deftly sidestepped these attempted ambushes.

The Paguana people they encountered next were more peaceful, and the increasing width of the river made it easier to avoid trouble by simply switching sides. But there was no escaping the most

famous conflict of the entire trip, when they finally met the mysterious Amazons.

KILLER QUEENS

Around the confluence of the Madeira, talk among locals had turned again to a group of ferocious female warriors, and soon the Spaniards found these fighters waiting for them in the flesh. As described by Friar de Carvajal, the expedition chaplain: "These women are very white and tall, and have hair very long and braided and wound around the head, and they are very robust and go about naked [but] with their privy parts covered, with their bows and arrows in their hands, doing as much fighting as ten Indian men."

In the ensuing conflict, several Spaniards were injured,

RICH CONTINENT

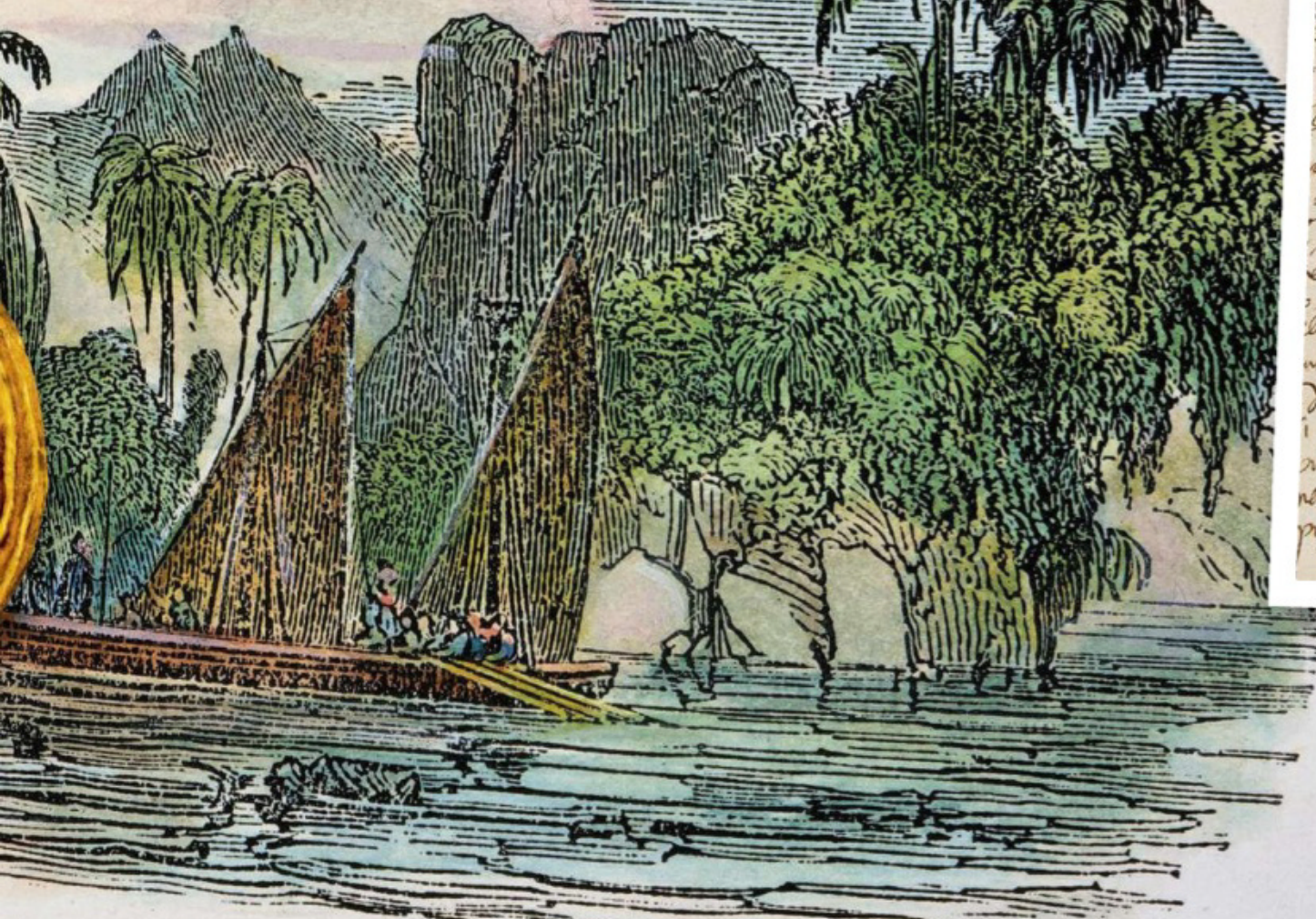
RIGHT: Pizarro's men were always on the lookout for Peruvian gold – such as was used to make this bird plate from c1400-1533 – as well as spices
BELOW: A 1558 map of South America shows the various settlements along the Amazon



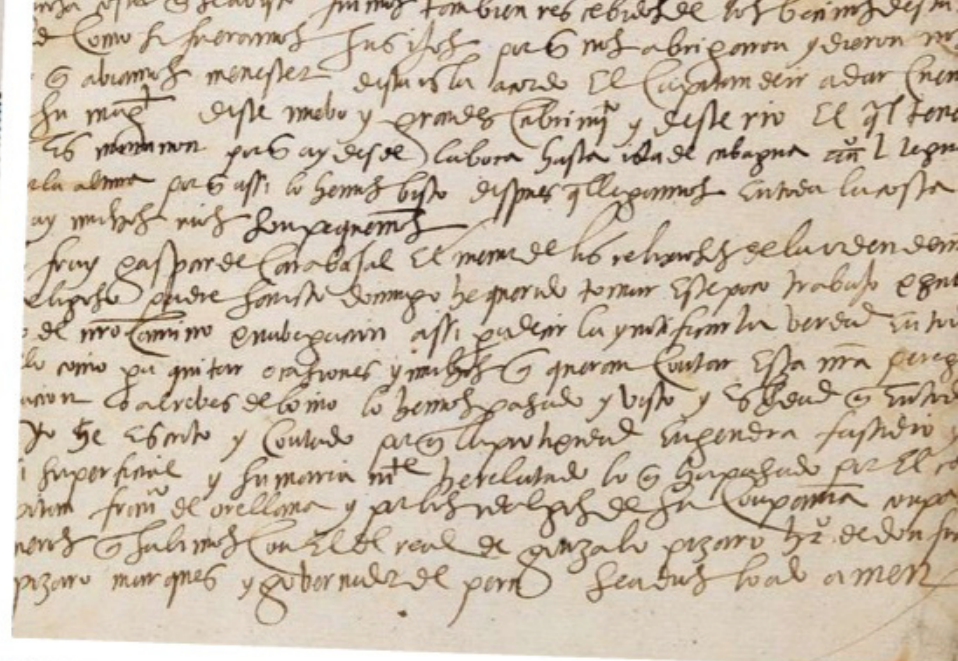
BAD REPUTATIONS

LEFT: A humble bust of Francisco de Orellana, from the explorer's hometown of Trujillo in Spain
MAIN: The Amazon warriors unleash their trademark aggression, attacking a rival tribe





Orellana sailing in search of the nation with temples of gold.



SURVIVOR STORY

LEFT: Despite the caption on this 19th-century image, Orellana was primarily in search of food for the starving party
ABOVE: Friar De Carvajal's handwritten account of the accidental journey

including the Friar, and their boats were left looking like porcupines, punctured by hundreds of arrows. Men reportedly fought alongside the female combatants, and if any dared to retreat, they were clubbed to death by the women behind them. Eventually, however, the superior firepower of the Spanish won the day and several Amazons were killed during the action.

Finally, after stopping for 18 days to repair the boats, Orellana's party were disgorged from the mouth of the river into the arms of the Atlantic on 24 August 1542. On the open ocean, making for Guiana, the two boats were briefly separated until being reunited on Cubagua Island, off the coast of Venezuela.

After suffering many privations, Pizarro managed to extricate himself and a few surviving members of his expedition party from the jungle. He was, of course, incandescently furious at his Lieutenant's failure to return, and Orellana's reputation was savaged in Spain and its New World colonies.

Orellana had proved that the planet's biggest river was navigable for its entire length, however, and the mighty waterway temporarily bore his name. He'd be better-known today if his storytelling hadn't got the better of him. His tales of ferocious females proved too beguiling and, because the Spaniards had referred to these soldiers as 'Amazons' from the moment they'd heard of them, the river took its final name from the women warriors of Greek mythology. 📌

GET HOOKED

BOOK

Read the excellent *River of Darkness: Francisco Orellana's Legendary Voyage of Death and Discovery Down the Amazon* (Bantam, 2011) by Buddy Levy.

TRAVEL

Travel the Amazon on a small boat and experience the river as Orellana and his men did – book a trip from the jungle city of Iquitos.



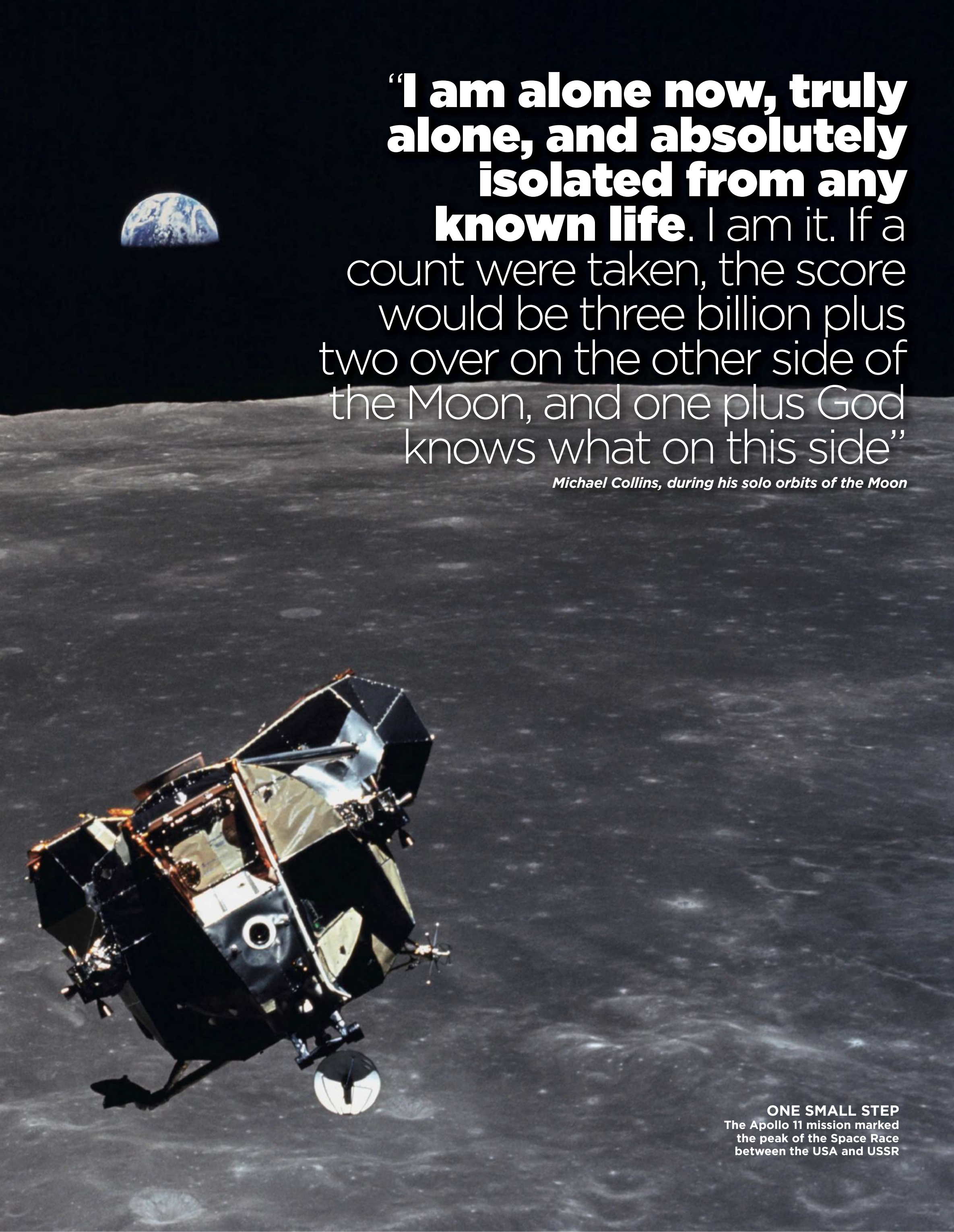
WHAT DO YOU THINK?

Are any other accidental explorers worthy of the history books?

Email: editor@historyrevealed.com

THE LUNACY OF APOLLO 11

In the summer of '69, three American
astronauts travelled to the Moon on
an adventure with virtually no
margin of error allowed



“I am alone now, truly alone, and absolutely isolated from any known life. I am it. If a count were taken, the score would be three billion plus two over on the other side of the Moon, and one plus God knows what on this side”

Michael Collins, during his solo orbits of the Moon

ONE SMALL STEP
The Apollo 11 mission marked
the peak of the Space Race
between the USA and USSR

As the lunar landing module of the Apollo 11 space mission skimmed above the Sea of Tranquility towards its touchdown area, alarms started going off across the console. Inside, Neil Armstrong and Buzz Aldrin exchanged glances. Only two scenarios could possibly play out from here: either they would shortly become the first humans to walk on extraterrestrial soil, or they were about to die further from home than anyone had ever perished before.

The men had already ascertained that they were shooting long – going too fast and too far west – and the view from the window revealed that they were heading for a crater congested with dangerous boulders. If they crashed and the spaceship was damaged, even if they survived the impact they would be stranded on the Moon, left looking back at an Earth they'd have no hope of returning to. US President Richard Nixon already had a speech written, just in case a horrorshow exactly like that played out, with the entire world watching on.

But the highly trained astronauts were far from passive passengers. Armstrong seized control of the craft, throwing it into semi-manual mode, and with Aldrin yelling out information about their altitude and speed, he steered the module across the crater and safely down to the surface. It was 20:17 UTC on 20 July 1969, and the Eagle had landed, with just over 25 seconds of fuel left in the tank.

Armstrong let NASA mission command – and the rest of his spellbound species – know they'd arrived at their destination, and began preparing to make a giant leap for mankind.

BLAST OFF

The Apollo 11 mission had begun four days earlier, on 16 July 1969, with the launch of a 36-storey-high Saturn V rocket from Cape Kennedy in Florida, as thousands of gobsmacked onlookers gazed up from gridlocked highways and bustling beaches, and millions more watched on grainy television sets around the planet. Up in the pointy end of the 111-metre-tall spaceship sat three American astronauts with the expectations of all humankind weighing heavily on their shoulders: Neil Armstrong, Mission Commander was on one side, Michael Collins on the other, and Edwin 'Buzz' Aldrin in the middle seat.

The countdown completed at 9.32am local time, at which point the intrepid trio and their massive machine were blasted skywards with 7.6 million pounds of thrust.

Travelling at 9920km/h, they rocketed 68km into the atmosphere before the massive stage-one engines and fuel tanks fell away, and the second-stage jets gunned into action. This took them up to a speed of 25,182km/h and to a height of 176km, where the exhausted stage-two section was also jettisoned. By now, just 12 minutes into the flight, Apollo and its crew were in orbit.

THE MAIN PLAYERS



NEIL ARMSTRONG

A former fighter pilot in the US Navy and a highly experienced astronaut, who had commanded the Gemini VIII space mission in 1966, Armstrong was Mission Commander during Apollo 11 and will forever be remembered as the first man on the Moon.



EDWIN 'BUZZ' ALDRIN

Also a Gemini veteran, Apollo 11's Lunar Module Pilot Aldrin is a deeply religious man, and held a private communion service shortly after landing on the Moon. In later years, he punched a conspiracy theorist after being challenged to swear that the landing wasn't a fake.



MICHAEL COLLINS

As Command Module Pilot, Collins spent 21 hours on his own in orbit around the Moon, as his colleagues explored the surface. Collins created the famous Apollo 11 mission patch, featuring an eagle landing on a lunar surface holding an olive branch.

STEVE BALES

Guidance officer (GUIDO) during the Apollo 11 lunar landing, Bales had to make an instant decision as to whether to continue the mission when computer fault lights began flashing on the console of the Eagle just seconds from the death zone.



The crew (left to right: Armstrong, Collins and Aldrin) perform a functional check in the Command Module



15 tons

Fuel burned per second during launch

Armstrong practises scooping up a lunar sample



Crewmembers prepare to ride the special transport van to the launch complex



stage of the outward journey, which would see the team separate into two.

Once again, Armstrong and Aldrin put on their protective spacesuits and clambered through the short umbilicus between Columbia and the Eagle, but this time the sophisticated docking mechanism was released, separating the two craft.

LUNAR LANDING

As the free-flying Eagle performed a couple of twirls in front of his window, Collins, left all alone aboard Columbia, visually checked it for damage. He could see none, and the final stage of the journey to the Moon began, with a 30-second blast of the lunar module's descent engine to achieve orbit insertion.

Just over an hour later, the descent engine was again fired, this time for 756.3 seconds, to slow the Eagle at 'high gate', nearly 8,000 metres above the lunar surface and around 8km from the intended landing site. The descent engine continued to provide braking thrust, but it soon became clear that not everything was going completely to plan.

The landing had been timed to occur as the Moon was in a waxing crescent phase (as seen from Earth), which meant the Sun was rising over the target touchdown site as the Eagle approached, and the lunar morning's long shadows helped the astronauts identify landmarks. Looking out of the window, they realised that they were passing these indicators too early. What's more, the internal computer system in the lunar module was overloaded with instructions and, moments before they entered the dead-man zone, it started freaking out, issuing error messages and a series of '1201' and '1202' alarms.

Audibly stressed, Armstrong queried these alerts and guidance officer Steve Bales – listening to the drama unfold from Mission Control in Houston, Texas – had to make a split-second decision on whether to abort the mission. Bales knew the Eagle was travelling six metres-per-second faster than planned, and he was already contemplating pulling the plug when the alarms began sounding.

Fortunately, the module's speed stabilised and one of Bales's backroom boffins, a super-talented 24-year-old computer engineer called Jack Garman, instantly recognised that the computer problem was down to 'executive overflow'. Faced with more commands than it could cope with simultaneously, the computer was prioritising its functions according to its programming, and the alarms simply indicated

Two hours and 44 minutes after lift off, with the rocket having completed one-and-a-half laps of Earth, the third set of engines exploded into life, firing for five minutes and 48 seconds – a process called the trans-lunar injection burn – which propelled Apollo 11 on a trajectory towards the Moon. Its job done, the third section detached and fell away, while the combined command and service module (Columbia), continued into space, with the lunar module (the Eagle), stashed beneath it.

Just over half an hour later, Michael Collins, the Command Module Pilot, separated Columbia from the remaining rocket using small thruster engines, turned her 180 degrees in mid-space (while travelling at over 40,000km/h), and carefully docked the nose with the lunar module, which was then extracted from its protective housing.

With Columbia and the Eagle now combined in their correct configuration, the Apollo mission continued its 400,000km journey, and the crew made the first of several colour television broadcasts back to Earth.

Columbia retained a service propulsion system (SPS), which was fired once, on 17 July, to slightly adjust its course, but besides this brief boost, momentum carried the curious-looking craft towards its goal through the virtual vacuum of space.

On 18 July, Armstrong and Aldrin donned their spacesuits and crawled through the pressurised docking tunnel linking the command and lunar modules to inspect the Eagle and make a second TV transmission.

At 17:21 UTC on 19 July, the mission went past the Moon and Columbia's SPS was fired up once again to nudge them into lunar orbit. They then lapped the Moon multiple times, surveying the selected landing spot and preparing for the final

ABOVE: Former US president Lyndon Johnson watches the lift-off from the stands MAIN: A Saturn V rocket launches the spaceflight from Kennedy Space Center, Florida



▼ SATURN V ROCKET

The Apollo astronauts were blasted into space inside the nose cone of the largest rocket ever built: Saturn V. Standing nearly 111m high, the Saturn V was as tall as a 36-storey building. This giant launch vehicle consisted of three rockets in one. The first two parts, or stages, lifted the Apollo craft into space, and the third stage set the spacecraft on course for the Moon.

ESCAPE ROCKET

For emergencies during launch

COMMAND MODULE

Astronauts stayed in here during launch

SERVICE MODULE

This module powered the Apollo spacecraft

LUNAR MODULE

The lunar module was housed in an aluminium cone

INSTRUMENT RING

THIRD STAGE

This stage reached low-Earth and then put Apollo on course for the Moon

SINGLE THIRD-STAGE ENGINES

INTERSTAGE ADAPTOR

Covering the third-stage engines, this linked the rocket's second and third stages

SECOND STAGE

The second stage held a tank of liquid hydrogen fuel and a tank of liquid oxygen

SECOND-STAGE ENGINES

INTERSTAGE ADAPTOR

This section linked the rocket's first two stages and also covered the engines

FIRST STAGE FUEL

This had a tank of kerosene fuel and a tank of liquid oxygen to burn it. It burned 15 tons of fuel per second during launch

FIRST-STAGE ENGINES

► COMMAND MODULE

The command module was a cabin that housed a crew of three, along with equipment needed for re-entry and splashdown.

SEATS

The crew of three stayed in the command module for most of the journey to and from the Moon

3.65 metres

The height of the command module, which was the only section to return to Earth

DOCKING TUNNEL

Astronauts used this tunnel to move between the command and lunar modules

195 hours, 18 minutes, 35 seconds

Length of the Apollo 11 mission

► SERVICE MODULE

This provided propulsion, electrical power and storage. The service module was cast off and allowed to burn up in the atmosphere before the command module brought the crew home.

ENGINE NOZZLE

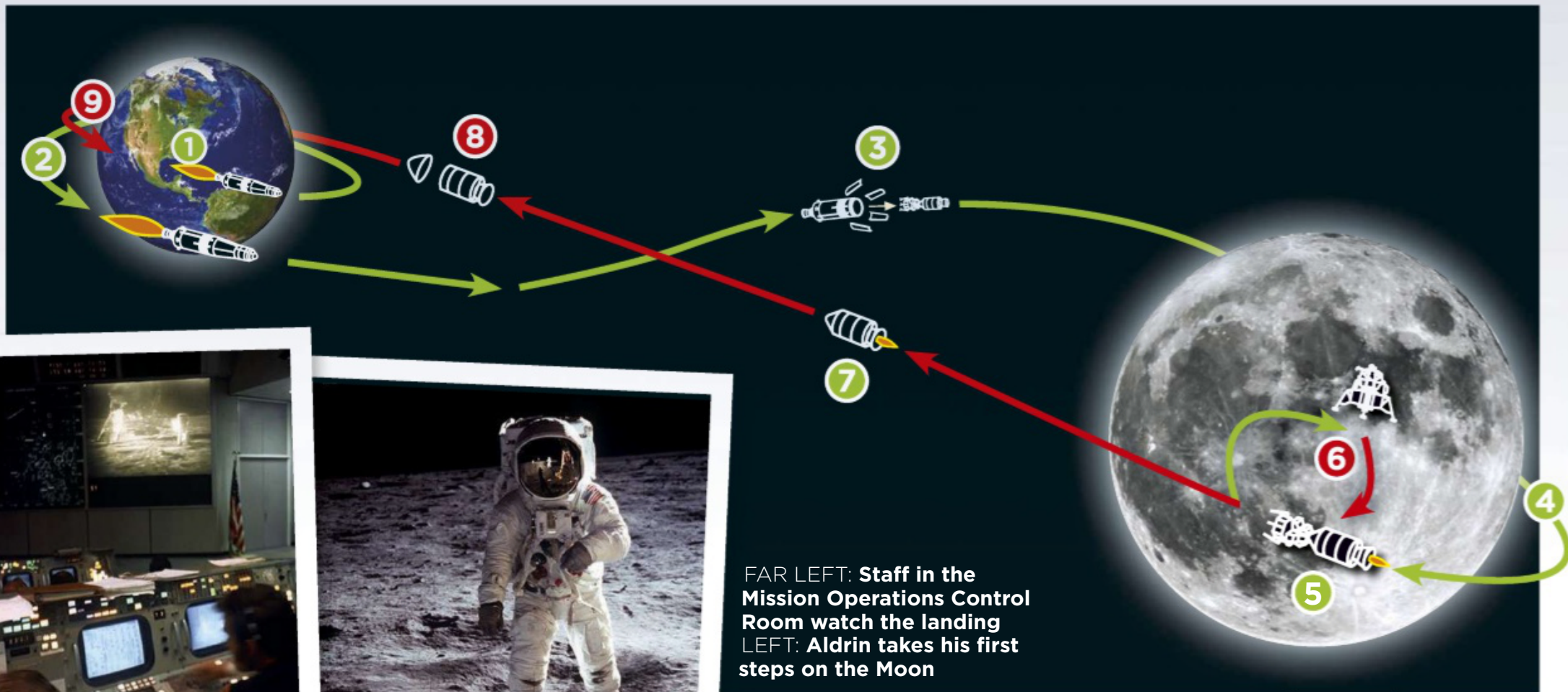
Nozzle for the main engine, which propelled the Apollo craft through space

THRUSTERS

Small thrusters made fine adjustments to Apollo spacecraft movements

FUEL CELLS

Tanks within the service module supplied fuel to the main engine



▼ LUNAR MODULE

This part of the spacecraft carried a crew of two to the Moon's surface. It was only capable of operation in outer space and was discarded after completing its mission.

ASCENT STAGE

The ascent stage of the lunar module acted as the launch platform when the top half blasted off back into space. The descent stage stayed on the Moon.

DESCENT STAGE

This bottom half of the lunar module acted as the launch platform when the top half blasted off back into space. The descent stage stayed on the Moon.

LEGS AND PADS

Flexible legs and wide pads on the bottom cushioned the module's landing and kept it stable on the surface.

DESCENT ENGINE

This engine was used to slow down the module's descent during landing.

SENSING PROBES

Probes on the legs touched the ground first during landing and sent signals to shut down the engine.

LEG LADDER

Astronauts used the ladder to climb down to the lunar surface.

COUNTDOWN

Many individual elements of the mission had been tested by previous Apollo missions, including the incredibly intricate docking system that locked together the command/service module (CSM) and the lunar module (LM), allowing astronauts to pass between the craft. However, there were still plenty of complete unknowns – especially during the latter stages of the landing, when the LM would be tested in lunar conditions for the first time – and very little margin of error.

1 9:32AM (EDT) / 13:32:00 (UTC), 16 JULY 1969
Mission Time 0; Kennedy Space Center, Merritt Island, Florida

Apollo 11 takes off, propelled by a Saturn V rocket from Launch Pad 39A, and is put into an initial Earth-orbit of 182.5 by 185.5 kilometres, jettisoning stages one and two en route, as their respective fuel supplies are exhausted.

2 16:16:16 (UTC)
Mission Time 2 hours 44 minutes; 1.5 orbits of Earth

Stage three fires, implementing the trans-lunar injection and sending Apollo 11 on a course towards the Moon.

3 16:46:00 (UTC)
Mission Time 3 hours 14 minutes

CSM Columbia disengages with the container carrying the LM, rotates 180 degrees and docks head-on with the Eagle, establishing a portal that can be pressurised and accessed by astronauts transferring from one ship to the other (an exercise that Armstrong and Aldrin practised on 18 June). The combined craft continues on its trans-lunar coast, while the remaining booster section of the rocket is jettisoned into orbit around the Sun.

4 17:21:50 (UTC), 19 JULY
Mission Time 75 hours, 50 minutes

With Apollo 11 now behind the Moon and temporarily out of contact with Mission Control, the first of two lunar orbit insertion manoeuvres takes place, with the service propulsion system (SPS) firing for 357.5 seconds to place the spacecraft into an elliptical lunar orbit of 103.5km by 304km (with the lunar orbit later adjusted to 99km by 113km, for the post-Moon landing rendezvous between Columbia and the Eagle).

5 17:44:00 (UTC), 20 JULY
Mission Time 100 hours, 12 minutes

Armstrong and Aldrin enter the LM, make final checks, and the two craft disengage. Collins performs a visual inspection of the Eagle from his position in the CSM, and the descent to the lunar surface begins.

6 20:17:40 (UTC)
Sea of Tranquility, the Moon

Following an eventful final approach, during which a number of alarms went off and the LM overshot the intended landing zone by several kilometres, forcing Armstrong to take semi-manual control to avoid a boulder field, the Eagle finally lands.

7 21:34:00 (UTC), 21 JULY
Mission Time 128 hours, 3 minutes; lunar orbit

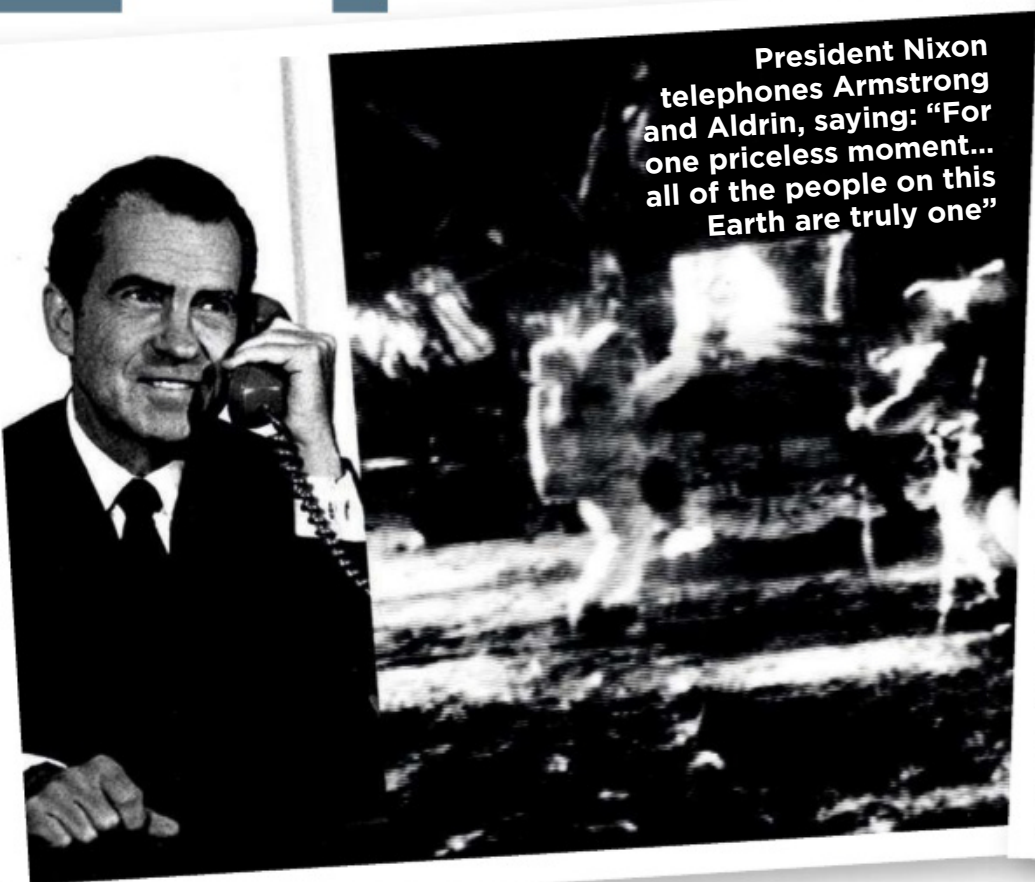
After 21 hours and 36 minutes on the Moon, the LM's ascent engine is gunned into life and the Eagle flies into lunar orbit, where it docks with Columbia on the CSM's 27th revolution.

8 00:01:01 (UTC), 22 JULY
Mission Time 132 hours; lunar orbit

The Eagle is jettisoned and then a 150-second blast of the SPS sends Columbia back towards home, with a second corrective burn happening at Mission Time 150 hours, 30 minutes.

9 12:50PM (EDT) / 16:21:13 (UTC), 24 JULY
Mission Time 195 hours, 18 minutes, 35 seconds; the Pacific Ocean

The command module finally separates from the service module and, 36 minutes later than planned, the crew of Apollo 11 speed through the Earth's atmosphere. The command module, slowed by parachutes, splashes down in the water of the Pacific Ocean at 13°19'N 169°9'W, some 380km south of the super-remote Johnston Atoll.



A US flag is planted on the Moon's surface

“One small step for man, one giant leap for mankind”

some non-critical tasks hadn't been performed. Reassured by Garman's snap analysis of the situation, Bale gave the all-clear to continue.

Although Aldrin was nominally the Lunar Module Pilot, the seating positions in the Eagle placed him by the autopilot console, so when Armstrong took the decision to switch to semi-manual control in order to avoid the boulder field, it fell to the Mission Commander himself to take the Eagle down. A probe,

dangling 170cm beneath the Eagle's landing talons proper, gave the first confirmation that they'd touched the Moon. "Contact light!" Aldrin exclaimed, and seconds later Armstrong killed the engines and spoke his famous words: "Houston, Tranquillity Base here. The Eagle has landed."

After several high-risk hiccups, the relief of everyone on Earth was expressed in the voice and words

of Charles Duke – Capsule Communicator during the landing phase – who stammered over his reply: "Roger, Tranquillity, we copy you on the ground. You got a bunch of guys about to turn blue. We're breathing again. Thanks a lot."

They were in the wrong spot, almost 6.5km downrange from the planned landing location, and had touched down 90 seconds earlier than intended, but they were alive and the lunar module was intact. Or so they thought.

36 minutes

Time that the Apollo 11 mission overran its planned duration

APOLLO CREED

On 25 May 1961, as the Space Race was really getting into its stride, President Kennedy told Congress that, within the decade, the US would achieve a manned lunar landing. He wouldn't live to see it, but Kennedy was right. Project Apollo was NASA's third manned space-flight programme, and it got off to a horrific start. Initial successes with crewless rockets were overshadowed by a manned mission that never happened. On 27 January 1967, three of NASA's top astronauts – Virgil Grissom, Edward White and Roger Chaffee – were killed in a cabin fire during a launch rehearsal at Cape Kennedy, and at the request of the men's widows, the name Apollo 1 was reserved for them.

Acknowledging its failings, NASA tightened procedures and the next few flights, which tested the operational capability of the command/service model (CSM), were unmanned. It wasn't until 11 October 1968 that Apollo 7 took off, with Wally Schirra, Donn Eisele and Walter Cunningham aboard, to complete a manned 11-day Earth-orbital flight. The lunar module (LM) wasn't ready by the time Apollo 8 launched in December 1968, but Frank Borman, Jim Lovell and William Anders became the first men to orbit the Moon.

In March 1969, the LM was tested during Apollo 9, with James McDivitt, David Scott and Russell Schweickart performing the rendezvous and docking manoeuvres, and Schweickart also testing the Portable Life Support System used for extravehicular activities (EVAs). The Apollo 10 mission in May 1969 saw Thomas

Stafford, John Young and Eugene Cernan take the LM to within 15km of the lunar surface, and by July the scene was set for Armstrong, Aldrin and Collins to make history by going one giant leap further for mankind.

After the success of Apollo 11, nine more lunar missions were planned using the Saturn rockets, but three of these were ultimately scuppered by budget cuts. Six did go ahead, however, all with successful outcomes except Apollo 13, during which an oxygen tank exploded, seriously damaging the CSM and forcing the crew to return to Earth using the lunar module as a lifeboat. Again, the programme was placed on hold while safety issues were investigated, but it resumed for another four missions, despite Nixon attempting to ground it. In total, 12 men walked on the Moon between 1969 and 1972, and on the last three missions, the Lunar Roving Vehicle (LVR) – AKA the Moon Buggy – was also driven around.

A cabin fire during a launch rehearsal of Apollo 1 killed all three crewmembers

MOON WALKING

Armstrong and Aldrin intended to rest before going outside, but after all that excitement, sleep was a remote possibility. They immediately began getting suited and booted for the EVA (extravehicular activity) part of the mission, which took two hours. Wearing a cumbersome Portable Life Support System, which made getting through the Eagle's small door a very tight squeeze and obscured his feet from view, Armstrong began descending to the lunar landscape at 02:39 UTC on 21 July.

As he climbed down the nine-rung ladder, he activated a TV camera and unveiled

a plaque, reading: "Here men from the planet Earth first set foot upon the Moon, July 1969 A.D. We came in peace for all mankind." More profundity was to come, with Armstrong delivering his most famous words while hopping from the final rung of the ladder, when he observed: "That's one small step for (a) man, one giant leap for mankind." (The missing 'a' was inaudible on the recording, lost amid the accent and heavy breathing of a man in an extraordinary situation, but Armstrong insisted that he said it.) Almost immediately,



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Armstrong scooped up some Moon dust, putting it into a bag and stashing it in his pocket – a contingency precaution in case something went wrong and they had to beat a hasty exit. Almost 20 minutes after the Mission Commander began leaving footprints in the “very fine” powder of the Moon, Aldrin joined him, describing the scene as “magnificent desolation”.

The two men planted a custom-constructed US flag in the strange soil and then took a surreal call from President Nixon in the White House, who described it as “the most historic telephone call ever made”.

They spent a total of 21 hours and 36 minutes on the surface of the Moon, with the moonwalk itself lasting just over two and a quarter hours. Armstrong ventured the furthest, traipsing 60 metres across to the rim of ‘Little West’ crater, where he took some samples and shot a panorama of the landing site.

While outside, they collected rock samples, which would yield three completely new minerals (armalcolite – named after the three astronauts – tranquillityite and pyroxferroite), captured footage and installed scientific equipment including a retroreflector (an instrument for reflecting light) and a seismic device designed to measure moonquakes.

They also experimented with movement in lunar gravity, which is just a sixth of the pull exerted by Earth. The astronauts found they were able to get around quite easily, with a loping style of long-hop the most effective way of moving. At one stage, Armstrong received a coded warning from Mission Control that his metabolic rate was rising and he should slow down, but neither men’s body readings went as high as expected, and they were given a time extension to complete their surface tasks.

Once back inside the Eagle, they had a meal of beef, potatoes and grape juice, before lobbing their rubbish out of the hatch and settling down for a well-earned seven-hour rest. It’s debatable how sweet their sleep would have been, though, since Aldrin had discovered damage to a crucial engine-arming switch shortly before retiring.

ALONE IN SPACE

Meanwhile, it fell to Collins to look after the getaway vehicle, a brutally isolating task as he orbited the Moon all alone for a further 21 hours, even losing radio signal to Earth for 48 minutes during each lap. Collins later revealed that his great fear was something happening to Armstrong and Aldrin on the Moon, which would force him to return to Earth alone. This was no small worry. The engines on the lunar module were untested in real conditions, and it was possible that they would fail to achieve lift-off from the Moon.

Thankfully, his fears weren’t realised, and after receiving a wake-up call from NASA, Armstrong and Aldrin successfully repaired the

engine switch and prepared for launch. During lift-off, Aldrin glanced out of the window to see the American flag being toppled over by the force of the engines, but this aside, the take-off was textbook. The lunar module’s ascent engine fired for 435 seconds, pushing them perfectly into orbit, where the Eagle docked faultlessly with the command module, and the crew of Apollo 11 were once again united.

Four hours later, the now-superfluous lunar module was jettisoned back into lunar orbit – where it remained until crashing into the Moon many months later – and with a two-and-a-half-minute burst of the SPS to achieve trans-Earth injection, Columbia began the 44-hour journey home. The crew made two final broadcasts from Columbia as they fell back to Earth, and spent ten hours catching up on some sleep. Then, on 24 July, the service module finally separated from the command module, which turned to orientate its heat shields forwards as they entered the planet’s atmosphere.

At 16:44 UTC, parachutes were deployed and the Apollo 11 mission splashed down into the Pacific Ocean, upside down and around 24km from the recovery ship USS *Hornet*. The crew activated flotation bags, and a helicopter with a team of divers quickly attached a sea anchor to prevent it drifting. Armstrong, Aldrin and Collins were hoisted up into a second helicopter, where they were quickly clothed in isolation garments in case they’d brought home any alien pathogens. The astronauts then endured a further 21 days of quarantine procedures, before they were given the returning heroes’ treatment, with public parades through the streets of New York, Chicago and Los Angeles. 📍

GET HOOKED

WATCH

From the Earth to the Moon – an excellent 12-part HBO TV mini-series made in 1998 and co-produced by Ron Howard, Tom Hanks, Brian Grazer and Michael Bostick.

READ

Michael Collins’ autobiography, *Carrying the Fire: An Astronaut’s Journeys* (Pan) is a must-read.

LEFTOVERS

Besides the rubbish from their space picnic, the landing stage of the LM and a number of scientific measuring devices, the crew of Apollo 11 left several items behind on the surface of the Moon, including a golden olive branch, commemorative medallions inscribed with the names of the three Apollo 1 astronauts who died in a launch-pad fire and two cosmonauts also killed in accidents, and a silicon disk containing miniaturised goodwill messages from 73 nations, as well as the names of congressional and NASA leaders involved in the mission.

Officials and flight controllers celebrate the end of the mission



The crew get into a life raft following splashdown



Armstrong plays a ukelele while in quarantine



A homecoming parade is held in New York, August 1969

OBSTACLE COURSE

Impenetrable pack ice thwarted Hudson's efforts on more than one occasion

HENRY HUDSON AND THE SEARCH FOR THE NORTHERN PASSAGE

The man after whom rivers and bays are named made several attempts to connect Europe and the Pacific

GETTY X2

“Henry Hudson’s final quest ended in betrayal, abandonment and mystery”



With the Portuguese, Spanish and Holy Roman empires consecutively controlling southern trade routes to India and the Orient, and the Silk Road effectively closed off by the Muslim Ottoman Empire, the search for a Northern Passage – a navigable trade route from the Atlantic to the Pacific, providing access to the markets of Cathay (China) – was an obsession for northern European nations from the 16th century onwards.

During multiple attempts to chart such a course, mostly going northwest, Henry Hudson explored, and left his name all over, North America; his moniker still graces both the river that slides along the western flank of Manhattan Island and Canada's immense Hudson Bay. But his final quest ended in betrayal, abandonment and mystery.

The first recorded attempt to forge a passage through the floes and across the frozen top of the globe was led by the Italian John Cabot (Giovanni Caboto) in 1497, who was commissioned by English king Henry VII. While he failed to find Asia, Cabot was the first European to make landfall in North America since the Vikings.

Portuguese explorer Estêvão Gomes was sent on a similar mission by the Spanish emperor in 1524; he reached Nova Scotia before being forced back by freezing conditions. In the 1530s, Frenchman Jacques Cartier twice tried to force his way along the St Lawrence River (which connects the Atlantic with the Great Lakes), but was halted by rapids. He named them 'Lachine', convinced they were all that stood between him and China.

In around 1551, the Company of Merchant Adventurers to New Lands (formally called the 'Mystery and Company of Merchant Adventurers for the Discovery of Regions, Dominions, Islands, and Places unknown') was established. The company comprised 240 adventurers, who'd each bought a £25 share, and their declared objective was to plot a northern route to Asia.

Sir Hugh Willoughby captained the company's first quest to find the Northeast Passage across the top of Russia, with Richard Chancellor as chief pilot. The three-ship fleet left London in May 1553, but was separated by a savage storm in September, somewhere north of Norway. Willoughby, who was left with two ships, rounded the North Cape and sailed east across the Barents Sea to the Novaya Zemlya archipelago.

He then turned around and returned to the Kola Peninsula, with the ships becoming locked in ice near modern-day Murmansk.

Chancellor also sailed around North Cape, but entered the relative safety of the White Sea and eventually weighed anchor at the mouth of the Dvina River. He then travelled overland to Moscow, meeting Tsar Ivan the Terrible and obtaining a letter for the English monarch (by then Mary I), welcoming trade between the two nations. When he returned home, the Company of Merchant Adventurers was renamed the Muscovy Company.

Willoughby and his entire crew, meanwhile, had perished – succumbing to the terrible cold or falling victim to carbon monoxide poisoning after insulating their ships. These unfortunates were the first of many men who would lose their lives in the search for a route through the most extreme environment on Earth.

The Northern Passage remained elusive throughout the 16th century, despite three attempts to chart it by English explorer and privateer Martin Frobisher in the 1570s

– none of which got any further than Baffin Island – and a chaotic escapade by Humphrey Gilbert in the 1580s which, while resulting in

ILLUSTRATION: SUE GENT, ALAMY X2

1

The number of mermaid sightings reported by Hudson during his second voyage.

ALL OVER THE MAP

The Northwest Passage was a hypothetical concept for centuries, with explorers operating under many misconceptions, including the beliefs that seawater couldn't freeze and that ice became thinner the further north you travelled during mid summer. Until the advent of global warming, pack ice made any northern sea route between the Atlantic and Pacific oceans virtually impossible.

VOYAGE 1

1 1 MAY 1607 Gravesend, England

Hudson departs with a crew of ten men and his young son John, on the 80-ton *Hopewell*. They sail via the Shetland Islands.

2 14–22 JUNE 1607 Greenland

The *Hopewell* reaches Greenland. Hudson hugs the eastern coast as he sails north until 22 June, when he turns the ship east.

3 JULY 1607 Spitsbergen

After first spotting 'Newland' on 27 June, the *Hopewell* enters Krossfjorden, a fjord on the west coast of Spitsbergen, on 14 July. Within two days, pack ice prevents them from continuing north and they return to England.

VOYAGE 2

1 APRIL 1608 St Katherine Docks, London

With 14 men and his son John, Hudson departs England, again aboard the *Hopewell*. This time, though, they seek a northeast route to Asia.

2 JUNE 1608 Barents Sea

The *Hopewell* skirts northern Norway in late May and passes the North Cape in early June, entering the Barents Sea and encountering the ice wall to the port side. Hudson describes this sight as "very fearful to look on".

3 JULY 1608 Novaya Zemlya, Russia

From 27 June, Hudson and his men explore the Arctic Circle–spanning islands of Novaya Zemlya. They attempt to get round to the Kara Sea, but the way is blocked. By 26 August, they're back in Gravesend.

VOYAGE 3

1 APRIL 1609 Amsterdam

Hudson departs the Netherlands on the *Halve Maen* with a 20-strong mixed Dutch-English crew.

2 MID MAY 1609 Somewhere between the North Cape and Novaya Zemlya

Frustrated by freezing fog and impenetrable pack ice, Hudson turns around and convinces his disgruntled crew they should head southwest in search of a rumoured route through to the Indies via the warmer climes of continental America.

3 JULY 1609 Nova Scotia

After encountering the Newfoundland coast in early July, the party continues south and makes landfall at modern-day LaHave in Nova Scotia. During a 10-day stop, they raid a native village.

4 AUGUST 1609 Eastern Seaboard

Passing Cape Cod, the *Halve Maen* continues due south before swinging west to hit the mainland near Chesapeake Bay and James River, near the troubled Jamestown colony. Without stopping, Hudson heads north, discovering Delaware Bay.

5 SEPTEMBER 1609 New York Bay and Hudson River

Hudson spends weeks exploring the river west of modern-day Manhattan, claiming the territory for the Netherlands and encountering Algonquin tribespeople. The *Halve Maen* turns around at present-day Albany and returns to Europe, arriving at Dartmouth on 7 November, where Hudson is detained by the angry English authorities.

VOYAGE 4

1 17 APRIL 1610 St Katherine's Pool, below the Tower of London

Hudson departs with 20 men and two boys, including his son John, aboard the *Discovery*. Henry Greene boards the boat at Gravesend.

2 MAY 1610 North Atlantic

Sailing via the Orkneys and Faroe Islands, the *Discovery* seeks shelter along Iceland's

coast, witnessing the eruption of Mount Hekla, before pushing on, past Greenland to the coast of Labrador.

3 JULY 1610 Ungava Bay

Unable to get through the 'Furious Overfall' (now Hudson Strait), the *Discovery* is forced into Ungava Bay, where it's trapped by ice for three weeks.

4 AUGUST–NOVEMBER 1610 Hudson Bay

On 2 August, the expedition enters what is later known as Hudson Bay and spends months fruitlessly searching for a passage west.

5 NOVEMBER 1610–JUNE 1611 James Bay

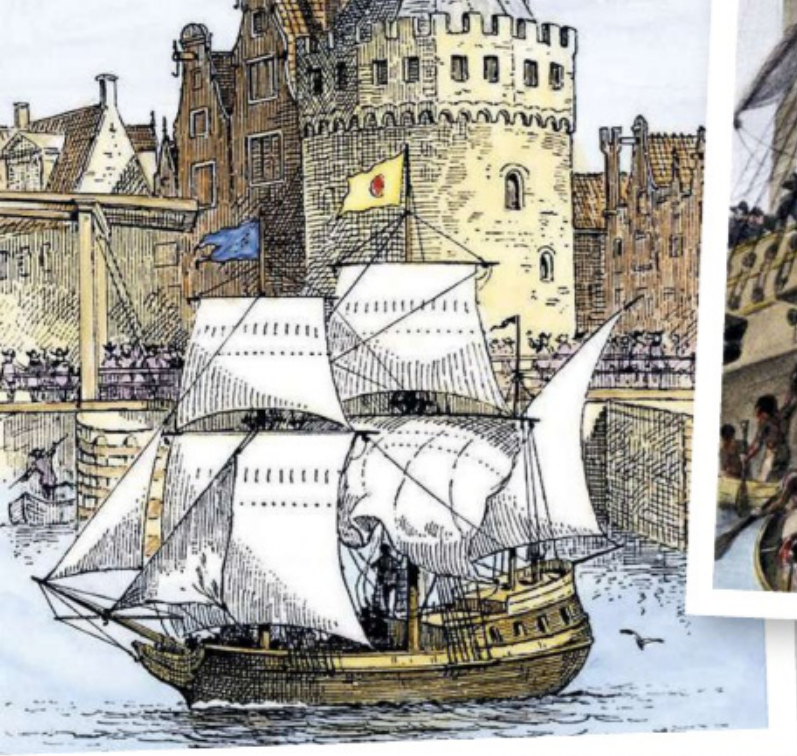
Freezing seas force the men to pull the *Discovery* onto rocks and to spend winter within James Bay in the far south of Hudson Bay. After finally resuming the expedition the following June, a fatal mutiny erupts. Hudson is set adrift with seven others, never to be seen again.

6 JULY 1611 Digges Island

The mutineers, having floundered around in Hudson Bay for weeks, land on Digges Island, where Henry Greene, along with several others, is killed in a violent encounter with "eskimos".

7 AUGUST–OCTOBER 1611 North Atlantic, Ireland and London

The *Discovery* travels south along the coast of Newfoundland before crossing the Atlantic. Suspected mutiny leader Robert Juet dies of starvation just before they sight Bantry Bay in Ireland on 6 September.



CHANGE OF DIRECTION

LEFT: The *Halve Maen* leaves Amsterdam in April 1609 ABOVE: Having aborted its Arctic voyage, five months later the ship reaches the future Manhattan Island

the English colonisation of Newfoundland, did nothing to open up a route north.

Three further failed missions to find a way through were made in the 1580s by Elizabethan explorer John Davis, who later joined Thomas Cavendish in the global circumnavigator's ultimately unsuccessful attempt to unlock the Northwest Passage from the east.

SECRET PASSAGE

Little is known about Henry Hudson's early life, but it's believed he worked his way up from cabin boy to captain over many years at sea. He arrives in the written record in 1607, when

engaged by the Muscovy Company to undertake a mission to find the Northwest Passage, a route the English were now desperate to chart before the Dutch beat them to it.

He was recommended to the company by Reverend Richard Hakluyt, a noted geographer, who assured them Hudson possessed the requisite experience and was privy to "secret information" that would allow him to find the passage. This mysterious information is thought to refer to an 80-year-old pamphlet, *Thorne's Plan*, written by a Bristol trader whose father >

THE MAIN PLAYERS

HENRY HUDSON

Born in England around 1565, Hudson is believed to have spent most of his early life at sea prior to commanding his first expedition to look for the Northern Passage in 1607. One of his sons, John, sailed with him and was also set adrift in 1611.

HENRY GREENE

A late replacement for another crew member on the fourth voyage, Greene was a known troublemaker. He was initially treated favourably by Hudson, but the two quarrelled; Greene was named as captain of the post-mutiny *Discovery*.

ROBERT JUET

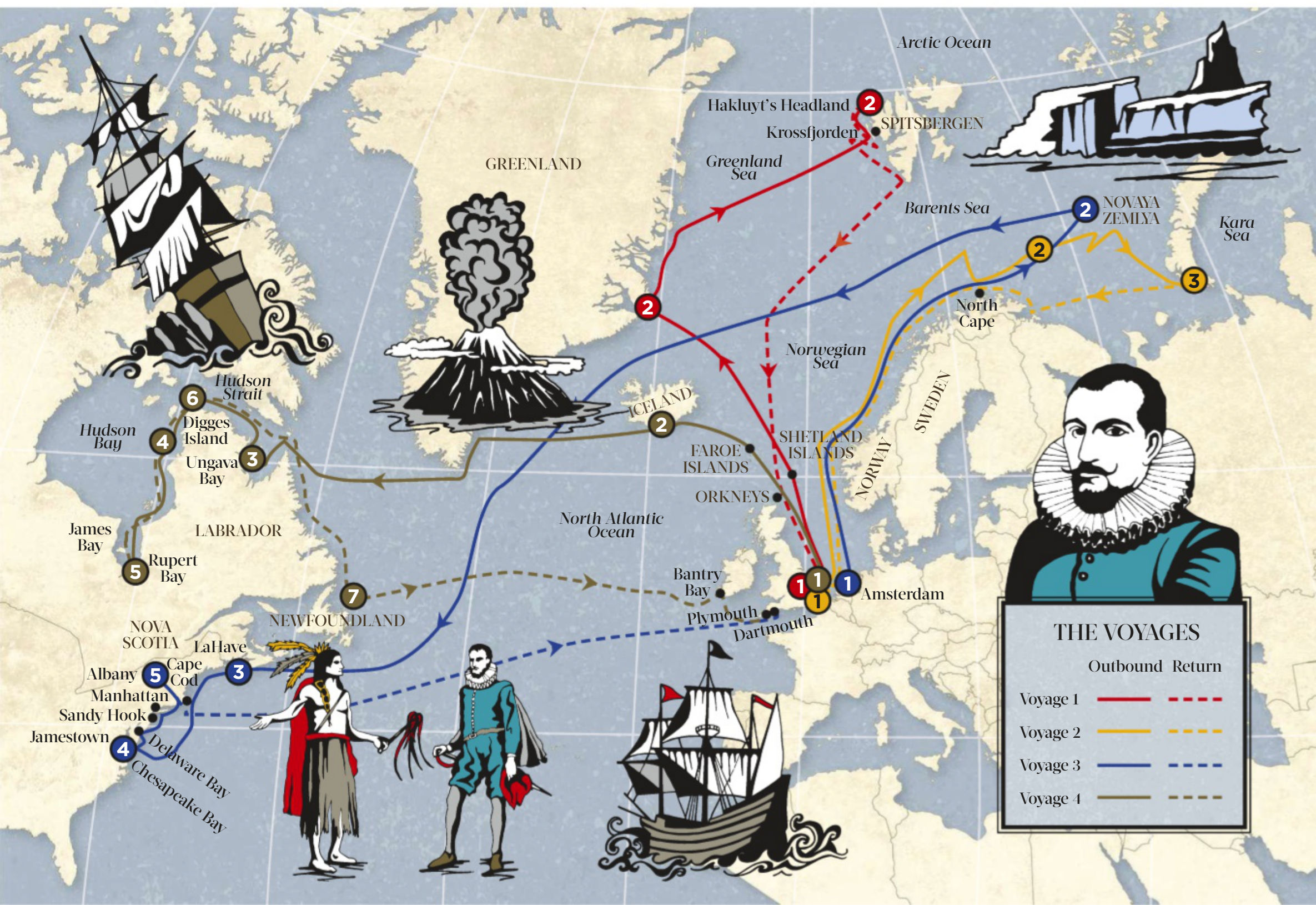
Served as first mate during three of Hudson's four voyages into the north, but his relationship with the captain is ambiguous - Hudson described him as a man "filled with mean tempers". Juet was later named as a leader of the 1611 mutiny.

ABACUK PRICKET

Navigator on the *Discovery* during Hudson's fourth voyage, Pricket was one of eight men who survived the journey and was the author of the only account of events prior to, during and after the mutiny.

RICHARD HAKLUYT

A noted geographer and advocate for England's colonisation of North America, who recommended Hudson for his first expedition. By Hudson's fourth quest, Hakluyt had come to doubt the existence of the Northern Passage.



had sailed with John Cabot's crew a century earlier.

On 1 May 1607, with a crew of ten men and his young son John, Hudson sailed from Gravesend in a small barque, the *Hopewell*, which had already survived one failed attempt to plot a northern course to Asia under the command of John Knight in 1606.

Travelling via the Shetland Islands, the *Hopewell* reached Greenland after six weeks. Hudson hugged the east coast for a further week, before turning east into the freezing fog of the Greenland Sea. Five days later, Spitsbergen was spied. Discovered by the Dutch in 1596, the island would soon become a killing ground for whalers and walrus hunters.

By mid-July, the *Hopewell* had reached Nordaustlandet (Northeast land), the second biggest and most northerly major island in the Svalbard archipelago, and was teetering on the edge of 80 degrees north. Here, though, pack ice made further progress impossible, confounding the concept of driving a route right over the pole. Forced to turn around, Hudson arrived back in Tilbury on 15 September.

FORCED RETREAT

Seven months later, Hudson and his *Hopewell* crew – which included Robert Juet as first mate – were dispatched on a second mission by the Muscovy Company. His instructions this time were to bear east and attempt to sail along the top of Russia.

Following a 2,500-mile journey, during which the little ship penetrated well into the Arctic Circle and went as far as Novaya Zemlya, the way around to the Kara Sea was blocked and they were repelled by pack ice. Hudson reportedly wanted to try a western route, but with mutinous murmurings among his crew, he was forced to retreat to England.

In 1609, Hudson, unable to secure English backing, was commissioned instead by the Dutch East India Company to search for the northern passage on behalf of the Netherlands. He was furnished with a Dutch ship, the *Halve Maen* (Half Moon), a mixed

Dutch-English crew, and instructed to re-explore the easterly route around Russia.

Leaving Amsterdam in April, Hudson quickly established that his prescribed course wasn't possible because of frozen seas. Having heard rumour of a route running west, through continental North America, he set off across the Atlantic to investigate. Reaching Newfoundland at the beginning of July, they landed at LaHave in Nova Scotia to make repairs and to resupply.

The expedition party stayed for ten days, during which time the men raided a native village, and then sailed south, reaching Cape Cod at the beginning of August.

They continued south into relatively open water, before turning west to meet the mouth of Chesapeake Bay, close to the embryonic English colony of Jamestown, the first on mainland America. Unbeknown to Hudson, John Smith's settlement was close to starvation, but he turned north, skirting the coast until the *Halve Maen* reached Sandy Hook in early September, passing into what's now known as New York Bay.

After entering Upper Bay on 11 September 1609, Hudson spent several weeks exploring the major waterway flowing into the bay. He called it the 'River of Mountains', but we know it as the Hudson. The explorer thought he'd discovered a major passage when the river widened at Tappan Zee, but by the time they reached Albany, it was apparent there was no way through.

NEW ACQUAINTANCES

The Europeans had a number of encounters with Algonquin Nation tribes, including one incident where crew member John Coleman was fatally shot through the neck by an arrow, and others where indigenous people were captured. But they also engaged in some friendly trade, and Hudson dined with a number of chiefs.

The region was claimed for the Netherlands, paving the way for the establishment of New

CHANGING FORTUNES

RIGHT: This early 20th-century painting shows Hudson encountering Native Americans during the extended 1609 voyage FAR RIGHT: A replica of the *Halve Maen* sails across New York Harbour in 2009 to commemorate the 400th anniversary of Hudson's historic arrival in those waters BELOW: A wood engraving shows the 1611 mutiny on board the *Discovery* BOTTOM: Hudson, his young son John and a visibly sick colleague contemplate their fate having been cast adrift by the mutinous *Discovery* crew

800

guilders – Hudson's payment for leading an expedition for the Dutch East India Company



“They were **put into an open boat** and set adrift”





Amsterdam (now New York) on Manhattan Island, which became the capital of the Dutch colony of New Netherland 15 years later.

Instead of returning directly back to Amsterdam, the *Halve Maen* inexplicably stopped at Dartmouth. There's been speculation that Hudson's dalliance with the Dutch was simply a ruse to obtain access to their maps, and that he'd deliberately gone too far south during this expedition, but the English appeared furious, detaining the captain and attempting to seize his journal.

A LABYRINTH WITHOUT END

Regardless of any possible double Dutch dealings, Hudson was quickly forgiven and, in 1610, the British East India Company and Virginia Company engaged him to undertake another expedition.

With a larger crew – including the late addition of alleged troublemaker Henry Greene – Hudson left London in April aboard the *Discovery*. They sailed via the Faroe Islands and Iceland, before turning west, skirting the southern tip of Greenland, crossing the Labrador Sea and entering the strait Hudson called the Furious Overfall (which is now named after him) between Newfoundland and Baffin Island.

Dangerous conditions forced them into Ungava Bay, where the ship remained trapped for weeks.

Upon re-entering the Furious Overfall, the *Discovery* was swept into a huge bay (what became known as Hudson Bay), the immensity of which convinced them that they'd finally found a passage through. However, after spending months exploring “a labyrinth without end”, as noted by Prickett, the expedition was trapped by ice and forced to over-winter in James Bay. Juet had already been disciplined and demoted for insubordination and, with everyone on the edge of starvation, disharmony raged between captain and crew.

When the ice released the *Discovery* in spring 1611, Hudson insisted on continuing the mission, but his crew was at breaking point. In June, at the apparent instigation of Greene and Juet, the men mutinied. Hudson, along with his son John and seven loyal or ill crew members, was put into an open boat with some equipment and supplies, and set adrift in James Bay. After briefly attempting to chase the *Discovery*, they were outrun and never seen again. 🎯

GET HOOKED

VISIT

The Henry Hudson Monument, in Henry Hudson Park in the Bronx in New York City, is a towering memorial to the great adventurer.

READ

Half Moon: Henry Hudson and the Voyage That Redrew the Map of the New World by Douglas Hunter (Bloomsbury, 2009).

WHAT HAPPENED NEXT?

The *Discovery* returned to England with eight of the 13 mutineers still alive. Virtually everything known about the mutiny and its aftermath comes from the journal of the ship's navigator Abacuk Pricket who, possibly in an artful ploy to escape the noose, portrays himself as bystander rather than instigator. Pricket's account casts Henry Greene and Robert Juet as leaders, but both men died on the return voyage, so were unable to defend themselves. Four of the survivors, who possessed valuable knowledge for trading companies still seeking a northern passage, were tried for murder instead of mutiny (which carried an automatic death sentence) and acquitted. The passage continued to elude explorers and take the lives of men – including Sir John Franklin and the entire crew of HMS *Erebus* and HMS *Terror*, who perished in 1845-7 – until Finn Nils Nordenskjöld traversed the Northeast Passage in 1878-79, travelling from Scandinavia. Irishman Sir Robert McClure discovered the Northwest Passage (by boat and sled) in 1850, while Norwegian Roald Amundsen first sailed through it in 1905.



ZHENG HE AND HIS TREASURE FLEET

Six centuries ago, a towering Chinese eunuch led a fleet of enormous ships to India, Arabia and beyond. Meet Zheng He's epic treasure-ship armada

NAVAL MIGHT
China's greatest
seafarer, Zheng He,
leads his colossal fleet
of Ming-era ships



During the reign of China's Yongle Emperor in 1403, an imperial order was issued to begin the construction of a fleet of super-ships – vessels vastly bigger than anything ever seen before. Officially called Xiafan GuanJun ('The Foreign Expeditionary Armada'), the behemoth boats would become better known as the Ming Empire's treasure ships.

Capable of carrying as many as 1,000 men, some of these ships were purportedly 137 metres long, 55 metres wide and several stories high, and each boasted nine masts with 12 sails. They dwarfed contemporary European ships – by comparison, Christopher Columbus's flagship, the *Santa María*, built 60 years later, measured just 18 metres from bow to stern.

Overseeing this immense shipbuilding project on the banks of the Qinhuai River was Zheng He, a eunuch who wielded enormous power, and who was himself a huge physical presence, standing well over six feet tall. He would become the Admiral of this imperial fleet, leading the floating city of sails on seven far-ranging expeditions around the South China Sea and across the Indian Ocean.

Although the treasure ships usually left China together, as an awe-inspiring fleet, separate squadrons under the command of sub-admirals – such as the eunuchs Hong Bao and Zhou Man – often detached from the main force to visit other destinations, maximising the impact of the missions.

But what was the Emperor trying to achieve with this flexing of maritime muscle, and why would he place such naval power in the hands of a common-born former-prisoner, mutilated as a child, who hailed from an ethnic minority of Muslim, mountain-dwelling inlanders?

HE BOY TO HE MAN

China's greatest seafarer was born several weeks' journey from the nearest coast, in the mountains of Central Asia. Named Ma He, he was brought up as a Hui Muslim. The Chinese army, leading an invasion against the Mongols, overran his hometown in 1382. His father was killed in the fighting, and the ten-year-old boy was captured. Ritually castrated, he was trained as an imperial eunuch, renamed San Bao (meaning 'Three Jewels') and dispatched to the court of Zhu Di – Prince of Yan and fourth son of Zhu Yuanzhang, the Hongwu Emperor, who founded the Ming dynasty – in Beiping (modern-day Beijing).

During the next two decades, against a backdrop of near-constant violent conflict with the Mongols and complex political shenanigans within the Ming dynasty, the young San Bao repeatedly distinguished himself with valour, loyalty and intelligence. He rose through the ranks to become the most trusted lieutenant of Zhu Di, who bestowed him with the honorary name

THE MAIN PLAYERS

ZHENG HE

Born in 1371 to a Muslim Hui family in today's Yunnan province, Ma He was captured by Chinese troops aged ten. He grew to be huge, standing over six feet tall. He probably died during his seventh journey, but some reports claim he lived until 1435. His empty tomb is in Nanjing.

ZHU DI

Prince of Yan and later third emperor of the Ming dynasty, the Yongle Emperor set up the treasure fleet, promoted Zheng He to the position of Admiral and ordered six expeditions.

WANG JINGHONG

Zheng He's second-in-command during the treasure voyages to south-east Asia, India, Sri Lanka, Arabia and East Africa between 1405 and 1433.

FEI XIN

Accompanied Zheng He on four of the voyages, including the seventh, and subsequently wrote *Xingcha Shenglan* (*Description of the Starry Raft*), a first-person account of his experiences.

A TRAVELLER'S LIFE

BELOW: The honoured Admiral Zheng He (in white) is welcomed home after one of his missions. BELOW, INSET: Zhu Di, the Yongle Emperor, who commissioned the fleet. RIGHT: An ivory bas-relief in Java celebrates the landing of the Admiral's treasure fleet. FAR RIGHT: A c1754 world map, copied from one believed to have been compiled on Zheng He's expeditions.



SHIPS AND STARS

MAIN: Sketches of Zheng He's treasure ships – each of the larger vessels boasted 12 sails. LEFT: One of a set of maps, or 'star charts', of Zheng He's maritime expeditions to the Indian Ocean, reproduced in the 1628 Mao Kun book of maps.



Zheng He after some remarkable heroics at the Battle of Zhenglunba.

In 1402, Zhu Di unseated his nephew Zhu Yunwen (the Jianwen Emperor) from the Dragon Throne and became the Yongle Emperor. Immediately, he set about breaking the explicit instructions of his father, who had forbidden military expeditions into foreign lands. The new ruler commissioned the treasure fleet and made his chief eunuch Admiral of the expeditionary armada.

Debate still rages over the primary purpose of the journeys, which were more like intimidating visits than overt invasions.

The end result was that China secured lucrative trading routes, quashed large-scale piracy and received generous tariffs and unquestioning fealty from frightened foreign leaders all around the region. Some historians have argued that the whole exercise was an enormously elaborate manhunt to track down Zhu Di's predecessor Zhu Yunwen, who possibly escaped death during the coup that overthrew him.

Whatever else he intended to achieve, the Yongle Emperor clearly wanted to show the entire known world who was boss. And his right-hand man throughout this was Admiral Zheng He, who was so trusted he was given blank scrolls and the Emperor's seal, so he could issue imperial orders at sea.

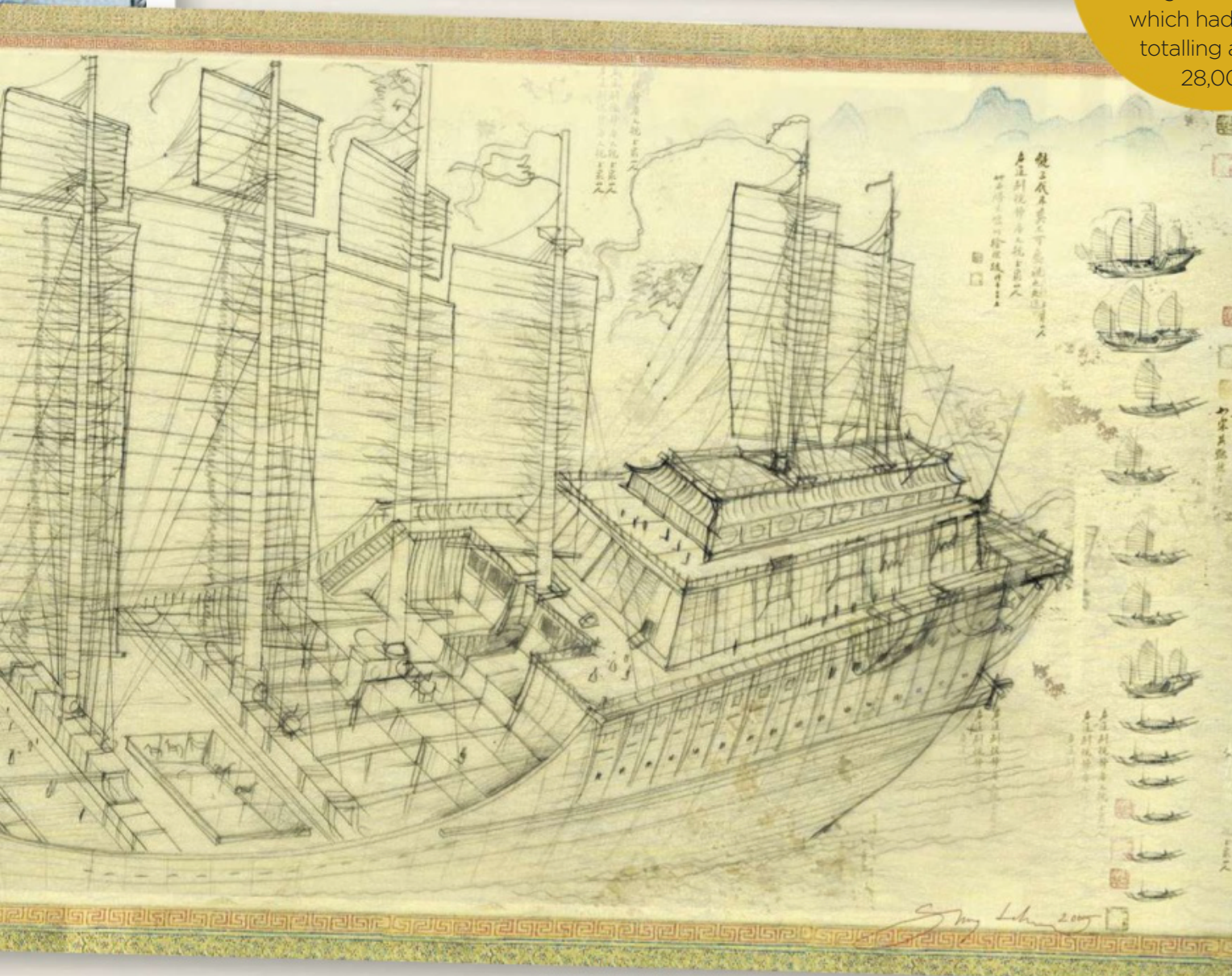
EARLY VOYAGES

Accompanied by his deputy, Wang Jinghong, and almost 28,000 men, Zheng He departed Nanjing on his first voyage in 1405. Travelling through the Chinese Sea, they sat out a monsoon in Taiping before heading south along the coasts of modern-day Vietnam, Malaysia and Indonesia, to Java. They veered west through the Straits of Malacca and across the Bay of Bengal to Ceylon (present-day Sri Lanka), Quilon (now Kollam) and Calicut (Kozhikode) in Kerala, India.

The most significant engagement of this journey was the epic showdown at Palembang, Sumatra, with a huge mercenary force led by the infamous pirate king Chen Zuyi, who

317

The number of ships in Zheng He's first fleet, which had a crew totalling almost 28,000



had long been terrorising shipping in the Strait of Malacca. In the ensuing battle, 5,000 pirates were killed and Chen Zuyi was captured and taken to Nanjing for execution.

The second expedition departed at the beginning of 1408, and followed a similar route – with stops at Calicut, Malacca, Semudera, Java, Siam, Champa and Quilon, to name but a few. One of the objectives of this voyage was to remind Java's Majapahit kings, who had just been forced to apologise and pay a fine for the killing of some Chinese officials, that the empire was watching them. Zheng He also formally invested Mana Vikraan as the King of Calicut, and reaffirmed the relationship between China and India.

During the third journey (1409–11), Zheng He engaged in a battle with King Alakeshvara of Ceylon, who had been menacing neighbouring countries with whom China enjoyed good diplomatic relations. Alakeshvara lured Zheng He and 2,000 of his troops inland towards the capital Kotte, and then cut off their lines to the treasure fleet. But the Chinese were not easily beaten. Their response was to attack the capital and wait for the Sinhalese troops to come back and protect it. The locals

were defeated and Alakeshvara captured. He was eventually released, but the might of the Ming Empire had again been demonstrated.

By 1413, when the fleet left Nanjing to embark on its fourth trip, Admiral He had orders to truly test the range of the titanic treasure ships. After stops along the route of previous voyages, the fleet continued beyond Calicut to visit the Maldive and Laccadive Islands, and then Hormuz Island in the Persian Gulf.

In 1415, Zheng He paused while passing northern Sumatra to take action against the pretender to the throne of Semudera, Sekandar. The usurper had just ousted Sultan Zain al-'Abidin, whom the Chinese-supported. Zain al-'Abidin was restored to power while Sekandar was captured, taken back to the Ming court and executed.

ACTS OF DIPLOMACY

Not everyone was dragged to China in chains, though. Many ambassadors were transported back to Beijing (which replaced Nanjing as the capital under the Yongle Emperor) on the huge treasure ships, travelling in luxurious on-board staterooms complete with balconies, while carrying gifts for the Emperor.

The fifth journey saw the fleet tour the trading centres of Arabia and East Africa, landing at Aden, Mogadishu, Brava, Zhubu and Malindi. The treasure ships must have resembled arks during their return voyage, carrying tributes including exotic African animals such as lions, leopards, camels, ostriches, zebras, rhinoceros, antelopes and a giraffe from Malindi. The giraffe in particular provoked much excitement in the Ming court, where it was thought to be a qilin – a creature prominent in Chinese mythology that's sometimes compared to a unicorn, but more closely resembles a dragon-horse hybrid.

Once the tribute-bearing ambassadors had delivered their payload and acknowledged the power of the Emperor, they were returned home, with gifts (typically silk) for their respective leaders. The sixth journey, which departed in 1421, saw 16 such envoys returned to their home states. The treasure fleet travelled to Ceylon and then split up, with detached squadrons shooting off in various directions like sparks from an exploding firecracker.

By the early 1420s, the Yongle Emperor's focus was distracted from his treasure ships by conflicts erupting along China's land border to the north. The voyages were suspended and the fleet was docked in Nanjing from 1422 to 1431,

5,000

The number of pirates killed in a battle during Zheng He's first voyage.



while the men were used to fight campaigns against the Mongols.

In 1424, when Zheng He was on a diplomatic mission to Palembang, the Yongle Emperor died while personally leading one of these campaigns. His successor, Zhu Gaozhi (the Hongxi Emperor), aggressively terminated the treasure ship programme, grounding Zheng He by placing him in command of the city of Nanjing.

THE LAST TREASURE HUNT

The Hongxi Emperor's reign was short, however. Upon Zhu Gaozhi's death in 1425, Zhu Zhanji, the Xuande Emperor, came to power. He channelled finances into projects like the Great Bao'en Temple – aka the Porcelain Tower of Nanjing – which became a wonder of the modern world. But the new Emperor thirsted for more glory. He wanted a taste of the lucrative tributes that had flowed into the imperial coffers during his grandfather's reign. Zhu Zhanji issued orders for the treasure ships to make another voyage and, with Zheng He at the helm, they left Longwan ('Dragon Bay') in January 1431.

This seventh voyage would be the treasure fleet's last hurrah. The ships sailed along the Yangtze River and spent months visiting ports throughout the South China Sea. In March

1432, they arrived at Java, before proceeding to Palembang and travelling along the Musi River, through the Banka Strait, past the Lingga and Riau archipelagos – an area infested with pirates, but none powerful enough to trouble the treasure-ship armada – to reach Malacca in August 1432.

By September, the ships were in Semudera, and in November they arrived at Beruwala in Ceylon. December saw them in Calicut, and then the fleet continued to Hormuz, where it remained until mid-March. According to the *Xia Xiyang*, they returned home from there, but other sources, such as the first-hand account of fleet member Fei Xin, describe a much bigger voyage, with at least some of the ships visiting destinations including Bengal, the Maldives, Djofar, Las, Andaman and Nicobar islands, Aden, Brava, Mogadishu and Mecca. Another scribe present on the expedition, Ma Huan, wrote about the Tianfang (Heavenly Cube) in Mecca, referring to the Qa'aba.

It's believed Zheng He died during this seventh expedition and was buried at sea, but details are surprisingly scant. After its return, the fleet was decommissioned and the extraordinary treasure ships were left to rot. The world would not see an armada of comparable size again until the 20th century. 📍

GET HOOKED

READ

Zheng He: China and the Oceans in the Early Ming Dynasty, 1405-1433 by Edward L Dreyer (Pearson, 2006)

WATCH

China's Forgotten Admiral – A podcast documentary downloadable from the BBC: www.bbc.co.uk/programmes/p02sdf3s

AFTER THE FLEET

Under the Xuande Emperor, the eunuchs – who'd been so powerful in the reign of the Yongle Emperor – were usurped by civil officials, and the voyages were almost written out of history. The treasure ships were left to rot and the Ming Empire reverted to the principles of its founder, investing in inward-looking and defensive projects, such as the continuation of the Great Wall. The decline of the imperial navy after Zheng He's voyages left the Chinese coast very vulnerable to Japanese Wokou ('dwarf pirates'), and created a power vacuum in the Indian Ocean that the Portuguese, once explorer Vasco da Gama found his way around the Cape of Good Hope, gratefully exploited.

ILLUSTRATION: SUE GENT, AKG XI, GETTY XI

GREAT LENGTHS

Zheng He wasn't navigating uncharted waters – trade routes had been established for centuries – but the magnitude of his missions set his expeditions apart. There was a strong military presence amid his huge crew, as well as a team of astrologers to record and process astronomical data. Part of Zheng He's legacy was the creation of Chinese Muslim communities in Palembang, Java, the Malay Peninsula and the Philippines.

1 JULY 1405 Nanjing

The fleet departs Nanjing after ceremonies and sacrifices to Tianfei, the Chinese goddess of sailors. They shelter from a monsoon in the mouth of the Min River before leaving through the Wuhumen (Five Tiger Passage), then on via Champa (in modern Vietnam), Java, the Strait of Malacca and the Indian Ocean to reach Ceylon (Sri Lanka).

2 1407 Palembang, Sumatra Island

While returning from the first expedition, Zheng He goes into battle with the large pirate forces of Chen Zuyi. The treasure fleet is victorious, 5,000 pirates are killed, ten pirate ships are destroyed and seven more are captured.

3 1408 Calicut

During the second voyage, which left Nanjing in late 1407 or early 1408, Zheng He formally invests Mana Vikraan as the King of Calicut, and the relationship between China and India is reaffirmed.

4 1411 Ceylon

The third journey, which begins from Liujiafang in 1409, results in an armed confrontation with King Alakeshvara of Ceylon. Despite having up to 50,000 troops, the Sinhalese army is defeated by Zheng He, who takes Alakeshvara back to China as a captive.

5 1414 Hormuz Island

During the fourth voyage, Zheng He pushes the treasure ships further west, visiting the Maldives and Laccadive Islands in the Indian Ocean and venturing as far as Hormuz Island in the Persian Gulf.

6 1415 Semudera Pasai Sultanate, northern Sumatra

Zheng He intervenes in Semudera, where the pretender Sekandar has deposed the Chinese-supported Sultan, Zain al-'Abidin. Sekandar is captured and Zain al-'Abidin is restored to the throne.

7 1417-18 Malindi, Africa

The fifth expedition leaves Nanjing in 1417, returning 18 ambassadors to their homelands. The fleet then travels down the east African coast to Mogadishu and Malindi, collecting more ambassadors, tariffs and exotic gifts – including a giraffe – for the Emperor.

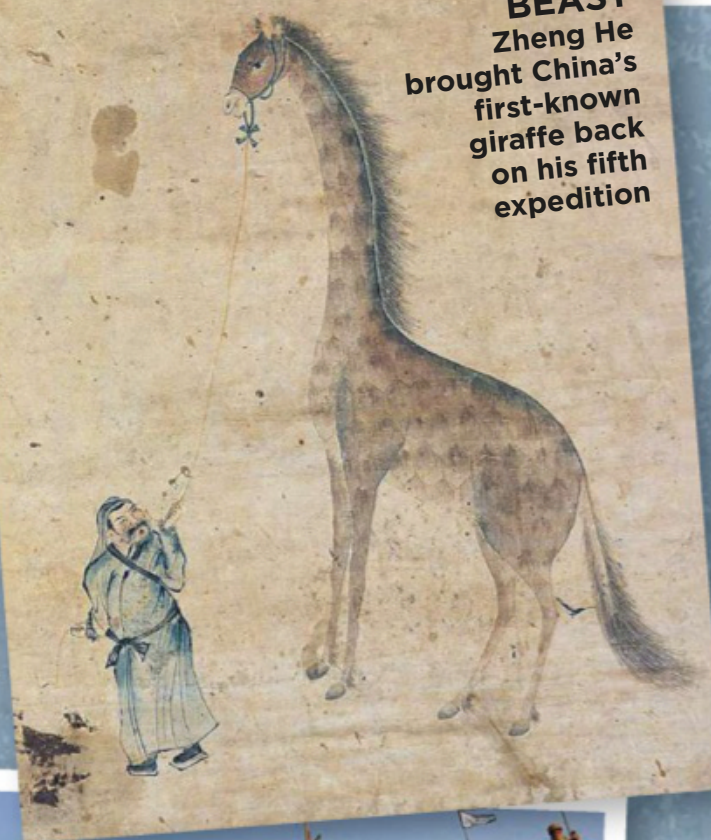
8 1421 Indian Ocean

Leaving China in 1421, the sixth voyage sees the fleet travel to Ceylon where it splits into squadrons. Ships head to southern India; the Maldives and Laccadive Islands; Hormuz at the Persian Gulf; the Arabian states of Djofar, Las, and Aden; and Mogadishu and Brava in Africa.

9 1433 Mecca

Following the orders of the new Xuande Emperor, Zheng He's final expedition leaves Longwan in January 1431, travelling right across the South China Sea and Indian Ocean, visiting multiple ports. At least one squadron, with the Muslim writer Ma Huan aboard, reaches Mecca.

WONDROUS BEAST
Zheng He brought China's first-known giraffe back on his fifth expedition



MOTHER SHIP

A replica of one of Zheng He's treasure ships stands in Nanjing's Baoshan Shipyard

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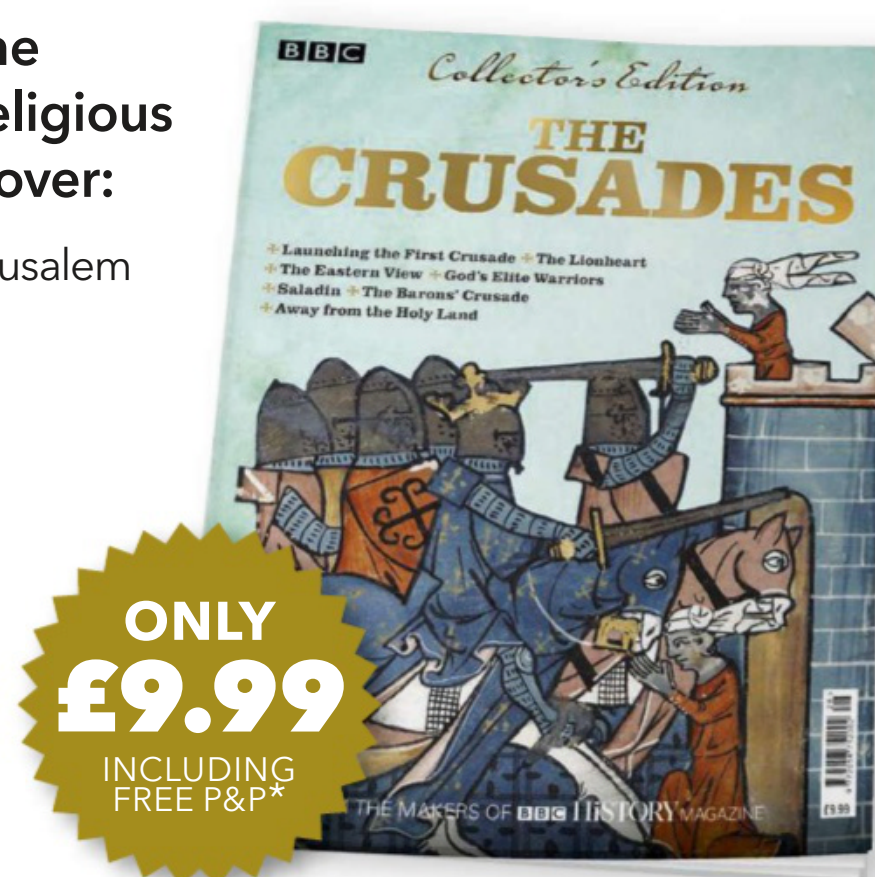
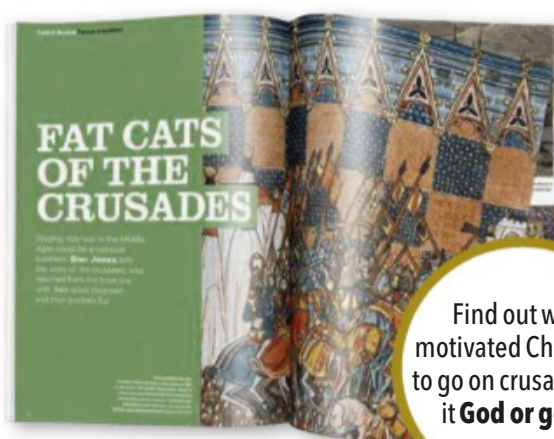
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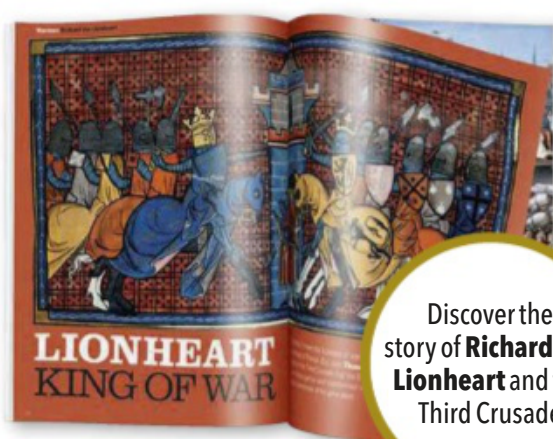
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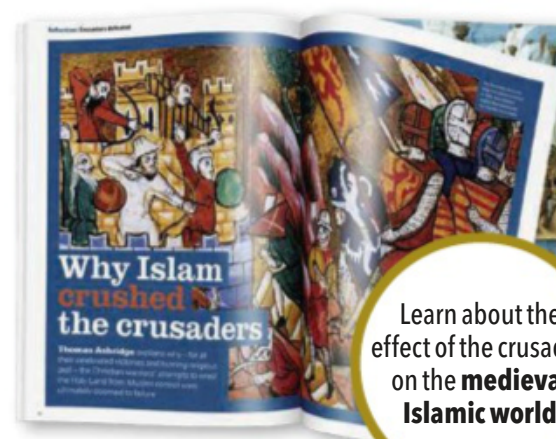
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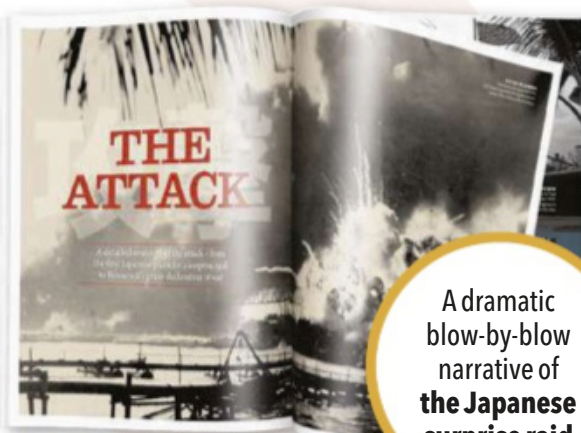
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