



PREFACE

On October 12, 1492, Christopher Columbus believed, and the world with him, that Europeans were touching America for the first time.

In reality, the act of the great Genoan navigator was reduced to the prize of official possession of this part of the world.

In the Indian populations of Mexico and Central America, one sees Egyptian and Jewish types of a perfect purity, which call to mind the beautiful Egyptian statues of the Louvre Museum and the Judaic profiles which are seen as well in the ruins of Karnak. Travelers admire, in certain Guatemalan villages, Arab and Jewish dress exactly like that of the paintings of Horace Vernet.¹ [1]

Mexican gods have all the distinctive attributes of those of Egypt, Greece, and Asia Minor; they have, as well, plausible explanations, which is not always the case with the gods of the old continent.

Brasseur de Bourbourg [2], who knows well the forgotten country and the documents lost to the fanaticism of Spanish monks, is convinced of the identity and the society of origin of the religions of the two worlds.

Mexican mythologies are more complete, better connected than those of Europe, Africa, and Asia, and find their geological and geographical explanation in the Sacred Books of the land. Also, without absolutely attributing to Mexico the invention of ancient religious myths of antiquity, Brasseur believes he can claim a clearer and more complete idea of this region.²

The study of Mexican-Guatemalan, Latin, and Sanskrit languages has given Brasseur de Bourbourg the most unexpected results.

Not only do these languages derive from one another, but the first is most important, containing unknown Latin, Aryan, and even Sanskrit origins. "If you want to take the trouble to do the examination," says our author, "you will find at least half of the words in the Noël dictionary of the Mexican-Guatemalan group of

¹ Brasseur de Bourbourg, *History of the Civilized Nations of Mexico and Central America during the Centuries before Columbus*, Paris, Bertrand, t. I, p.17.

² Brasseur de Bourbourg, *Four letters on Mexico ... concerning the Teo-Amaztli*; Paris, Maisonneuve, 1868, pp. 26, 27.

languages: you will find their origin and nature and break them into simple vowel sounds, on which Bopp's [3] scalpel, all-powerful though it may be, has never been tried on any of these as it has been on the languages he has subjected to his genius.”³

Study of the majestic ruins of Mitla, Palenqué, Izamal, Chichen-Itza, and Uxmal demonstrates a great similarity between the architecture of Mexico and northern Asia. Only one point remains uncertain for M. Viollet-le-Duc [4]: are the affinities they establish verified by the northeast or the northwest?⁴

In brief, the anthropology, mythology, linguistics, and archaeology prove, at the very least, kinship lines and long relations between the ancient people established on both shores of the Pacific.

Connections between western America and eastern Asia were greatly facilitated by the chain of the Aleutians and the thousands of islands which nature placed, like intermediate steps, between the two continents.

On the European side, the rarity of islands is compensated for by the lesser width of the Atlantic channel; the Orkneys, Shetlands, Faeroes, Iceland, and Greenland have also rendered the same service as the Aleutians.

In prehistoric times, Europe began, by this latter route, its emigration toward America.

According to the *Popol Vuh* [5], the various tribes of the Quiché nation were reunited at Tulan-Zuiva (the Seven-Caves, the Seven-Ravines) to receive their gods. This Tulan was at the extreme north, because men “could no longer go on living there because of the cold and frost, trembling (as they all were), teeth chattering, with almost no life left in them, their hands and feet swollen to the point they could no longer hold anything, when they arrived.

“A storm extinguished the fires which brought them joy. They finally abandoned the places where the sun rose ... but their hearts grieved, when they set out, as they tore themselves away from Tulan.

“Alas! Here we will no longer see the dawn at the moment of the sun's birth, which brightens the face of the land,” they said as they set out.

“But they left that world behind, all camping along the road, each tribe rising in its own way to see the messenger star of the sun.”

“It is this sign of the dawn which was in their thoughts, when they came from where the sun rose, leaving from that place which is at a great distance, we are told today.”

Their hearts broke and great was their suffering, because they were without

3 Brasseur de Bourbourg, *Four letters on Mexico ... pp. 10,11.*

4 Viollet-le-Duc, *Antiquités américaines*, introduction to *American Cities and Ruins* by D. Charnay [5], Paris, Gide & Morel, 1863, p. 104.

food, sun or fire.

They passed from these coasts as if there were no sea, “because they went on scattered rocks , these rocks rolling on the sands.”

Always in agony, without sleep, without rest, in the expectation of the dawn “and of the brightness to come, alas!” they said, “may we finally see the sun rising? What have we done, that we have torn ourselves away?”⁵

Although their route is only vaguely known, it can be seen that they went on the ice sheets, from a country where the sun rises; they crossed the region of long nights and came, stage by stage, to the smiling Mexican lands where they founded a great empire.

The Quichés belonged to the beautiful and intelligent red race which is still found around the imposing ruins of the monuments it built, in the days of its grandeur, in Mexico, in Peru, and along the banks of the Nile.

If one day it is discovered, as one can believe, that a great island existed in bygone days in the place the Sargasso Sea now sleeps, the catastrophe that destroyed Atlantis will be identified with that which plunged a great part of America into the torrents; the striking resemblance of the diverse people of the red race as to type, arts, and traditions will be explained; it will be easily admitted as probable, not to say certain, the long connection which appears to have existed, in prehistoric times, between the New World and Europe.

It is thought that, after the upheaval spoken of by Plato and the ancient Mexican books, the sea was impassable for a long time and that the Phoenicians had the first honor to clear the Pillars of Hercules [7]. These intrepid seamen seem to have frequented America, but if anything came out about their discoveries, it was only, says d'Avezac [8], as vague clues written in the capricious imagination of the Greeks.⁶

The first undoubted voyage across the Atlantic was that of Pytheas of Marseilles [9].

This able seaman departed around BC 340, at the same time as his compatriot Euthymenès, who followed the route to the south along the coast of Africa. The aim and the simultaneity of these expeditions prove that they were both under the auspices of the great Phoenician city. If Polybius or Strabo had noticed this detail, they would have understood that Phytheas's fortunate geographical position could not be used either for or against the reality of his voyage.

He sailed around the Iberian peninsula, went up along the coast of Gaul

5 Brasseur de Bourbourg, *Popol-Vuh – The sacred book and the myths of American antiquity, with the heroic and historic books of the Quichés*. Paris, Bertrand, 1861m pp. 215-239.

6 d'Avezac, *Les Iles de l'Afrique*, part 2, p.4 (Collection de l'Univers).

[France] and entered the English Channel after measuring the distance between the islands of Uxisamés [10] or Ouessant [11].⁷ It seems that he did not visit the Cassiterides [12], or the Sorlingues [13], which supplies Marseilles with tin⁸, or the Scilly Islands or Wight, storehouse of the neighboring regions.⁹

Returning from his voyage, he wrote two works: [Greek in Gravier p. XV] *On the Ocean*, and *World Travel*. Unfortunately, these two works are lost, and we have only fragments cited by his detractors with which to reconstruct his journey.

However, we know that he saw the southwest of Great Britain, which the ancients called “Cape Canticum.”[14] From this point, some say he made for Denmark and Norway, others that he explored the east coast of England and made Iceland the northern limit of his navigation.

The narrow limits of a Preface do not permit a discussion of these hypotheses; we will content ourselves with an exhibit of the clues that made us lean toward the second.

After a long period of travel, which Lelewel [15] supposes was made on the east coast of England, Pytheas met, at six sailing days from Thule, some natives who showed him the place of the setting sun. In these countries, says Geminus [16], the night is two hours long for some and three hours for others.¹⁰ These facts allowed Phythéas to calculate the summer solstice at various northern latitudes and gave the position of the natives’ country as somewhere around the 63rd parallel.

At this latitude, only one group of islands is found: the Faeroes. At six sailing days from the Faeroes is found only one land – Iceland. Therefore, Iceland was the Thule of Phythéas.

Pytheas could not tell if Thule was an island or a continent.¹¹ This doubt is understandable if Thule is actually Iceland, which is 200 leagues long and an average of 100 leagues wide. But it is not understandable for the 85 islets which make up the Shetlands, or for the 22 small islands which make up the Faeroes. One will see a Scandinavian seaman express the same doubt about Iceland as Pytheas does about Thule.

According to Strabo [17], who cites Polybius [18], Pytheas said of Thule that one encounters neither land, nor sea, nor air, but a concretion of these various elements similar to a *sea-lung*,[19] which stays in suspension and brings together

7 Strabo, *Geography*, Book I, chapter 4, paragraph 5; translated by Tardieu, t. I, p. 109.

8 Ibid., Book III, chapter 2, paragraph 9, t. I p. 241.

9 Lelewel, *Phythéas of Marseilles and the Geography of his Time*; Paris, 1836, pp. 30, 31.

10 [Greek phrase in Gravier, footnote p. XVI] p. 30 (Collection made by Abbot Halma under the Title: *Chronological Table of Reigns ... Paris*, 1819.)

According to the grammarian Cratés, this is the country in which Homer places the Lestrigons (*V. Odyssée*, chapter X, v. 83-87; edition greco-latine of Firmin Didot, Paris, 1856.)

11 Strabo, *Geography*, Book III, paragraph 3, Paris, Imp., Imp., 1809, t. I, pp. 313, 314.

land, sea, and air in a common bond and no longer allows a man to walk or sail.¹²

Scholars have debated much on this issue and have modified it gradually into fumes belching from Hekla,[20] polar ice, and pumice originating from volcanos which appear to exist at about 75 degrees latitude.

Pytheas knew well enough about the fumes, ice, and pumice not to compare them to the “*sea-lung*,” a great number of whose marine animals he had doubtless studied.

But if he saw Iceland during the winter, he found it shivering under a thick mantle of snow, enveloped by a dark and smoky atmosphere,¹³ often filled with floating ice. Perhaps he saw, during a break in the weather, icebergs floating on the horizon or one of those thick white clouds, the terror of sailors, which are frequently met around Spitzbergen,¹⁴ and in Baffin Bay,¹⁵ on an isothermic line near that which passes north of Iceland.¹⁶ The floating ice could scatter this atmosphere with luminous points, that is, to produce the same effect as the *sea-lung* in the waves.

A sailor who had only ever seen the blue sky of the Mediterranean, who shared more or less the ideas of his time on the cosmography of the regions of the far North, could believe that he had reached the farthest edge of the part of the globe accessible to man, and compare the atmosphere of those regions with the *sea-lung*.

Pytheas did not hold with this detail, which recalls the vague tradition of the Phoenicians regarding the Hesperian Sea; he determined the latitude of Thule from astronomical observations whose accuracy Strabo himself recognized.¹⁷

At Thule, he says, the summer Tropic [Tropic of Cancer] merges with the Arctic Circle,¹⁸ and the day of the summer solstice is 24 hours long. This is also what has been said by Pomponius Mela¹⁹ [21] and Pliny,²⁰ [22] Solin,²¹ [23] who

¹² Strabo, *Geography*, Book II, chapter 4, paragraph 1 translation Tradieu, t.1, p. 171.

¹³ For the description of the *sea-lung*, see Linné, *Systema naturae*, Lipsiae [Leipzig?], 1743, p. 73; Pliny Book IX, cap 45-68, edited by Nisard; — Kérario, *On the knowledge which the ancients had on the northern lands of Europe*; in *Mémoires de l'Academie des Inscriptions et Belles-Lettres*, t. 45.

¹⁴ In 1827, Ampère was in Trondheim, located a little south of Iceland’s latitude. “The mountains,” he said, “are enveloped in a thick mist that seems to unite the sky and sea, and across which a false day falls obliquely on the waves.” (J.-J. Ampère, *Littérature et Voyages (Literature and Voyages)*, Paris, Didier, chapter 3, p. 54. In Iceland, the intensity of the mist was augmented by ice particles which filled the atmosphere, by the dark and smoky tines that produce the snow, and by the vapors sailors call “ice smoke.”

¹⁵ Phipps, *Voyage to the North Pole*, made in 1773, Translated anon.; Paris, 1775m pp. 68, 69.

¹⁶ Elisé Reclus, *The Land*; Paris, Hachette, 1872, t II, pl. XVII.

¹⁷ Nevertheless, for that which concerns the geographical position of these places compared with the sky, he appears to conform reasonably with the rules of Astronomy (Strabo *Geography*, Book IV, paragraph 7, Imp. Imp. 1809, t. II, pp. 83, 84.)

¹⁸ Strabo, *Geography*, Book IV, paragraph 3, Imp. Imp. 1809, t. I, pp. 313, 314.

¹⁹ [quotation in Latin, p. XX]. Joachim Vadiani Helveth in Pomponius Mela commentaria; Paris, 1543, Book III, pp. 173, 174.)

²⁰ [Latin quotation pp. XX-XXI] (Pliny, Book II, c. 75, paragraph 77.)

²¹ [Latin quotation, p XXI] (Julius Solinus Polyhistor, cap.XXV, p. 302, Lugd. Batav., ap. Hieron. de Vogel, 1646).

lived a century and a half after him, Dicuil,²² [24] who claims that the whole night is like full daylight, a man can work and *find his lice in his shirt*, Horrebows,²³ [25] who observed that from mid-May to September “one sees clearly enough to read all night,” and that in the North Cape region the sun stays on the horizon from 12 June to 1 July.

According to Strabo’s calculations, the land thus described lies below 66° north latitude, at 46,200 stades [26] from the Equator. This is precisely the location Hipparchus and modern geographers give Iceland.²⁴

In the unanimous opinion of the ancients, Pytheas is the only one who ventured so close to the Pole and proclaimed the habitability of arctic regions. From all appearances, it is because of him that Aristotle²⁵ extended the habitable zone to 67 ° “where one always sees the ‘crown of Ariane’ [27], where the day of the summer solstice is 24 hours long.”

His description of the Pole stars is cited with praise by Hipparchus [28], author of the first catalogue of the fixed stars. Eratosthenes [29] and Hipparchus borrowed from him the greater part of their determinations of latitudes they give for northern Europe,²⁶ and this part of their works is much more exact than the corresponding part of Strabo’s works.²⁷ This great geographer did not allow for the earth’s habitability any farther than Ireland, which Strabo placed without ceremony to the north of Great Britain. This island is very cold, he said, inhabited by a small, miserable, completely savage people; it is not known if there are habitable lands north of Ireland; in any case, knowledge of these countries would be without political, scientific, or commercial advantage for us.²⁸

This strange opinion, with a few exceptions, was that of the whole school of Athens, which marveled, certainly with reason, at the voyage Nearchus [30] had made from the Indus delta to the Euphrates. Nearchus had sailed along the coast under the protection of a victorious army, and his journey was only 25,000 stades. How could the Athenians admit that Pytheas had made, some years earlier, a voyage of 186,000 stades? Although they acknowledged that he knew the route

²² *Diculi liber de mensura orbis terrae*, C.-A. Walkenaer. Parisii, ex typis Firmini Didot, MDCCCVII, pp. 29, 30.

²³ Horrebows, *New physical-historical, civil and political description of Iceland, with critical descriptions of the natural history of this island, given by Mr. Anderson*. Work translated from the German by Mr. Horrebows, who had been sent there by the King of Denmark. Paris, Charpentier, 1764, T. I, pp. 335-340.

²⁴ Strabo, *Geography*, Paris, Imp. Imp. t. II, p. 84, no 2 —Bouganville, *Clarifications of the Life and Voyages of Pytheas of Marseilles*, apud, *Mémoires de l’Academie des Inscriptions et Belles-Lettres*, t XIX, p. 150. - Gosselin, *Research on the systematic and positive geography of the ancients*, Paris, Imp. de la Républ., an VI, t. 1, pp. 33, 34, and table I on p. 57.

²⁵ Arist. *Meteorologica*, Book II, cap. V, paragraph 12.

²⁶ Bouganville, *op. cit.*, pp. 147-150.

²⁷ Here an example: Strabo picked up on Hipparchus having said, on Phythéas’s belief that Byzantium and Marseilles are at about the same latitude, because one finds the same agreement between the shadow and the gnomon. After consulting several authors, he [Strabo] claims that Byzantium is farther north than Marseilles (Book II, chapter 5, paragraph 9, translation Tradieu t. I, pp. 187-189). It is known that, completely to the contrary, Byzantium is 2°13'45" farther south than Marseilles.

²⁸ Strabo, *Geography*, Book II, chapter 5, paragraph 8, translation Tradieu t. I, pp. 188, 189 et passim.

from Marseilles to the Canticum promontory, lying, according to the most conservative calculations, 45,000 stades in unknown areas, this enormous distance disturbed all their cosmographical hypotheses and made them decide to deny the very reality of the expedition.

But the brilliant school of Alexandria, better placed to appreciate Pytheas's merit, profited largely from the illustrious mariner's observation in order to improve on its cartography.²⁹ It is the honor of Eratosthenes and Hipparchus to have benefited science with the precious discoveries of the traveler from Marseilles. The future has agreed completely about the negativity of Polybius and Strabo.

One fact seems to us not to have been adequately noticed, the indication by Pytheas of the closeness of the sea ice or Cronienne.**[31]**³⁰ The sailor was only able to judge that the ice began one day's sail from Thule.

If he had placed Thule in Denmark or Norway, he could not have seen the ice sheets of Sund **[32]** at a distance of one day's sail. If he had believed Thule to be at the Shetlands or even the Faeroes, the growing intensity of the cold might have made him speculate about a glacial zone, but he could not express his opinion affirmatively enough, or with enough accuracy: these two island groups are found most times too far to the south of the Cronienne Sea, and too far east of the ice-sheet routes.

He may not have known about the so-called sea of ice, but he could see ice floating in fragments on the east coast of Iceland,³¹

The icebergs which floated on the west side of the island, the ice field which bordered the Greenland coast, extended from southwest to northeast behind Jean-Mayen Island at which they often make a high crown of 400 meters **[33]**.

The limit of the ice-floes is, moreover, very variable. In 865, Floki-Rafna saw, from Iceland, the northern sea covered with floating ice.³² In the work he published in 1752, Horrebows says that the north of Iceland is often encumbered with ice sheets that resemble a land suddenly leaving the breast of the waters.³³ In 1773, Captain Phipps encountered ice sheets only at 80°.³⁴ In July 1833, Jules de Blosseville **[34]** reached the first ice at 68°20' latitude and the mobile ice barrier at 68°20' and 68°.³⁵ These enormous masses often descended very far south. In 1306 and 1695, they imprisoned Iceland. Frequently, in winter, polar bears are carried

²⁹ Lelewel, *op. cit.*, pp. 43, 44, 46.

³⁰ Pliny, Book IV,, cap. 30, paragraph 3.

³¹ Vivien de S.-Martin, *The Geographic Year*, 1872, p. 309.

³² *Iceland's Landnamabok — Hoc ist Liber Originum Islandiae*; Havniae, 1774, pars. i cap. II, p. 9.

³³ Horrebows, *op. cit.*, t. I, pp. 366, 367.

³⁴ *Voyage to the North Pole*, made in 1773, by order of the King of England, by Constantin-Jean Phipps. Paris, 1775, p. 74.

³⁵ *Map of a part of eastern Greenland, found by the brig Lilloise, under the command of M. Jules de Blosseville, in 1833.*

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by the ice sheets, which accumulate on the coast of this island. So, in Pytheas's time, it could be demonstrated that this land was one day's sail from the sea of ice.³⁶ It seems to us that the result of these observations is that Iceland is the Thule of Pytheas. It was also the opinion of the Venerable Bede [35] and Dicuil, whose works were not without influence on the navigation of the Middle Ages.

This is not the place to treat *ex-professo* the history of the captain of Marseilles, but it does matter that in discovering Iceland he opened to Scandinavians the route to America.

The Romans, coming after him, did not sail past the Orkneys.

Tacitus [36] calls them the Orkneys; Agricola [37] thought they were Thule.

The Thule of Tacitus was certainly not the mysterious Iceland, which passes for a neighbor of Chaos.

Tacitus has much exaggerated the merit of his father-in-law. But he ought not, in a contrary excess, take this Roman general to be absolutely worthless.

If Julius Agricola was content to see what he thought was Thule from one sailing day in the distance,³⁷ it is because the Orkneys had lost their prestige, due to the discovery of another Thule farther north and not, as Tacitus says, because "the sea was motionless and resisted the efforts of the oarsmen,"³⁸ or because Agricola was too indifferent to buy, with much fatigue the pleasure of seeing what he had taken as the end of the world and the beginning of Chaos.

About the same time as Agricola, Plutarch [38] wrote in his annals the story of Greek explorations in the northern ocean.

Ogygia, [39] he says, is located to the west, about five sailing days from England. Beyond are found three islands, located at an equal distance from one another and in the same direction.

Saturn had been imprisoned on one of these islands and was watched over in his sleep by Briareus [40] because sleep acted on him as bondage. He had been surrounded by spirits who served him when he still commanded gods and men. He dreamed what Jupiter and the spirits brought him to dream.

Solid land "by which the great sea is surrounded" is five thousand stades from Ogygia. One can go there only in oared ships because the sea is still and shallow, full of silt, with great shoals and reefs. "Age-old opinion was that it was frozen."

The Great Continent forms a bay stretching as long as Palus Méotide.[41] The inhabitants call themselves continental and call us islanders because we are

³⁶ J.-J. Ampère, op cit. — *Discussion on the ancient literature of Scandinavia*, p. 282. — *General history of voyages*, t. XVIII, p. 18, ed. in-4th.

³⁷ From the Orkneys to the Shetlands is 80 kilometers, 505 stades (Eratosthène's measure, or one day's sail plus five stades).

³⁸ Taciti *Julii Agricolae life*, 10.

surrounded by the Ocean.

During the 30 years when the planet Saturn, whom they called by the Greek name meaning “Guardian of the Night,” was in the sign of Taurus, a fleet, *Théores*, chosen by lottery, crossed from the Cronien continent to the Isle of Ogygia.

The crossing was very dangerous. They first approached an island inhabited by Greeks, “where they saw,” says Plutarch, “the sun did not hide itself away for even one hour, during the length of 30 days, which is their night, when the darkness is somewhat hidden and like twilight.”

Sylla [42] had these details from an old priest of Saturn come from Ogygia to Carthage, where the discovery of a sacred parchment had rendered him celebrated and respected.³⁹

The Hellenistic imagination is given a career in the story of which an extract is made here. Plutarch copied very old religious traditions, fragments of which have come down to us through Méropéïde de Théopompe. [43] This story also tells of the Islands of Demons, located near Brittany, which receives the souls of heroes and serves as a hideout for storms and meteors.

The 30-year travels, repeated from the old work, *Théories*, by Délos, are probably fictitious. The Greek colonies of America appear to have been imagined by Plutarch to flatter his conceited compatriots.

But many ancients, such as the priest of Ogygia presented by Sylla, mistook our continent for an island. In the geographical myth of Méropéïde de Théopompe, Silène says to the Phrygians that the Méropiens inhabit a great, faraway continent [2 Greek words] and that our land is only a very small island.⁴⁰ Cicero [44] himself says in the *Dream of Scipio*, “All the land you inhabit is only a small island.”

Saturn, an ideal personification of tremendous power, comes by his prestige via the mystery that has enveloped his place of captivity. His island, delight of poets, assured that sailors would extend their excursions to find it. The name Saturnian Sea, given first to the Adriatic, became the name of the Pillars of Hercules,⁴¹ rose little by little to northwestern Europe and, with Plutarch, was tied to the northern Ocean, “as if the fogs of these countries,” says Gafferel, “have made Saturn disappear.”

Humboldt [45] thinks that the myth retained by the Treaty of the Jobs of Plutarch’s lunar orb is part of a circle of ideas more symbolic than real. “It is,” he says, “a fragment of the mythical geography of more ancient times.” However, the great writer appears to believe that if the ideas popularized by antique poetry have

³⁹ Plutarch, *translation of Amyot. Moral and philosophical works. — concerning the face which appears inside the ring of the moon.* Paris, Jean Macé, 1581, in folio, ff. 624, 625.

⁴⁰ Perizonius, usually so judicious, saw in Silène’s revelations some traces of America. [Latin quotation, p. XXXI] AElian., ed. Lugd., 1701, p. 217, cited by von Humboldt.

⁴¹ Earlier called the *Columns of Briareus* or *Cronos*.

exercised a strong influence on systems of geography, Plutarch's conceptions of cosmography should perhaps give as much to real discoveries and to the *stories of the navigators who returned from the outer seas*.⁴²

This last point appears incontestable. The poets imagined that an inaccessible land, located at the limit of the terrestrial disk, closed off the Ocean river.⁴³ However, in order to establish a clearer truth, it does not take much effort to assert that it is absolutely necessary to move from poetic reveries to experimentation. Even admitting the sphericity of the earth, it was impossible to show with any accuracy the location of the islands or the configuration of the seas and continents. Did the sailors observe poorly? Finding the truth too easy, did they believe they would have to drop the marvelous stories? Perhaps. But their discoveries are not less real for all that, nor less indispensable for understanding the ancients' correct geography.

Yet, what is especially remarkable in the story by the philosopher of Chéronée [Plutarch] [46] is the precision of his geographical details.

The three islands he places at equal distances from one another, on a line of 5,000 stades, between Ogygia and the Cronien continent, correspond exactly to the Faeroes, Iceland, and Greenland. The "large bay like Palus Méotide" fits Hudson's Bay or Baffin Bay. His sea, dangerous because of mists, recalls the hydrography of the Northern Ocean.⁴⁴

His nights of one hour, as light as dusk, are like those of Thule, at least as Dicuil and Horrebows described them.⁴⁵

Was Plutarch inspired by the brilliant works of Eratosthènes and Hipparchus, who summarized those of Pytheas? Did he know the stories of Timoeus [47] about the Isle of Mictim, or those of Scandia, Dumna, Bergos, and Nérigon [48] the greatest of all, which preceded Thule?⁴⁶

However that may be, his very precise description of the Cronien Sea proves that this sea had seen ships coming from the Mediterranean basin.

⁴² von Humboldt, *Critical study of the history of the geography of the New Continent and progress in nautical astronomy*, Paris, Morgan, S.d., T.I, pp. 192, 193.

⁴³ "the idea that a continental mass *beyond* the Ocean, within the confines of the terrestrial disk, is also found among the Indians of the world [(Ioka)?] located beyond the seven seas, as in the Arab traditions in the mountains of Kaf." (von Humboldt, op. cit., t. I, p. 195).

Cosmas Indicopleustes, monk-geographer of the 6th century, claims, as do many Church Fathers, that the Ocean cuts the land in half, with the first actually inhabited by us, whereas the other, first home of the first man, ancient Paradise, merges with the sky (M.E. Charton, *Ancient and Modern Voyagers*, t. II, p. 10, and fig. on pp. 10 and 11).

⁴⁴ "The journey of the Cronien Ocean is slow because of the alluvium (silt, sand, etc.) from rivers that flow down from the Large Continent and make the sea muddy and thick." It is a way, says von Humboldt, of explaining, by the nearness of a large continent, the [*Mare concretum, caenosum, pigrum?*] of the story writers and to attribute to deposits of loose soil which others, in northern regions, attribute to ice, or the middle seas to marine algae - that is to say, floating beds of seaweed.

⁴⁵ "These islands had to be quite northerly because, for 30 days, the sun 'goes to bed' for only one hour, and even during the night it rules as a dusky light. The Irish monk Dicuil would have said that it was light enough to look for his lice" (On Humboldt, *op. cit.*, t. I, p. 201).

⁴⁶ Pliny, Book IV, chapter 15.

As can be seen through the works of Bede and the minor work of Dicuil, these voyages must have been known to Irish monks. The works certainly exercised a great influence on the monks who foretold, by speaking in this way, the pilots of the Norse.

But while all the ancient discoveries appear to us in more or less distant clouds, the Norse have kept for us their voyages in stories of uncontested authenticity. These stories are found in the *Sagas*, whose accuracy is confirmed by archaeological discoveries made every day in Denmark, Norway, Iceland, Greenland, and America. Their authors, the old Icelanders, brought forward nothing by chance, nor did they substitute imagination in the absence of definitive documents. Their Sagas are simple, clear, precise, purged of those marvels that so often leave doubts about the intelligence and sincerity of the monastic chroniclers.

It is to this living source, to archaeology, to works of our predecessors that we have requested the stories of discoveries made by the Scandinavians, of the 10th to the 16th centuries, in America and the Northern regions.

All the Sagas are not yet known, the ground has not yet delivered up all of its secrets: with time, we shall be able to add to our stock of strange facts, to make precise certain facts now incompletely known. Nonetheless, it can now be considered quite certain that, in the first millennium, the Norse frequented North America; that they occupied the east coasts until the 14th century; that they reestablished themselves there in the same epoch in which Jehan de Bethancourt [49] conquered the Canary Islands; that they populated colonies on the whole western margin of Greenland and that these colonies had bishops until 1537; that they inhabited Bahia [50], and probably crossed all of North America; that their important discoveries would have been known in Europe.

In a second work we are preparing, we will be more specific about the influence of the Norse work on that of Christopher Columbus, and we will establish that, several years before the voyage of the immortal Genoan, a captain of the Navy of Dieppe, venturing in the steps of the ancients of his people, touched on the coasts of South America, not far from the recently discovered ruins of a town built by the Scandinavians.

* * * * *

We have undertaken this research because of a letter we have had the honor to receive from R.-H. Major on 5 August 1872. This brilliant conservator of the Museum of nautical and geographical maps has kindly asked us who the Norse and Breton navigators were whom we had mentioned, in the preface of *Discoveries and*

Settlements of Cavalier de la Salle, as having seen America before Columbus.

The burning of the archives of the port of Dieppe in 1694 and the secret our old sailors guarded jealously about far-flung discoveries, do not allow us to reply in a few lines, as M. Major seems to wish. In fact, our long research has demonstrated to us that the discoveries of the end of the 15th century were the continuation or, to use a better word, consequence, of those of the 10th. Therefore we could reply in a complete way only by telling the story of the two periods of our maritime history.

Today we publish the first part of our work, and we beg Mr. Major to have the kindness to consider it a first response to his request.



Notes on the Preface

- [1] **Horace Vernet** Émile Jean-Horace Vernet, 1789-1863; French painter of battles, portraits and Arab subjects; born in Paris, in the Louvre, during the French Revolution; painted large subjects taken from contemporary culture: scenes from the Revolution and large-scale depictions of entire campaigns, especially those of Napoleon Bonaparte; went with the French Army during the Crimean War and painted scenes and battles in Algeria.
- [2] **Brasseur de Bourbourg** Abbé Charles Etienne Brasseur de Bourbourg, 1814-1874; born near Dunkirk, ordained 1845; served 1845-46 in Québec, later in Boston; traveled as a missionary in Mexico and Central America, later becoming archaeologist for a French military expedition to Mexico; after discovering a 1566 work by Diego de Landa who had annotated Mayan hieroglyphics, he reinterpreted the Mayan symbols and published a French translation of the *Popol Vuh*, sacred book of the Quiché Maya people.
- [3] **Bopp** Franz Bopp, 1791-1867, German (Bavarian) linguist, who worked extensively in Indo-European language research, especially Sanskrit; became chair of Sanskrit and comparative grammar at Berlin in 1821, a member of the Royal Prussian Academy in 1822. Gravier's reference to "Bopp's scalpel" seems to refer to Bopp's ability to analyze languages and compare them syllable for syllable.
- [4] **Viollet-Le-Duc** Eugène Emmanuel Viollet-Le-Duc, 1814-1879; born in Paris, he was a republican, anticlerical and rebellious; learned architecture in an architect's office and became a famous restorer of churches, public buildings and castles, including St. Denis Basilica near Paris (Abbé Suger's 12th-century rebuild), Saint Sernin in Toulouse, Notre Dame de Paris, and the fortified city of Carcassonne; often criticized for carrying his restorations into the realm of the "perfect medieval building."
- [5] **Popol Vuh** *Popol Vuh* is described by its 1996 translator, Dennis Tedlock, as "The Mayan Book of the Dawn of Life and the Glories of Gods and Kings," a book written in the Classical Quiché language containing mythological narratives and a genealogy of the rulers of the Post-Classic Quiché Maya kingdom of highland Guatemala; as Tedlock translates the passage quoted by Gravier, it is much longer and involves the peoples' trip through the dark North,

and seems to indicate that they had second thoughts about leaving from wherever they had been; the “messenger star of the sun” seems to be Venus, which rises just before the sun on the Vernal Equinox.

- [6] **D. Charney** Claude-Joseph-Desiré Charney, 1828-1915; French explorer and archaeologist who investigated prehistoric Mexico and Central America; in 1857, the French government commissioned him to collect relics and compile a photographic record of the ruins he saw.
- [7] **Pillars of Hercules** Promontories bracketing the Strait of Gibraltar; at north is the Rock of Gibraltar in the British overseas territory of Gibraltar, the other across the straits in North Africa.
- [8] **d'Avezac** Marie Armand Pascal d'Avezac, 1800-1875; member of l'Academie des Inscriptions et Belles-Lettres of l'Institut de France and honorary president of la Commission centrale de la Société de Géographie de Paris; wrote *Les Voyages de Americ Vespuce au Compte de l'Espagne, et les Mesures Itineraire employées par les marins et Portugais (Voyages of Americo Vespucci for the Count of Spain and the routing measures used by sailors and the Portuguese)*, and *Les Navigations Terre-neuvaines de Jean Sebastian Cabot des XVe ety XVIe Siècles (Newfoundland Navigations of John Sebastian Cabot in the 15th and 16th centuries)*.
- [9] **Pytheas of Marseilles** Pytheas of Massalia (modern Marseilles, France), 380-310 BC, Greek merchant, geographer and explorer, who made a voyage to Northern Europe around 325 BC; may have circumnavigated Great Britain; was the first to describe northern phenomena such as the midnight sun, aurora, polar ice, and Thule (Iceland).
- [10] **Uxisamés** Alternative name for Ushant.
- [11] **Ouessant** Island of Ushant, in the English Channel at the extreme northwestern tip of Brittany; marks the southern entrance to the western English Channel; is not part of the Channel Islands but of Brittany, in the traditional region of Bro-Leon; home to a rare species of dwarf sheep; Ouessant is its French name.
- [12] **Cassiterides** From the Greek Kassiteros, meaning tin - Tin Islands; probably

represents the first, vague knowledge of the Greeks that tin was found somewhere in the western part of Europe, but not, apparently, islands off Spain or the Scilly Islands off Cornwall (see Sorlingues below), since these island groups do not have much tin. Cunliffe explores the possibility of tin production at St. Michael's Mount in Cornwall, but he favors Mount Batten farther east along the English coast because of the large number of Bronze Age artifacts found there, whereas there are none around St. Michael's Mount.

[13] Sorlingues Gravier seems to be repeating himself here - these islands are identified as the Scilly Islands, at the far southwestern tip of Cornwall; once part of the county of Cornwall and now, like the Isle of Man, govern themselves with loose ties to the United Kingdom; five islands are inhabited; tourism, export of flowers, and fishing are the basis of their economy.

[14] Cape Cantion Cunliffe calls this “Kantion” and says that it is Kent, the county that forms the far southeastern tip of England.

[15] Lelewel Joachim Lelewel, 1786-1861; Polish historian and politician; taught history at the Imperial University of Vilna; in Warsaw he joined the Society of Friends of Science; elected a deputy to the Diet in 1829 but became a “dangerous rebel” and had to flee to Germany, then to Paris - from where he was again expelled in 1833; spent most of the rest of his life in Brussels, Belgium and died in Paris.

[16] Geminus 1st-century AD Greek from Rhodes; astronomer and mathematician; his *Introduction to Celestial Phenomena*, an introductory astronomy book for students, survives.

[17] Strabo Greek historian, geographer, philosopher, 63 BC-24 AD; his *Geography* is his most famous work; Cunliffe says he had a distinct view about geography, that it was only useful as an adjunct to history, that only the “inhabited world” was relevant, and it was useless to speculate about remote areas; Cunliffe says, “Strabo’s firsthand knowledge of the west was severely limited, not least because he had traveled no farther west than Italy....” Strabo sneered at Pytheas, dismissing everything he wrote about his observations in the west, an attitude he had picked up from Polybius (see below).

[18] Polybius Greek, born about 200 BC in Megalopolis; he traveled widely and

wrote an enormous *Histories*, which took up most of his life; a competent historian, but he had it in for Pytheas because he [Polybius] had made a long trip out into the Atlantic in 146 BC and wanted his to be the only firsthand description and so had to dismiss all previous claims; he succeeded in ruining Pytheas's reputation for some time thereafter.

[19] **Sea-lung = French *poumon marin*** Also translated as ‘marine lung’ by various authors; Cunliffe says that Plato used the word *pleumon* to mean jellyfish and included the zoological phrase *pleumon thalassios* in his description of this phenomenon, but he can’t say whether it was Pytheas’s allegorical way of describing the slush-filled sea around Thule, resembling a huge respiring lung, or a great horde of jellyfish which he could have seen farther south; Gravier felt Pytheas would have known enough about marine life to recognize the difference.

[20] **Hekla** Active stratovolcano in the south of Iceland at 63.98°N 19.70°W about 4,900 ft. high; first recorded eruption in 1104; last eruption February 2000; locals believe it will erupt next toward the end of 2008; apparently it was not active during Gravier’s lifetime no eruptions recorded between 1845 and 1947.

[21] **Pomponius Mela** Spanish, one of the earliest geographers; wrote *De Situ Orbis* around 43 AD; knew more about the western coasts of Spain and Gaul than other early Roman and Greek geographers, described the Bay of Biscay and was first to name the Orkney Islands the “Orcades”; known for his division of the earth into five zones, only two of which are habitable, and his description of “antichthones,” that inhabited southern regions of the earth inaccessible to people of northern climates because of the unbearable heat of a torrid zone.

[22] **Pliny** Gaius Plinius Secundus, 23-79 AD, known as Pliny the Elder; author, natural philosopher and naval and military commander who served in Germany and Spain for several Roman emperors; wrote the many volumes of *Natural History*.

[23] **Solin** Gaius Julius Solinus, Latin grammarian and compiler who wrote *De mirabilibus mundi* either in the 3rd or 4th century AD (he preferred the title *Polyhistor*); much of his material came from Pomponius Mela and Pliny.

[24] Dicuil Irish monk and geographer, lived in the second half of the 8th century; wrote *De Mensura Orbis terrae*, a geography in nine sections giving concise information about various lands; he learned much from travelers of his time, especially clerics who had lived in Iceland for six months.

[25] Horrebows Only finding through Google is a map of Iceland dated 1768 that makes reference to “M. Horrebows” in its lower right corner; a cartographer?

[26] stade 1 stade=1 English furlong, 1/8 mile, 201 meters.

[27] crown of Ariane In Greek mythology, Ariadne, daughter of King Minos of Crete; she helped Theseus overcome the Minotaur and later became the consort of the god Dionysus; her wedding crown is the constellation in the sky called Corona.

[28] Hipparchus Greek astronomer 190-120 BC; considered the greatest of the early astronomers, he worked on Rhodes, developing the first quantitative and accurate models of the motions of the sun and moon; may have been first to develop a reliable method to predict eclipses; invented the astrolabe and perhaps the armillary sphere, and made the first star catalog; his work was superseded by Ptolemy only after three centuries. He criticized Eratosthenes's theories.

[29] Eratosthenes 276-194 BC; born in Cyrene (now in Libya); became chief librarian of the Library of Alexandria in about 236 BC; wrote extensively on geography, grammar, philosophy, history, geometry and astronomy; calculated the earth's circumference with remarkable accuracy and tried to calculate the distance to the sun and the moon; devised the concept of latitudes and drew a map of the known world; went blind and ended his life by voluntary starvation.

[30] Nearchus Born in Crete around 360 BC; a companion of Alexander the Great, who made him commander of the royal fleet in 325 BC; was a governor of Lycia-Pamphylia; led a naval expedition between the Indus and the Euphrates and explored the Gulf of Oman and the Persian Gulf; was exiled around 336 BC with others, when his father quarreled with Alexander, but was back in good graces and present when Alexander died.

[31] Cronienne “Cronien Sea”, as shown on Cunliffe's maps, is the North

Atlantic bounded in a semicircle by Iceland, the Faeroes, the Shetlands and the west coast of Norway; very difficult to understand to what Gravier is referring when he talks about the “Cronien Continent” - did he mean Scandinavia on the east or North America on the west?

[32] **Sund** Town on an island of Aland between Sweden and Finland, at the northern end of the Baltic Sea where it meets the Gulf of Bothnia; an autonomous territory of Finland, but its people speak Swedish; an old medieval post route between Stockholm and Åbo passes through Sund.

[33] **Jan Mayen Island** Part of the Kingdom of Norway, a tiny, elongated volcanic island in the Arctic Ocean 400 miles north of Iceland, 300 miles east of central Greenland, and 600 miles west of Norway; partly covered by glaciers; mountainous, the highest summit being the Beerenberg volcano in the north; at 7,470 feet, it may have been mistaken by Gravier and earlier writers as pack ice piled high.

[34] **Jules de Blosseville** Born Rouen France, 1802; joined the French navy at 16, sailed to the Pacific in 1822, where he made scientific surveys of the Southern Ocean; spent time in New South Wales where he worked as an astronomer for the Governor; after exploring Asian waters, he sailed on an expedition to the Arctic in 1833, from which he never returned.

[35] **Venerable Bede** 672-735 AD, Benedictine monk in Northumbria, northern England, living in Jarrow for much of his life; wrote *Historia Ecclesiastica gentis Anglorum* and other historical and theological works including *On the Reckoning of Time*; made a new calculation of the age of the world since the Creation and gave instructions on how to compute the date of Easter and the motions of the sun and moon through the zodiac.

[36] **Tacitus** Gaius Cornelius Tacitus, 56-117 AD, Roman senator and historian of the Roman Empire; the *Annals* and the *Histories* span the history of the Roman Empire from the death of Augustus in 14 AD to (presumably) the death of emperor Domitian in 96 AD; also wrote about oratory and biographical notes on his father-in-law, Agricola (which see below).

[37] **Agricola** Gnaeus Julius Agricola, 40-93 AD; began his career in Britain as a military tribune, from 58 to 62; supported Vespasian’s bid for emperor and was

given command of Britain from 71 to 75; returned to Britain in 78 and moved against north Wales, then expanded Roman rule north into what is now modern Scotland; may have gone to Ireland but never conquered it; after his victory against the Caledonians (Scotland), he ordered to the fleet to sail around the north coast, confirming for the first time that Britain was an island.

[38] Plutarch Mestrius Plutarchus, 46-c.120 AD; Greek historian, biographer and essayist whose works influenced writers as diverse as Shakespeare and Ralph Waldo Emerson; lived in Greece all his life but traveled widely; served as one of two priests at the temple of Apollo at Delphi, 20 miles from his home; wrote the enormously popular *Parallel Lives*, *Life of Alexander*, *Life of Pyrrhus*, and *Moralia* and became a celebrity in Rome; was active in public life, as mayor of his small city and as an ambassador.

[39] Ogygia An island in Homer's *Odyssey* Book V, described as the home of Calypso, daughter of the Titan Atlas; various locations have been suggested as Ogygia - the Ionian Sea, the Mediterranean; both Strabo and Plutarch thought it and Scheria were located in the Atlantic Ocean, and it has often been thought to be Atlantis; most modern scholars contend that it was strictly mythical; Gravier likes Plutarch's description and follows it in *Découverte*, apparently believing it could be the "Cronien Continent" he mentions later.

[40] Briareus Also known as The Vigorous, one of three Hecatonchires, gargantuan figures of an archaic stage of Greek mythology, children of Gaia and Uranus, the issue of Earth and Sky, thus part of the very beginning of things; each was said to have a hundred hands and fifty heads, incredible strength and ferocity, even superior to that of the Titans and the Cyclopes; they may represent the gigantic forces of nature - earthquakes and other convulsions, or the motion of the sea waves; some accounts make Briareus one of the assailants of Olympus who, after his defeat, was buried under Mount Aetna.

[41] Palus Méotide Ancient name for the Gulf of Azoz, extending from the northeastern corner of the Black Sea, separated by a narrow isthmus; apparently Gravier used it as a way of describing a large bay jutting into the Cronien Continent from the Ocean.

[42] Sylla (also Sulla) "Lucius Cornelius Sylla was descended of a patrician or noble family" - legendary Roman, died 78 BC; Plutarch wrote a long piece on

his life, his service as consul, and his wars, and called him “full of inconsistencies.”

[43] Méropéïde Théopompe Not found; ancient Phrygia and the Phrygians were part of what is now central Turkey; but this whole paragraph needs sorting out, although Gravier might have been trying to say that some of the ancients believed that their own land was not as large as they thought it was, if compared to another land farther west.

[44] Cicero Marcus Tullius Cicero, 106-43 BC; Roman statesman, lawyer, political theorist, and philosopher widely considered one of Rome's greatest orators and prose stylists; distinguished himself as a linguist, translator, and philosopher; an impressive orator and successful lawyer; elected Consul for the year 63 BC, during which he thwarted a conspiracy to overthrow the Roman Republic; was exiled for being involved in the conspirators' deaths without trial, returned, stayed involved in politics through the murder of Julius Caesar but ended on the wrong side against Antony and was assassinated in 43 BC; *The Dream of Scipio* is a dream-vision in his sixth book of *De re publica*, in which Scipio Aemilianus travels through the planetary spheres, discoursing on cosmology, dream interpretation, prophecy, time-cycles, geography, the nature of the soul, and Pythagorean theory; the work was known to the early Christian-era philosopher Boethius; Chaucer referred to it in his “Nun’s Priest’s Tale;” Mozart wrote a short opera based on it at age 16.

[45] Humboldt Freidrich Wilhelm Heinrich Alexander Freiherr von Humboldt, 1769-1859; German naturalist and explorer who was as celebrated as Napoleon Bonaparte; studied finance, commerce, foreign languages, anatomy, astronomy and the use of scientific instruments, fitting himself to become a scientific explorer; his Latin American expedition from 1799 to 1804 laid the foundation for the sciences of physical geography and meteorology; in 1845 he published *Kosmos*, in which he attempted to unify the various branches of scientific knowledge; between 1830 and 1848 he served as a diplomat to the court of Louis Phillippe of France; he died in Berlin at the age of 89.

[46] Chéronée ancient city of Greece (Béotie), today called Kaironeia, where Plutarch was born; Gravier seems to be using a rather poetic form of reference here.

[47] Timoeus Timaeus, 345-250 BC, ancient Greek historian, born at Tauromenium in Sicily; migrated to Athens, where he studied rhetoric under a pupil of Isocrates and lived for fifty years; returned to Sicily (perhaps to Syracuse) during the reign of Hiero II, where he died.

[48] Isle of Mictim=St. Michael's Mount or Mount Batten? Scandia, Dumna, Bergos=? Nérigon=Norway?

[49] Jehan de Bethancourt Jean de Bethencourt, 1360-1425; French Norman nobleman who conquered the Canary Islands in 1402 for King Henry III of Castile.

[50] Bahia One of the 26 states of Brazil, located in the northeastern part of the country on the Atlantic coast; capital is the city of Salvador, or São Salvador da Bahia de Todos os Santos, at the junction of the Atlantic Ocean and the Bay of All Saints; the name is an archaic spelling of the Portuguese word for "bay" and comes from "a baía de Todos os Santos" (All Saints' Bay), first seen by European sailors on November 1, 1501, All Saints' Day.

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