Abstract. In the first part of this paper we explain the historical and cultural circumstances which in the fourth century BCE had already led to the emergence of the idea that the marvellous coasts of India might be reached by sailing westward from the Iberian Peninsula into the Atlantic Ocean. The second part is devoted to the question; why the realization of this concept, originally developed by Greek intellectuals, actually failed in Antiquity, in spite of favourable political as well as economic conditions during the early Roman principate (first and second century CE). Although the idea endured throughout the Middle Ages, it was revived and finally implemented under a changing political constellation at the dawn of the modern era.

Introduction

The dream of reaching far-away worlds of wealth and happiness by crossing the Ocean is probably as old as organized seafaring. In order to realise it, four preconditions must be met:

Firstly, the destination must be worth the dangers and risks set by gods and nature. As a reward, in most cases there is the promise of immeasurable riches—first gold, then exotic plants—which are not found at home, as well as the hope of being able to lead an easy life without illness in a much more pleasant environment. The magical place of immortality at the end of the world is the most extreme expression of this hope, rumours of the incredibly old age of those living there is its relativized expression.

Secondly, one needs to have a global spatial idea of the location of the destination: no captain, no investor or purchaser will send a crew to completely unknown waters in search of phantoms. Rather, he must have an accepted, inherently consistent geographic overall concept of the destination’s location and of the route to it in relation to already known spaces, even if the actual circumstances and the exact distance may be unknown at the time.
Thirdly, and immediately connected to this, one needs a disposition and tradition typical for maritime communities, which is not only ready to regularly dare to take the step onto the sea as the most dangerous element for humans but which also rewards this step with high social reputation and social advancement.

Fourthly,—and that concludes what has been said so far: technological and political preconditions must be met that provide both the material resources and the nautical experience for a voyage across the ocean to a previously unknown destination, not to be discouraged by initial failure.

The more dangerous and demanding the task, the more important it is that these preconditions are met at the same time and over a longer period. However, such a constellation is not found often. In most cases it develops cumulatively, or it collapses after a short time of everything being given. This holds much for the Western oikoumene’s great dream of reaching India, the wonderland, not via the land and sea routes in the Middle East but by going south or west of Spain, across the Oceanus. It was not only dreamt as late as in the fifteenth century but, together with the concept of the Earth as a globe, it counts among the great constant traditions of the Mediterranean world since Antiquity; the concept of this dream goes back at least as far as to the fourth century BC, but only seldom a door opened to show how it could be realised. In the following, I would like to demonstrate how and under which circumstances the elements of this greatest maritime project of the pre-modern age developed in the context of its time, which continuities and breaks were connected to the idea of sailing to India until the early modern age, and why on several occasions people had already closely missed its realisation long before Henry the Navigator and Columbus.

The Birth of the Western Concept of India and the Routes across the Ocean in the Fourth and Fifth Centuries BC

The birth of the idea of sailing to India across the Ocean came during the fourth century BC, even before Alexander set out to find the end of the world in the East. Two longer political macro-developments produced a far-reaching change in the way of explaining the world: by the end of the sixth century BC, the Persian Empire had, for the first time, conquered a consistent territory reaching from the Mediterranean to the Indus and formed a stable bridge of communication between East and West. Indian and Greek scholars met at the Persian court and accompanied the king on his campaigns. Indian soldiers fought with Xerxes’ army in Greece. Phoenician and Greek captains played leading roles in
the expedition Darius sent out from Kabul down the Indus and then around Arabia as far as to the Red Sea.\footnote{1}{Klaus Karttunen, *India in Early Greek Literature*, (Studia Orientalia 65), Helsinki 1989, 48–79; Thomas McEvilley, *The Shape of Ancient Thought: Comparative Studies in Greek and Indian Philosophies*, New York 2002, 5–9.}

As a result of these contacts, detailed news about India reached Greece. Based on this information, authors such as Scylax, Hecataeus and Herodotus developed an image of India in the following decades which proved to be remarkably persistent afterwards and which portrayed a wonderland of immeasurable riches and sprouting plants, inhabited by bizarre creatures.\footnote{2}{Klaus Karttunen, India (cf. n. 1), 65–84; James S. Romm, *The Edges of Earth in Ancient Thought: Geography, Exploration, and Fiction*, Princeton 1992, 82–100.}

At the same time, Greek scholars integrated it into a geographic concept of the world which opened up alternative maritime approaches to the outer world, avoiding the territory controlled by Persia. For the seafaring Greeks, the fact that the surface of the world and thus the sea is convex was empirical everyday knowledge; celestial navigation made the conclusion almost inevitable that the inhabited world was part of a globe. In *De Caelo* Aristotle supplied the most perspicuous evidence for that and drew first conclusions from the distribution of landmasses and seas.\footnote{3}{Aristot. Cael. 2.14; meteor. 2,5.362 b 27 ff.; Hugo Berger, *Geschichte der wissenschaftlichen Erdkunde der Griechen*, Leipzig 1903, 317–319; Gisinger, Geographie (cf. n. 4), 585.}

Since the end of the fifth century India was seen as the eastern end of the *oikoumene*, and Iberia as the western one. Aristotle estimated the total circumference of the earth to be 400,000 stadiums (65,000 km).\footnote{4}{Aristot. Cael. 2,14; 297a-297b; Friedrich Gisinger, Geographie, in: RE Suppl. 4 (1924), 521–685, here 577.}

This is a rather high figure, the actual figure being about 40,000 km, but “in relation to the other stars” it is not much. The smaller the volume of the earth, and the wider the *oikoumene* stretched between East and West, the smaller the remaining maritime distance between the two ends, that is India and Spain: Aristotle believed it to be probable that “the region around the Pillars of Heracles was connected to that of Heracles (= India)” by a sea, and as at both ends there lived elephants, one might conclude that this sea was not very wide.\footnote{5}{Aristot. Cael. 2,14 298a; meteor. 2,5.362 b 27 ff.; Friedrich Gisinger, Geographie, in: RE Suppl. 4 (1924), 521–685, here 577.}

This implied the possibility to cross it by ship and to travel from one end of the *oikoumene* to the other.

Plato had expressed a different opinion. His famous statement that the people of the Mediterranean were sitting around the bog like frogs aimed at his contemporaries’ focus exclusively on the familiar *oikoumene*. Actually, Plato
said, there were other earth islands around the globe. Combining this with his thesis of the four streams, the earth emerges as a globe divided into four oikoumenes by two rectangular “surrounding oceans”. This design formed the basis of the globe model of Crates of Mallos, which remained popular also in the Middle Ages (fig. 1). According to this model, one Ocean, stretching from North to South, was to be identified with the Atlantic Ocean, while the other one, running rectangularly from west to east, was the (Erythrean) Southern Sea. The segment to the upper right was the known oikoumenes, the one below the counter (anti-)oikoumene, and the two opposite fields were the oikoumenes of the Perioikoi and the Antipodes respectively. In his tale of Atlantis, Plato goes on to speak of a gigantic mainland in the West, encompassing the Atlantic Ocean and perhaps even the entire Okeanos. All these models take up old myths, such as that of the land of the dead beyond the Okeanos, and connect them with the expectation of a geometrically balanced distribution of land and water on the Globe. However, they perhaps also reflect a certain amount of empiricism, connected with the increasing integration of Atlantic islands (Britannia and Ireland) into the Mediterranean horizon of knowledge. The situation concerning the third field of debate in those days was similar: Are there more landmasses south of the oikoumene?—A question which was essential when it came to the sea route to India. In the fourth century Mediterranean people had no knowledge of how far Africa stretched to the South, but could only assume that its southern border bulges slightly southward and, interrupted by the Red Sea, continues to the Arabian Peninsula. A similar state of knowledge concerned the “burned equatorial zone” which, according to Parmenides’ doctrine of the zones, separated the temperate zone of the northern hemisphere from the southern hemisphere. However, some reports from expeditions suggested that the burned zone might be crossed by ship and that the existence of life was possible there and beyond. All this resulted in the thesis of a huge southern continent, the so called terra australis, which was identified with the land of the Antipodeans.


Thus, even in the fourth century BC all models of global perception had been developed which from then on, for the next 2000 years, were to determine the debate on the question of oceanic sea travel to India: not even the basic features of the image of India changed much, but they were just enriched by more detailed geographic data and Christian variants such as Paradise on Earth. Everything else remained basically the same: the idea that India was immeasurably rich and full of fantastic creatures; the assumption that the passage across the Atlantic was blocked by huge islands or even a gigantic continent, and that one had to expect to meet unknown landmasses beyond the burned zone in the south. However, there was still the optimistic alternative of a free passage across a narrow Atlantic Ocean, for which the islands were not a barrier but could, instead, be used as stepping stones. Certainly, such ideas did not reach the mind of the simple coastal captain, but they belonged to the knowledge stock of the frequently highly educated and literarily active expedition leaders sent out by monarchs and big trade cities. One of them, Pytheas of Massilia, was a proven astronomer and geographer and at about the same time as the constructs of continents and sea routes had reached their peak, he proved dur-

ing a famous journey across the North Sea that even the storm-driven waves of the Atlantic Ocean could be mastered (probably with the aid of the Celtic art of sailing). Similarly, one could have used the Canary Islands further to the South, which had been explored by the Carthaginians, as a starting point to go west. At the same time, the methods of measuring the solar altitude, the position of the stars and of determining the position on the latitude using the gnomon reached such a quality that they would not alter much in the course of the next 2000 years. The world both of Antiquity and the Middle Ages was perfectly familiar with celestial navigation, and still in Columbus’s time it provided the crucial base of orientation, apart from constant observation of the natural environment, which was not replaced but only complemented by the much quoted compass. 

The Great Interruption: From Alexander to the Roman Imperial Period

If the technological and nautical preconditions for long-distance maritime voyages were thus fulfilled, if the target India and the oceanic connections were, though in several competing geographic constructs, somehow located on the Globe and integrated into the general spatial perception of the period, and above all if the value of this target country as a rich wonderland was no longer disputed then the question is no longer if an oceanic connection from the West was believed to be possible but why it was not realised over the following centuries.

One first answer is provided by Alexander’s campaign. It created the preconditions for the replacement of the Persian Empire by the two large Hellenistic kingdoms of the Seleucids in Asia and the Ptolemies in Egypt. By land as well as sea routes across the Persian Gulf and the Red Sea respectively, both of them had direct contact to the Maurya-Empire emerging in India. These contacts indeed became so intense that the search for alternative sea routes from the far West became unattractive: given the existing direct connections, there was neither the need nor the realistic prospect of additional gain of economic,


financial or political kind, and finally there was no actor in the far West to push the realisation of such a goal.\footnote{Josef Wiesehöfer, Geschenke, Gewürze und Gedanken. Überlegungen zu den Beziehungen zwischen Seleukiden und Mauryas, in: Ancient Iran and the Mediterranean World, ed. Edward Dabrowa, Kraków 1998, 225–236; Josef Wiesehöfer, Mare Erythraeum, Sinus Persicus and Fines Indiae: Der Indische Ozean in hellenistischer und römischer Zeit, in: Der Indische Ozean in historischer Perspektive, ed. Stephan Conermann (Asien und Afrika 1), Hamburg 1998, 9–36.}

The situation changed when at the turn of the second to the first century BC the power centre of the Mediterranean world had ultimately shifted from the East of the \emph{oikoumene} to the Tiber. One after the other, the kingdoms in the East had been defeated by Rome, which finally, at the turn from the Republic to the Empire, took complete possession of the last remaining kingdom, that of the Ptolemies. In a more or less parallel development, the Parthians had established themselves as opponents to Rome on the territory of the former Seleucid Empire. Thus, whereas on the one hand the Mediterranean was united under one rule, the political unity of the Middle East stretching as far as to the Punjab which had been created by the Persians and maintained by the Seleucids was lost on the other hand. At the same time the Roman Imperial elite’s demand for far-eastern luxury and consumption goods such as pepper and aromatics reached unprecedented heights. Since the Monsoon system had meanwhile been deciphered by Egyptian-Greek sailors, sea trade from the harbours of the Red Sea via the Arabian south coast to the two coasts of India experienced an unprecedented boom.\footnote{Grant Parker, Ex Oriente Luxuria, in: Journal of the Social and Economic History of the Orient 45 (2002), 40–95. Kai Ruffing, Wege in den Osten. Die Routen des römischen Süd- und Osthandels (1. und 2. Jh. n. Chr.), in: Zu Wasser und zu Land. Verkehrswege in der antiken Welt. (Stuttgarter Kolloquium zur historischen Geographie 7, Geographica Historica 17), ed. Eckart Olshausen and Holger Sonnabend, Stuttgart 2002, 278–360.}

It secured the supply with Indian, Arabian, Chinese and far-eastern products to the whole Mediterranean so smoothly and resulted in such hefty profits for the merchants and importers involved that despite the changed situation of the world and most perfect economic and technological preconditions an alternative route to India across the Atlantic Ocean and around Africa was once again not seriously taken into consideration, even if that would have provided the opportunity to avoid the Arabian and Indian middlemen.\footnote{See the Papers in: Marie-Françoise Boussac and Jean-Francois Salles (ed.), A Gateway from the Eastern Mediterranean to India. The Red Sea in Antiquity, Dehli 2005; Raoul McLaughlin, Rome and the Distant East. Trade Routes to the Ancient Lands of Arabia, India, and China, London 2010; Serena Bianchetti, Die Seerouten nach Indien in hellenistischer und römischer Zeit, in: Zu Wasser und zu Land (cf. n. 12), 280–292.}
The Survival of Ancient Knowledge of the World in Late Antiquity and the Middle Ages

Nevertheless, the dream of an oceanic sea route to India was not given up but only postponed. The Roman Empire claimed rule over the entire *oikoumene*. When in the first century AD information about the Chinese Han Empire became known, this claim was no longer in accordance with reality, but in the West, beyond Britannia, there was only the vast *Okeanos*. Since Caesar, its submission was part of the ideological self-understanding of an empire which accepted no limits, neither in space nor time.14

Rome’s imperial view across the Atlantic Ocean was in line with—and this is of essential significance for the idea of the sea route to India—a broad adoption of Greek-Hellenistic geography, which had extended and refined the theories developed in the fourth century BC. Even in the mid-second century BC, Crates of Mallos made the Romans familiar with his globe model of the four continents. At least a pseudo-Aristotelian writing mentioned islands beyond the *Okeanos*, and in the time of Augustus the famous geographer Strabo confirmed that there might be two or more worlds at the altitude of the temperate zone. Plutarch took up Plato’s tale of a gigantic continent in the outer West,15 and Seneca prophesied that one day mankind would discover an incredibly huge country beyond the *Okeanos*.16 Parallel to that, the thesis of a free passage to India stayed alive, nourished not only by news of Indians who had stranded at the coast of Gaul but also by the tendency of mathematical geography to further reduce the estimated volume of the Earth, whereas since Alexander’s time the estimates of the East-West distance of the *oikoumene* had constantly grown.17 From these developments Seneca drew the much-quoted conclusion that crossing the Atlantic Ocean, in case of favourable winds, would only take a few days.18

The idea of travelling around Africa in southern direction became, however, more controversial when the lands of Southeast Asia were discovered. Due to this news, the geographer Ptolemy assumed that a direct land connection from Africa to India existed, which would have blocked direct naval access from the South to the harbours on India’s west coast.19 Others contradicted by referring to expeditions from West Africa.20 Even if none of these concepts was

18 Sen. nat. Quest.1 praef.13.
realised, they were rooted in the minds of the experts, and if needed, they were at hand.

The Christian thinkers of Late Antiquity and the Middle Ages continued to assume that the Earth was a globe as a matter of course. Likewise, based on the writings of Pliny, Martianus Capella, on the Latin translation of Plato’s Timaios and, since the thirteenth century, on Aristotle’s De Caelo, they all maintained the global geographical theses of Antiquity and thus also the idea of trans-oceanic routes to India. The ancient methods of geodesy were part of Geometria as it was taught at medieval arts faculties.

Concerning the connections to the Far East, there were only two theological objections. Firstly, localising Paradise on Earth in the Far East caused problems insofar as, according to general opinion, it could not be reached, let alone entered, and thus Paradise blocked the naval access to India. Secondly, the existence of far-away continents was seldom doubted, but some scholars doubted the ancient assumption that they were inhabited by Antipodeans or other humans, for this would have meant that the Great Flood had spared humans outside the oikoumene and that the missionary task of Christ had not been fulfilled as the equatorial zone and the Oceanus dissociabilis blocked any connection.

However, in the course of the advancing adoption of Aristotle’s works, of the spread of knowledge on the Atlantic voyages of the Norsemen, and finally

21 On the exceptions in the east, which were hardly noticed in the western Mediterranean, cf. Frank Schleicher, Geographia Christiana. Kosmologie und Geographie im frühen Christentum. Paderborn 2014, 163–222.
of the opening of communications with the East as far as to China (in the course of the Mongol expansion), these problems lost significance to such a degree that the majority of the intellectuals no longer considered them relevant. Both Arab geographers and Marco Polo proved that indeed—as had already been known in Antiquity—it was not only possible to cross the equatorial zone but that it was also inhabitable and that human settlements even existed beyond it. And as, in the course of Italian merchants, diplomats and missionaries the Far East, gold islands such as Cipango (Japan) were indeed found, but no Paradise on Earth: therefore this last barrier also lost its significance although it remained an ideal target projection. A new, although actually old, obstacle appeared only when Ptolemy’s thesis of the Africa-India land bridge gained prominence again, but meanwhile Christian scholars had become self-confident enough to take this thesis only as one among others.

**Realisation: The Portuguese, Columbus and Antiquity**

When the Portuguese started exploring the southern route around Africa and later Columbus presented his plan of an Atlantic voyage, all the great geographic concepts of Antiquity were assembled once again. From the start

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27 Schulz, Abenteuer der Ferne (cf. n. 24), 455–462.

Columbus—as has been made plausible by Felipe Fernández-Armesto—reckoned with several possibilities: either a free passage across the Atlantic Ocean as far as Cathai or Asia, as had been assumed by Aristotle, Seneca and later Pierre d’Ailly, or the discovery of lands of the Antipodes or of a new continent, as had been assumed by Plato, Crates and Strabo and in accordance with them by the majority of Christian scholars. Of course he expected to find many islands which had been assumed to exist in the Atlantic Ocean since Antiquity. The fact that the Spanish commission defined “islands and continents” as the object of the journey was quite in accordance with this range of possibilities. After the first Atlantic journey Pietro Martire d’Anghiera wrote that Christo-
pherus had returned from the “Western Antipodes” (ab Antipodibus occiduis)\textsuperscript{29}. Together with the Antipodes, the dream of Paradise likewise stayed alive. Columbus believed to have come close to it when arriving at the thundering sweet water floods of the Orinoco.

On the other hand, until the end of his life he stuck to the idea that he had reached India, and of course this goal was always at the heart of the Portuguese and Spanish efforts. That this very destination was only reached via the southern route does not contradict the world-historical significance of these oceanic expeditions. The 2000-year-old dream had become real because in the fifteenth century for the first time not only spatial awareness and technological preconditions were given but also political and economic circumstances were favourable: Western Europe was craving for gold like never before, eastern luxury goods were very expensive and could only be bought via Muslim middlemen. Another factor, however, was probably crucial: with the Portuguese and the unified Spanish kingdom as well as the massive support given by Genoese merchants and sailors, a group of suitable actors was at hand in the West who for quite a long time aimed for a new, ‘Atlantic Mediterranean’ while at the same time competing with each other. They ultimately sailed through the ‘oceanic door’ to India which the ancients had opened 2000 years before.

\textsuperscript{29} Pietri Martyris Anglerii Opus Epistularum, ep.131, p. 360.