

Title: *Magellan's Globe*

Date: 1522

Description: Magellan's ship returned to Spain after a grueling sea voyage that claimed his life. The surviving crews were the first seamen known to have circumnavigated the globe. One of the items made to commemorate this feat was a small terrestrial globe; it is possibly an early example of a commemorative souvenir. Magellan's route is clearly depicted circumnavigating the globe. None of the original globes have survived to the present day, and only one set of unmounted gores has survived. A facsimile of these gores has been used in the production of "Magellan's Globe".

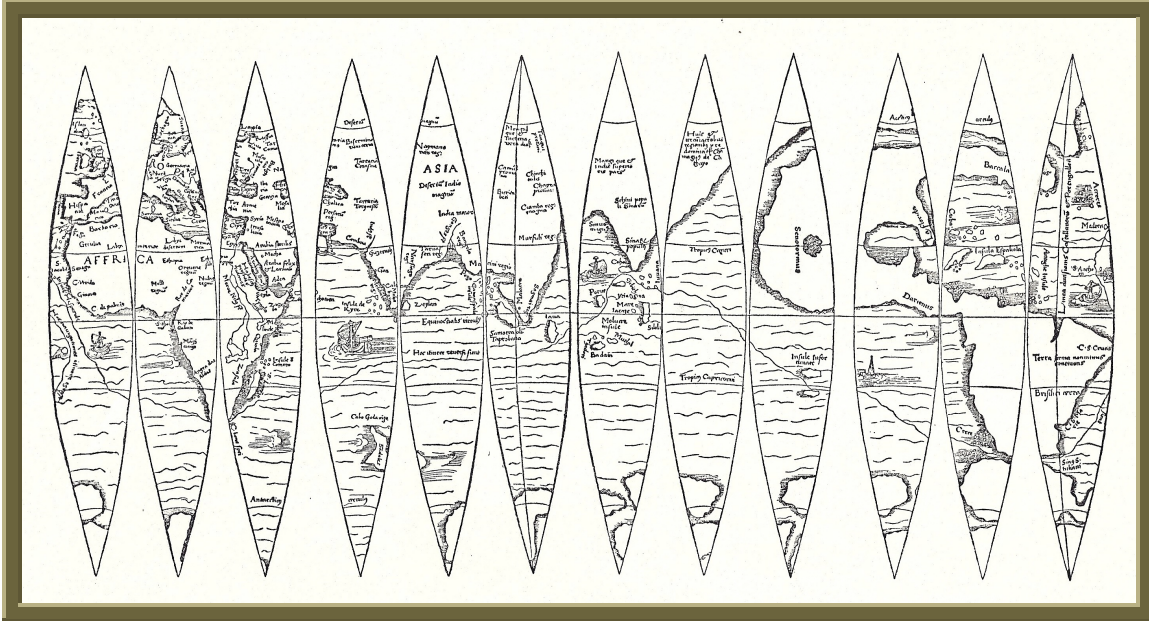
This globe, which is 18 cm in diameter, is presented on a separate hand-turned wooden base. As seen below, Hans Holbein used this globe as reference for the small terrestrial globe in his famous masterpiece painting entitled *The Ambassadors*.



Ferdinand Magellan (1480-1521) was born to a minor Portuguese noble family in 1480 and by the age of 12 had become a pageboy to his Queen, at the Court of King John II. Like many of the younger Portuguese nobility he received his education at Court and could look forward to a military command, a diplomatic post or an administrative position in Portugal or her colonies. However fired by the exploits of earlier Portuguese explorers like Dias and Da Gama he began his career as a soldier/adventurer on the 1505 expedition to India under the command of Francisco de Almeida. After seven years of distinguished service in India, Malacca (Malaysian peninsula) and the Moluccas (Spice Islands) he returned to Portugal but received little recognition from his King, Manuel I, and no increase in his pension. Worse still he had put all his savings into backing a scheme by a Portuguese trader to ship pepper from India to Portugal. The merchant had subsequently died and his father had fled the country to escape his son's creditors. Magellan who had only a meager pension to live on was broke and so he volunteered for a Portuguese campaign against Morocco; where he again distinguished himself with his bravery. However he not only suffered a severe leg wound which caused him to limp for the rest of his life, he also, whilst in the position of Quartermaster suffered the unjust accusations of dishonesty, theft and treason. Magellan found the charges against him contemptuous and he rashly abandoned his post to return to Lisbon and clear his name. The King, Manuel I refused to intercede on his behalf and ordered him back to Morocco. Magellan returned to face trial and was cleared of all charges but his relationship with his King had deteriorated to such an extent that Manuel I refused all of Magellan's requests for financial recognition of his loyal service and told him that he could take his offers of service elsewhere. This was the principle reason why Magellan came to sail around the world under the Spanish flag.

On the Moluccan expedition of 1511, Magellan's friend, Francisco Serrao had been shipwrecked and had taken refuge on the island of Ternate where, despite later voyages there by the Portuguese, he had chosen to remain. He had sent letters back to Portugal extolling the riches of the islands and urging Magellan to visit him. Because the exact longitude of the Moluccas was uncertain, Magellan thought that their far easterly position might bring them into the Spanish hemisphere as defined by the *Treaty of Tordesillas* of 1494. His plan was to sail west and like Columbus before him to try and find the western route to the east and the Spice Islands. This expedition he hoped would ensure his financial security as well as bringing him the fame and recognition he felt was long overdue. To this end he began to study all the maps, pilots logs, charts and journals he could obtain. He knew that Columbus had failed to find a passage around the Central American coastline, that Cabot had likewise failed in the North, that the Florentine Amerigo Vespucci had possibly reached as far South as the River Plate estuary and Patagonia without encountering a passage and that Balboa had crossed the Panamanian Isthmus and seen a great ocean that was different to the Atlantic. He became convinced that a southwestern route was there south of the River Plate, and the scientist, mapmaker and scholar Rui Faleiro, who thought that the likely passage was just below the 40 degree South latitude, shared this belief. He also assured Magellan that the ocean Balboa had seen could not be more than a couple of thousand miles across and that the Spice Islands must therefore be in the Spanish half of the world as laid down by the *Treaty of Tordesillas*. With his humiliation at the hands of the Portuguese King fresh in his mind, it was to Spain that Magellan now offered his knowledge and his services. This plan may have been encouraged by the news of Juan Diaz de Solis' Spanish expedition of 1515 which had reached 35 degrees South before an exploratory landing

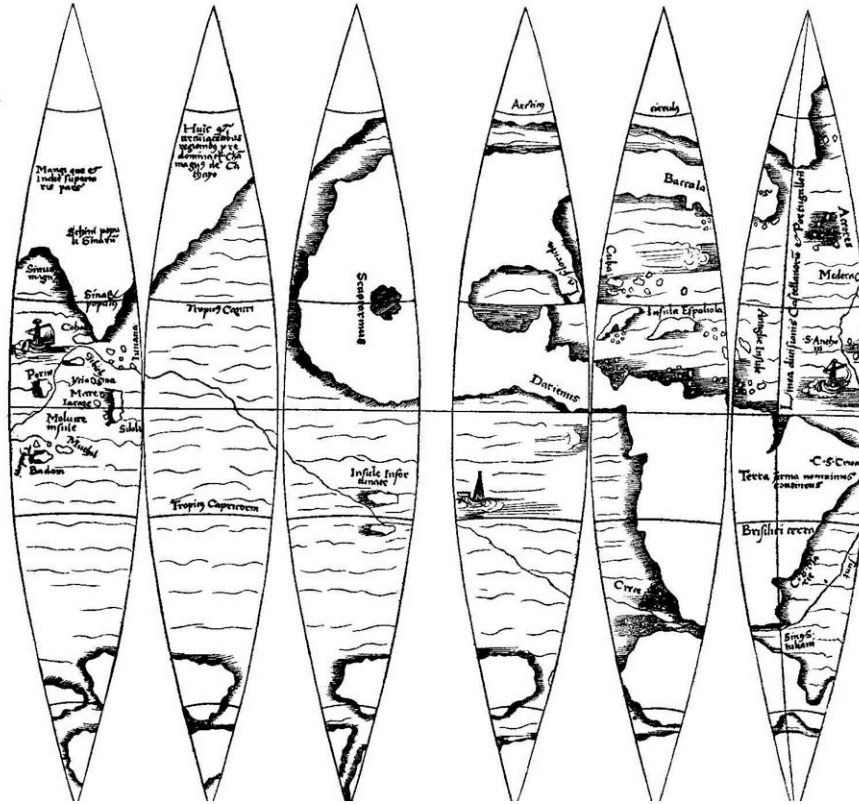
party led by Solis himself had encountered death and disaster. They were attacked by hostile natives, slaughtered, butchered roasted and then eaten in view of the rest of the crew watching from the safety of their ships. The expedition was aborted but the news from the survivors back in Spain seemed to indicate that with the coastline bearing west at that point, a likely passage through to *Balboa's Ocean* lay just South of that latitude. Magellan's plan interested the young Spanish monarch Charles I (later the Holy Roman Emperor Charles V) and a formal agreement was made between the two in March 1518, whereby Magellan was appointed Captain General of the proposed expedition, given five ships, and the prospective governorship of any new lands he might discover plus one fifth of the profits from the voyage.



The five ships, *San Antonio*, *Trinidad*, *Concepcion*, *Victoria* and *Santiago* were all small, (none above 130 tons), old and somewhat the worse for wear. They all needed extensive repairs and renovation to make them seaworthy for such a voyage much to the amusement of Alvarez the Portuguese agent in Spain. Alvarez did his utmost to sow seeds of doubt amongst Magellan's new backers, whilst gauging what potential threat they might pose to the Portuguese possessions overseas. Satisfied that they were as poorly armed as they were fitted, Alvarez thought Portuguese interests might be best served by an opportunist attack on them if they should stray anywhere near Portuguese colonial interests. His interference in Magellan's preparations led to Spanish misgivings over the number of Portuguese members of the proposed crews and in the end only 37 of the 270 odd crew were Portuguese with three of the five captains of the individual ships being Spanish. The remainder of the various crews comprised of Greeks, Italians, French, Flemings, Africans, Spanish, an Englishman and Malays including Enrique, a slave from Malacca who Magellan had brought back to Portugal on his previous expedition East.

Also on board was a Venetian, Antonio Pigafetta, a Papal Ambassador at the court of King Charles. Whether he was on board out of a sense for adventure, or on behalf of the Pope should any dispute arise over whose half the Spice Islands were in, or as a spy for his native Venice is unclear. Whatever his reasons Pigafetta kept a detailed journal of the voyage, describing the weather, wildlife and indigenous people as well as the conditions the crew were forced to endure. Throughout the voyage his admiration

for Magellan, for his command and character is displayed on every page. Two other important members of the company were Albo, a Greek pilot who kept a detailed navigational log from the first sighting of the Brazilian Coast until the sighting of Cape Vincent on the return (November 29th 1519 to September 4, 1522) and San Martin an astrologer and astronomer who made calculations on the exact point of longitude the ships had reached; he was also the most accomplished pilot at celestial navigation amongst Magellan's crew.



On September 20, 1519 the flotilla of five ships finally sailed off into the Atlantic heading first for the Canaries and then onto South America. However, the course taken south went along the Coast of Africa until Sierra Leone and then went across the Atlantic was both extremely long and hazardous being susceptible to extreme changes in the wind and weather. Already there was talk of mutiny amongst the Spanish Officers who had plenty of experience in crossing the Atlantic. Magellan knew this route was well known for its unpredictable weather and that most ships tried to avoid it, but he was anxious to negate any Portuguese attempts to intercept and destroy his expedition and despite the misgivings of some of his Spanish officers refused to jeopardize his mission by altering his course. The Spanish Captains, Castilians of high birth considered themselves more knowledgeable and it wasn't long before there was open insubordination resulting in the replacement of Cartogena as the Captain of the *San Antonio* with another Spaniard, Antonio de Coca. On November 29th the fleet sighted the coastline of Brazil near where the modern port of Recife stands and on December 13th they moored in Guanabara Bay (Rio de Janeiro) where they were able to replenish their supplies by bartering with the natives "For the King in a deck of playing cards they gave me six chickens, thinking that they had got the better of me" (Pigafetta). They were also able to buy

[illegible]

The threat of mutiny by his Spanish captains was also a constant source of concern and he was forced to arrest de Coca for conspiring to release Cartagena from his confinement on the *Victoria*. Because they were technically moored in a Portuguese colony, albeit one that had not established a proper trading post, they sought to leave as soon as they had recuperated and by December 26th they were sailing out of *Guanabara Bay* and heading south. After two weeks the ships had reached Cape St Mary where Magellan is reputed to have said of the large hill behind the Cape "*I see a mountain*" [*Montem Video*] thereby naming the place where Uruguay's capital city now stands. They explored the estuary of the River Plate, ruling out any possible channel and then continued South with the weather growing increasingly colder, the terrain bleaker and the seas rougher before stopping briefly at *Bahia de los Patos* (literally Ducks' Bay) named after the abundant penguins found there. The penguins along with sea lions provided the necessary fresh food supplies and after sheltering from tremendous storms they continued southwards.

By March 31st 1520 they had reached 49 degrees 15' South, but the ships were taking such a heavy battering in the worsening climate that Magellan put into a sheltered bay named *St Julian* to wait out the rest of the Southern winter and to make good all the vital repairs that the different ships needed. In order to survive the winter and still have enough provisions to continue the search, Magellan cut the daily rations in half much to the annoyance of his crew. His determination to find a southwestern passage was fuelled by the knowledge that should he fail he faced the choice between a return to Spain in disgrace and with little prospect of further backing, or risking sailing east, south of the Cape of Good Hope, away from the Portuguese shipping lines and onto the Spice Islands. This latter option meant the possibility of being intercepted by the Portuguese that would have caused his sponsor the King of Spain great embarrassment and would have further damaged his reputation at both courts. In a resolute speech to his men, he promised them the paradise of the Moluccas if they would honor their commitment, trust his leadership and behave accordingly. Most of the crew were probably won over by Magellan's stand but certainly not the Castilian Officers and Captains whose resentment of his single mindedness and inflexibility was still growing.

The following night April 1st, Easter Sunday the Spanish-led mutiny took place. Capatins Quesada and Cartagena on the *Concepcion*, Captain Mendoza of the *Victoria* and the master of the *Concepcion* del Cano with other Officers plotted to overthrow Magellan and return to Spain. To this end they boarded the *San Antonio* and took command, so that when Magellan awoke the following morning he found that only his own ship the *Trinidad* along with the smaller *Santiago* were still loyal to him. The three mutineers' ships gave them a firepower advantage of two to one and if they had moved with the same decisiveness as Magellan they would have without doubt succeeded. However, the mutineers were unable to coordinate their efforts or win the total loyalty of their crews and as a result suffered the consequences. Characteristically Magellan moved swiftly and with great opportunism. Taking advantage of the mutineers' attempts at negotiation he sent Espinosa, the *Trinidad's* loyal master of arms along with a disguised boarding party and retook the *Victoria* that same evening. Having regained numerical superiority he then blockaded the bay and forced a showdown. It is not known for certain whether Magellan was instrumental in cutting loose the anchors of the *San Antonio* but the ship did indeed break loose of its anchorage and drifted broadside of the *Trinidad* enabling Magellan to board and recapture her. The *Concepcion*

had no choice now but to surrender, so that within 48 hours the mutiny had taken place and been extinguished. Magellan's justice was swift but by the standards of the day not unduly brutal. Although many of the crew had participated in the mutiny, forty were found guilty of treason and sentenced to death.



However Magellan could not afford to lose such a large number of his company and so he pardoned the lot; they were put to work, chained by the feet, working the pumps, clearing the putrid bilges and undertaking other menial hard labor. Of the ringleaders, Mendoza had already been killed by Espinosa on the retaking of the *Victoria*, but was still taken ashore, decapitated and quartered. Quesada who was alive suffered the same punishment. Cano was spared and put in chains in the bilges with the other mutineers and Cartagena who had been a perpetual thorn in Magellan's side for the whole expedition was also spared but later was left marooned along with a priest on the desolate coast when the ships finally departed. He was never heard of or seen again.

The winter in Patagonia was extremely hard and life very uncomfortable for the crew who had to refit the ships for the voyage ahead. Their rations had been cut by half and there was little wild food locally apart from mussels. Several of them froze to death and there were many cases of frostbite. Pigafetta made copious notes of the region that Magellan had called *Patagonia* because the natives had such large feet encased in big leather boots (*Patagonia* means *large foot* in Spanish). In fact two of the native men were captured to be taken back as presents for the King, but neither survived the journey. The *Santiago* was the first ship to be repaired and Magellan, eager to find the Western passage as soon as possible, sent her on an exploratory probe along the coast. Unfortunately 70 miles south near the Santa Cruz estuary a sudden gale drove her aground and she broke up, leaving the crew stranded. Two members trekked for eleven days back to San Julian to alert Magellan and an overland rescue party was organized. It was not until August 24th with *Santiago's* crew redistributed amongst the four remaining ships and Serrano the 'Santiago's' captain, now installed as the Captain of the *Concepcion* that Magellan finally left the bay. They moved along the coast near to where the *Santiago* had been wrecked to a better winter anchorage in the estuary of the Santa Cruz where there were plenty of supplies of fish, seals and seabirds to replenish their stores.

After a two-month stay and unknowingly within 300 miles of it, on 18th October they set off in search of the passage. Three days later they had reached the Cape of the Virgins (named by Magellan) and Magellan instructed the *Concepcion* and the *San Antonio* to investigate a small inlet at the far side of the bay sided by high peaks. After an anxious wait of five days the two ships returned with the news that the inlet was not a river but a strait leading into a bay followed by another Strait leading into an even larger bay. The passage had been found. Carefully sounding their way through the straits they reached Cape Valentine where Magellan sent the *San Antonio* to investigate the southeast channel whilst taking the other three ships southwest in what was proved to be the right direction.

The *San Antonio*, was carrying the bulk of the fleet's provisions, had a Portuguese pilot Gomes who was both jealous and disaffected with Magellan's command and together with the fleet's treasurer Guerra they took control of the ship from the Captain Mesquita. Persuading the rest of the crew that Magellan was leading them all to certain doom and starvation they retraced their route to the South Atlantic and straight home to Spain, where, despite Mesquita's testimony, their tales of Magellan's injustice were believed.

It is interesting to note that whilst Magellan had always made every attempt to save or rescue his crew when abandoned, the *San Antonio* made no effort to retrieve the marooned Cartagena at St Julian. It was now of paramount importance to Magellan that he succeeded in his mission, as he knew the consequences he must face if he returned to Spain unsuccessful after the *San Antonio* told her story. On November 28, 1520 after

spending 36 days in the 'Magellan' Straits the three remaining ships entered what Magellan called the *Mar Pacifico*. Magellan with greatly diminished stores now made the almost fatal mistake of not seeking out new provisions for the journey across the Pacific. He still believed that the distance to the Moluccas was not much more than the length of the Mediterranean and therefore it was prudent to push on as speedily as possible. He kept the South American coastline in sight whilst heading north to about 30° South before heading northwest and crossing the equator on Feb 13, 1521 at about 160-165° W longitude, missing both the Tahitian and Marquesas Island groups, where they could have amply replenished their supplies and the crew could have recovered. Both food and water were running out and what was left was rotten or putrid, so that the crew was suffering from malnutrition and scurvy.

Pigafetta describes, "*We ate biscuit that was no longer biscuit but powder of biscuits swarming with worms that had eaten the good. It stank strongly of rat urine. Rats were sold for half a ducat each and even so we could not always get them.*" Magellan realized that if they were approaching the Moluccas they had to find a place to harbor soon, so that the crew could recover before sailing too close to the dangers of Portuguese waters where he knew he might be challenged. Unfortunately his knowledge of this part of the world was based on third hand travelers' and merchants' tales and having come from an easterly direction he was not at all sure of the geography, believing that he was quite near the Japanese coast.

On February 28th they had reached 13° North and sailing west arrived at the island of Guam (having passed by unnoticed the Marshall Islands). From the logs and journals available Magellan's course had taken him across the Pacific missing out every one of the large South Sea Island groups. It was incredible misfortune. Both crew and ships were barely functional by the time they reached Guam, but the crew was too ill or weak to consider mutiny and tended to optimism in Magellan's belief that they had reached the northern edge of the Molucca archipelago. Magellan was able to re-supply the ships, but constant thieving by the natives including one of the longboats from the *Trinidad* forced him to use a raiding party that killed seven natives and wounded several others. Pigafetta recounts that when the natives were hit by crossbow bolts they were so astonished that they promptly pulled them out and as a result died from hemorrhaging. This trouble with the natives caused Magellan to rename the islands, *Islas le los Lodrones* [Islands of Thieves].

Although the crew were refreshed by new supplies of water, fruit and fish a longer rest was needed before any possible encounter with the Portuguese and so sailing southwest the four ships arrived a week later at the island of Samur in the Philippines. They settled on the smaller island of Homonhon where they were visited by friendly natives who brought them fresh food, spices, and wine. Magellan cemented the friendship by becoming a blood brother with the Chief. It was also obvious from the jewelry worn that gold was plentiful in these islands. From measurements made by both Albo and San Martin it became apparent that the expedition had passed beyond the Spanish hemisphere and had already entered the Portuguese domain. This was slightly awkward for Magellan as he had assured King Charles that the Moluccas lay just within the Spanish half. Having journeyed all this way across the Pacific, losing 19 men through scurvy and suffering all manners of deprivation to find themselves already within territory reserved for Portuguese exploitation was a sever blow.

However there was provision in the *Treaty of Tordesillas* for discovered unclaimed territory in either half to belong to the discoverer if he could establish trading

ports and conclude alliances with the local rulers. Sailing on they arrived at the small island of *Limosawa* where to the delight of all parties concerned, Magellan's Malay slave Enrique was able not only to understand the natives but also to be understood himself. Although Enrique was thought to have originally come from Sumatra it was quite possible that he was already a captured slave by then and it has been suggested that only someone from the Central Philippines could have understood the dialect. If this was so it means that Enrique, a humble Philippine slave was the first man to have circumnavigated the globe.

Striking up another friendship with the local native Chief, Magellan's fleet was taken on to the larger island of Cebu, where once again Magellan not only became the local ruler's (Humabon) blood brother and established trading agreements but also converted him and two thousand of his people to Christianity. It was clear that Magellan had plans for Humabon and Cebu to become the central base for subsequent Spanish exploitation of the Philippines. The crews were refreshed by the abundance of good food and water and were also able to indulge in their favorite pastime of rampant sexual liaisons with the women of Cebu. Pigafetta's journal interestingly notes that the men of Cebu pierced their penises with gold or tin bolts that often had small spurs attached to either end. Females from the age of six upwards progressively had their vaginas opened and enlarged to accommodate these penis appendages. Pigafetta confirms a fact that is hardly surprising by noting that the women of Cebu seemed to prefer Magellan's men as lovers rather than the locals.

Learning that Humabon had several rivals to the rulership of Cebu, Magellan forced other local chiefs to accept Humabon's authority. However one, Lapulapu, refused and Magellan personally took charge of a force of both Spanish and natives to subjugate him. Whether his success as a great Christian warrior and leader had clouded his judgment or whether he just underestimated the opposition, the fact was the campaign was a disaster and brought about Magellan's death. Unable to use the firepower of his ships because of an outlying reef, Magellan's men were overwhelmed by superior numbers, and although his own personal resolution and bravery ensured that the majority of his men were able to escape, he himself was cut down and killed on April 27, 1521. The invulnerability of the Spanish had been destroyed and with it Humabon's faith in them. At a subsequent banquet, Serrano and Barbosa, who had assumed joint command (along with a party of men that included San Martin), were ambushed and killed by Humabon. Enrique, who had been promised his freedom should Magellan die and then found that Serrano would not honor this was probably instrumental in helping set up the trap. Fortunately Pigafetta who relished banquets and parties was suffering from a head wound and did not attend.

The Philippine expedition that had begun so promisingly had ended in tatters. Carvalho assumed command, and owing to the loss of manpower to crew three ships, the *Concepcion* the least seaworthy of the three was scuttled and burnt. There followed six months of meandering around the Philippines and Brunei, most of it spent searching out fresh supplies. On September 21st after fleeing Brunei Carvallho who had never received the full confidence of his crew, and who stood accused of unnecessarily abandoning crew members in tricky situations was deposed as commander being replaced by Espinosa, with Cano the former mutineer, being made Captain of the *Victoria*. Finally on November 8, 1521 the two ships sailed into the harbor of Tidore to a warm welcome. They had hoped and expected to be met by Magellan's shipwrecked

friend Serrao but he had died from poison some eight months before as a result of becoming too involved in local native politics (compare with Magellan).

Albo who had been keeping his navigational log since first crossing the Atlantic was able to confirm that the Moluccas were placed in the Portuguese hemisphere. This did not deter the Spanish, however, because the local feeling was strongly anti-Portuguese and with the help of a disaffected Portuguese trader called Larosa, a treaty of alliance was concluded with the Rajah of Tidore. In fact the Portuguese had apparently been awaiting Magellan's ships from the onset of the voyage with two squadrons of warships. One Squadron had been sent to the Cape of Good Hope should he strike east for the Moluccas, the other to the estuary of the River Plate should he attempt to find the western passage. When both failed to locate Magellan, the Indian fleet had been alerted and a small force had been sent to the Moluccas. This expedition had ended in disaster and death as they had antagonized the local Rajah with their treatment of the local women. A few days before the two Spanish ships had arrived in Tidore, the survivors had fled back to Malacca without any knowledge of the Spanish ships imminent arrival. Fortunately Espinosa managed to keep his own crew from their usual sexual indulgences and apart from signing treaties and purchasing a large cargo of cloves, he enjoyed an amicable relationship with the locals and their rulers.

The two ships laden with their cargoes prepared to leave for Spain on December 18th, but almost immediately the *Trinidad* sprung such a bad leak that she was forced to remain to carry out extensive repairs. Thus the *Victoria* under the command of Cano finally left on her own on December 21st and by sailing southwest to Timor and through the Timor Sea into the Indian Ocean she took a fluctuating course due west two degrees either side of 40 degree parallel. The journey turned out to be a nightmare, probably worse than the crossing of the Pacific as the crew were forced to do arduous work on the pumps to combat the appalling leaks, all on rations of just rice and water as the meat and other fresh produce had spoilt through lack of salt or any other preservative. With the crew on the verge of mutiny and in extremely harsh conditions the Cape of Good Hope was eventually rounded on May 19, 1522, but the *Victoria* was badly damaged and 21 of her Crew were to die from starvation, disease or exhaustion between the Cape and the Cape Verde Islands. Desperate to get fresh food and also slaves to man the pumps Cano was forced to take the huge risk of putting into the Portuguese Cape Verde Islands. By pretending to be part of a Spanish fleet that had been blown off course in a storm whilst returning from the Americas they were able to harbor and negotiate for new supplies. Carelessly one of the crewmembers used some cloves (that could only have come from the Portuguese Moluccas) as part of the transactions and when their ruse was discovered Cano was forced to put to sea immediately, thereby abandoning 13 of his crew (including Pigafetta). Caro sailed on to Spain with a crew of only 18, arriving September 6, 1522 at the harbor of San Lucar, a circumnavigation of the Earth that had taken just two weeks under three years to complete.

It is interesting to note that while on the Cape Verde Islands they had discovered that although all the logs on the boat showed that it was a Wednesday, the calendars on land all showed it to be a Thursday. At first they puzzled over the mistake they thought they had made before eventually realizing that by traveling a 360-degree circumference of the globe they had lost a day.

Cano was received as a hero and, at an enquiry set up into the voyage, condemned Magellan's unfairness, thereby lending weight to the arguments of the

deserters of the *San Antonio*. It was not until much later when other crewmembers accounts, including Pigafetta's, became known that Magellan's reputation was restored.

Meanwhile the crew of the *Trinidad* under Espinosa had embarked on an equally hazardous and grueling voyage trying to re-cross the Pacific from west to east. Departing Tidore on April 6, 1522 after having made the necessary repairs they sailed north east, but lacking knowledge of the northern Pacific's wind system they struggled up to the 44 degree parallel just off the Japanese coast still hoping to get some westerly winds. But with inadequate provisions, a broken main mast and a crew succumbing to scurvy they were forced to retreat south, finally surrendering to a Portuguese force that had been sent to the Moluccas. Of the 54 Europeans who set off from Tidore only 21 survived, the rest were imprisoned, and only four of them, including Espinosa ever made it back to Spain. Larosa, the Portuguese trader who had opted to return with the *Trinidad* rather than the *Victoria* was beheaded as a traitor. The local rajah, with the arrival of the Portuguese force repudiated all the agreements and treaties he had made with the Spanish.

Of the 270 odd crew that had left in 1519, only 35 altogether returned to Spain. Although he had died in the Philippines, it is to Magellan that the credit for the voyage belongs. He had found the western route to the east and had achieved what Columbus had tried and failed to do. As for the Moluccas, Spanish interest waned for two reasons. First the Portuguese with established bases in Southern Africa, India and Malaya were in a far better position to exploit the Moluccas that were after all proven to be in their hemisphere. Secondly, the Spanish American possessions that at first had seemed largely worthless were now, after Cortes Conquest of Mexico, proving to be abundant in gold and silver. In 1529 Charles signed away any claims for the Moluccas that Spain had in return for 350,000 ducats at the *Treaty of Saragossa*. When the Spanish later continued their exploration of the Pacific it was from their base in Panama.

The work Magellan had done in the Philippines eventually paid off, as the islands became Spain's largest Pacific colony lasting almost until the 20th Century. In purely financial and diplomatic terms the voyage was a failure; the small profits raised on the *Victoria's* cargo of cloves failed to offer a reasonable return; the human cost was terrible; diplomatically it had offended the Portuguese and scientifically it had failed to prove Spanish claims to the Moluccas. Yet despite the overt goals of the expedition being a failure, Magellan's personal goal of finding a western route to the east and the knowledge of the globe resulting from that was one of mankind's greatest successes. Magellan's voyage had given the world its known dimensions, although it would take another three centuries to fill in all the gaps.

Albo's navigational log together with San Martin's observations had given the unknown Pacific its dimensions of one third of the earth's surface whereas previous knowledge/speculators had limited it to a sea a little larger than the Mediterranean. Magellan's route, particularly through the straits named after him was attempted many times in expeditions that followed his but with little success. The two voyages that did succeed in the passage then floundered in the Pacific. A mendacious campaign was mounted that the whole route had been a sham, so difficult was it proving to replicate, that the true worth of his seamanship was recognized. Lesser men would have failed and indeed did so, but Magellan was a genuine leader, he had a determined self-belief allied with a stubborn nature that belied his romantic notion of heroism and honor. Intensely proud of his nobility and his own worth, he could be tough when needed, humane and caring when circumstances warranted it and always courageous. He

always tried to deal fairly with the natives and his expedition while under his command carried out none of the atrocities that previous and future Colonials seemed to revel in. From his voyage the new humanists in Europe, the philosophers, scholars, scientists and artists were able to gain a truer understanding of their world and with this information continue to challenge the dogma and medieval beliefs that were still prevalent. He had provided the answer to man's seemingly eternal quest to find the true shape and size of the Earth.

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The Magellan expedition, totally destroyed credibility of the mapping of the pre-1520 proto-Pacific. It is well known that Magellan believed the real challenge of his expedition would be the discovery of a maritime route through the New World, and that once he found the strait that had eluded Columbus and others, the Spice Islands would be readily at hand. In fact, it took his expedition some ninety days to sail from Chile to Guam, following a course that managed to miss almost every island along the way. The South Sea, the Pacific, as Magellan christened it, was not only unexpectedly broad, but seemed surprisingly empty. The manuscript maps of the world produced in Seville in the wake of the voyage of the *Victoria* reflect this discovery. These maps, the surviving presentation copies of the secret Castilian chart of the world maintained by the Crown's cosmographers in Seville, all depict the Pacific as being much broader than had been seen on any maps of the world printed before Magellan sailed. On Diogo Ribeiro's 1529 (#346) chart of the world, the breadth of the Pacific has grown from Waldseemüller's 1507 map (#310) with a mere eighty degrees to one hundred thirty-four degrees. The visual effect is even more important than the mathematical difference. On the surviving Seville planispheres, the Pacific stands out as an empty expanse stretching from the Americas almost to the edge of the map image. On them, the eastern shores of Asia recede over the horizon of Spain's westward expansion, across an ocean that simply hadn't been there before.



*Reproduction of the Propaganda edition by W. Griggs, 1887, 58 x 150 cm,
Library of Congress G3200 1529.R 1887 MLC (#346)*

But while the Seville planispheres acknowledge that the ocean separating the Americas from Asia was broader than anyone had previously imagined, they also struggle to preserve something of its old intimacy. All of them fall shy of the real measure of the Pacific's longitudinal breadth of about one hundred sixty degrees. And they do this, moreover, because they were produced within a highly charged political context, the diplomatic negotiations between Portugal and Castile triggered by the claim laid by Magellan to the Spice Islands on behalf of Spain. That claim forced the two Crowns to take up a question that had been left unaddressed by the 1494 *Treaty of Tordesillas*, which had divided the world between Portugal and Castile by drawing a line of longitude through the Atlantic world. The treaty said nothing about where that line, or "half-meridian," would fall if it were extended into a full meridian, a circle encompassing the whole globe by way of the two poles. Upon the arrival of Magellan's ships in the Spice Islands, Castile's westward expansion across half the world met up with Portugal's eastward drive across the other half, and it became necessary to decide the position of that other half-meridian or anti-meridian. Some if not all of the extant Seville planispheres seem to have been produced as part of a Castilian effort to convince any and all interested parties that the line fell much farther west than the Portuguese believed, and that it assigned to the Castilian hemisphere not just the Spice Islands but large swaths of East and Southeast Asia as well.



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